PUBLIC SERVICE COMMISSION
Reclamation Division
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Memorandum

TO: File

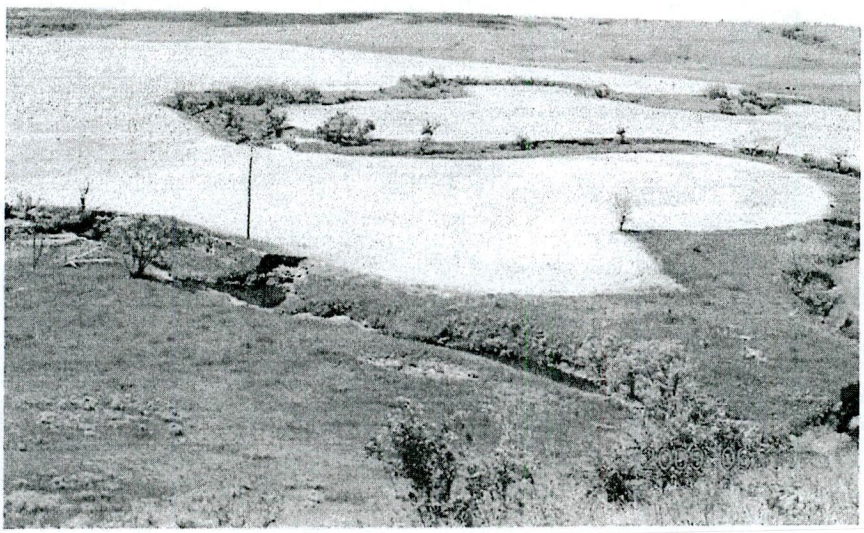
FROM: Dean Moos, Guy Welch, Bill Gunnerson, and Bruce Beechie

DATE: June 15, 2009

SUBJECT: Coyote Creek AVF field investigation

On June 11, 2009 the PSC personnel listed above met with representatives of Dakota Westmoreland Corporation to conduct a field review of potential alluvial valley floor (AVF) areas that lie within the terraces and floodplains delineated in the 2009 Coyote Creek Alluvial Valley Floor Study area. In particular, observations were recorded for areas along Coyote Creek in Sections 19 and 30, T143N, R88W in Mercer County. Areas proposed for mining operations by Dakota Westmoreland Corporation with Revision 22 to Permit KRSB-8603 are located within ¼ mile of the Coyote Creek drainage. Dakota Westmoreland Corporation representatives on site for the field investigation were Greg Smestad and Jeff Frohlich. The field review was conducted between 10:45 a.m. and 1:00 p.m. on June 11, 2009. The skies were clear and the temperature was near 60° F. Access to the study area was good.

General overview of cropland along Coyote Creek, S1/2 of Section 19



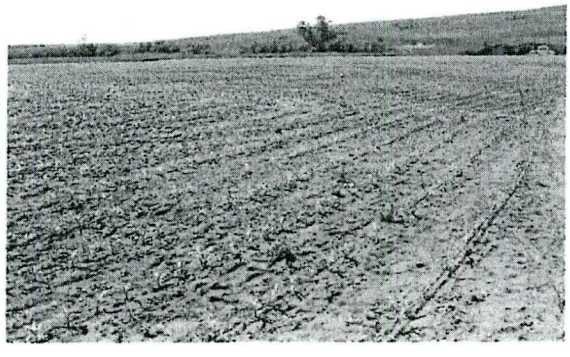
The primary focus of the field investigation was cropland areas adjacent to Coyote Creek in the S1/2 of Section 19 and the N1/2 of Section 30. The areas of cropland adjacent to Coyote Creek are currently seeded to corn and encompass approximately 125 acres of land broken into three distinct tracts. The largest tract is located south and west of Coyote Creek and two smaller tracts separated by an eastern ephemeral tributary drainage to Coyote Creek are located on the north side of the creek. All areas were accessible during the field investigation with vehicular access gained through pasture and cropland trails to the north and the ability to cross Coyote Creek by vehicle in the SW1/4 of Section 19.

