

Utton Transboundary Resources Center

Snowbird Conference – October 10 – 12, 2002

Hypothetical Case Study: Western States of Dorado, Saskan, and Misskoma and the Alsaskan River*

* The first section describes the main stakeholders along the Alsaskan River; the second section is a small local newspaper, the Fort Murphy Sentinel, containing brief stories about water issues from the perspective of individual stakeholders.

Cast of Characters

Onkeeta Nation

The Onkeeta Nation is a Plains Tribe whose original homelands are in the Dorado Range on Manko Creek. When the Onkeeta entered into a treaty with the U.S. in 1865, their reservation was established along the Alsaskan River, in a portion of their original hunting range. (The Generoso Tribe, close relatives of the Onkeeta, were settled on the original mountain homelands. The two tribes are closely linked to this day; see below.) The Onkeeta are a forward-looking people with a strong commitment to preserving and revitalizing traditional practices and language. During the seventies the Tribe formed a partnership with an Alternative Healing Center in California and established a Traditional Medicines Institute on the reservation, holding annual intertribal conferences or pow-wows on indigenous medicines.

In 1995, the Onkeeta obtained a Congressional settlement of their Winters rights in the Alsaskan River, and a \$25 million federal appropriation for an Onkeeta irrigation project that would develop those rights. The Tribe will manage the project independently after construction. The Onkeeta plan to expand their cultivation of herbs for remedies and teas on this project, marketing these products nationwide.

The Onkeeta also operate a breeding center for the Alsaskan pikeminnow. When this species was listed in 1997 (see below), scientists studying the species noted that the reach of the Alsaskan River running through the Onkeeta lands contains much of the pikeminnow's best-preserved habitat. The Onkeeta Nation was unwilling to lease or grant an easement on their riparian lands to U.S. Fish and Wildlife Service or to Dorado State University to enhance habitat or establish breeding centers, but was willing to undertake these tasks itself. The Alsaskan Pikeminnow Breeding Center is operated by the Tribe under contract with the U.S. Fish and Wildlife Service; it is not an income-generator for the Tribe, but does employ 8 tribal members in professional science and technical positions.

Alsaskan Pikeminnow

The Alsaskan pikeminnow survives in small numbers on the lower reaches of the Alsaskan River within Saskan, but has been extirpated in the Dorado reaches. It was listed as “endangered” in 1997. Because of the listing, before any federal agency can undertake an action that might affect the pikeminnow or its habitat, it must consult with the U.S. Fish and Wildlife Service. If the Service believes the project puts the fish in jeopardy, the action agency must obtain a “take” permit before the project can go forward. The “take” permit essentially quantifies the fish mortality that may be caused by the project, and stipulates reasonable and prudent alternatives that will mitigate those effects, leaving the fish as well or better off than without the project.

When Reclamation consulted with the Service regarding the Onkeeta project’s effect on the pikeminnow, the Service found that construction of the project would pose a danger to the fish, and proposed reasonable and prudent alternatives for issuance of a take permit. These included habitat-restoration measures and a guarantee of minimum summer flow of 35 cfs in the critical habitat. Changes in water operations to meet this minimum-flow requirement would add between 8,000 and 15,000 acre-feet of depletion in the Alsaskan River each year.

The Service also observes that the exercise of the Onkeeta’s decreed rights through the project is also likely to put the fish in jeopardy, and stipulates that the “take” permit is for construction only. An additional consultation would be needed to evaluate the project’s impacts.

Questions related to the Biological Opinion:

1. Is this the order that should have been given?
 - Citing the recent Data Quality Act, some water users in the basin challenge the reliability, validity, and interpretation of the data on which the evaluation and decision was based.
 - The Onkeeta maintain that, because 1) fisheries on the Onkeeta Reservation are breeding ample stocks of the pikeminnow and 2) genetically, there is no difference between the bred and the wild types, there is no compelling reason to protect the habitat of the wild type.
2. Assuming adjustments can be made during construction of the project, what will water managers do for the long-term?
3. Can the Onkeeta Nation’s exercise of its decreed water rights be conditioned by the ESA? The Onkeeta rights have a date prior to any other rights in Saskan, though there are Dorado rights with an earlier date). While Reclamation and the BIA must meet the Fish and Wildlife Service conditions, is the Onkeeta Nation compelled to do so as well?
4. Can Reclamation alter its operation of Utton Reservoir, or any project the operation of which is in the Bureau’s hands, in order to provide the instream flows, without acquiring water rights under state water law?

5. The Onkeeta Nation is anxious to establish its project now, while it has the appropriation in hand. It is considering acquiring the water necessary to go forward with the project using tribal funds, in spite of its conviction that it cannot be compelled to do so, simply to facilitate construction. It is looking upstream at a variety of sources.

