ADMINISTRATIVE APPEAL DECISION
CLEAN WATER ACT
TIN CUP, LLC
NORTH POLE, ALASKA
ALASKA DISTRICT
FILE NUMBER POA-2003-1422
DATE: 18 AUG 2011

Review Officer (RO): David W. Gesl, U.S. Army Corps of Engineers, Northwestern Division, Portland, Oregon.

Appellant: Tin Cup, LLC, North Pole, Alaska, represented in the appeal by Travis/Petersen Environmental Consulting, Inc. (TPECI).

District Representatives: Greg Mazer, Project Manager, and Christy Everett, Fairbanks Field Office Chief, U.S. Army Corps of Engineers, Alaska District.

Authority: Clean Water Act (CWA, 33 USC 1344 et seq.).

Date Approved Jurisdictional Determination (JD) and Notice of Appeal Rights were provided to the Appellant: November 8, 2010.

Receipt of Request for Appeal (RFA): January 5, 2011.

Site Visit: A site visit occurred on June 8, 2011. Attendees were David Gesl, RO, Greg Mazer and Christy Everett, District Representatives, Thom Lichte, Regulatory Program Manager, Pacific Ocean Division, Eddie Packee and Laurence Peterson of TPECI, and Dawn Hays and Rich Schok of Tin Cup. The site visit consisted of an inspection of the site to determine the character of the area and an informal discussion between the participants of the appeal and site conditions.

Summary of Decision: Tin Cup's request for appeal cited seven reasons for appeal. Of these, three were found to have no merit and four warrant remand.

The reasons having no merit are:

Reason 1: The District changed its reason for jurisdiction from adjacency to B Channel to adjacency to the Tanana River. This is not contrary to any law, regulation, policy or guidance.

Reason 3: The District erred when it used a shallow subsurface connection to establish adjacency. A shallow subsurface connection was not used by the District to establish adjacency.

Reason 4: The wetland does not meet the growing season requirements in the 1987 Corps of Engineers Wetlands Delineation Manual. The Corps' 2007 Alaska Regional Supplement to the 1987 Manual recognizes local and regionally developed methods to determine growing seasons, which were appropriately applied in this case in lieu of the 1987 Manual's criteria.

The reasons warranting remand are:

Reason 2: The District did not sufficiently explain its rationale for asserting jurisdiction in light of the *Great Northwest* decision which held that wetlands separated by man-made barriers are adjacent to the neighboring wetland, but not to wetlands beyond.

Reason 5: The District erred in assuming the Tin Cup wetland was in the flood plain of the Tanana River. The administrative record is not sufficient to support this assumption.

Reason 6: The District's assertion of a shallow subsurface connection between the Tin Cup wetland and the Tanana River is speculative. Although not used to determine jurisdiction (see Reason 3), if the District determines that physical and chemical connections exist, a hydraulic connection must be explained between the wetland and Tanana River.

Reason 7: Tin Cup challenged the ecological interconnection between its wetland and the Tanana River. Although under *Rapanos Guidance* reasonably close connections generally do not require case specific demonstrations of an ecologic interconnection; however, the existence of an ecological interconnection is still an underlying requirement for CWA jurisdiction. In this case, where there are several berms, etc., separating the wetland from the Tanana, jurisdiction should be supported by a thorough analysis of the ecological connection between the wetland and the TNW.

Background Information: The proposed project site is located in North Pole, Alaska, between the Chena and Tanana Rivers.[1] The RFA challenges the Alaska District's JD that a wetland on the Tin Cup property is subject to CWA jurisdiction. The RFA was organized into the following reasons for appeal that are discussed in the Evaluation, Findings and Instructions Section below:

1. Abandonment of Significant Nexus to B Channel
2. Separation by Barriers
3. Science is Faulty
4. Permafrost
5. Historic Floodplain and Landscape Position
6. Regional Aquifer
7. Reasonably Close Proximity

The District determined that the wetland on the Tin Cup site is a water of the United States because it is adjacent to the Tanana River, a traditional navigable water (TNW). The basis of adjacency was that the wetland is reasonably close to the Tanana River, and that it is separated

