



US Army Corps
of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Public Notice

Public Notice Number: SPK-2007-01504

Date: November 16, 2007

Comments Due: December 7, 2007

In reply, please refer to the Public Notice Number

SUBJECT: The U.S. Army Corps of Engineers, Sacramento District, (Corps) is evaluating a permit application to construct the Bloomington Hills sewer line project, which would result in approximately 1.08 acres of temporary impact and 0.64 acre of permanent impact to waters of the United States, including wetlands, in or adjacent to the Fort Pierce Wash and the Virgin and Santa Clara Rivers, in St. George, Utah. This notice is to inform interested parties of the proposed activity and to solicit comments. This notice may also be viewed at the Corps web site at <http://www.spk.usace.army.mil/regulatory.html>.

AUTHORITY: This application is being evaluated under Section 404 of the Clean Water Act for the discharge of dredged or fill material in waters of the United States and Section 401 for water quality certification.

APPLICANT: City of St. George
Kirk Klotz
175 East 200 North
St. George, UT 84770

AGENT: Alpine Environmental Resources, LLC
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LOCATION: The proposed project area crosses Fort Pierce Wash and the Virgin and Santa Clara Rivers approximately 0.2-mile south of the Dixie Center's south parking lot in St. George, Washington County, Utah, more specifically, in the SW $\frac{1}{4}$ of Section 6, Township 43 South, Range 15 West, Salt Lake Base Meridian is located on the St. George USGS 7.5' Topographic Quadrangle (Figure 1).

PROJECT DESCRIPTION:

The applicant is proposing to construct a 42" wastewater pipeline that will cross the Virgin and Santa Clara Rivers. Included in the project is a rip rap enforced maintenance road along the toe of the bluff below the Bloomington Hills subdivision within the Virgin River and a temporary crossing within the Fort Pierce Wash. The pipeline would be installed in the maintenance road, then trenched and backfilled across the Virgin River and Santa Clara River approximately 10-feet below river bed and tied into an existing mainline. A temporary dewatering structure would be constructed from 400 cubic yards of material dredged from the project site. The water would be allowed to return to the pre-2005 flood channel during the construction time period, which will last approximately 60 days. Some

dredging may be required within the pre-2005 flood channel to help accommodate flows. The footprint for the temporary channel is 0.61 acre. Approximately 14,000 cubic yards of fill material would be placed within waters of the U.S., more specifically the Virgin River and fringe wetlands, to construct the road. The placement of this fill would result in the permanent loss of 0.64 acre of waters of the U.S., including wetlands. Temporary impacts associated with the project would impact approximately 1.5 acres of waters of the U.S., including wetlands.

Based on the available information, the overall project purpose is to expand the sewer system conveyance capacity. The service area to be supported by the proposed river crossing includes Bloomington Hills, Little Valley, Fort Pearce Industrial Park, Cottam Bench, Stone Cliff, and Washington Fields. The existing wastewater treatment facility south of Bloomington is a 10-million gallons per day (MGD) facility with a water re-use system.

The applicant believes there is a need for this project based on the current capacity of the system to convey 2 MGD at which the facility normally operates. At times, the 2 MGD threshold is exceeded which causes sewage to back up and overflow onto the surface near the northwest end of the St. George Country Club. Additionally, current and future growth has created a need for a higher capacity pipeline. The proposed gravity line and inverted siphon would replace the need for an additional lift station and transportation line. The current pipeline capacity is 3 MGD; however the current lift station capacity is 2 MGD. A new pump station would increase the capacity of the current system; however would not meet the capacity for the estimated future growth. Additionally, the energy and maintenance costs of a new pump station are significantly higher than the proposed gravity line with inverted siphon. The proposed pipeline would have a capacity of 14 MGD which would meet the projected 20-year growth demand, estimated by calculating the current population times the current growth trend over 20 years. The attached drawings provide additional project details.

ADDITIONAL INFORMATION:

Environmental Setting. The City of St. George is situated in the Mojave Desert in a valley between the Beaver Dam Mountains, Pine Valley Mountains and the Hurricane Cliffs. The Virgin River, Santa Clara River, and their tributaries actively erode the valley. The Virgin and Santa Clara Rivers and Fort Pierce Wash are subject to frequent flash flood events from heavy mountain thunderstorms. The Virgin River flows southwesterly and the Santa Clara River southeasterly with the confluence just east of I-15 and south of the Dixie Convention Center. The Fort Pearce Wash flows northwesterly to the Virgin River, draining the south side of the valley. Both rivers and the Fort Pearce Wash meander and change courses somewhat frequently. Historically, most development in the valley was on the north side of the Virgin River, with agriculture the primary land use on the south side of the river. The wastewater transmission system upgrade is proposed due to new development of the south side of the Virgin River.

In January 2005, a significant flood event occurred that changed the Virgin/Santa Clara river confluence, moving it downstream approximately 0.15-miles. The pre-2005 Virgin River channel will be used for dewatering for construction. The areas of impact in this zone are mostly unvegetated sand bars or stands of the invasive Tamarisk (*Tamarix ramosissima*). Approximately 0.79 acre of herbaceous wetlands are present within the project area; however, only 0.08 acre of this area will be permanently and 0.19 acre will be temporarily disturbed. These wetland areas are dominated with salt cedar, willows, cattails, and common reed.

Alternatives. The applicant has provided information concerning project alternatives. These have been summarized below. Other alternatives may develop during the review process for this permit

application. All reasonable project alternatives, in particular those which may be less damaging to the aquatic environment, will be considered.

Alternatives were evaluated based on their ability to meet current and future capacity demands, the ability to be constructed and operating in a short time frame due to the failure of the current pump station, operation and maintenance costs, and impacts to the river.

