



Draft Environmental Assessment

Trail Relocation at Tonaquint Park

St. George, Utah

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**U.S. Department of Homeland Security
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- Exhibit 2 Nature Center location for material stockpile
- Exhibit 3 FIRM
- Exhibit 4 8-step Process
- Exhibit 5 Best Management Practice Requirements

ACRONYMS

APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
EA	Environmental Assessment
E.O.	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impacts
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966 (as amended)
NRCS	USDA Natural Resources Conservation Service
NRHP	National Register of Historic Places
PA	Public Assistance
PD-Com	Planned Development - Commercial
P.L.	Public Law
SHPO	State Historic Preservation Officer
T&E	Threatened and Endangered Species
UDWR	Utah Division of Wildlife Resources
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

SECTION ONE

INTRODUCTION

1.1 BACKGROUND

Several days of heavy rainfall caused significant flooding along the Santa Clara and Virgin Rivers in December, 2010. Riverbanks were scoured of vegetation and the river undercut many

areas in Washington County in southwest Utah. Kane and Garfield Counties also suffered severe flooding

As a result of these severe winter storms and flooding, the Federal Emergency Management Agency (FEMA), authorized under Presidential disaster declaration FEMA DR-1955-UT, dated February 11, 2011, and amended March 11, 2011, will be providing Federal assistance to parts of Utah designated as major disaster areas. Under the declaration FEMA funds are available to eligible applicants (State and local governments, as well as certain Private Non-Profit Organizations) for assistance with emergency services and permanent repairs to utility services, access roads, culverts, bridges, buildings and other facilities.

1.2 PURPOSE AND NEED

The Department of Homeland Security's FEMA is mandated by the U.S. Congress to administer Federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law (P.L.) 93-288, as amended.

FEMA is required to comply with the following requirements of the Stafford Act and applicable environmental laws and Executive Orders when providing assistance under the Public Assistance Program. These requirements are intended to reduce future damage and impacts when eligible facilities, such as trails, are located in areas that are subject to future flooding.

- The National Environmental Policy Act
- Applicable environmental laws
- Presidential Executive Orders 12898, 11988, and 11990
- 44 CFR 206.226(g) [Relocation]

In this event the river washed away approximately 75 feet of existing bank, destroying the trail at Tonaquint Commercial Center. Several small sections of trail to either side of the wash were also destroyed. The trail was 10-foot wide by 2 ½-inch thick asphalt centered on a 15-foot wide by 6-inch untreated base. Reclaiming the soil and rebuilding the trail is an eligible action under the FEMA Public Assistance (PA) program. However, the City of St. George determined that it would be in the best interest of the city to relocate the trail away from the Santa Clara River (**Figure 1**).

SECTION TWO

ALTERNATIVES CONSIDERED

The Council on Environmental Quality (CEQ) has developed regulations for the preparation of environmental impact documents in compliance with the National Environmental Policy Act (NEPA). The CEQ requires an investigation and evaluation of practicable alternatives as part of the environmental assessment process. The following subsections provide a description of alternatives that were retained for evaluation in the EA.

2.1 ALTERNATIVES CARRIED FORWARD AND EVALUATED

The potential environmental impacts for three alternatives are evaluated in this report. They include:

- Alternative 1 – No Action
- Alternative 2 – Return Trail to Pre-disaster Location
- Alternative 3 - (Proposed Action) – Trail Relocation

2.1.1 Alternative 1 - No Action

With the No Action Alternative, action would not be taken by St. George to address the destroyed trail section.

2.1.2 Alternative 2 - Return Trail to Pre-disaster Location

To return the trail to the pre-flood trail easement the earthen bench will be reconstructed. Approximately 21,000 cubic yards of fill material would be needed to rebuild the bank from the eroded edge to the riverside edge. The damaged ends of the trail would be cut away and approximately 900 linear feet of trail will be rebuilt with pavement.

2.1.3 Alternative 3 (Proposed Action) – Trail Relocation

The post flooding bank alignment would be stabilized with approximately 4,400 cubic yards of fill material. A 1:1 rip rap slope, utilizing approximately 3,500 cubic yards, would be constructed down to the river bottom. Existing soil would be compacted and include a 5 foot safety buffer between the trail shoulder and the top of the river slope. The trail would then be built in the new easement, relocating it approximately 75 feet south of the pre-disaster location, which is now part of the river. The damaged ends of the trail would be cut away and approximately 1,100 linear feet of paved trail would be placed in the new easement.

SECTION THREE

AFFECTED ENVIRONMENTS AND ENVIRONMENTAL CONSEQUENCES

3.1 TOPOGRAPHY/GEOLOGY AND SOILS

St. George is located between the Colorado Plateau Region on the east and the Basin and Range Province to the west. The area includes flat-lying layers of red sedimentary rock carved into buttes, mesas, and narrow canyons. Some small isolated bluffs in the St. George area are capped by black lava rock, called basalt. The basalt on top of these bluffs originated as lava that intermittently flowed from small local volcanoes approximately 2.3 million to 20,000 years ago. The area averages an annual precipitation slightly more than 8 inches and has a surface elevation of 2,580 feet.

The geologic materials are of a high clay mixture with iron oxidation giving it its red color. Sandstone, limestone and some lava rock are found in abundance. Soils in the area are Fluvaquents and torrifluents, sandy and gullied land. Adjacent to the project site are Leeds silty clay loam and Tobler fine sandy loam. Both are considered prime farmland soils. Neither of these soils will be impacted by the project.

3.1.1 Alternative 1 - No Action

Since the No Action Alternative would not include any construction or removal activity, topography, geology, or soils within the area would not be affected.

3.1.2 Alternative 2 – Return Trail to Pre-disaster Location

Fill material would be brought in to replace what was lost during the flooding and the embankment built back to support the trail. The applicant hopes to utilize a stockpile of material from work completed by the Natural Resource Conservation Service (NRCS) after the 2005 floods located at the city's Nature Center (**Figure 2**). Material may also be obtained from one of several pits - Village Rock Pit located at North Red Mountain Drive and Pioneer Parkway in Santa Clara, the Chaco West Rock Pit west of Lava Cove on Pioneer Parkway in St. George or the Stonebridge Rock Pit on Claude drive in St. George. Minimal soil would be disturbed to rebuild the trail and only minor temporary impacts would be expected from the implementation of the proposed project.

3.1.3 Alternative 3 (Proposed Action) - Trail Relocation

Fill material would be brought in to replace what was lost during the flooding and the embankment built back to support the trail. The applicant hopes to utilize a stockpile of material from work completed by the NRCS after the 2005 floods located at the city's Nature Center (see

Figure 3). Material may also be obtain from one of several pits - Village Rock Pit located at North Red Mountain Drive and Pioneer Parkway in Santa Clara, the Chaco West Rock Pit west of Lava Cove on Pioneer Parkway in St. George or the Stonebridge Rock Pit on Claude drive in St. George. Minimal soil would be disturbed to rebuild the trail and only minor temporary impacts would be expected from the implementation of the proposed project.

3.2 LAND USE AND PLANNING

St. George is located in Washington County. Town and county government offices are located in St. George. Land use in the general area is residential, commercial and open space.

3.2.1 Zoning

The project site is currently zoned as Planned Development – Commercial (PD-COM). The objective of the PD-COM zone is to provide a planned development zone with a specific site plan and uses for a specific site or parcel.

