



Flatwater Resources

The Flatwater Group, Inc.

Issue #3

Fall/Winter 2006-2007

Platte Recovery Program Signed by Governors, Interior Secretary

Governor Dave Heineman signed a new cooperative agreement for the Platte River Recovery Implementation Program (Program) on October 30, 2006, providing Nebraska's support to a 13-year increment of management activities designed to improve conditions for certain threatened and endangered species in the Platte River basin. The Program, which involves the three states of Nebraska, Wyoming, and Colorado, as well as the U.S. Department of Interior, is the product of years of negotiation and work following the adoption of a 1997 Cooperative Agreement. The new Program document was signed first by Colorado Governor Bill Owens, and was signed by Wyoming Governor Dave Freudenthal following Governor Heineman's signature. Interior Secretary Dirk Kempthorne signed the document on December 7, 2006.

The Program is a proactive and adaptive approach to comply with required actions under the Federal Endangered Species Act (ESA), which mandates the protection of threatened and endangered species and their habitat. In the absence of a Program, many individual water users, irrigation districts, and other entities could be forced to shoulder the burden of ESA compliance activities on their own — potentially a very expensive proposition. Under the Program, the three states will be able to pool their efforts, coordinating management



North Platte River Near Glendo Power Plant

actions to obtain bigger bang-for-the-buck, while using an adaptive management approach to maximize the effectiveness of Program activities. The Program will also provide access to Federal funding and assistance, which might otherwise be required from the states and local participants.

Gov. Heineman delayed signing the agreement until several public hearings were held across the State, and following an 18 to 3 vote by the Governor's Platte River Advisory Council advising the Governor to sign the agreement. The Governor also waited to obtain assurances from the Nebraska Attorney General's office, provided through an October 20 opinion, that the State would be free to abandon the Program "at any time for any reason." Before signing the new cooperative agreement, Gov. Heineman wrote an Oct. 27 letter to Inte-

rior Secretary Kempthorne and the Colorado and Wyoming Governors in which he explained the reasoning behind his decision.

In his letter, Gov. Heineman mentioned the extensive controversy in Nebraska related to the Platte Program, and indicated that Nebraska would withdraw from the Program if it "is no longer in the best interest of Nebraskans." At the same time, he stated that the Program offers agricultural producers regulatory certainty that would not be present otherwise, and that it would protect and handle agricultural interests.

Gov. Heineman also identified several issues of concern regarding the Program, including changing U.S. Fish and Wildlife Service (USFWS) objectives, Congressional authorization and federal funding, and measuring benefits to the target species. One particular issue mentioned in his letter concerned the Program's associated New Depletion Plan (NDP) for Nebraska, which may require substantial financial contributions from Nebraska in order to offset ground water development in the basin initiated since 1997. The Governor stated that he "is in no position to guarantee at this time that Nebraska will be able to meet all that might be called for under the new depletions plan." The latest draft of the NDP calls for Nebraska to meet its NDP obligations by Dec. 31, 2008.

Legal Update—in Brief

Spear T. vs. Knaub (Case No. S-03-789, Opinion 269 Neb. 177)

Surface water user Spear T. Ranch sued ground water users for depleting Pumpkin Creek. Supreme Court ruled that Morrill County District Court should hear case, and use Restatement (Second) of Torts to determine if ground water users unreasonably harming surface water users. Central Nebraska Public Power and Irrigation District (CNPPID) attempted to intervene (S-05-759), but Supreme Court ruled (Opinion 271 Neb. 578) that CNPPID didn't have direct and legal interest in case, but could pursue separate legal action. Case could have major implications for ground water—surface water conflicts across the State.

Deadline for discovery is Jan. 31, 2007, and deadline for summary judgment motions is March 1, 2007. Hearings likely after that point.

Waterclaim vs. URNRD (District Court of Chase County Case No. CI 05-14) and URNRD vs. District Court of Chase County (Supreme Court Case No. S-06-0549)

Waterclaim filed suit against Upper Republican NRD (URNRD) for not discussing details of Integrated Management Plan (IMP) in open public format. URNRD in turn sued District Court in Supreme Court, asking that a procedure be established by District Court to review claims of privilege by URNRD. Supreme Court ruled in favor of URNRD's request.

Supreme Court is scheduled to hear arguments in January concerning the procedures to be used in District Court case.

UBBNRD vs. DNR et al (District Court of Lancaster County Case no. CI 06-1668 and CI 06-1937)

Two nearly identical suits filed by Upper Big Blue Natural Resources District (UBBNRD) against DNR for allegedly overstepping statutory authority in determining areas within Big Blue River surface water basin as fully appropriated. DNR determined ground water aquifers within portion of UBBNRD hydrologically connected to fully appropriated Platte River. UBBNRD claims DNR can't determine areas outside surface water basins fully appropriated.