Reynolds National Forest and Reservoir

Reynolds National Forest, comprising 700,000 acres that range from rolling hills to snow-covered mountain peaks at over 14,000 feet elevation, and Reynolds Reservoir, with a capacity of 200,000 acre feet, make up the northwestern watershed of the Alsaskan River. Reynolds Reservoir was authorized in 1972 for flood and sediment control, fish and wildlife enhancement and recreation. No water supply storage is authorized there.

Last year Reynolds National Forest was the site of a 75,000 acre fire, which raged out-of-control for 10 days, burning nearly 20% of the standing timber. There had been no thinning, no clearing, and no controlled burns in the forest for the past 15 years, and the hot, destructive fire left a five-inch bed of charred downfall and other debris which was carried down to Reynolds Reservoir with the spring snowmelt. The suspended material in the water affected all wildlife depending on the Reservoir, ducks and other wildfowl, fish, etc. The USDA Forest Service, which manages Reynolds National Forest, expects no revenues from recreation this year.

In normal years, the Corps of Engineers, which manages Reynolds Reservoir, releases surplus flows into the Alsaskan River, in accordance with its operational guidelines. It stores significant amounts of spring and early-summer runoff that would otherwise cause downstream flooding. The dam is operated with the primary goal of releasing the stored waters as quickly as possible.

Reynolds National Forest surrounds the northern perimeter of the Generoso Indian Reservation. The Generoso Tribal Council has promulgated water quality standards considerably higher than those of the Dorado state standards. This year the Corps has failed to release surplus flows from the Reynolds Reservoir because a release would grossly violate the Generoso standards, and would in fact significantly exceed the downstream Dorado standards. By law, all surplus storage must be released by March 1st; the happy circumstance of above-normal runoff has exacerbated the Corps' problem.

The Generoso Nation

The Generoso Nation is a small community living on its ancestral homeland. It has about 2000 members, of which 800 live on tribal lands, making their living logging or working for the government. The Tribe wants to diversify its economic base, and has plans to develop a high-mountain ski school and resort. The area where it expects to put its runs is, unfortunately, susceptible to avalanche, which has raised some question about the feasibility of the project. The slopes designated for the ski runs are among the most slide-prone in the country. The state highway into the village center is often shut off for as long as a week by snowslides. An avalanche forecaster for the State Highway Department says it will take a lot of work and a lot of money to make the project safe. "The explosives used in avalanche control and the professionals skilled in their use do not come cheap."

Water rights on Manko Creek, the Alsaskan tributary on which both Reynolds National Forest and the Generoso reservation lie, were adjudicated in 1984. The Tribe claimed ancestral water rights of 5,000 acre-feet of water from the Manko Creek annually,

quantified on the basis of domestic and garden uses and water supply for the Tribe's proposed resort, including sufficient water for a small fishing lake and a larger high-country golf course. The Court recognized its claim.

The Generoso lands are also the ancestral lands of the Onkeeta Nation, who were settled downstream on a reservation on the Alsaskan River in Saskan. They speak the same language and continue to hold many traditional celebrations together. The two tribes have considered partnerships in some development projects, including the Onkeeta's current herbal agriculture, preservation and research center.

JPH Reservoir

In 1948, a consortium of Dorado mining, industrial and ranching cities, including Jeremiah Springs, Peachtree and Harvey, all located on the Alsaskan watershed, purchased a railroad tunnel built in the early thirties through the Dorado Range. The railroad originally carried ore from the western slope and connected with the Saskan Pacific Railroad in Ft. Murphy. When the western slope mines were played out, the consortium purchased the railroad's right-of-way, and filed for the full flow of the Flashlight Creek on the western slope. They built the JPH Reservoir with a capacity of 150,000 acre-feet of storage to hold the waters of the Flashlight, which they diverted in its entirety, carrying it through the mountains in the railroad tunnel.

The water in JPH Reservoir is allocated among the consortium members by contract, each member paying a fee to cover retirement of debt and costs of upkeep. In 1999, contractor assessments were \$10/acre foot. Contractors are free to resell or assign their rights, and many do, holding their contract rights for future municipal growth. The market in JPH contract rights is unregulated, and the price of these rights varies greatly year to year and throughout the season, depending on availability of other water supply.

The Dorado State Legislature enacted an anti-export law in 1955, prohibiting the export of any western-slope waters from the state. Therefore, the sales of water from JPH have been restricted to Dorado water-users. Any proposal to purchase water from JPH for instream uses in Saskan would also involve a clarification of its status would be with respect to division of river flow between the two states (see discussion under Albert E. Utton Reservoir, *Apportionment between the states*).

JPH Power Plant

A hydropower plant associated with the JPH reservoir produces about 200 megawatts annually. This power is sold to consortium members at cost. Their contracts provide for reselling of power as well as of water.