Alternatives evaluated by the applicant include:

1. New pump station alternative: This option would require construction of a new force main pipeline across the Virgin River and a new pump station. This option would meet current and future capacity demands and could be constructed and operating within a short time frame. Impacts to waters of the U.S. would be similar to the proposed alternative.

2. Construct a treatment facility on south side of river: Obtaining land, permits, cost of designing and constructing a new treatment facility on south side of river are estimated to cost \$26 million. This far exceeds the project budget of \$2 million. This alternative is not preferred by the applicant due to costs and time constraints. Impacts to waters of the U.S. are potentially less than the proposed alternative and, although not completely evaluated, permanent impacts to the river are associated with this alternative.

3. Construct a gravity line and fish barrier dam/pipeline crossing: This option was originally proposed as a means of conveying wastewater across the river in conjunction with controlling invasive fish species. This alternative is not preferred by the applicant due to construction time, high costs and greater permanent impacts to waters of the U.S. than the proposed alternative.

4. Construct a gravity line and inverted siphon: This is the applicant's proposed alternative. This option would provide sufficient capacity for current and future needs and would replace the existing Bloomington Hills pump station, resulting in lower energy costs. It has the lowest initial and operation and maintenance costs of all the alternatives and can be constructed in a short time frame. Design specifics and river crossing construction window could minimize project impacts to waters of the U.S.

Mitigation. The Corps requires that applicants consider and use all reasonable and practical measures to avoid and minimize impacts to aquatic resources. The applicant has proposed design specifics to minimize impacts to waters of the U.S. These include; installing the pipeline at the toe of the Webb Hill bluff, lowering the proposed easement 8-feet to maintain the river floodway, a perpendicular river crossing to minimize area of impact, trenching the pipeline 10-feet below the riverbed to accommodate anticipated scour, re-contouring to preconstruction conditions, re-vegetating disturbed areas with native willow saplings, and a river crossing construction window of July 15 thru March 31 to minimize impacts to aquatic species.

Because the applicant is unable to avoid or minimize all impacts, the Corps will require compensatory mitigation. To mitigate for 0.64-acre of permanent impact to waters, the applicant proposes to purchase the remaining 1.55-acres of in-lieu fee credits at the Emerald Springs Wetland Preserve in St. George, Utah, for enhancement of an existing wetland at a 5:1 mitigation ratio. This would compensate for approximately 0.31 acre of the impacts. To mitigate the remaining 0.33-acre of impact, the applicant proposes to work with the Virgin River Program on a specific plan for enhancement of the Virgin River.

Additional mitigation details are available upon request from the Corps or the applicant's agent.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification or a waiver, as required under Section 401 of the Clean Water Act from the Utah Division of Water Quality is required for this project. The Utah Division of Water Quality intends to issue certification provided that the proposed work will not violate applicable water quality standards. Projects are usually certified where the project may create diffuse sources (non-point sources) of wastes which will occur only during the actual construction activity and where best management practices would be employed to minimize pollution effects. Written comments on water quality certification should be submitted to Ms. Shelly Quick, Utah Division of Water Quality, 288 North 1460 West, P.O. Box 144870, Salt Lake City, UT 84114-4870, on or before **December 7, 2007**.

The City of St. George issued a Flood Plain Development Permit (Permit Number 8.4.112-07) on August, 21, 2007 for the activities outlined herein.

HISTORIC PROPERTIES: A cultural resource survey for the project site has not been conducted. The Corps will initiate consultation with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act, as appropriate.

ENDANGERED SPECIES: The proposed activity may affect Federally-listed endangered or threatened species or their critical habitat. Designated critical habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*), woundfin (*Plagopterus argentissimus*), and Virgin River chub (*Gila seminude*) is within the proposed area of impact. The Corps has initiated consultation with the U.S. Fish and Wildlife Service, pursuant to Section 7 of the Endangered Species Act. A biological opinion (FWS/R6 ES/UT 6-UT-07-F-017) has been completed by the U.S. Fish and Wildlife Service for this project and is on file at the Corps office (SPK-2007-01504).

Section 7 consultation is considered complete and the applicant has agreed to comply with Reasonable and Prudent Measures outlined in the Biological Opinion dated August 13, 2007.

ESSENTIAL FISH HABITAT: The proposed project will not adversely affect Essential Fish Habitat (EFH) as defined in the Magnuson-Stevens Fishery Conservation and Management Act.

The above determinations are based on information provided by the applicant and our preliminary review.

EVALUATION FACTORS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the described activity, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the described activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people. The activity's impact on the public interest will include application of the Section 404(b)(1) guidelines promulgated by the Administrator, Environmental Protection Agency (40 CFR Part 230).

The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SUBMITTING COMMENTS: Written comments, referencing Public Notice SPK-2007-01504 must be submitted to the office listed below on or before **December 7, 2007**.

Kiel Downing, Project Manager
US Army Corps of Engineers, Sacramento District
St. George Regulatory Office
321 North Mall Drive, Suite L-101
St. George, UT 84737
Email: Kiel.G.Downing@usace.army.mil

The Corps is particularly interested in receiving comments related to the proposal's probable impacts on the affected aquatic environment and the secondary and cumulative effects. Anyone may request, in writing, that a public hearing be held to consider this application. Requests shall specifically state, with particularity, the reason(s) for holding a public hearing. If the Corps determines that the information received in response to this notice is inadequate for thorough evaluation, a public hearing may be warranted. If a public hearing is warranted, interested parties will be notified of the time, date, and location. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act. If you have questions or need additional information please contact the applicant or the Corps' project manager Kiel Downing, 435-986-1961, Kiel.G.Downing@usace.army.mil.

Attachments: 13 drawings