3.2.1.1 Alternative 1 - No Action

The No Action Alternative is not expected to change the area’s designated use by the City of St. George.

3.2.1.2 Alternative 2– Return Trail to Pre-disaster Location

The proposed action is compatible with land use and zoning of the area.

3.2.1.3 Alternative 3 (Proposed Action) – Trail Relocation

The proposed action is compatible with land use and zoning of the area. Adjacent commercial land owners have verbally agreed to moving the trail easement to the new top of the bank.

3.2.2 Floodplain Encroachment (Executive Order 11988)

St. George participates in the National Flood Insurance Program (NFIP). By participating in the NFIP, the town has implemented controls, zoning, and development regulations, along with land use planning, to reduce and control development that occurs within identified and mapped floodplains. The Santa Clara River has been mapped for flood hazard. The most recent map is FEMA Flood Insurance Rate Map (FIRM) Panel No. 49053C1028G, dated April 2, 2009 (**Figure 3**). The project area along the Santa Clara River is in a FEMA-designated 100-year floodplain and floodway.

To assure compliance with Executive Order (E.O.) 11988, Protection of Floodplains, FEMA uses an Eight-Step Decision-Making Process, including considering alternatives to construction in a floodplain (**Figure 4**). The intent of E.O. 11988 is to minimize occupancy of and modification to

floodplains. By its very nature the NEPA compliance process involves the same basic decision-making process to meet its objectives. In compliance with the executive order on protection of floodplains, the public was made aware of a proposed activity in the Santa Clara floodplain through an initial public notice in the *Spectrum* located in Section 7 of this document.

3.2.2.1 Alternative 1 - No Action

Santa Clara Creek is in the mapped floodplain and the existing trail easement is located in the floodway. The No Action Alternative would see no development in the floodway.

3.2.2.2 Alternative 2 – Return Trail to Pre-disaster Location

A review of the proposed action was performed pursuant to E.O. 11988. Following the eight-step process, FEMA determined the pre-disaster area is located in the floodway. In compliance with Federal law, FEMA discourages funding of projects in floodways. An alternative exists to move the trail out of the floodway.

3.2.2.3 Alternative 3 (Proposed Action) – Trail Relocation

The trail relocation takes the majority of the destroyed trail out of the floodway, but work will include construction in the floodplain. Where the new construction joins with the existing trail, the area would continue to be located within the floodway as the majority of the existing trail is located in the floodway and it is impractical to move the entire trail. A Floodplain Development Permit must be obtained from the local floodplain administrator to insure compliance with the town's local ordinance and to insure the proposed project would not cause a rise in the 100-year base flood elevation or the floodway.

3.3 TRAFFIC CIRCULATION AND VOLUME

The proposed project is for the construction of a new alternate route for a section of the Santa Clara River Trail. The damaged segment runs along the west side of the river, along the top of the riverbank between commercially zoned parcels and the river channel. One part of the trail crosses a dry wash that feeds into the Santa Clara River. This public trail is within a public trail easement on commercial parcels. The trail continues northwest and southeast on city property.

There will be some increase in traffic during the construction phase of the project as heavy equipment will access the site from Dixie Drive. Proposed dirt movement, on and off site, will be limited. This area is near two commercial sites, an empty lot, a dry wash and an open field area. It is believed the impacts to business traffic and circulation will be minimal and temporary.

Since the trail is accessed from a major thoroughfare, is one of several trails in the area, and commercial businesses flank the trail; the local traffic will resume to normal/typical type after construction. This trail segment is not a trailhead and does not support parking.

Neither Alternative 1 nor Alternative 2 nor Alternative 3 would result in any significant impact to traffic and circulation.

3.4 PUBLIC HEALTH AND SAFETY

There may be some temporary safety issues involved in this project due to the increase in traffic during the construction phase of the project.

3.4.1 Alternative 1 - No-Action

Long term safety issues could exist if the destroyed trail is not repaired as trail users may be threatened by the missing section.

3.4.2 Alternative 2 – Return Trail to Pre-disaster Location

This alternative would repair the missing trail section. No long term health and safety issues are identified.

3.4.3 Alternative 3 (Proposed Action) – Trail Relocation

This alternative would relocate and repair the missing trail section. No long term health and safety issues are identified.

3.5 SOCIOECONOMIC ISSUES

3.5.1 Area of Special Designation

The City of St. George has approximately 24.5 miles of paved and natural surface trails in its trail system. While these trails currently exist for recreational use, the future system will also provide alternative transportation opportunities. Major population centers throughout the city will be linked by the trail system. The Santa Clara River Trail is tied to the Virgin River Trail to the south.

3.5.1.1 Alternative 1 - No-Action

This alternative would result in adverse impact to the City of St. George trail system along the Santa Clara River trail system and would leave the trail segmented and inaccessible.

3.5.1.2 Alternative 2 – Return Trail to Pre-disaster Location

This alternative would result in beneficial impacts to the City’s Santa Clara River trail system by repairing the segmented sections of the trail system and provide a continuous trail for recreation activities and the future transportation network. However, this segment of the trail would remain vulnerable to future flooding events and repetitive damages.

3.5.1.3 Alternative 3 (Proposed Action) – Trail Relocation

This alternative would result in beneficial impacts to the City’s Santa Clara River trail system by repairing the segmented sections of the trail system and provide a continuous trail for recreation

activities and the future transportation network. Relocation out of the floodway would lessen the chances of future damage and repetitive losses.

3.5.2 Environmental Justice (E.O. 12898)

E.O. 12898, Environmental Justice, directs federal agencies to focus attention on human health and environmental conditions in minority and/or low-income communities. Its goals are to achieve environmental justice, fostering non-discrimination in federal programs that substantially affect human health or the environment, and to give minority or low-income communities greater opportunities for public participation in and access to public information on matters relating to human health and the environment. It also provides for the opportunity to identify and address, as appropriate, disproportionately high adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations in the United States.

In Washington County, Utah’s population is approximately 160,000 and adding approximately 900 new residents each month. Washington County is the fastest growing county in the state and one of the fastest growing counties in the United States. In each of the last three decades, Washington County has experienced approximately an 85 percent population increase. Table 1 presents the historic and projected population of Washington County, Utah.

Traditionally there can be anticipated increases in property values within a community due to the development of parks, trails, and open space. The extensive trails and parks system in St. George, UT is well established, well received and serves as a valuable base for leisure services in the city. It would be anticipated that the system will continue to contribute to the overall positive impact of the City’s residents. The trail systems in many areas of St. George follow the Santa Clara and Virgin River, providing a scenic and peaceful atmosphere while exercising.

Table 1 Historic and Project Populations for Washing County, Utah

YEAR	POPULATION
1977	82,078
2000	91,104
2005	125,000
2010	162,544
2020	251,896
2030	353,922
2040	472,355
2050	607,334

As shown in Table 2, the City of St. George has greater than 50% of the county population.

Table 2 Population Data for Washington County and the City of St. George

AREA	POPULATION 1990	POPULATION 2000	POPULATION 2005	*AARC 1990 – 2000
Washington County	48,560	90,354	125,010	6.4%
City of St. George	28,502	49,663	67,680	5.75%
*AARC = Avg Annual Rate of Change				

3.5.2.1 Alternative 1 - No-Action

No populations would be affected with the No-Action Alternative because there would not be a federal action.