Albert E. Utton Reservoir

The Bureau of Reclamation completed the Albert E. Utton Reservoir (capacity 700,000 acre-feet) in 1947. The federal authorization for construction of the Reservoir states:

“The purpose of the project is to regulate the normal flows of the Alsaskan River to make such flows available for diversion more nearly when and as needed for the irrigation of

crops; and to capture and conserve the Alsaskan River's flood flows, previously unusable by either state, for the benefit of both States.”

Effects on Dorado irrigators: Because Utton Reservoir separates the Alsaskan River in the state of Dorado into two reaches, the presence of the reservoir changes the pattern of use and flows on the river. Before the reservoir was built, junior rights upstream of the reservoir site were required to cease diversion for the benefit of downstream Dorado irrigators during two years out of three. Since the downstream seniors now have the benefit of the water stored behind Utton dam, priority calls upstream are rare; there have only been two calls on the river since the reservoir filled in 1947. So, more water is beneficially used in Dorado upstream of the reservoir that had been the case before the reservoir was built. The improvements in regulation and the availability of stored flood flows also mean that Dorado irrigators downstream of the reservoir use more water than they did before 1947.

Apportionment between the states: The legislation authorizing Albert E. Utton Reservoir provided that irrigators in both states are entitled to call on the waters stored there. Dorado irrigators are entitled to up to 60% of river flow and 60% of stored water, and Saskan irrigators are entitled to up to 40% of each source. Releases from Utton Reservoir destined for the state line are enhanced by return flows from Dorado irrigators and by tributary inflow between the reservoir and the state line. Therefore to achieve the 60/40 ratio between the states, Dorado may call for up to 2/3 of river flow or storage, and Saskan may call for up to 1/3. So long as the conservation pool is above 20,000 acre feet, both states may call simultaneously for release of both river flow and stored water. Release of stored water is restricted when the conservation pool is below 20,000 acre feet.

The provisions in the Congressional authorization of Utton Reservoir are the only law bearing on the division of the Alsaskan between Dorado and Saskan.

Groundwater pumping: Irrigators in both states have supplemented the water available through the ditches that draw from the Alsaskan River with water pumped from the river's tributary aquifer, which provides water when the river can not. In 1985, Saskan filed suit against Dorado in the U.S. Supreme Court, claiming that pumping by Dorado irrigators had reduced stateline flows, so that instead of receiving 40% of the river flows and flood storage from Utton Reservoir, Saskan irrigators had only received 22%.

While the present high level of power prices encourages Dorado irrigators to consider foregoing the exercise of their irrigation rights, both to resell their subsidized power and perhaps to profit from increased power production when their water runs through the stateline power plant (see below), transfer of rights from Dorado to Saskan, and particularly to instream uses in Saskan (these have, statutorily, a low priority in Dorado), raises questions that have not been answered, or even fully articulated.

Stateline Power Plant

Downstream from the Utton Reservoir, the Stateline Power Plant takes advantage of a drop in altitude to produce 2,000 megawatts of hydropower, which like the water, is

divided 60%/40% between Dorado and Saskan. Fort Murphy, a Dorado city, uses much of Dorado's share of the power; the rest powers Dorado irrigators' groundwater pumps at subsidized rates. The entirety of Saskan's share is sold to irrigators at cost. Last year, when wholesale prices of electricity were driven up to \$800 a megawatt hour, agricultural power users began exploring "wheeling" agreements, under which they might sell their \$20/megawatt hour power on the open market. Power seemed a more profitable crop than potatoes.

Dorado irrigators, whose consumptive use diminishes the water running across the state line, and therefore the power produced by the Stateline Plant, even discussed foregoing irrigation if they could be compensated as much as the increase in power revenues caused by allowing their water to pass through the Stateline Plant. The state line complicated these discussions; Dorado irrigators felt that if they sent their water across the state line, they should get more than 60% of the power generated by that water. Saskan farmers would get "free" water; it stood to reason, said the upstream farmers, that they shouldn't get "free" power as well.

In terms of the search for a source of water for the pikeminnow downstream, escalating power prices make sending water downstream very attractive, even without the benefit to the fish.

San Caprico Valley

Las Canastas

Upstream from the pikeminnow critical habitat and across the state line in Dorado, San Caprico Valley developer Tabor Grubb has water wells and pumps in place and permits to pump 25,000 acre-feet/year of groundwater for domestic and landscaping for a proposed high-end residential development called Las Canastas. For the four years during which Las Canastas is being built, Grubb is willing to provide the required amount of water to the Alsaskan pikeminnow. Grubb may seek compensation for his water, but his major objective is to establish that his wells are in a "closed basin," one that is not recharging the river, so that his groundwater rights, which are late-dated, are not stream-connected. If they are non-stream connected groundwater rights, Grubb's wells have priority in the San Caprico basin; if they are viewed as stream-connected rights, they are so junior as to be worthless.

Grubb's original development plan was to sell water directly to Naltaville, preferably by pumping into the Alsaskan River below Utton Reservoir, or into its tributary, the Genuflexion River, above it. This raised problems of accounting for the "foreign" water introduced into the Alsaskan, which might have been overcome; Grubb, however, abandoned his plan because of community protests.