[1] Previous Administrative Appeals in the same general vicinity include Great Northwest, Inc. (POA-1994-143-9), remanded to the District on July 28, 2008, Killion (POA-1991-673), remanded to the District on November 13, 2009, and Universal Welding (2008-0550), remanded to the District on January 31, 2011. The District reevaluated the JD, per instructions in the remands, and reaffirmed jurisdiction in all three matters. The Great Northwest decision was challenged in the United States District Court for the District of Alaska which held that the Corps did not have CWA regulatory jurisdiction because "Great Northwest's wetlands are not 'adjacent' to the Tanana River and therefore fall outside the definition of 'waters of the United States' as defined by 33 C.F.R. § 328.3."

from the Tanana River by berms created for road, railroad, and drainage channel construction.[2] The District indicated there is evidence of a subsurface hydrologic connection to a TNW, but not enough data is presented to definitely demonstrate that the connection is "unbroken."

CWA Jurisdiction and Rapanos: As a result of the Supreme Court's decision in *Rapanos v. United States*, 547 U.S. 715 (2006), EPA and the Corps, in coordination with the Office of Management and Budget and the President's Council on Environmental Quality, developed the memorandum *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell* v. *United States* (*Rapanos Guidance*).[3] The *Rapanos Guidance* established new standards and level of documentation for jurisdictional decisions, along with a prescribed methodology to ensure consistency and compliance with the *Rapanos* decision.

The Corps and EPA have CWA regulatory jurisdiction over traditional navigable waters (TNW) and all wetlands adjacent to TNWs. Based upon *Rapanos,* CWA regulatory jurisdiction also includes relatively permanent waterbodies (RPW) that are not TNWs, but flow year-round or "seasonally." Jurisdiction also applies to wetlands adjacent to RPWs, if the wetlands directly abut the RPW. In addition, jurisdiction extends to a waterbody that is not an RPW if that waterbody has a significant nexus with a TNW. Non-RPW, significant nexus, waterbodies include: (1) non navigable tributaries that do <u>not</u> typically flow year-round or have continuous flow at least seasonally; (2) wetlands adjacent to such tributaries; and, (3) wetlands that are adjacent to, but that do not directly abut, an RPW.

A significant nexus exists where a tributary, including its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and biological integrity of a TNW. Factors considered in the significant nexus evaluation include flow characteristics and functions of the tributary itself in combination with the functions performed by any wetlands adjacent to the tributary to determine their effect on the chemical, physical or biological integrity of TNWs. Hydrologic factors include volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary (proximity to the TNW, size of the watershed, average annual rainfall). Ecologic factors include the ability for tributaries to carry pollutants and flood waters to TNWs, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

According to the *Rapanos Guidance,* wetlands are "adjacent" if one of following three criteria is satisfied: 1) There is an unbroken surface or shallow sub-surface connection that flows permanently or intermittently between the wetlands and jurisdictional waters. 2) The wetlands are physically separated from jurisdictional waters by man-made dikes or barriers, natural river

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[2] The railroad and Richardson Highway both have culverts that could allow surface water passage, and the B-Channel spoils extend only along that channel, but not along the entire continuous wetland of which the Tin Cup property wetland is a part. Thus, the Tanana River levee is the only continuous barrier to surface water between the wetland and the Tanana River.

[3] U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN RAPANOS V. UNITED STATES & CARABELL V. UNITED STATES (December 2, 2008), available at http://www.epa.gov/owow/wetlands/pdf/CWA_Jurisdiction_Following_Rapanos120208.pdf

berms, beach dunes, etc. 3) The proximity between the wetlands and jurisdictional waters is reasonably close, supporting the science-based inference that such wetlands have an ecological interconnection with jurisdictional waters.[4]

Project Area Description: The project site is located within an alluvial plain between the Tanana and Chena Rivers. Those two rivers and Chena Slough are the three most significant waterbodies in the vicinity. It was reported that, prior to 1940, Chena Slough was a major side channel of the Tanana. As a result of low river gradients, the Tanana River is braided. During high stages, Tanana river water flows across the alluvial plain and into the Chena River channel through overflow channels and sloughs, including Chena Slough. Historically, Chena Slough's source was the Tanana River and it flowed into the Chena River. Downstream from that point, the Chena River then flowed back into the Tanana River. The Tin Cup site is located within this "loop".