On August 11, 2006, cases were consolidated, and motion to dismiss the case was overruled. No future trial dates have yet been set.

Crouse vs. Pioneer Irrigation District (Supreme Court Case No. S-05-0402)

Steve and Jo Dean Crouse sued Pioneer Irrigation District for assessing taxes on land no longer serviced by the District. Water rights cancelled earlier by DNR from nonuse, and Crouses requested to either receive water or have land removed from District.

On August 18, 2006, Nebraska Supreme Court ruled (Opinion 272 Neb. 276) against Crouses, affirming district court's decision that (1) the Crouse's lands should not be excluded from the irrigation district, and (2) Crouses should not be refunded for past irrigation district taxes. Court cited earlier water right cancellation and prior unexercised ability to irrigate as factors in decision.

Koch vs. Aupperle (Supreme Court Case No. S-06-264) and Aupperle vs. DNR and Koch (Supreme Court Case No. S-06-736)

Loren Koch sued Ron and Mary Ann Aupperle and Lower Platte South NRD (LPSNRD) for injunction to prevent construction of small dam upstream of Koch's existing dam and lake (S-06-264). During proceedings, discovered that Koch's dam operated without State permit for 17 years. Cass County District Court ruled in Koch's favor, but case was appealed to Court of Appeals, and on Oct. 12, 2006 was forwarded to Supreme Court. Oral arguments not expected until fall of 2007.

Aupperle in turn sued Koch to obtain standing to object to Koch's application to DNR for permit to impound water (S-06-736) after DNR denied standing.

Corps 404 Permits

The second in a series of articles providing information on permits, with input on what they're for, how to get them, and how to maintain them into the future.

The U.S. Department of the Army regulatory program, established under the Rivers and Harbors Acts of 1890 and 1899, is one of the oldest in the Federal Government. The fundamental purpose of the early regulatory program was to protect and maintain the navigable capacity of the nation's waters. In 1972, Congress passed the Federal Water Pollution Control Act, which included a series of amendments to the Rivers and Harbors Act. This law, along with subsequent amendments passed in 1977, became commonly known as the Clean Water Act (CWA). Under Section 404 of the CWA, the Department of the Army, through the U.S. Army Corps-Chief of Engineers, is authorized to issue permits for the discharge of dredged or fill material into waters of the U.S. at approved disposal locations.

The jurisdiction of the CWA includes navigable waters of the U.S., defined as "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce." Section 404 jurisdiction also includes tributaries to U.S. waters and adjacent wetlands, and isolated waters where the use, degradation or destruction of such waters could affect interstate or foreign commerce.

There is significant debate regarding the U.S. Army Corps of Engineers (Corps) jurisdiction under Section 404 of the CWA and how it applies to wetlands and non-navigable U.S. waters. Non-navigable waters include ephemeral streams, dry washes, ditches, drains and channels that rarely carry water. Opinions issued by the U.S. Supreme Court in June 2006 indicate that the Corps has jurisdiction over wetlands and non-navigable waters if there is a "significant nexus" to a navigable water. In other words, there must be a hydrological connection between established navigable waters and the wetlands or non-navigable waters in question.

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TFG Project **Spotlight** — Antelope Creek Tributary



Meandering Channel North of South Street

The City of Lincoln, Nebraska, with the assistance of The Flatwater Group, is proactively addressing stream degradation and stability problems for an small stream in Lincoln's Antelope Park. Over many years, the ephemeral stream has been impacted by increased flows caused by urbanization, channel straightening, and deferred maintenance. Bank failure, which threatened the integrity of an adjacent parkway road, and neighborhood concerns prompted a cooperative effort between the City and the Lower Platte South Natural Resources District (NRD). A project was developed to control stream degradation and water quality problems for a 5,600 foot reach of the stream.

The project site included a tributary to Antelope Creek, which runs through a heavily used urban park, and a regional trail system, all located in an established residential neighborhood. The problem areas for this urban drainage conveyance included active stream bank erosion, streambed down-cutting, threatened infrastructure, and poor water quality.

The primary goals for this project were to stabilize the stream; protect, maintain and improve existing infrastructure and park amenities; ensure no-increase in flood elevations; improve water quality in portions of the stream; and restore (to the extent possible) stream length.

In order to provide a clear picture of the existing conditions of the stream segment, the design team completed a comprehensive, detailed survey including longitudinal profile descriptions, channel banks and cross-sections, thalweg determinations, hydraulic and hydrologic baselines, appropriate topography, inlet/outlet elevations, trees, utilities, and hydraulic structures. This provided data for the essential geomorphic, hydrologic, and hydraulic calculations and 3D surface generation. The team also performed a lowest minimum opening survey and a fluvial geomorphologic assessment of the existing stream conditions.