Generally, those cropland areas located directly adjacent to Coyote Creek are considered to be within a developed floodplain and assumed to be underlain by alluvial deposits beneath the valley floor. Based on surface topography and soils delineation, the cropland area located south and west of Coyote Creek in the SW1/4 of Section 19 and the NW1/4 of Section 30 appears to be in a transition area from alluvium to residuum. The areas of higher ground and increasing slope gradient to the west and southwest are contained within the larger field that is planted to corn.

Coyote Creek begins as an intermittent stream with headwaters originating in the SW1/4 of Section 28, T141N, R87W about 15 miles southeast of the South Beulah Mine. Coyote Creek gains status from intermittent to perennial within the SE1/4 of Section 31, T142N, R87W. The reach of Coyote Creek that is located within the alluvial valley floor study area and which is the focus of this field investigation is perennial. Generally, Coyote Creek runs in a southeast to northwest direction and its confluence with the master drainage Knife River is located within the NE1/4 of Section 14, T143N, R89W, about 2 ½ miles northwest of the study area.

As mentioned earlier the focus study area is cropland and was seeded to corn approximately 3 weeks previous to the field investigation. The corn is generally at the 3-5 leaf stage and averages about 6 inches in height. Historically, this area has been cropland for as long as landowner Casey Voigt can recall. Evidence of the late March and early April, 2009 spring snow melt flooding event was apparent. Mr. Voigt apparently expended a great deal of time and effort in collecting and disposing of drift wood and other water-borne debris carried by the floodwaters and deposited on the flood plain/valley floor.

Corn crop that was planted approximately 3 weeks prior to field review
Photograph location is the NE1/4 of the SW1/4 of Section 19



Within the study area Coyote Creek is substantially incised and occupies an under-fit drainage system. Coyote Creek is a meandering low-gradient drainage that has formed many oxbows along its course. Remnant or abandoned oxbows have provided utility as cropland on the north side of the creek. The average water depth of Coyote Creek within the study area appeared to be 3-4 feet and the stream was actively flowing. Elevation of the flood plain varied with geographic position compared with the position to Coyote Creek. The flood plain/terrace elevation averaged about 5-8 feet above the surface of the water for areas north of Coyote Creek and the flood plain/terrace elevation averaged about 12-15 feet above the surface of the water for those areas south of Coyote Creek. In the field, the elevation difference between terrace levels south of Coyote Creek and terrace levels north of Coyote Creek is readily visible and marked.

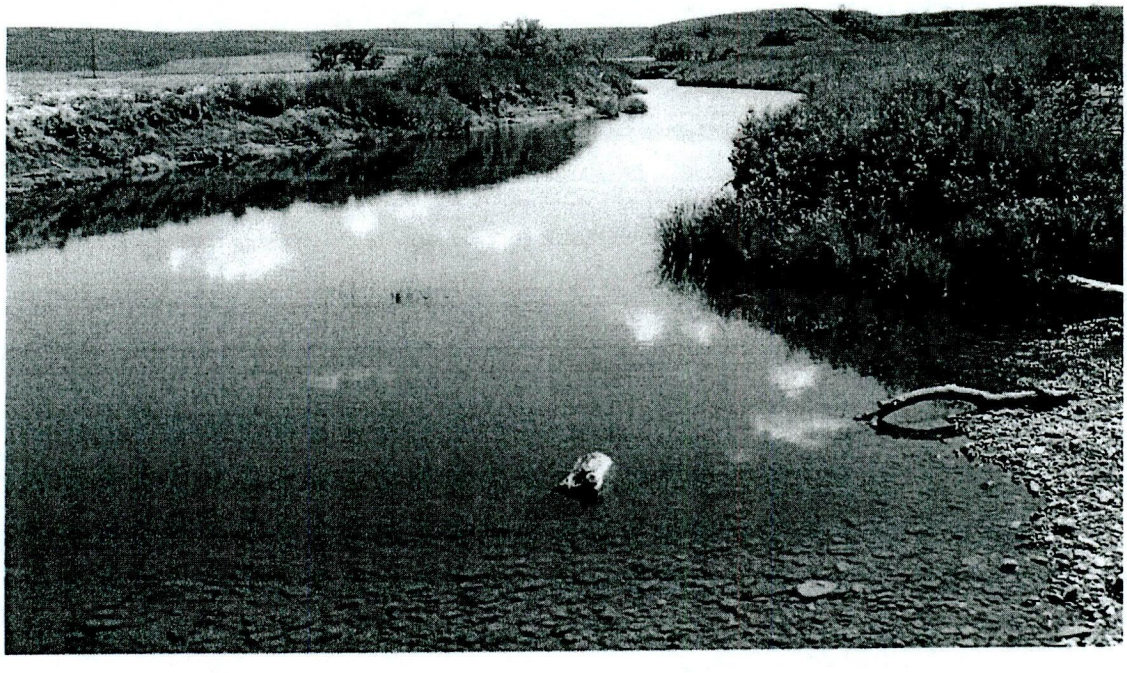
View looking north across Coyote Creek to corn field in the SE1/4 of Section 19
Terrace elevation on north of Coyote Creek averages about 7 feet lower than south side