According to the District's November 15, 2010, Memorandum for Record (MFR), "The subject wetland is physically close to the Tanana River. The portion of the wetland within the Tin Cup site is about 1.5 miles from the north bank of the Tanana River. However, the wetland extends approximately 2.5 miles to the southeast from the Tin Cup site to Channel C, an interior drainage channel. The wetland is approximately 2,350 acres (3.7 square miles) in total size. The southern part of the subject wetland is approximately 1,500 feet north of the Tanana River and about 1,200 feet north of the riparian wetlands along the river's north bank."

The 2009 National Wetland Inventory (NWI) indicates that the subject wetland is part of a large continuous wetland. A railroad line, a strip of upland (at least some of which may be highway fill), Richardson Highway, and the Tanana levee are located between that continuous wetland and the Tanana River in the vicinity of the subject wetland area.

Aerial photography shows numerous historic channel scars and/or sloughs throughout the continuous wetland, indicating that the area was directly associated with (or a part of) the heavily braided channel of the Tanana. For this reason, the subject wetland is considered a feature of the Tanana and/or a Tanana River/Chena Slough/Chena River system.

The soil survey map shows the subject wetland area is contained in a continuous area mapped as North Pole-Noonku complex, where 90% of the unit is composed of hydric soil, and Liscum-Noonku complex, which is 100% hydric. Both soils occur on alluvial flats and sloughs, retain frost through most of the growing season, possess a water table less than 1.5 feet from the surface for more than two weeks during the growing season, and/or are frequently ponded for a long duration during the growing season.

The USGS Topographic Quad for the area (Fairbanks D-1, Alaska), as well as aerial photographs, show numerous remnant channel scars in the area. Throughout the alluvial plain, wetlands and local depressions such as sloughs, swales, and abandoned river channels are

[4] See e.g., *United States v. Riverside Bayview Homes. Inc.,* 474 U.S. 121, 134 (1985) (" . . .the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act.").

common and may be perennially inundated. The construction of a flood control levee, as well as roads and highways, have reduced or eliminated flows in many of these channels.

Because the wetlands located between the Tanana and Chena Rivers were surely created and are influenced by flow, conditions, and riverine processes, those wetlands appear to be "features" of one or both of the rivers.[5]

In the subject area, the aquifer is highly transmissive. Groundwater moves at relatively rapid rates, and the ground water levels throughout the alluvial plain are greatly influenced by stages in the Chena and Tanana Rivers. The water table between the rivers fluctuates with the stages of those rivers, and fluctuations are attenuated with increasing distance from the rivers. Water levels in wells within about half a mile of either river respond rapidly to changes in river stage.

B-Channel, one of three drainage channels that discharges into the Chena River or the Chena Slough, was observed during the site inspection just upstream from where B-Channel passes under Richardson Highway. B-Channel is located to the southeast of the subject site, also within the Tanana River-Chena Slough-Chena River loop. B-Channel was constructed to drain groundwater and reduce flooding behind the Tanana River Flood Control Project. Review of the U.S.G.S. topographic quad (topo) suggests B-Channel may be a partial channelization of Clear Creek, which is a natural waterbody. B-Channel currently originates at a pond to the east approximately 1.5 miles upstream. Review of aerial photography, the topo, and the NWI appear to show at least one natural channel that leads from the B-Channel into the large wetland that extends onto the subject property.[6] However, the District's November 2010 MFR indicates that no *"continuous surface connections"* were found. The AR does not address whether swales, erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow), or ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water, were present.[7] Tin Cup asserts that spoils from what is now B-Channel were placed along the border of that water and constitute an upland berm or separation.

Water was flowing in B-Channel at the time of the site visit. The District indicated there had been minimal precipitation during the month of May and during the days immediately preceding

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[5] Examples of other wetlands that would be considered "features" of a waterway include those located within river deltas and those created by and ecologically supported by riverine processes, such as backwater side channels. There is a high degree of influence and interrelatedness between waterways and wetlands that are features of those waterways.