3.5.2.2 Alternative 2 – Return Trail to Pre-disaster Location

The project area is located in the undeveloped floodplain area of the Santa Clara River. There are no areas of development and no minority or low-income communities that would be impacted by Alternative 2.

Federal funding of the proposed project would not cause a disproportionate negative impact on either minority or low-income populations. All citizens could benefit equally from the contribution to the community.

3.5.2.3 Alternative 3 (Proposed Action) – Trail Relocation

The project area is located in the undeveloped floodplain area of the Santa Clara River. There are no areas of development and no minority or low-income communities that would be impacted by Alternative 3.

Federal funding of the proposed project would not cause a disproportionate negative impact on either minority or low-income populations. All citizens could benefit equally from the contribution to the community.

3.6 AIR QUALITY

The National Ambient Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency (EPA) define the allowable concentrations of pollutants that may be reached, but not exceeded, in a given time period to protect human health (primary standard) and welfare (secondary standard) with a reasonable margin of safety. These standards include maximum concentrations for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter with a diameter of 10 microns.

Areas of the country where air pollution levels persistently exceed the national ambient air quality standards may be designated as “non-attainment”. Washington County is in attainment for air quality areas.

3.6.1 Alternative 1 - No-Action

The No Action Alternative would not affect air quality because there would be no construction activity.

3.6.2 Alternative 2 – Return Trail to Pre-disaster Location

Implementation of Alternative 2 would result in short-term, minor, negative impacts to air quality caused from construction dust and equipment fumes. According to Utah Administrative Code R307-205-5, Fugitive Emissions and Fugitive Dust, the applicant is required to minimize fugitive dust from ground disturbing activities. Such controls may include the use of watering or chemical stabilization of potential fugitive dust sources, providing synthetic cover, windbreaks, planting vegetative cover or other equivalent methods or techniques. The considerable construction work to stabilize the river bank is likely to cause a greater total short-term release of particulate matter than the releases from Alternative 3 construction activities.

3.6.3 Alternative 3 (Proposed Action) – Trail Relocation

Implementation of Alternative 3 would result in short-term, minor, negative impacts to air quality caused from construction dust and equipment fumes. According to Utah Administrative Code R307-205-5, Fugitive Emissions and Fugitive Dust, the applicant is required to minimize fugitive dust from ground disturbing activities. Such controls may include the use of watering or chemical stabilization of potential fugitive dust sources, providing synthetic cover, windbreaks, planting vegetative cover or other equivalent methods or techniques.

3.7 NOISE

Inadequately controlled noise presents a growing danger to the health and welfare of the nation’s population. The major sources of noise include transportation vehicles and equipment, machinery, appliances, other products in commerce, climate, or recreation. Sounds that disrupt normal activities or otherwise diminish the quality of the environment are designated as noise. Noise can be stationary or transient, intermittent or continuous.

Current noise factors in the proposed project area are continuous. They are associated with the typical day-to-day-noise of normal climatic conditions (wind, thunder, etc.), and noise from traffic on nearby roads.

3.7.1 Alternative 1 - No Action

Construction activities would not occur, therefore, there would not be any impacts.

3.7.2 Alternative 2 – Return Trail to Pre-disaster Location

The normal operations of street traffic create a level of noise that is present on a continuous basis. Implementation of Alternative 2 would create temporary increased noise levels during construction activities. Construction would be limited to normal wake hours and only for the duration of the proposed activities between 7am and 10pm.

3.7.3 Alternative 3 (Proposed Action) – Relocation of Trail

The normal operations of street traffic create a level of noise that is present on a continuous basis. Implementation of Alternative 3 would create temporary increased noise levels during construction activities. Construction would be limited to normal wake hours and only for the duration of the proposed activities between 7am and 10pm.

3.8 PUBLIC SERVICES AND UTILITIES

The following public services and utilities are provided for the town of St. George:

- Ambulance Department
- Fire Department
- Leisure Services
- Police Department
- Public Works Department
- Utilities Department
- Water & Power Department

3.8.1 Alternative 1 - No Action

Not returning the trail would have no impact on Public Services.

3.8.2 Alternative 2 – Return Trail to Pre-disaster Location

Those services that provide public works, utility services, and water or power near the trail locations have the potential to be impacted by construction activities associated with the trail construction. This would include any buried and overhead electrical lines, phone and cable TV lines, and public works lines. The majority of the project site requires new fill material which should not impact any Public Service. The areas of trail reconnection should include notification and coordination, by plotting/marketing of any underground lines, by the City of St. George's utilities. If any lines or equipment are located in the proposed construction areas, they will either be temporarily deadened or relocated. Caution during construction would be required to ensure minimal (if any) disruption of services. Any adverse impacts would be temporary and would not be considered significant.

3.8.3 Alternative 3 (Proposed Action) – Relocation of Trail

Those services that provide public works, utility services, and water or power near the trail locations have the potential to be impacted by construction activities associated with the trail construction. This would include any buried and overhead electrical lines, phone and cable TV lines, and public works lines. Notification and coordination, by plotting/marketing of any underground lines, should be conducted by the City of St. George's utilities. If any lines or equipment are located in the proposed construction areas, they will either be temporarily deadened or relocated. Caution during construction would be required to ensure minimal (if any) disruption of services. Any adverse impacts would be temporary and would not be considered significant.

3.9 HYDROLOGY/WATER QUALITY

The U.S. Army Corps of Engineers (USACE) is responsible for permitting and enforcement on construction activities in U.S. waters and discharging dredged or fill material into U.S. waters. The USACE regulations for constructing or working in navigable waters of the U.S. are authorized by the Rivers and Harbors Act of 1899. These regulations often go hand in hand with Section 404 of the Clean Water Act (CWA), which establishes USACE permit program for discharging dredged or fill material. The regulations are often used together because constructing in navigable waters of the U.S. also constitutes discharging dredged or fill material into water of the U.S. In addition to regulating construction or work in navigable waters of the U.S., USACE regulates discharging into wetlands through the Section 404 permit program.

3.9.1 Alternative 1 - No Action

With the No Action Alternative, flooding along the Santa Clara River would continue, but no work would be conducted in waters of the US.

3.9.2 Alternative 2 – Return Trail to Pre-disaster Location

During the event the river channel changed locations. To complete this alternative the river channel would have to be diverted to protect the trail, prevent further erosion, and allow for construction. Approximately 21,000 cubic yards of fill material would be needed to fill in the bank. This alternative would affect waters of the U.S. Based on a preliminary review, USACE indicated that the project would fall under a General Permit. The applicant or their contractor(s) must contact USACE and the State of Utah for all permits and are required to comply with conditions of the permit. Approval constitutes compliance with Section 404(e) of the Clean Water Act (33 USC 1344).

To mitigate against impacts the General Permit stipulates the conditions under which all work is to be performed. The conditions include measures to protect water quality, revegetation, contour modification, use of fill materials, operations of equipment, use and management of concrete used for riprap (if applicable), and application of Best Management Practices (BMP). Staging areas and maintenance of equipment would occur above the high water mark and BMPs would be followed to control erosion and sediment runoff. The City of St. George is responsible for obtaining all permits prior to conducting any activities on the Santa Clara River.