Other Valley residents hold that any beneficial use of San Caprico water should be within the Valley. They were adamantly opposed to Grubb's plan to sell Valley groundwater to Naltaville, and they are not much warmer to the pikeminnow proposition. In addition to their opposition to any water export, they question why Dorado should have to support Saskan fish, particularly since Grubb's permit is for domestic use, which according to Dorado law ranks higher as a beneficial use than do in-stream uses. These protestants

united to challenge Grubb's proposal to sell to Naltaville, and Grubb withdrew his application.

High Sight Land and Water Trust

Other land in San Caprico Valley is owned by the High Sight Land and Water Trust, a nonprofit established in 1987 to preserve the natural beauty, open space and wildlife heritage of the San Caprico Valley, its wetlands and wildlife corridors. Sterling Brody, High Sight's Board Chairman, manages an aggressive and successful program of acquisition of land and water development rights as well as a highly developed team of volunteer stream and ecosystem monitors. High Sight applied for groundwater permits in 1995 for an amount sufficient to irrigate all of the lands in its trust (including those to which it does not hold title, but permanent or temporary conservation easements)—about 300,000 acres. His application proposed to retire these rights to protect the aquifer, which, Brody claims, is essential to maintaining the San Caprico wetlands. This application was a companion suit to High Sights' protest of Tabor Grubb's applications for groundwater permits to export pumped water to Naltaville. The High Sight protest was based on two premises:

- 1) The San Caprico Valley, while not intimately connected with the Alsaskan River system, cannot be viewed as "disconnected." Any major pumping in the Valley would eventually be felt in the Alsaskan system.
- 2) The dedication of more than $\frac{1}{4}$ of the land and water rights of the Valley to the Land and Water Trust demonstrates the community's priority for retaining its water in its present natural or traditional uses within the Valley itself. Approval of Grubb's application to pump-and-transport would violate the public welfare and the expressed priorities of Valley citizens and property owners. The High Sight protest was supported by the San Caprico Property Owners Association, the Towns of San Cristobal, Santa Barbara and Santa Rita, four of the six acequia associations in the Valley, the San Caprico Planning Commission and the Canasta County Board of Commissioners.

Grubb withdrew his application, and later filed a new application for a domestic-use permit.

The Dorado Water Court did not approve the High Sight permit application, observing that it was unwilling to make the heady leap from Dorado's recent acknowledgement of instream flows as a beneficial use of surface water to viewing the support-of-surface-systems as a beneficial use of ground water. The Court expressed sympathy with High Sight's intentions, but felt that to permit groundwater appropriations for the purpose of *not* developing groundwater had implications too far-reaching to be evaluated at the judicial level. Brody later filed for 850 acre-feet/year to provide water for a High Sight Conference and Retreat Center adjacent to Las Canastas. This permit was approved. High Sight announced that while it will install pumps with sufficient capacity to deliver the 850 acre-feet/year in order to perfect its groundwater right, it intends to employ the most stringent conservation measures, and expects never to have to pump more than 50 acre-feet/year for the Center's needs.

Dorado Irrigation District 88

This large ditch association and Fort Murphy (see below) are the sole Dorado entities with authority to call for releases from Utton Reservoir. DID 88 has early-dated rights on the Alsaskan River, but the security of its deliveries has greatly improved since Utton Reservoir was built. Between 1960 and 1965, many irrigators in DID 88 drilled wells so that they could supplement their ditch deliveries with groundwater. In 1965, Dorado required groundwater permits for these wells, and few have been permitted since then; however those that were already in place were grandfathered in and continue to operate.

Fort Murphy

A long-established and stable small city of about 600,000 people, and the home of Dorado State University, which is a regional center of agricultural and irrigation research. Fort Murphy is an attractive and quiet town; the University and local agricultural businesses are the main employers. Fort Murphy draws on the Alsaskan River for its water supply, treating the water before and after use, and employing a high level of conservation; its per capita use is about 110 gpcd, exceptionally low for the region. While not growing, Fort Murphy has held its own and maintains a high quality-of-life for its mid-size population. The rise of Naltaville, the Saskan metropolis, has in some ways posed a threat to Fort Murphy; higher wages and stunning salaries for scientists and technologists have competed away some of its intellectual resources. Saskan State University in Naltaville, heavily funded by the new electronic industry located there, has somewhat eclipsed the former stature of Dorado State. Fort Murphy has attempted to attract high-tech industry in order to hold its own, but the close limits on its water supply have hampered these efforts.

Milgram Creek Ditch Assn

The second important group of Dorado irrigators near the state line, Milgram Creek is an important contributor to the Alsaskan stateline flows; its contribution is the major reason that, though Saskan farmers can call for release of only 1/3 of the Alsaskan river flow and flood storage, they are expected to receive 40% at the state line. Irrigation pumps established in the 50's and 60's opened up irrigable lands at some distance from Milgram Creek itself, and this irrigation did not affect the Creek until recently. Saskan irrigators attribute at least half of the decline in stateline flows since 1970 to the delayed depletions brought on by the Milgram Creek Ditch Association's pumping.