[6] The area of the potential connection(s) was not accessed during the appeal site visit.

[7] Per the *Rapanos Guidance*, "Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) are generally not waters of the United States because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters. In addition, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters. Even when not jurisdictional waters subject to CWA §404, these geographic features (e.g., swales, ditches) may still contribute to a surface hydrologic connection between an adjacent wetland and a traditional navigable water. In addition, these geographic features may function as point sources (i.e., "discernible, confined, and discrete conveyances"), such that discharges of pollutants to other waters through these features could be subject to other CWA regulations."

the visit so the water in the channel was baseflow. Tin Cup and the District agree that B-Channel is an RPW where it reaches Richardson Highway. Tin Cup contends that B-Channel "transitions" to a non-RPW approximately 0.25 to 0.5 miles upstream from Richardson Highway. B-Channel passes through a culvert under a railroad line upstream from where it passes under Richardson Highway. The District has observed Grayling in B-Channel that may be part of the Chena River population.

C-Channel is located about 2-2.5 miles from Tin Cup's property. The large continuous wetland extends southeast at least to, and possibly beyond, C-Channel. Soil survey information indicates that hydric soils (North Pole-Noonku complex and possibly Liscum-Noonku complex) extend continuously between the subject property and C-channel.

THE APPEAL REVIEW: The Division Engineer has the authority to decide the merits of the appeal of a District JD pursuant to 33 C.F.R. § 331.3(a)(2), but authority for the final jurisdictional decision remains with the District Engineer. Upon appeal of the District's JD, the Division Engineer or his delegate conducts an independent review of the AR to address the Appellant's reasons for appeal. The AR is limited to information that was contained in the record on the date of the Notification of Administrative Appeal Options and Process (NAP) form. New information may not be submitted during the appeal.[8] To assist the Division Engineer, however, the RO may allow the parties to interpret, clarify, or explain issues and information already contained in the AR. The Division Engineer may use such interpretation, clarification, or explanation to determine whether the AR provides an adequate and reasonable basis to support the District's decision.[9]

Here, the District made a copy of its AR available to the RO and Tin Cup, although Tin Cup may not have received the AR prior to the site visit. At the request of the RO, a second AR was provided to Tin Cup on June 25, 2011.

APPEAL EVALUATION, FINDINGS AND INSTRUCTIONS TO THE ALASKA DISTRICT ENGINEER (DE):

REASON 1: Abandonment of Significant Nexus to B-Channel.

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: During its determination of jurisdiction, the District shifted the focus of its adjacency analysis from B-Channel to the Tanana River. Tin Cup asserts "an error of law and regulation as well as an error of procedure" because the District initially was preparing a significant nexus analysis between the subject wetland and B-Channel, which is a relatively permanent non-navigable tributary to the Tanana. Tin Cup argues that the subject wetlands are, in fact, adjacent to B-Channel (the closest RPW or TNW) and that B-Channel should therefore have been the focus of

[8] If the JD is remanded to the District after appeal to the Division, new information and analysis can and should be considered by the District post-remand.

[9] Interpretation, clarification, or explanations offered during the appeal do not become part of the District's AR.

the District's final analysis. They argue the District was incorrect in asserting jurisdiction based on adjacency to a TNW (Tanana River) that is more distant and separated by four man-made barriers rather than adjacency to a geographically closer RPW (B-Channel).

Tin Cup asks that the District "not be allowed on remand to 'pivot' back to perform a significant nexus evaluation between the subject property and Drainage Channel B without providing the land owner an opportunity to appeal the remand decision." "[This would] be allowing a clear error of law and regulation knowingly made by the Alaska District to deprive the land owner of appeal rights under the Administrative Procedures Act."

Corps regulations and guidance, including the *Rapanos Guidance,* do not contain any requirement that CWA jurisdiction be based on adjacency to the geographically closest water body. TPECI's assertion that the District erred in basing its JD on adjacency to the Tanana River because it is geographically more distant than B-Channel is without basis. There is no requirement of law, regulation, or officially promulgated Corps policy or guidance that precludes the District from changing the focus of its investigation. Thus, Tin Cup's argument is unfounded.