3.9.3 Alternative 3 (Proposed Action) – Relocation of Trail

The proposed action would have a maximum discharge of 300 linear feet of fill material to the Santa Clara River and 100 linear feet of fill material for the Gap Wash concrete water crossing. The project would not significantly affect waters of the U.S. Based on a preliminary review, USACE indicated that the project would fall under a General Permit. The applicant or their contractor(s) must contact USACE and the State of Utah for all permits and are required to comply with conditions of the permit. Approval constitutes compliance with Section 404(e) of the Clean Water Act (33 USC 1344).

To mitigate against impacts the General permit stipulates the conditions under which all work is to be performed. The conditions include measures to protect water quality, revegetation, contour modification, use of fill materials, operations of equipment, use and management of concrete used for riprap (if applicable), and application of BMPs. Staging areas and maintenance of equipment would occur above the high water mark and BMPs would be followed to control erosion and sediment runoff. The City of St. George is responsible for obtaining all permits prior to conducting any activities on the Santa Clara River.

3.10 BIOLOGICAL RESOURCES

3.10.1 Wetlands (E.O. 11990)

Wetlands provide significant ecological functions which include: 1) habitat for numerous aquatic and terrestrial wildlife species; 2) aid in the dispersal of floodwaters; 3) improvement of water quality through retention and assimilation of pollutants from stormwater runoff; and 4) aquifer recharge.

E.O. 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. Again, application of the Eight Step Decision-Making Process is required to ensure that federally funded projects are consistent with the objectives of the E. O. to identify and evaluate practicable alternatives to locating a proposed action in a wetland.

Jurisdictional wetlands are also considered waters of the U.S. and as such are regulated by USACE. Activities disturbing jurisdictional wetlands require a permit from USACE for activities regulated under Section 404 of the CWA as stated in Section 3.9. When agricultural lands are involved, NRCS has jurisdiction in determining whether wetlands would be affected by federally funded projects. If wetlands would be impacted, mitigation measures as determined by coordination with the USACE or NRCS are implemented to avoid or minimize affects.

The U.S. Fish and Wildlife Service (USFWS) has responsibility under a number of authorities for conservation and management of fish and wildlife resources. One of the federal statues their office has oversight is the Fish and Wildlife Coordination Act. The Coordination Act requires that fish and wildlife resources be given equal consideration in the planning, implementation and operation of federally funded, permitted, or licensed water resource developments. In Utah, habitats frequently used by important fish and wildlife resources are wetlands, streams and

riparian (streamside) woodlands. Special attention is given to proposed developments that include modification of wetlands, stream alteration, or contamination of important habitats.

3.10.1.1 Alternative 1 - No Action

The No Action Alternative would not impact wetlands because no construction activities would occur.

3.10.1.2 Alternative 2 – Return Trail to Pre-disaster Location

Following the eight-step process as described in the E.O., FEMA determined that the project area does not support vegetation or soils needed to qualify as a wetland. No further review is required.

3.10.1.3 Alternative 3 (Proposed Action) – Relocation of Trail

Following the eight-step process as described in the E.O., FEMA determined that the project area does not support vegetation or soils needed to qualify as a wetland. No further review is required.

3.10.2 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973 establishes a federal program to conserve, protect and restore threatened and endangered plants and animals and their habitats. All federal agencies must insure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species, or result in the destruction of critical habitat for these species. If the federal agency determines the action “may affect” a listed species, the responsible federal agency must request formal Section 7 consultation with the USFWS.

3.10.2.1 Alternative 1 - No Action

The No Action Alternative would not impact threatened or endangered species.

3.10.2.2 Alternative 2 – Return Trail to Pre-disaster Location

Federally listed threatened or endangered species (T&E) or critical habitats were not identified in the area of the proposed action as a result of informal consultation with the USFWS. FEMA determined the proposed action would not affect T&E species and consulted with USFWS who concurred.

3.10.2.3 Alternative 3 (Proposed Action) – Relocation of Trail

Federally listed threatened or endangered species (T&E) or critical habitats were not identified in the area of the proposed action as a result of informal consultation with the USFWS. FEMA determines the proposed action will not affect T&E species and consulted with USFWS who concurred.

3.10.3 Vegetation, Wildlife, and Aquatic Resources

The project area is located in the Santa Clara River area. A large portion of the area was scoured during the 2010 flooding and resulted in silt disposition that resulted in reduced habitat quality. There are state listed species present in the Santa Clara River. Utah Division of Wildlife Resource (UDWR) has responsibility to protect state listed T&E species and in the Virgin and Santa Clara River works with the Virgin River Program. The Virgin River Program is a collaborative effort between local, state, and federal partners to balance human interests along the Virgin River with the conservation of this unique ecosystem for future generations.

3.10.3.1 Alternative 1 - No-Action

Vegetation, wildlife, and aquatic resources could be impacted to some extent when adversely affected by future flooding events. No affect would be caused by any repair work.

3.10.3.2 Alternative 2 – Return Trail to Pre-disaster Location

Alternative 2 would return fill material to the scoured area. Sediment runoff during construction could impact state listed threatened and endangered species. The Virgin River Program provided a list of Best Management Practices (BMPs) the city must follow during construction. Higher concentrations of sediment could occur under Alternative 2 than Alternative 3.

3.10.3.3 Alternative 3 (Proposed Action) – Relocation of Trail

Alternative 3 would return fill material to the scoured area. Sediment runoff during construction could impact state listed threatened and endangered species. The Virgin River Program provided a list of BMPs the city must follow during construction.

3.11 CULTURAL RESOURCES - HISTORIC PROPERTIES AND ARCHAEOLOGICAL RESOURCES

Federal legislation requires government agencies to consider their impacts to cultural resources before undertaking a project. Applicable legislation includes Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Section 106 mandates federal agencies or their designees; i.e., the recipients of federal funds or applicants for federal permits or licenses, consider the effects of their actions on historic properties. An historic property is defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for listing in the National Register of Historic Places (NRHP). The Section 106 process consists of steps for 1) identifying and evaluating historic properties; 2) assessing the effects of an undertaking on historic properties; and 3) consultation for methods to avoid, minimize, or mitigate any adverse effects.

3.11.1 Alternative 1 - No Action

Historic properties or archeological resources would not be affected with this alternative.

3.11.2 Alternative 2 – Return Trail to Pre-disaster Location

The undertaking, described as the Area of Potential Effect (APE), would return the site to its pre-disaster shape and function. This work would fit into the Programmatic Allowances I B&D agreed to by FEMA and the State Historic Preservation Office (SHPO) on February 28, 2011. If however during construction any bones, artifacts, foundations, or any other indication of past human occupation is discovered, construction would immediately stop and the FEMA Regional Environmental Officer and the SHPO would be contacted. Construction activities would not resume until further consultation was completed.

3.11.3 Alternative 3 (Proposed Action) – Relocation of Trail

The APE is a 1,900-foot long area along the bank of the Santa Clara River. There is evidence of significant previous disturbance due to machinery and brush clearing. An area where the bank washed away shows stratification of the remaining bank with filter fabric approximately 3 feet below the existing surface, demonstrating previous disturbance. Based on consultation with the SHPO in April, 2011, FEMA determined and SHPO concurred that no historic resources would be affected by the proposed action. If however during construction any bones, artifacts, foundations, or any other indication of past human occupation is discovered, construction would immediately stop and the FEMA Regional Environmental Officer and the SHPO would be contacted. Construction activities would not resume until further consultation was completed.