Consortium of Pleasure Valley Ditches

This consortium of ditch associations was formed to handle Saskan's calls on Utton Reservoir river flows and stored water. While the irrigators under these ditches have much more reliable water supplies than before Utton Reservoir was built, they still often find themselves water-short towards the end of irrigation season. Many irrigators in Pleasure Valley have supplemented with pumped water; serious drawdowns have brought the water table below many of the original pumps, and Saskan has established groundwater districts and is considering imposing severe limitations on pumping from the Alsaskan aquifer. Saskan's share of Alsaskan River water has diminished

significantly over the past two decades (we should develop some tables and quantification of this) and the state has asked the Supreme Court to enjoin similar supplemental pumping on the Dorado side of the state line.

Naltaville

This Saskan town was the home of Bob Fences, a pioneer in the electronic industry and inventor of the revolutionary chip that made wireless internet access possible to every household. Fences became the wealthiest man on earth in the ten years from 1975 to 1985, and Naltaville became the mecca for internet industries. Naltaville first attracted related electronic megafirms, then became the regional center for banking, insurance, and culture. From half a million in the early seventies, Naltaville is now home to three million. It has the good fortune to be located on an ample aquifer, and in the early years of Naltaville's startling growth, water was not considered a limit. Rapid declines in response to truly enormous surges in demand on the aquifer have awakened the community to the reality that it depends on a limited resource, and this wealthy city is seeking water from the Alsaskan River system to support its rapidly increasing population.

FORT MURPHY SENTINEL

Bucket Brigade Recovery Strategy

Stateline Irrigators Enjoy New Role as Water Brokers

FT. MURPHY— “This is a win/win solution!” said Wes Sinclair yesterday at a press conference in the lobby of Ft. Murphy’s Milgram Creek Lodge. “The minnow gets water, and so does Stateline Power,” he said, “farmers can give the land a rest AND we can pay our bills.” Sinclair is spokesperson for the CONSORTIUM OF PLEASURE VALLEY DITCHES (PVD) in western SASKAN. He co-hosted the press conference with Albert Garcia, President of DORADO IRRIGATION DISTRICT #88 (DID) across the state line in DORADO. Together they announced this week’s two major water leases on the ALSASKAN RIVER. This multi-tiered deal on the 900-mile two-state river shows how water drives our region’s increasingly complex economy.

Power To Replace Potatoes in Dorado this Year

Under a four-year contract negotiated last week between DID and the STATELINE POWERPLANT, DID will “forebear” each year from irrigating 20,000 District acres in western Dorado. Instead of flooding potato fields, the irrigation water will pass by District diversions and continue downstream to the Powerplant, where it will augment flows through the plant by 30,000 acre feet (DID’s average irrigated acre consumes about 1.5 acre feet of water each year).

More water will mean more power—about 6,000 additional megawatt hours (mwh) annually. The wholesale price of electricity skyrocketed this season, reaching \$800/mwh last month—it is still above \$650/mwh. The Powerplant will pay the District \$40.00/acre foot—or \$1,200,000 a year—for use of the water. “If we don’t have to lay out for seed, fertilizer, and labor, the money we’ll get from the Powerplant will cover our mortgages,” President Garcia said yesterday. “District farmers can concentrate on our orchards and small garden crops—we’ve kept a little water. We won’t live in fear like the last three drought years. We won’t get rich, but we won’t be auctioning off our farms, either. During the coming four years of reduced irrigation, we’ll be looking at other ways to manage our water so when the contract expires we have some plans on the ground.”

Will Saskan Sugarbeet Water Go to the Fish?

Downstream from the Powerplant and across the state line in Saskan, PVD will be more likely than in recent years to get its full entitlement to Alsaskan River flows. But Pleasure Valley farmers, too, may cut their irrigated acreage back for the next few years. Wes Sinclair, PVD spokesman, announced that it has offered to lease 25,000 acre-feet of its Alsaskan River water rights to the Bureau of Reclamation. Reclamation is seeking water for the endangered ALSASKAN PIKEMINNOW [see *Minnow*, this issue]. The minnow’s range is a 75-mile reach of the Alsaskan River’s lower valley, including part of the ONKEETA RESERVATION and extending 20 miles past NALTAVILLE. The Onkeeta Nation will partner with Reclamation in the construction of *Onkeeta Herbs*, a medicinal herb culture and research center, using the water rights recently awarded the tribe in a Congressional settlement of its Winter’s claims. The Onkeeta

hope to have the herb center up and running before 2010. “We’ve been patient,” tribal chair Sephanie Sena said recently. “We’re a patient people. But enough is enough.”