The stream was characterized by two primary reaches and was divided

nearly in half by a major thoroughfare (South Street). The upper reach was generally stable but suffered erosion near stormwater outlets and pedestrian crossings. The channel had also become overgrown with undesirable vegetation both in the stream and on the adjacent floodplain. The lower reach suffered severe channel bank erosion and incision. Bank erosion threatened an adjacent roadway and had incised and widened, creating an increase in stream turbidity of 10 times from upstream to downstream. Where the stream coursed through the park, mowing was performed to the top of the banks, exacerbating the erosion problem. Using survey data, historical aerial photographs, and watershed modeling, a restoration plan was developed to correct ongoing problems, meet a proposed construction budget, and get public buy-in for potential park modifications.

The overall design approach required consideration of the sensitive nature of the urban park setting. The team successfully engaged the neighborhood and general public through presentations complete with illustrative drawings, 3D representations of project features, project "walk-about" and open access to the design team. By limiting the amount of intrusive components traditionally incorporated into "hard structure" oriented projects, a "less-is-more" design concept was employed by concentrating on bio-engineering and riparian improvement techniques and strategic location of hard structures. The design development of each intervention was prepared in a manner that will allow the City to manage the stream and surrounding areas more safely and effectively.

The primary feature of the restoration was the introduction of a two-stage channel on the downstream reach.

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Antelope Creek Tributary (Continued from Page 3)

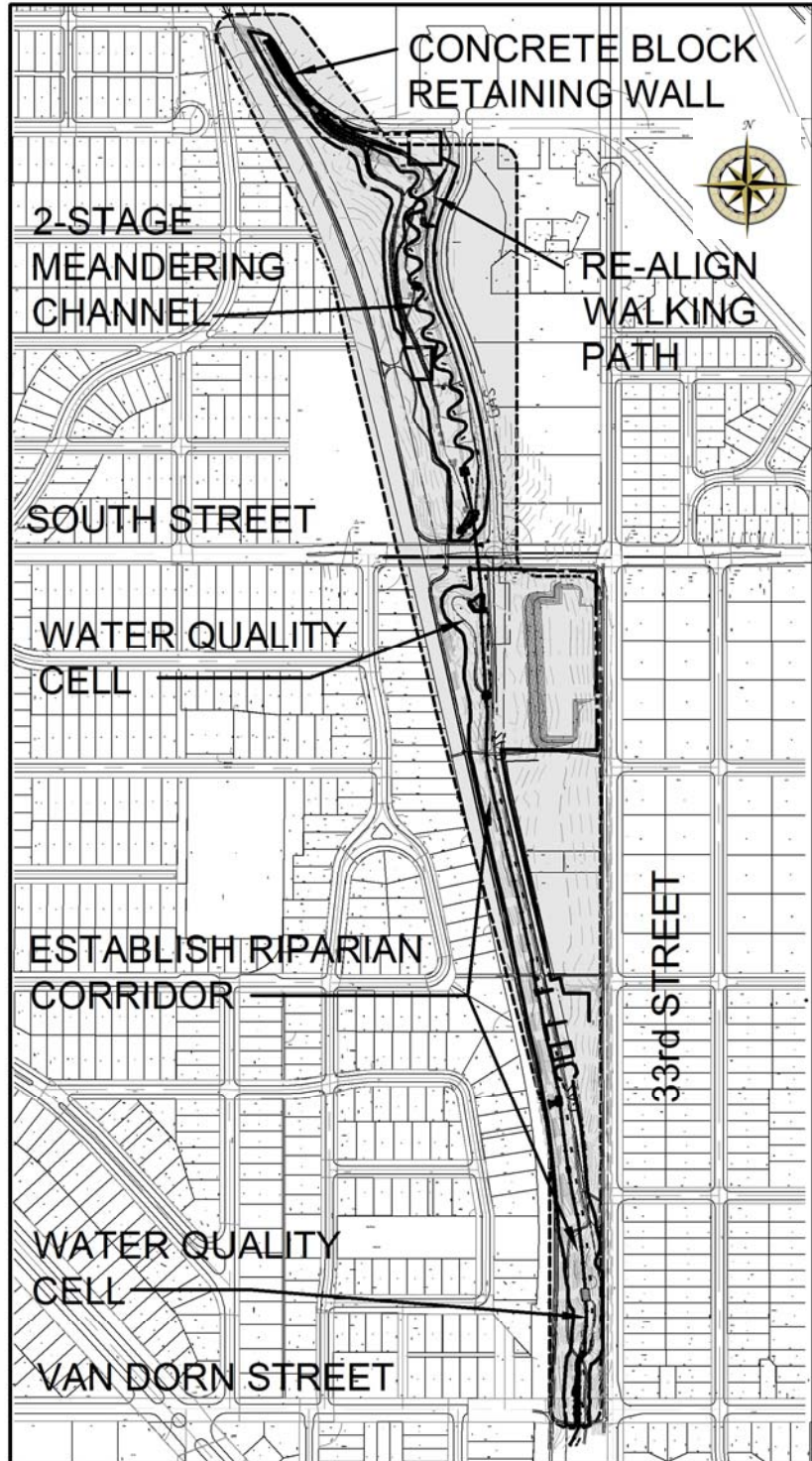
The two stages allowed for the lengthening of the primary meandering channel by nearly 35 percent. The primary channel was designed to carry channel forming flows and to naturally meander while maintaining a stable slope. The capacity of the meandering channel corresponds to approximately a two-year return period flow. The channel has a sinuosity of about 1.5. The second stage serves as the new floodplain and as a streamway for the meandering channel. Excavation of this second stage offered several advantages, the first being a stable channel that protected adjacent infrastructure and improved overall water quality. A second indirect benefit is the improved floodplain capacity and attenuating effect of the restored stream corridor. The ability to provide this benefit in an urbanized park