3.12 HAZARDOUS MATERIALS AND WASTES

The American Society for Testing and Materials (ASTM) (2000) Standard E 1527-00 defines a recognized environmental condition as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property”. This can include releases from waste sites, disposal sites, or dump sites. Ground survey revealed no waste sites, disposal sites or dump sites in the area. Also no release of any hazardous substances or petroleum products was observed. Therefore, there are no hazardous materials and waste issues involved in any of the alternatives.

3.13 CUMULATIVE IMPACTS

Section 1508.7 of the CEQ Regulations defines cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions”. Cumulative effects are not wholly different effects from direct or indirect effects of an action. Cumulative effects are merely a way of placing seemingly isolated or insignificant direct and indirect effects in context with respect to overall impacts, both over time and in an area larger than that evaluated for direct and indirect effects. Cumulative effects are discussed in terms of being additive, synergistic or reductive.

The potential impacts of the proposed action are minor and temporary. At this time there are no known past, present or future projects planned by the airport or the town that, in conjunction with the proposed project, would cause a cumulative effect.

3.14 PUBLIC COMMENT

An initial notice of intent to complete an Environmental Assessment ran in the St. George Spectrum on April 3, 2011. No comments were received.

3.15 COORDINATION AND PERMITS

The following federal, state, and local agencies were contacted and consulted during the preparation of this EA. Additional coordination and/or permits (if any) required prior to implementation of an alternative are also identified.

U.S. Army Corps of Engineers

The applicant must obtain all required Department of the Army permits prior to construction as well as notify FEMA if permit requirements change. A General Permit was initially identified as the permit required for the project.

U.S. Fish and Wildlife Service

No additional coordination required.

Utah Department of Environmental Quality

No additional coordination required.

Utah Division of Wildlife Resources

The applicant must contact UDWR for in-water work and follow BMPs during the construction of the project

Utah State Historic Preservation Officer

If any historical or archaeological resources are uncovered during construction, FEMA and the SHPO would be immediately notified.

National Flood Insurance Program

The applicant must obtain a floodplain development permit prior to construction activities for work performed in the floodplain at the Santa Clara River.

SECTION FOUR - SUMMARY

Potential impacts for the alternatives are summarized in Table 1.

Environmental Resource	Alternative 1 No Action	Alternative 2 (Proposed Action) Return to Pre-Disaster Location	Alternative 3 (Proposed Action) Trail Relocation
Topography, Geology, and Soils	No impact.	No impact.	No impact.
Land Use and Planning – Zoning, Prime Farmland, Floodplain Encroachment	No impact.	No impact.	No impact.
Traffic	No impact.	Short-term minor negative impact to traffic.	Short-term minor negative impact to traffic.
Public Health and Safety	Continued risk to public and public safety from potential flooding.	Beneficial; would repair damaged trail for continued use by the public.	Beneficial; would repair damaged trail for continued use by the public.
Socioeconomic	No effect on local economy. No minority or low-income population would be disproportionately impacted.	Minor, short-term beneficial effect on local economy. No minority or low-income populations would be disproportionately impacted.	Minor, short-term beneficial effect on local economy. No minority or low-income populations would be disproportionately impacted.
Air Quality	No impact.	Short-term minor negative impact.	Short-term minor negative impact.
Noise	No impact.	Short-term minor negative impact.	Short-term minor negative impact.
Public Services and Utilities	Continued interruption of services during flood events.	No Impact.	No Impact.
Hydrology/ Water Quality	Future flood event could affect the hydrology of the floodplain and water quality.	Minimal short-term negative impact on turbidity during construction.	Minimal short-term negative impact on turbidity during construction.
Wetlands	No impact.	No impact.	No impact.
Threatened and Endangered Species	No impact.	No impact.	No impact.
Vegetation, Wildlife and Aquatic	No impact.	Minimal short-term negative impact on vegetation, wildlife, and aquatic resources during construction.	Minimal short-term negative impact on vegetation, wildlife, and aquatic resources during construction.
Cultural Resources – Historic Properties and Archaeological	No impact.	No adverse affect.	No adverse affect.
Hazardous Materials and Wastes	No impact.	No impact.	No impact.

SECTION FIVE - AGENCIES/OFFICES CONSULTED

5.1 AGENCIES AND OFFICES CONSULTED

City of St. George

Federal Emergency Management Agency (FEMA), Region VIII, Mitigation Division

Natural Resource Conservation Service

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

Utah Department of Health and Environment

Utah Division of Wildlife Resources

Utah State Historical Society

Virgin River Program

SECTION SIX

LIST OF PREPARERS

Laurie Lemieux, Environmental Specialist, FEMA Region VIII – Over 6 years experience insuring compliance for the National Environmental Policy Act, executive orders and other environmental laws for FEMA’s programs, including project development, public input, coordination with other federal agencies, state agencies and local governments and writing environmental documents.

Roberta Quivey, Environmental Specialist, FEMA Region VIII – Over 2 years experience insuring compliance for the National Environmental Policy Act, executive orders and other environmental laws for FEMA’s programs, including project development, public input, coordination with other federal agencies, state agencies and local governments and writing environmental documents.

SECTION SEVEN

PUBLIC NOTICE OF THE INTENT OF FEMA TO PREPARE AN ENVIRONMENTAL ASSESSMENT

The Public is hereby notified of the intent of the Federal Emergency Management Agency (FEMA) to prepare an Environmental Assessment (EA). The Environmental Assessment will analyze the effects of the proposed relocation of a trail near Tonaquint Park by the City of St. George, and alternatives to the proposed trail relocation.

Several days of heavy rainfall caused significant flooding along the Santa Clara and Virgin Rivers in December 2010 which resulted in the President of the United States declaring a major disaster for large portions in the St. George, UT area. This action allowed FEMA to provide assistance to the City of St. George in accordance with the Robert T. Stafford Disaster and Emergency Relief Act, Public Law 93-288, as amended.

Under the National Environmental Policy Act (NEPA), FEMA is required to consider practical alternatives for proposed actions. The draft Environmental Assessment will consider at least three alternatives. The alternatives are:

Alternative No. 1, "The No Action Alternative"

The "no action alternative" proposes that there should be no effort to reconstruct the trail.

Alternative No. 2, "Reconstruct the trail to its pre-disaster condition and location"

This alternative would reconstruct the trail in its pre-disaster location and to the same dimensions. To return the trail to its original location fill material would be required to rebuild the embankment back to the existing easement between commercial property and the Santa Clara River. The project would repair two sections of 10-foot wide by 2 ½-inches thick asphalt centered on a 15-foot wide by 6-inch untreated base trail. The south section includes 375 linear feet of asphalt trail and 100 linear feet of concrete dry water crossing. The north section is 225 linear feet of asphalt trail.

Alternative No. 3, "Construct the trail in a new location away from the Santa Clara River"

This alternative would realign approximately 1300 linear feet of trail away from the Santa Clara to an easement closer to the commercial parcels. Rock rip rap will be placed along the edge for protective measure.

