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June 30, 2014

Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, CO 80203

Attn: Ms. Thuy Patton, CFM, Floodplain Mapping Coordinator
<thuy.patton@state.co.us>
Re: Pueblo Conservancy District
Arkansas River Levee

In April 2012 the Pueblo Conservancy District (“District”) hired, via a public advertisement process, a design team led by NorthStar Engineering and Surveying, Inc. (“NorthStar”) to begin the first phase of a multiple phase project whose ultimate goal is accreditation of the Arkansas River Levee and Wildhorse/Dry Creek Levee (“Levee”) through the City of Pueblo. The initial phase of the project consisted, in part, of an evaluation of the viability of the District, the need for the City of Pueblo to continue to have a Levee to protect essential public health, safety, and welfare services for all citizens of Pueblo County, and development of a process for use in assessing a maintenance fee for Levee improvements.

The NorthStar team suggested that this project phase be divided into three parts, the first of which consisted of information and data gathering, review of the District and services provided with respect to statutory requirements, improvement funding alternatives, and preparation of a detailed Report with recommendations to the District Board of Directors (“Board”). The NorthStar team concluded that it was necessary for the City of Pueblo to continue to have a Levee to protect significant parts of the City and County. The team also determined that the Pueblo Conservancy District was the most viable entity for administration and maintenance of the Levee system. Additionally, recommendations were made that since all citizens of Pueblo County benefit from the existence of the Levee that all citizens of Pueblo County should, to some level, be responsible for costs of improvements to and maintenance of the Levee. A written Report for Part I of the initial project phase was prepared by the design team on June 25, 2012.

In July 2012 the Board of the District accepted the recommendations contained in the June 25 Report and authorized the NorthStar team to move into Part II of the initial project phase. Part II consisted primarily of development of a County-wide maintenance fund assessment fee. The

final Part II Report was prepared by the design team on September 25, 2012. That Report provided rationale for and proration of a county-wide maintenance fee across three tiers, based on benefits received for individual areas from the Levee system. The Report also detailed estimated costs for required operations and maintenance work, capital improvements, intergovernmental agreements, and planning activities related to the Levee over the next twenty years. That work included development of preliminary design and construction cost estimates for anticipated upgrades and new construction required for Levee accreditation. District boundaries were also revised and coordinated with the Pueblo County Assessor and Treasurer such that collection of the maintenance fund assessment fee could be undertaken by those agencies.

In October 2012 the District Board accepted the recommendations of the Part II Report and began the process of implementing the recommended maintenance fund assessment. Over the course of the next several months the Board and the NorthStar team met with numerous City and County departments and agencies, as well as other project stakeholders, to explain the need for and levels of the maintenance fund assessment (Part III). Collection of the maintenance fund assessment fees began in 2013. Copies of either of the Reports referenced above are available for your review at your request.

In November 2013 the District Board selected, via a publically advertised Request for Proposal process, the NorthStar Engineering and Surveying, Inc. lead design team to complete Phase II services related to accreditation of the Arkansas River Levee. The Phase II services included three primary tasks for the full 2.8 mile length of Levee through the City of Pueblo: “as-constructed” survey, visual conditional assessment/evaluation, and geotechnical investigations. The entire Levee has been field surveyed from toe of slope on the river side to well beyond toe of slope (railroad yard) on the land side. Cross-sections have been prepared at a maximum interval of 50’ with additional detail provided at utility crossings, roadway crossings, internal drainage facilities, etc. Additionally, each panel of the concrete surfacing on the river side of the Levee has been visually inspected, photographed, and documented in a GIS database. Test holes for the geotechnical investigation were completed at a maximum interval of 500’, both at the top of the Levee and at the toe of the Levee on the land side. Material samples have been tested in a manner to allow for slope stability evaluation which includes evaluations of strength and seepage properties of embankment and foundation materials. Material classification tests and proctor moisture/density relationships have also been prepared. Phase II services were completed in April 2014.

In April 2014 the District Board authorized the NorthStar team to commence Phase III services of the Arkansas River Levee accreditation project. Phase III generally includes engineering design services, permitting, and regulatory approvals as well as preparation of final design documents for bidding and construction purposes. The ultimate goal of Phase III (in process) is accreditation of the Levee through the City of Pueblo.

Construction of improvements to the Levee will be limited to low flow (winter season) periods on the Arkansas River. Meetings with the State Engineers Office have determined that period to be between October 15 and February 15. The Board realizes that it is not possible to complete 2.8 miles of levee improvements in a single construction season. Therefore, the NorthStar team

is recommending that construction of levee improvements occur over a three year construction period. It is hoped that an initial construction phase can occur between October 15, 2014 and February 15, 2015. A great deal of work needs to occur between now and the fall of 2014 to meet the initial construction period. The NorthStar team has been meeting with numerous project stakeholders, regulatory agencies, adjacent property owners, etc. in an attempt to expedite this project. The primary goal of this letter is to make you aware of the process that has been occurring to meet levee accreditation requirements and the progress the Pueblo Conservancy District has been making. Any support your office can provide to the District to meet these stated project goals would be sincerely appreciated.

During this design process the NorthStar team is exploring numerous alternatives for Levee improvements and the impact those alternatives may have on Levee stability, public safety, project costs, etc. One alternative being explored, and which has gained citywide acceptance, is lowering the top of the existing Levee ten or more feet. The top of the existing levee is only 5 to 8 feet wide with slopes to the land side and slopes to the river side in the range of 1.5 to 1. Due to the narrow top and steep side slopes, access to various points along the Levee by maintenance equipment, construction equipment, or emergency responders is not possible. Lowering the top of the Levee provides for a much wider and safer surface for construction equipment, maintenance equipment, emergency vehicles, etc. It may also result in a future amenity for the City to include trails, kayak course viewing and access areas, etc. Also, lowering the top of the Levee provides an opportunity to stabilize Levee slopes and reduce future maintenance requirements.

The Levee was originally designed for flood protection from the Arkansas River and Wildhorse Basins prior to construction of the Pueblo Reservoir. Construction of the Reservoir has resulted in a significant reduction to downstream 100 year and 500 year runoff. The full Levee height is no longer needed. Any improvements made to the Levee will be designed to accommodate not less than the 500 year design storm event plus freeboard plus a buffer for future conditions as discussed in "Levees and the National Flood Insurance Program-Improving Policies and Practices." Additionally, all design activities are being completed in accordance with "Code of Federal Regulations Title 44: Emergency Management and Assistance, Section 65.10 Mapping of Areas Protected By Levee Systems (44 CFR 65.10)."

It is the intent of the Board of Directors of the Pueblo Conservancy District to keep CWCB, FEMA, Michael Baker Jr., and other project stakeholders informed of the progress of this project until such time that accreditation of the Arkansas River Levee is obtained. Should you have any questions, require copies of any documents produced for the project, or take any exception to the design process being undertaken or the potential construction that will be proposed, please notify either myself (719-544-6823 ext. 113) or Mr. Rick Kidd, P.E., District Administrator (719-250-1881). The Pueblo Conservancy District will take serious consideration of any input you offer concerning the process or proposed construction in an effort to fully comply with all regulatory requirements. As such, we would very much like to meet with you and FEMA representatives at your earliest convenience.

Respectfully Submitted
NorthStar Engineering and Surveying, Inc.

Kim Kock

Kim Kock, P.E.
Principal/President

cc: Dawn Gladwell, FEMA RegionVIII <dawn.gladwell@fema.dhs.gov

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Pueblo County Commissioners - Terry Hart

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Pueblo County Attorney – Gregory Styduhar

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