Soil samples to a depth of approximately 18 inches were excavated by shovel and analyzed at several representative locations throughout the flood plain/cropland portion of the study area. Generally, soils associated with cropped areas were of the Straw loam series that is typical of flood plains, and also the Shambo loam series that is typical of terrace soils. Soils were also analyzed for indications of redox, or reducing/oxidizing conditions associated with subirrigation. No indications of redox or soil mottling were observed in the 6 or so soil samples that were analyzed. Soil stratification indicated evidence of historic flooding events on the flood plain/terrace and indications of recent flooding events were noted for areas immediately adjacent to Coyote Creek with sand and coarser materials dominating the upper soil horizon.

Analyzing soil sample in the NE1/4 of Section 30

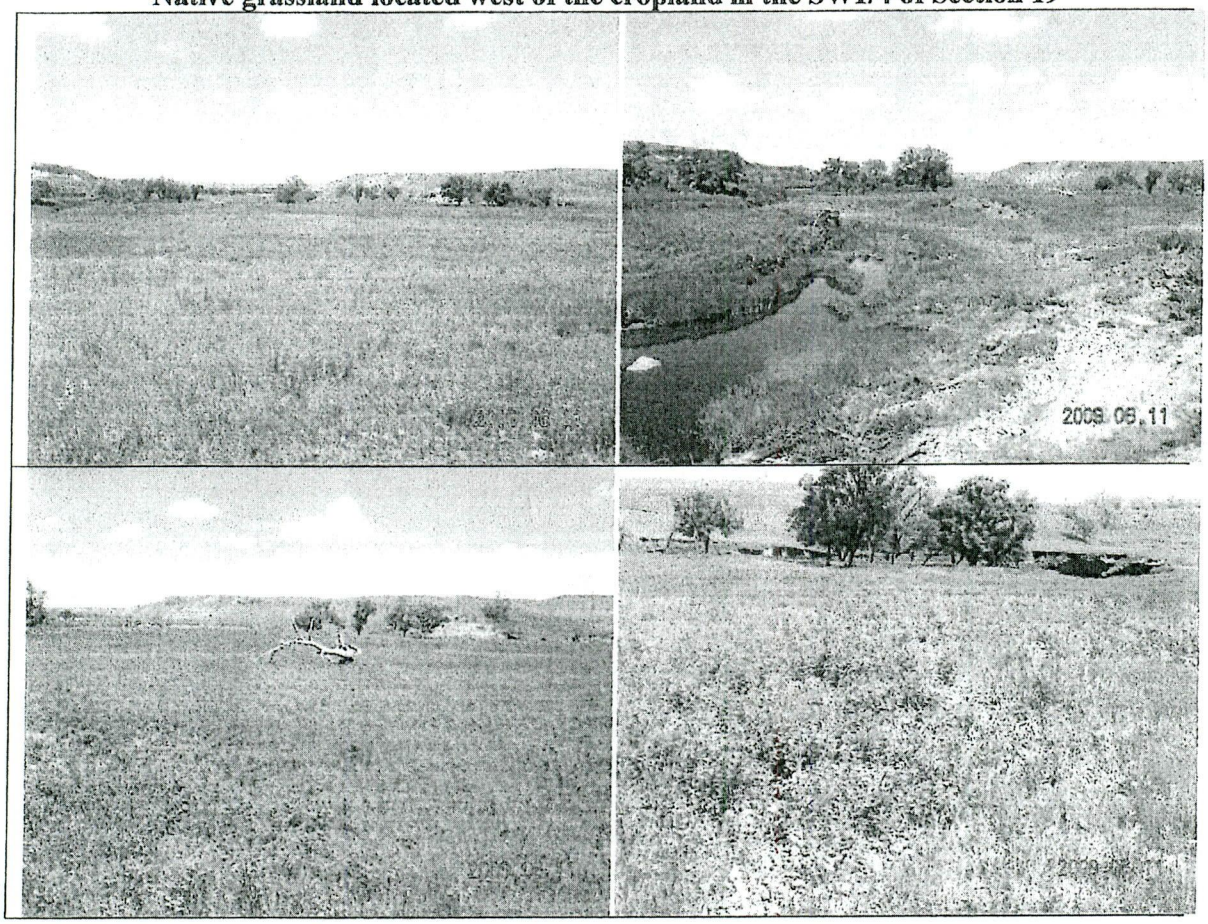
A vegetative survey of riparian areas associated with Coyote Creek was conducted along an approximate 2 mile segment of the creek channel and no indications of phreatic or hydrophilic vegetation were observed beyond the creek channel. Phreatophytes with tap roots having the ability to utilize ground water associated with a high water table include cottonwood, saltcedar, willows and various species of rushes. Hydrophyte communities represented by such species as cattails were also not observed. Scattered trees and shrubs along the creek course consisted primarily of Box elder, Green Ash, American elm, peachleaf willow and hawthorn. Secondary drainage ways and grass buffer zones adjacent the cropland field and Coyote Creek were dominated with smooth bromegrass and buck brush.