The President of the United States has issued Executive Orders (EO) that require Federal agencies to focus attention on the environment and human health when considering a proposed action, or the funding of an action. Particular attention is to be paid to Floodplain Management (EO 11988), Wetland Protection (EO 11990), and Environmental Justice (EO 12898). Compliance with the Executive Orders, NEPA, and other environmental laws will be documented in the draft EA. During the preparation of the draft EA, FEMA will consult with federal and state agencies.

The public comment period related to the proposed action and alternatives will remain open for 15 days from the date of this notice. Interested persons may obtain more detailed information about this action by calling Laurie Lemieux, Environmental Advisor, 1955-DR-UT, at 701-595-2824 or Steven Hardegen, Regional Environmental Office, FEMA Region VIII, at 303-235-4714. Written comments may be sent to the attention of Steven Hardegen, Department of Homeland Security, FEMA Region VIII, Denver Federal Center, Building 710 PO Box 25267, Denver, CO 80225.

PUBLIC NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL ASSESSMENT

Public notice is hereby given by the Department of Homeland Security, Federal Emergency Management Agency (FEMA) of the availability of the Draft Environmental Assessment for the Proposed Trail Relocation at Tonaquint Commercial Center, St. George, UT. The public and other interested parties are invited to review and comment on this document. The public comment period related to the draft Environmental Assessment will remain open for 15 days from the date of this notice. Interested persons may review the Draft EA at the following locations: City Recorder's Office City of St. George, 175 E. 200 N. St. George, UT 84770; Washington County Library, 88 W. 100 S., St. George, UT 84770; Parks Dept. City of St. George, 390 N. 3050 E., St. George, UT 84790. If no comments are received within the 15 day comment period FEMA intends to sign a Finding of No Significant Impacts (FONSI) and the project will be authorized to proceed. Interested persons may also request a copy of the Draft EA by contacting Mr. Steven Hardegen, FEMA Region VIII Environmental Officer at 303-235-4714 or steven.hardegen@dhs.gov