Additionally, there is no prohibition from reframing the basis of its findings upon remand per the Administrative Appeal Process or even upon its own voluntary and independent reevaluation. In fact, flexibility and willingness to consider facts and circumstances during deliberation, and to change interim findings or conclusions based upon further investigation and/or information is a desired practice.[10]

This reason for appeal does not have merit.

REASON 2: Separation by Barriers

FINDING: This reason for appeal has merit.

ACTION: The District must further document its rationale for asserting jurisdiction under the criteria that the wetland is physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like, and/or reevaluate adjacency and CWA jurisdiction under other criteria.

[10] The District did not assert CWA jurisdiction based upon a hydrologic connection supported significant nexus to Chena Slough or Chena River (and ultimately the Tanana River) via Channel B or Channel C. However, during the site visit TPECI and the District both agreed that Channel B was an RPW, and flowing water was observed in that channel, in spite of a lack of recent precipitation and a relatively dry previous month. Although Channel B is at least partially bordered by spoils that are assumed to be upland, the observed flow was baseflow, probably derived, at least in part, from nearby wetlands. Further observation and/or analysis may confirm this relationship and may find at least intermittent surface water drainage from those wetlands to Channel B. At a minimum, the volume of flow observed and relatively short distance between the observation point in Channel B and its apparent upstream source strongly suggest a hydrologic relationship between Channel B and the continuous wetland of which wetland on the Tin Cup is a part. It is unclear whether a possible downstream link was explored.

DISCUSSION: 33 C.F.R § 328.3(c) states, "Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands.'" 33 C.F.R § 328.3(a)(7) states there is CWA jurisdiction over, "Wetlands adjacent to waters (other than waters that are themselves wetlands). . ."

Per the District's November 5, 2010, MFR: "[T]here are four main barriers to surface flow between the Tin Cup property and the Tanana River: i) the Tanana River levee, ii) Richardson Highway, iii) the Alaska Railroad embankment, and iv) the spoil berm along the north edge of Channel B." Relying upon *Great Northwest v U.S. Army Corps of Engineers,* Case No. 4:09-cv-00029-RRB (District of Alaska 2010), Tin Cup argues that its wetlands (which are on the north side of the Richardson Highway, separated from the wetlands on the south side of the road) are therefore not continuous with wetlands adjacent to the Tanana River, thus, Tin Cup's wetland is non-jurisdictional.[11] Tin Cup argues "wetlands not continuous with another (i.e. divided by man-made or natural barriers) are, as a matter of law, separate waters and adjacent to one another" [whereas] . . . "the Clean Water Act [and *Great Northwest*] gives jurisdiction ... only over navigable waters and directly adjacent property and wetlands."

The District did not sufficiently explain its rationale for asserting jurisdiction over Tin Cup's wetland in light of the *Great Northwest* decision. This aspect of the District's JD is remanded for reconsideration and/or explanation of how Tin Cup's wetlands are jurisdictional where Great Northwest's are not.

This reason for appeal has merit.

REASON 3: Science is Faulty

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: Tin Cup challenges the District's description and characterization of groundwater movements between the subject wetland and the Tanana River with respect to a potential shallow subsurface hydrologic connection. Tin Cup asserts: 1) groundwater flow is generally to the northwest, from the Tanana River toward the subject wetland, and 2) the direction of groundwater flow during winter is not a valid consideration since it is not during the growing season. Tin Cup also challenges the District's characterization and discussion of the impact of permafrost and the relationship between the wetlands on site, groundwater, and the Tanana River.

[11] Tin Cup also notes that the District's November 5, 2010, MFR indicates that approximately 100 acres of Tin Cup's property is upland, but the southeast portion of the appellant's property has been cleared and appears to have been converted from wetland. A significant portion of the property remains as wetland and appears continuous with a larger wetland.

Tin Cup's argument is misplaced because, as the District stated on November 5, 2010, ". . . this criterion was not used to assert jurisdiction over the subject wetland." [12]

This reason for appeal does not have merit.