3D Stream Representation

setting was a project bonus. A final benefit was a new planting scheme that will result in improved park aesthetics and reduced maintenance by using low maintenance and durable native prairie grass species and wild flowers. The City and NRD are also preparing permanent interpretive signage explaining the project and its multiple benefits. Initial public response has been outstanding and additional urban restoration projects are in the works.

Contact Tom or Rick at TFG for assistance in meeting your restoration needs.



Antelope Creek Tributary Project Area



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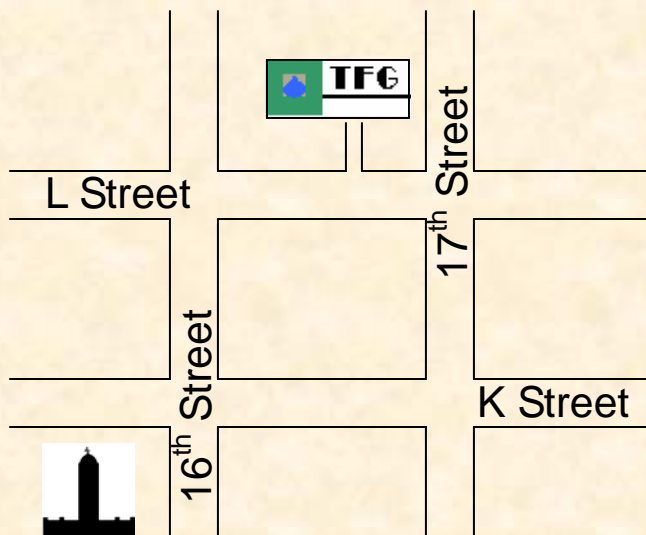
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The Flatwater Group, Inc. (TFG) is a Lincoln, Nebraska based consulting firm specializing in environmental engineering, water resources engineering, restoration planning and design, and information and database management services. TFG is organized to serve the need for high quality, cost effective engineering consulting services. We are founded on the principles of client services coupled with creative solutions, and we look to produce successful products for our clients as well as with our clients.

Corps 404 Permits (Continued from Page 2)

Section 404 of the CWA requires a permit for the discharge of dredged or fill material into U.S. waters. In summary, the permit is granted if the applicant can show that the discharge of dredged or fill material will not significantly degrade the nation's water and if there is not a less damaging or practical alternative available. There are two main types of Section 404 permits: individual permits and general permits. If impacts are deemed significant, an individual permit is required, which involves public notice and evaluation of the impacts based on the environmental criteria established under the CWA. If a project is determined by the Corps to have minimal impacts to U.S. waters, a general permit may be issued. General permits are issued on a regional, nationwide or state basis under one of 44

general activity categories (e.g. bank stabilization, stream and wetland restoration activities, agricultural activities). The general permit process eliminates individual review (i.e. no public notice) and allows projects to proceed with little or no delay.

To apply for a Corps 404 permit in Nebraska, the permit application can be found on the Corps' regulatory program website for the Omaha District. The permit application requires information regarding the applicant, project location, project activities and purpose, and reason for dis-

The definition of "navigable waters" continues to be a point of contention with 404 permits.

charge. Additionally, the permit requires that the applicant provide the volume and type of discharge material and the surface area of wetlands or U.S. waters filled as a result of the discharge. Besides a Corps 404 permit, many local agencies require additional permits, such as floodplain development permits, for dredge and fill activities. General permits may be issued for a maximum of five years, while the duration of individual permits is specified in the permit itself. Both types of permits are renewable.

Contact Gordon or Andy at TFG if you have additional questions concerning 404 permits, or if you need assistance in preparing a permit application.