APPENDIX A

Exhibits

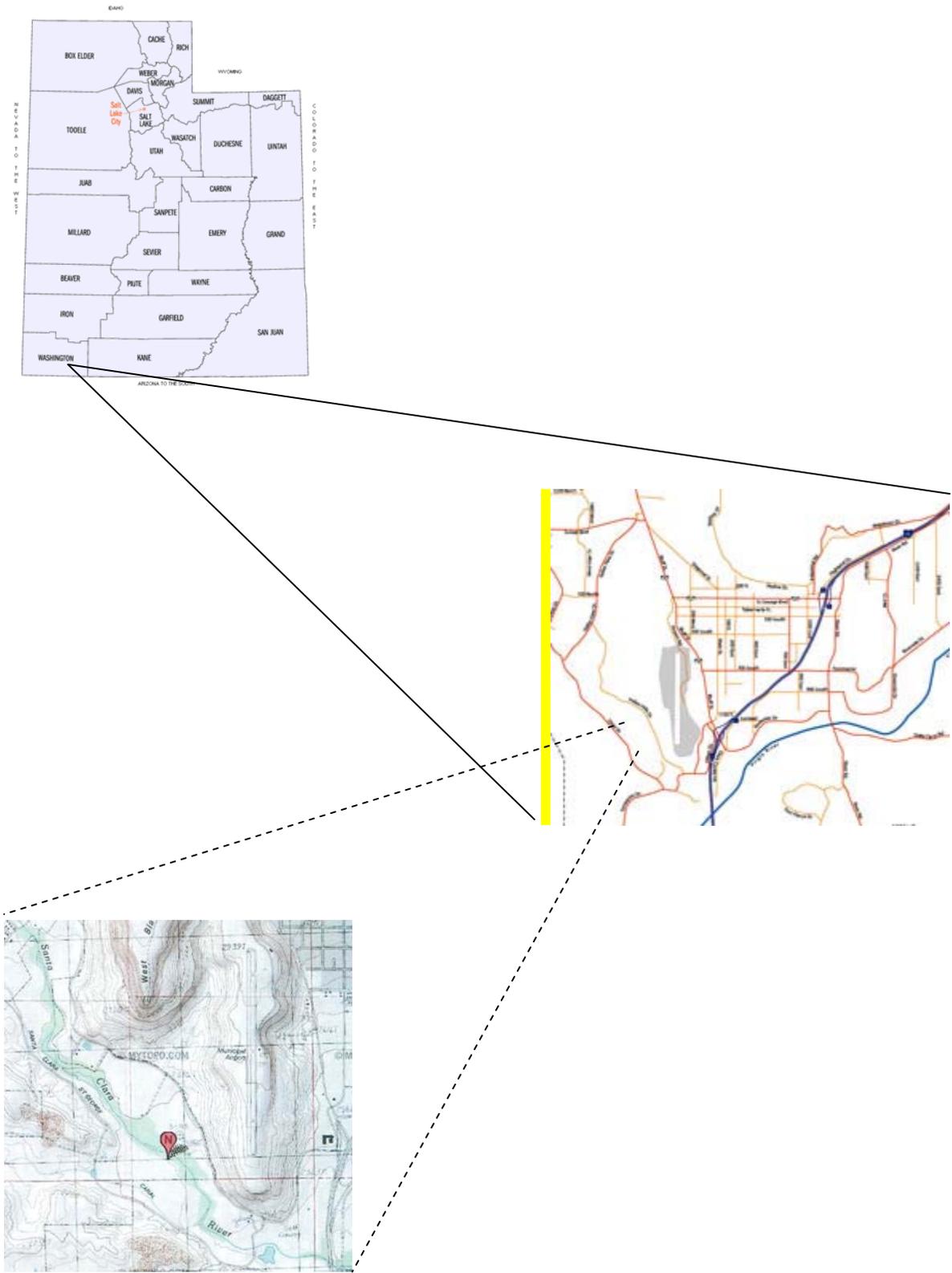


Figure 1: Location Map

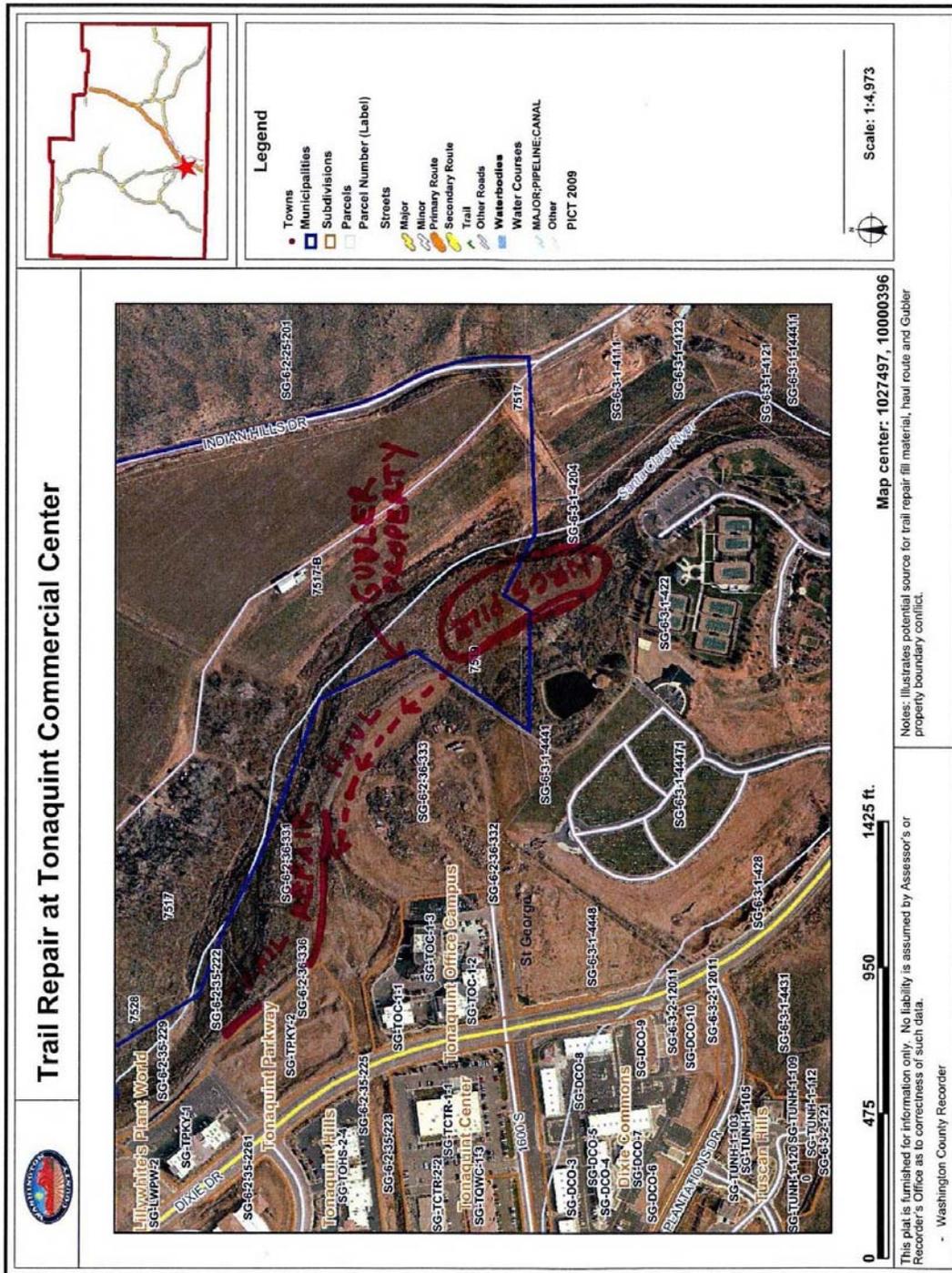


Figure 2 Material Stockpile Location

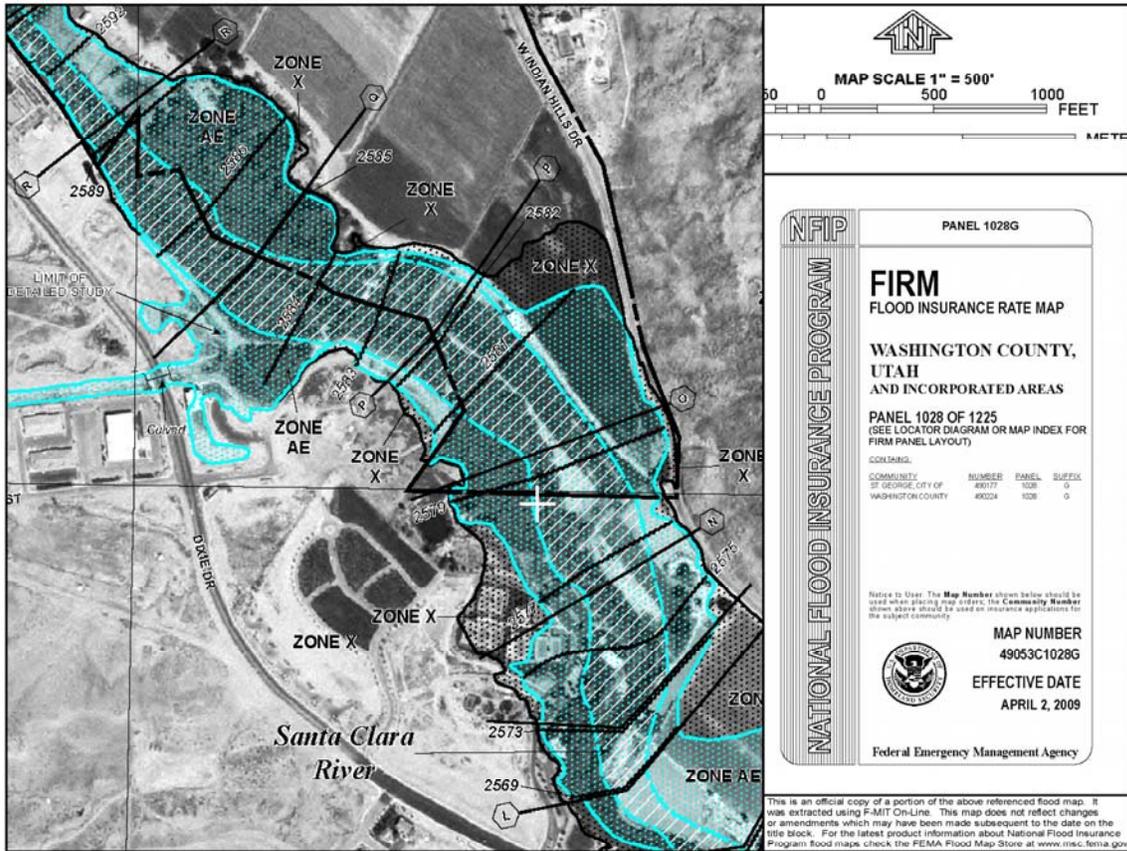


Figure 3: FIRM

STEP #1 Project location in Floodplain/Wetland

Will the action be located in a wetland and/or the 100-year floodplain or will it have the potential to affect a wetland or floodplain?

- If no, you are finished
- If yes, continue to step #2

STEP #2 Encourage Public Involvement

A public notice must be published at the earliest possible time to provide information about the proposed project (1st Notice). The notice must be disaster-wide & project specific

- Not applicable, you are done
- Applicable, move on to step #3

STEP #3 Evaluate Alternatives

Is there any reasonable alternative to locating the project in a floodplain or wetland?

- If yes, FEMA must locate the action at the alternative site
- If no, continue to step #4

STEP #4 Assess Impacts

If the action must go in the wetlands or floodplain then the full range of impacts associated with the action must be identified.

- Not applicable, you are done
- Applicable, move on to step #5

STEP #5 Minimize Impacts

All potential adverse impacts must be avoided, minimized, or compensated for.

- Not applicable, you are done
- Applicable, move on to step #6

STEP #6 Determine Practicability

Reevaluate the proposed action to determine if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards of others, and its potential to disrupt floodplain and wetland values.

- Not applicable, you are done
- Applicable, move on to step #7

STEP #7 Provide Public Explanation

If FEMA decides to take/fund an action that affects a floodplain or wetland, a 2nd public notice must be published (for a minimum of 15 days) to explain why affecting a floodplain or wetland is the only practicable alternative.

- Not applicable, you are done
- Applicable, move on to step #8

STEP #8 Comply With Executive Orders

Review the implementation and post-implementation phases of the proposed action to ensure that the requirements of the order are fully implemented. Oversight responsibility shall be integrated into existing processes.