REASON 4: Permafrost

FINDING: This reason for appeal does not have merit.

ACTION: No action is required.

DISCUSSION: Tin Cup argues that its wetland is not jurisdictional because it "does not meet the growing season definition" found in the 1987 Corps of Engineers Wetlands Delineation Manual.

The 1987 Corps of Engineers Wetlands Delineation Manual[13] uses a multi-parameter approach to identify and delineate wetlands for purposes of Section 404 of the CWA. Use of the 1987 Manual is mandatory. The Manual includes the following definition:

> "*Growing season.* The portion of the year when soil temperatures at 19.7 in. below the soil surface are higher than biologic zero (5 °C) (U.S. Department of Agriculture-Soil Conservation Service 1985). For ease of determination this period can be approximated by the number of frost-free days (U.S Department of the Interior 1970)."

The 1987 Manual also contains a user note indicating that the estimated starting and ending dates for the growing season are based on 28° F air temperature thresholds at a frequency of five years in ten.

The Corps developed a series of Regional Supplements to the 1987 Manual, which provide technical guidance and procedures for identifying and delineating wetlands as part of a nationwide effort to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineations. The 2007 Alaska Regional Supplement[14] applies here and, rather than using the soil temperature criteria in the Manual, recognizes the existence of permafrost and the need to rely instead upon locally or regionally developed methods to determine growing season dates, including a procedure based on median dates of 28 °F air temperatures in spring and fall, as well as by direct observation of vegetation green-up, growth, and maintenance. In short, soil temperature at 19.7 inches below the surface is essentially irrelevant to determining the growing season in Alaska.

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[12] The District explained: "although a sub-surface interconnection likely exists between the subject wetland and the Tanana River, there is insufficient evidence to determine whether this connection is of sufficient magnitude and frequency to qualify as 'unbroken' in its November 5, 2010 MFR. Therefore this criterion was not used to assert jurisdiction over the subject wetland."

[13] "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

[14] U.S. Army Corps of Engineers. 2007. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble.* ERDC/EL TR-07-24. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

This reason for appeal does not have merit.

REASON 5: Historic Floodplain and Landscape Position

FINDING: This reason for appeal has merit.

ACTION: The District must further document and clarify the record regarding the current and historic floodplain status of the subject area. If the District's statements regarding the floodplain and the subject wetland cannot be supported, the JD should be reevaluated.

DISCUSSION: Tin Cup asserts that the District's position that the subject wetland is in the historic or current 100-year floodplain of the Tanana River is an "error of fact" because it was not flooded during a 1967 flood, which they argue was a 500-year or greater flood, and that Flood Insurance Rate Maps show the Tin Cup property "is located in the 500-year floodplain even in the absence of the flood control projects." Tin Cup also challenges reliance on historic (floodplain) conditions generally to support CWA jurisdiction.

The District's November 2010 MFR indicates "the wetlands landscape position within the historical 100-year floodplain of the Tanana River is evidence of both the proximity and ecological connection to [the] TNW." It also states, "prior to the construction of the Tanana River Lakes Flood Control project in 1981, the subject wetland and surrounding area were mapped within the 100-year floodplain. Construction of the flood control structures by USACE removed this area from the 100-year flood plain."

In response to the RO's questions, the District verified that the 2009 draft FEMA flood map shows that the subject site is mapped as "flood zone X," which is outside the 100-year <u>and</u> 500-year floodplain. The AR does not contain contrary information. Because of this, the District's position appears incorrect, or at least insufficiently supported.

This reason for appeal has merit.

REASON 6: Regional Aquifer

FINDING: This reason for appeal has merit.

ACTION: The District must reevaluate or more thoroughly explain/document a chemical and/or physical connection between the subject wetlands and the Tanana River.

DISCUSSION: Tin Cup argues that the District's purported assertion of a shallow subsurface connection between the subject wetlands and the Tanana River is speculative. Tin Cup cites the District's November 5, 2010, MFR "there is insufficient evidence to determine whether this (shallow surface) connection is of sufficient magnitude and frequency to qualify as 'unbroken.'"