Last spring Reclamation requested a consultation with U.S. Fish and Wildlife on the effect the Onkeeta Herbs Project would have on the pikeminnow. In its Biological Opinion, Fish and Wildlife found that the construction of the irrigation works and temporary impoundment of water on the Onkeeta Reservation for the project would increase the stress on the endangered fish. As a “reasonable and prudent alternative” for mitigating this stress, the agency proposes a river-flow regime of higher summer flows for the minnow and relief from the river’s occasional intermittency in its critical habitat. The 25,000 acre-feet offered by PVD would provide these flows.

Sinclair says the lease makes sense for PVD irrigators: “Leasing water to the Bureau will pay me more than my acres in sorghum bring in. Sugar beets pay best of all, of course. But they need more water [than sorghum], and we haven’t been able to count on that.”

Turnabout is Fair Play

This pair of deals settles a running dispute between PVD and DID. Six months ago, when it was first known that Reclamation needed water, it was DID irrigators who declared *their* intention to lease water to Reclamation for the pikeminnow. Then, as now, DID proposed to forebear irrigation and allow its irrigation water to run downstream. The intent was that the water would flow past the Pleasure Valley ditches to the pikeminnow range. But the PVD cried foul.

“Any water comes across from Dorado, that’s ours,” Sinclair said last spring, “There’s no “Property of Reclamation” sticker on that water. If there’s water running past my headgate, I’m going to divert it onto my fields. I’ve got the right.” (“Interstate Water Conflict Brewing,” *Ft. Murphy Sentinel*, May 7th, 2002). PVD’s claim to a cross-border water right stems from the ALBERT E. UTTON RESERVOIR operating agreement, under which Saskan irrigators can call for up to 40% and Dorado irrigators for up to 60% of the water that flows into the reservoir during the irrigation season. All flows across the state line count towards PVD’s 40%. Lately, however, at the end of the season when the sugarbeets need it the most, that 40% hasn’t made it across the state line. Dorado farmers blame it on the drought, high transit losses, and diminished return flows. Saskan farmers say that Dorado irrigator’s supplemental irrigation pumps—especially those of the MILGRAM CREEK DITCH ASSOCIATION, are the culprits. “They’re irrigating with their 60%, and then they’re pumping up our 40% and irrigating with that too!” Sinclair complained. PVD farmers have also had to drill supplemental wells; even at the heavily subsidized irrigation power rates, the investment in wells has been a drain on farm profits. PVD’s lawsuit challenging Milgram Creek pumping is presently in the Federal District Court.

The turnaround came when DID realized that its water would increase revenues at the Stateline Powerplant, and the Powerplant agreed to pay DID for letting its water stay in the river. DID President Garcia also realized that there was no way to get DID’s water past the PVD headgates to the minnow’s range. In an inspired move, he proposed to PVD’s Sinclair that Saskan irrigators should lease those increased flows to Reclamation. The same water would be leased twice, and both irrigation districts would have substantial income to recoup their recent losses. An important side benefit of this tandem leasing deal is that it offers Reclamation the water needed for the pikeminnow under state water law, reducing the chance that Reclamation would attempt a federal preemption of state water rights, something all Dorado and Saskan water users desperately want to avoid (see *Challenges*).

Alsaskan Bucket Brigade

Garcia explained the tandem leasing arrangement as a “sort of bucket brigade carrying water to the pikeminnow downriver. We put 30,000 acre feet into the river in Dorado. The Stateline Powerplant uses that water and lets it go down the river. The Powerplant pays us for our water, so we are made whole. Then that water is PVD’s. They’re the next in line in the bucket brigade, and they let that water flow past their headgates to the pikeminnow; Reclamation pays them for the water so they’re made whole too. The water gets to the pikeminnow, more power is generated, and farmers in both irrigation districts make their mortgage payments. It’s not just win/win. It’s win/win/win/win!”

It's Not Over 'til It's Over

While DID and PVD are both euphoric over their tandem leases, the second lease of PVD water to Reclamation has not been finalized. Charlie McCool, Regional Director of the Bureau of Reclamation, commented: "We appreciate the offer, but we haven't accepted it yet. Other offers are coming in from water users in Dorado. And Reclamation is exploring other options, too." McCool says he is not free to go into detail. He does say "this instream flow requirement applies only to the development of Onkeeta Herbs' irrigation system—that should be over by 2006. The Fish and Wildlife Service is doing a study to determine the necessary mitigation measures once the herb farm is operating."

Other water users on the Alsaskan River are concerned about the precedent established by the dual leasing proposal. Fish and Wildlife's Biological Opinion is being protested by both the environmental and the agricultural communities. Traditionally it is difficult to move water rights across state lines, and several major players feel that all water interests should be heard from regarding such an important water exchange—not just four of the many affected parties (see Alsaskan Pikeminnow

[The following piece runs alongside the centerfold map of the Alsaskan River Valley.]