- Not applicable, you are done
- Applicable, approval conditioned on review of implementation and post-implementation phases to insure compliance of the Executive Orders

Figure 4: 8-Step Process

TRAIL RELOCATION TONAQUINT PARK PW10

The following conditions apply for the any construction or maintenance activities in the Virgin River and associated floodplain, Washington County, Utah. The Utah Division of Wildlife Resources (UDWR) will coordinate with the Virgin River Program to plan and review all applicable projects on an individual basis. All projects will be reviewed individually to determine specific conditions to minimize impacts on Virgin River fishes, southwest Willow Flycatcher, and associated riverine and floodplain habitat. Individual projects will be reviewed to determine applicable conditions listed below:

Virgin River Fish

- Timing of construction – to avoid direct and indirect (downstream) impacts to spawning fish (spawning period is April 1 – July 31) all channel disturbing activities should be conducted between August 1 through March 31.
- Fish clearances – No work of any kind is permitted anywhere in the flowing river channel, unless specifically coordinated with UDWR for fish clearance. Contact UDWR (Richard Fridell at 435-879-8694 or Melinda Bennion at 435-619-1229) at least 72 hours prior to the start of any construction activities that will impact the channel.
 - Once native fish have been translocated out of the affected area, a time frame to conduct channel disturbing activities will be specified.
- Stream disturbance – the area and length of disturbance within the flowing river channel should be minimized to the greatest extent possible. Avoid crossing the river whenever possible. If it is necessary for equipment to cross the river, do so only once at a pre-identified crossing point after fish clearances have been conducted by UDWR.
 - Establish a bulldozer length buffer zone, or maintain an elevation of two feet above the flowing river channel for all work in the project area.
 - This condition is intended to keep all equipment out of the active flowing channel to avoid direct take of endangered fish species, as well as precluding the need for additional extensive and ongoing fish clearances in the project area during activities.
 - If regular crossing is necessary, it is recommended that bridges or culverts be used to avoid repeated disturbances.
- Fish passage – maintain unrestricted fish passage through the project area at all times. Consult with UDWR (contact information given above) or designated representative if construction activities result in any increase in local channel gradient.
- On-site monitor – during active stream channel disturbing activities downstream of Quail Creek Diversion Structure, the applicant must have a qualified fish biologist with experience in desert river ecosystems on-site to monitor environmental effects.

Southwestern Willow Flycatchers

- Timing of construction – to avoid direct and indirect impacts to breeding flycatchers (breeding period is April 1 – August 31) all construction activities should be conducted between September 1 and March 31 to avoid disturbance of possible breeding Southwestern Willow Flycatchers and other riparian obligate species.
- Southwestern Willow Flycatcher surveys – if portions of the project area are within designated critical Southwestern Willow Flycatcher habitat, then USFWS approved surveys would be required to detect the presence of breeding flycatchers in the project area.
 - Occupied breeding habitat –
 - Review project directly with USFWS to determine feasibility of conducting project and obtain necessary USFWS permits.
 - Potential breeding habitat –
 - Minimize disturbance to riparian habitat by avoiding the removal of or damage to willows and other native riparian vegetation, local topography, and water features (if present).
 - Implement revegetation to restore, create, or enhance riparian habitat characteristics preferred by Southwestern Willow Flycatchers, in coordination with UDWR, the Virgin River Program, and USFWS (see also Revegetation, below).

Bank Stabilization

- Concrete, asphalt, steel or other human-made materials shall not be used for bank stabilization or in the active stream channel. Boulders, root-wads and other natural materials found locally shall be used to stabilize stream banks.
- The use of any stream bank stabilization structures (e.g., rock riprap) in an active channel or the 100-year floodplain of any river related project shall be coordinated with UDWR and U.S. Fish and Wildlife Service (USFWS) during the planning stage.
- If construction or maintenance of stream bank stabilization structures is proposed, the applicant or their contractor shall fill voids in the stream bank stabilization structures (riprap) in excess of 2-3 feet above the existing river bed to minimize potential non-native fish species refuges (i.e., interstitial spaces). This shall be done for any project that is located downstream of the Washington Fields Diversion. In addition, a means of halting downstream piping of ground or surface water through the structure (grout curtains, cutoff walls, or geo-textile fabric) shall be constructed at intervals in riprap walls to. Barriers shall be constructed at

200 to 300 foot intervals. Both of these measures (filling voids and grout curtains, cutoff walls or geo-textile fabric) should be specified in any project related construction plans and any deviation from use of these measures should be approved by the USFWS.

- During any cutting, filling, and grading of slopes, machinery and sedimentation should not be allowed in the stream or adjacent wetlands.

Instream Structures

- Any activities that alter/create an instream structure (diversion, elevated crossing, etc.) that may facilitate/hinder movement of native fish or colonization of non-native fish species shall be coordinated with UDWR and USFWS during the planning stage.

Revegetation

- Revegetation activities will be coordinated with UDWR, the Virgin River Program, and USFWS. Contact Steve Meismer (435.673.3617; Virgin River Program) for technical input on proper riparian revegetation techniques and possible sources of vegetative materials.
- Avoid the disturbance of willows and other native riparian vegetation, local topography, and water features (if present) when working in the river channel and floodplain.
- All bank stabilization should be covered with local fill to allow for establishment of vegetation.
- Disturbed areas (work sites, ingress, egress, stockpile sites, pits, etc.) shall be revegetated after construction with appropriate native plant species of local genetic stock and/or with certified weed-free native seed.
- All revegetation efforts shall be monitored for success for three years and replanted/reseeded if not successful.

Mandatory Conditions for all Projects (Best Management Practices)

- If construction materials are displaced by high flows the applicant must contact Paul Abate with USFWS (801-975-3330, ext. 130) as soon as possible to coordinate the least intrusive retrieval method.
- Care shall be taken to minimize sedimentation resulting from bank or stream bed disturbance.

- Equipment shall be cleaned to remove noxious weeds/seeds and petroleum products prior to moving on-site.
- Fueling machinery shall occur off-site or in a confined, designated area to prevent spillage into waterways and wetlands. Oil booms shall be on-site and placed downstream of the project site prior to beginning work if equipment will be operating in the low flow channel.
- Materials shall not be stockpiled in the riparian area or other sensitive areas (e.g., wetlands).
- Fill materials shall be free of fines, waste, pollutants, and noxious weeds/seeds.
- Equipment shall work from the top of the bank or from the channel to minimize disturbance to the riparian area and to protect the banks. Heavy equipment shall avoid crossing and/or disturbing wetlands.
- Ingress and egress access shall be kept to a minimum.
- Excavated soils shall be sorted into mineral soils and top soils. When backfilling a disturbed site, top soils shall be placed on top to provide a seed bed for native plants.
- Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters or adjacent wetlands; this will include material such as grease, oil, joint coating, or any other possible pollutants. Excess materials must be wasted at an upland site away from any channel. All construction materials must be removed from the active channel and from the 100-year floodplain at the end of the project.
- The applicant shall complete the project in as short of a timeframe as possible (taking into account the terms and conditions above) to minimize the potential for damage to the altered channel during high flows caused by storm events.

Figure 5 BMPs

APPENDIX B

Agency Correspondence