As discussed above, the District did not assert jurisdiction based upon an unbroken surface or shallow subsurface connection, so Tin Cup's argument is misplaced.

That said, the District's decision does focus, in part, on physical (e.g. flood control) and chemical (e.g. pollutant retention) connections between the Tanana River and the subject wetlands that require some level of hydrologic connection. The evidence shows that water levels in the Tanana River and groundwater are closely linked. According to the District's November 2010, MFR, "in general, shallow ground water emanates from the Tanana River and travels northwest through the alluvial plain," -- this is away from the Tanana toward the wetland. Thus, it appears that the AR suggests the Tanana impacts the wetlands, but it is not clear whether the wetlands play a role in the chemical and physical integrity of the Tanana without a hydrologic connection.[15] Although there could be a sufficient biological connection without a hydrologic link, the record does not sufficiently support a connection based upon physical and chemical relationships. So if the District intends to rely upon the hydrologic connection between the Tanana and the subject wetlands, it must be more thoroughly explained.

This reason for appeal has merit and warrants remand to the District.

REASON 7: Reasonably Close Proximity.

FINDING: This reason for appeal has merit.

ACTION: The District must further document and clarify the record regarding the ecological connection between the Tanana River and the subject area. If the connection cannot be supported, the JD should be reevaluated.

DISCUSSION: Tin Cup argues that its wetland is within a "large wetland complex" that has already been found by the District and the Courts to be "non-jurisdictional."

Tin Cup also argues that there is no clear ecological interconnection between its wetland and the Tanana River. Tin Cup interprets the *Rapanos Guidance* as requiring an explicit demonstration that "species such as amphibians or anadromous and catadramous fish move between such waters for spawning and their life stage requirements." Tin Cup objects to the District's use of frogs as an indicator of an ecologic connection because frogs are present at both locations and they are also present in uplands.

Under the *Rapanos Guidance* proximity criteria, "the (wetlands) proximity to a jurisdictional water is reasonably close, supporting the science-based inference that such wetlands have an ecological interconnection with jurisdictional waters."[16] The Guidance states that because of the scientific basis for this inference, determining whether a wetland is reasonably close to a jurisdictional water does not *generally* require a case-specific demonstration of an ecologic interconnection (emphasis added). The *Rapanos Guidance* specifically states that in the case of a jurisdictional water and a reasonably close wetland, such implied ecological interconnectivity

[15] It is unclear whether a possible downstream link was explored.

[16] See e.g., *United States v. Riverside Bayview Homes. Inc.*, 474 U.S. 121, 134 (1985) (" . . .the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act.").

is neither speculative nor insubstantial. It provides an example that species, such as amphibians or anadramous and catadramous fish, move between such waters for spawning and their life stage requirements.[17] For this reason, the District was not obligated to complete a significant nexus determination, based on their factual finding that those wetlands were adjacent to a TNW.

However, the existence of an ecological interconnection is still an underlying requirement for CWA jurisdiction. Although it is *generally* not required, in this case, where there are several berms, etc., separating the wetland from the Tanana, the jurisdictional finding should be supported by an analysis of the ecological connection between the wetland and the TNW.

Remand is warranted on the issue of ecological connection.

OVERALL CONCLUSION: After reviewing and evaluating the RFA and the above recommendations and analysis of the RO, I find that the RFA has merit where indicated above, and the JD is remanded to the District for further evaluation, documentation and reconsideration of those aspects of the JD.

Richard L. Stevens
Brigadier General, U.S. Army
Commanding

[17] Tin Cup argued during the site visit that connectivity can only be demonstrated with "aquatic species." Although the *Rapanos Guidance* uses fish as an example of organisms that can be used to demonstrate connectivity, the omission of species more commonly regarded as upland species in the Guidance does not mean that only aquatic species can be used to evaluate connectivity. There are many species that depend on or benefit from wetlands and/or proximity to wetlands for feeding and/or habitat during all or parts of their life cycle and those species could support connectivity between aquatic habitats and other waters. In fact, the *Rapanos Guidance* does not provide explicit instructions or requirements on what types of species to consider when trying to establish adjacency based on an ecological interconnection, except for saying that you cannot use migratory species.