The Alsaskan Pikeminnow (a.k.a. *Ptychocheilus lucius* or Alsaskan Squawfish) is a large member of the large, widely dispersed, carp and minnow family. Adult pikeminnow range from 1 ½ to 3 feet. They live in flowing rivers; historically, their range included the Alsaskan and Genuflection Rivers of eastern Dorado and all of the Alsaskan River Basin in Saskan. Today they are only found in a 75-mile stretch of the Alsaskan in central Saskan.

The decline of the species is believed to be a result of the dewatering of the Alsaskan by irrigation demand exacerbated by degraded water quality from municipal, industrial, and agricultural discharges. Ironically, during the seventies, pikeminnow were fished-out in several reaches of the Alsaskan by anglers competing for rewards offered by the Alsaskan Sports Fishers Association. The rewards were aimed at eliminating the pikeminnow, who were out-competing imported trout and bass, and they were very successful.

Currently, the species occupies about five percent of its historic range. It was placed on the Endangered Species List in 1985.

Biologists believe the pikeminnow has also been affected by river regulation. The Albert E. Utton Dam, and the many smaller downstream reservoirs and diversion structures, permit artificial regulation of flow, prevent flooding, trap nutrients, change sediment transport, prolong flows, and create reservoirs that favor non-native fish species. These changes may reduce the pikeminnow's food supply, alter its preferred habitat, prevent its dispersal, and provide a continual supply of non-native fishes to compete with or prey upon it.

Although the mechanisms of the species' decline are not fully understood, manipulation of flow may be one of the primary reasons *Ptychocheilus lucius* has been extirpated from so much of its historic range. In last June's Biological Opinion, the U.S. Fish and Wildlife Service cited, as a threat to the survival of the already stressed Alsaskan pikeminnow, the disruption of river flow and changes in suspended sediment expected to result from construction of the Onkeeta Herbs project.

Has a Federal/State Faceoff
Been Avoided?

Underlying the complex water-leasing arrangement proposed by DORADO'S IRRIGATION DISTRICT #88 (DID) and the CONSORTIUM OF PLEASURE VALLEY DITCHES (PVD) in Saskan is a state/ federal struggle all parties hope to avoid.

Bobby Lou Dewey, U.S. Department of Interior Solicitor, asserted last fall that the Bureau of Reclamation has the authority and the responsibility to release water from the Albert E. Utton Reservoir for essential streamflow for the endangered pikeminnow, even when there are no unappropriated water rights in the Reservoir.

The Solicitor's Opinion did not comment on how that water would get past the diversions of water-right holders between the Reservoir and the pikeminnow range. But the Opinion still worried Alsaskan River water users, who feel it places their property rights in jeopardy.

DID responded by filing suit in Federal District Court to enjoin Reclamation from making such releases. The Milgram Creek Ditch Association, the City of Fort Murphy, and the Dorado Farm Bureau have filed

amicus briefs. At the same time, DID offered to lease water to Reclamation for instream flows. “We can’t afford to have the feds establish a precedent like this,” DID’s President Garcia said. “We’d have no water right at all. So long as property rights are protected under state law, it’s ok with us if they give the pikeminnow more water. We offered to lease them the water just to show them how they need to do this.” DID’s lease offer faced the same practical problem as the Solicitor’s plan—how to get the water past the PVD diversions. The offer announced today by PVD avoids this problem. The District court has not yet ruled on DID’s request for injunction, and neither Reclamation nor the state water users are anxious to have them do so now.

Charity Begins at Home, Say Fort Murphy Aggies

The Fort Murphy Municipal Council, supported by a team of experts from Dorado State University, is asking the Dorado Legislature to impose a statutory ban on sales of Dorado water to out-of-state water users. “Dorado has always had water markets, which make it easy to maintain efficient water allocations in changing times,” said Professor Bernie Fried, the chair of DSU’s Agricultural Economics Department. “But we’ve never really considered the consequences of letting water follow money without any restraint. A shift in prices, or the growth of a downstream urban center like Naltaville could dry up all the water *and* all the money in the whole state in no time at all.” he said.

The Fort Murphy proposal is supported by the HIGH SIGHT LAND AND WATER TRUST, a nonprofit established in 1987 to preserve the natural ecosystems of the SAN CAPRICO VALLEY. Samantha Brody, High Sight board chair, said “Our rivers are the lifeblood of the land; we can’t cannibalize our natural heritage even to support wildlife in another region—and if we begin here, we’ll soon be selling our birthright for much less worthy causes. We have to draw the line and make a stand for Dorado’s natural integrity.”