View to the north of Coyote Creek with an observed water depth of about 3-4 feet. Phreatic vegetation along the creek is essentially non-existent.



The native grassland floodplain terraces adjacent Coyote Creek located west of the cropland fields in the SW1/4 of Section 19 are zeric sites. The upper terraces are dominated with western wheatgrass, blue grama, Prairie junegrass, needle and threadgrass, needleleaf sedge and crested wheatgrass. Forb species present include green sage, dandelions, wild onions, Indian wheat, bastard toadflax, fringed sagewort and penstemon and oxytropis species. The lower terrace or those closest to the creek are dominated with smooth bromegrass, Kentucky bluegrass, western wheatgrass and buckbrush. Cudweed sagewort, common dandelion and scarlet globemallow were some of the forbs present on this site. This terrace is 5-10 feet above the bottom of the channel of Coyote creek and there was evidence that the lower terrace had flooded with snow melt runoff this past spring. Floodwaters deposited soil and an accumulation of smaller rocks or cobbles in places on the floodplain and there was head cutting and scour erosion along the banks of the channel of Coyote Creek.

Native grassland located west of the cropland in the SW1/4 of Section 19



The general consensus at the conclusion of the field review was that those areas adjacent to Coyote Creek that fall within the 2009 study area do not fit the description of an AVF. There are no artificially developed flood irrigation systems in place and sprinkler or drip irrigation systems have not been developed either. Flood irrigation does occur along this portion of Coyote Creek as was recently evidenced, although periods of overbank flooding generally occur during early spring during snow melt events. Spring flood episodes generally provide no benefit to cropland with the possible exception of a temporary addition to subsoil moisture, providing the ground is not frozen at the time of flood. Spring floods normally restrict access to affected crop fields during the early portion of the planting season. No evidence of subirrigation was observed. Mr. Smestad reported that corn is historically the predominant crop raised by the landowner within the study area and Mr. Voigt reported to Mr. Smestad that he felt crop production was generally better within the flood plain along Coyote Creek because of increased soil quality and landform run-on characteristics associated with the terrace topography as opposed to upland areas and not because of ground water availability through subirrigation.

Additional photographs taken during the field review are on file with the Reclamation Division. A GPS track log showing the route traveled is also on file with the Reclamation Division.