Export Ban Faces Hurdles

Some Dorado interests oppose the Fort Murphy export ban. Tabor Grubb, an influential Dorado Democrat, is the developer behind Las Canastas, a proposed high-end residential development in San Caprico Valley. Grubb has filed for permits for the well-field that will provide the municipal water supply for Las Canastas and irrigate the world class golf course that is the development’s focus and center. Like the PLEASURE VALLEY CONSORTIUM (see *Bucket Brigade*, p. 1), Grubb has also offered to lease water to Reclamation for the pikeminnow for a four-year period. Rumor has it that Grubb is more concerned with establishing that his groundwater rights are independent of surface rights on the nearby Genuflection, an Alaskan River tributary. If his pumping permits are confirmed as non-stream connected groundwater rights, Grubb’s wells will have a high priority in the San Caprico basin; if they are viewed as stream-connected rights, they are so junior as to be worthless. This suggests that Grubb’s opposition to the export ban has relatively little to do with water export, and might be overcome with a side deal.

A major challenge to the export ban is the Supreme Court’s 1982 decision in *Sporhase v. Nebraska*. The Sporhase Court determined that water is an article of interstate commerce, and that the states may not impose a flat ban on water exports. However, if the ban can be shown to be reasonable, and enacted to further a legitimate state interest, it may be upheld. This gives the supporters of the export ban an additional hurdle to leap.

“Sound Science” Debated

The Biological Opinion issued by the U.S. Fish and Wildlife Service last June has been challenged from the opposite ends of the spectrum. Both challenges are based on the “Sound Science” amendments to the Endangered Species Act, requiring that federal regulatory decisions give greater weight to science based on peer-reviewed and field-tested data.

The **American League of Conservation Farmers** has protested the June 18th Biological Opinion on the grounds that there is no field data indicating that the Alsaskan pikeminnow would benefit from the augmented flows. They urge that there is insufficient evidence that changes in the operation of John Martin Reservoir (especially changes that would deprive irrigators of water they would receive under the present operating agreement) would benefit the pikeminnow.

Defenders of Western Rivers, a national environmentalist group, has also sued the Service. They allege that a review of all existing studies on the pikeminnow makes a strong case that *any* upstream disturbance is a threat to the fish's survival, and that the provision of additional flows in the Alsaskan is completely inadequate to protect the fish. Defenders seeks an indefinite injunction on the Onkeeta Herbs project. The "Sound Science" amendments were enacted this year, and the District Court decision will be the first interpretation of the new provisions.

Sentinel Interview

Drought/Flood Normal Says Soil Expert

[This interview piece needs to be cut by about 1/5, and Michele is working on that. Its basic purpose—to give a sense of the variability in the region, and the ways in which that variability is just not accepted—will remain, however]

Garvey Hudson is as concerned as any Milgram Creek farmer about this dry season. He's just not surprised by it. "Drought is a problem only if it you're counting on rain," he says. "Adjust to the climate and you might get by."

Hudson, a professor of soil science at Dorado State University, has spent the past 23 years studying precipitation patterns on the Dorado plains. In this *Sentinel Interview*, he offers an historical perspective on his caution.

SI: Fish & Wildlife's Opinion on the minnow woke everybody in this valley to something you've known for a long time—the Alsaskan River is overappropriated.

GH: Yeah. And it's understandable how that happened. Precipitation rates in this drainage basin are wildly erratic. For over a half century, rainfall in Ft. Murphy has averaged 17 inches/year. But that average conceals wide deviations: a record high, in 1922, of nearly 35 inches and the record low, in 1970, of less than 9 inches. The river's annual discharge is just as variable. It swings all over the chart, alternating wet and dry cycles can persist for years on end. No doubt, settlers who began farming this region during periods of plentiful rain and high river flows thought they'd found paradise.

SI: Some old timers talk about floods on the Alsaskan. Hard to believe.

GH: Sure, before they built Utton Reservoir, once a decade no less, the river flooded all spring. It was bad enough over here in Dorado, where the damage was swift and the waters moved on through. Across the state line, in Saskan, flooding was even more devastating. In Dorado, the gradient along the river is relatively steep, compared with Pleasure Valley, where the land is considerably flatter. As the grade levels, the river slows. For thousands of years the Alsaskan has dropped heavy loads of sediment when it spreads out on those flatlands. The sediment deposition has aggraded the riverbed, which further reduces the flow rate, and so on The result, unfortunate for irrigators downstream of the state line, is that the heightened riverbed has effectively prevented tributaries from feeding the Alsaskan in western Saskan.

Take Blue Baby Creek, about 40 miles north of the Alsaskan. If the river were down slope of Blue Baby, the creek would feed the river. But it isn't, so it can't. And the same goes for the Renunculus River, south of the Alsaskan. It can't flow uphill.

SI: The Utton Reservoir must have been a godsend to Pleasure Valley farmers.

GH: The reservoir sure helps, but they're still downstream and that's a disadvantage when the stream is overappropriated. Their vulnerability grows, exponentially, during the dry cycles.

SI: Tell us about the historical droughts. Weren't they horrendous, too?

GH: Right, in the '50s and, earlier in the 1930s and the 1880s, for 7-12 years in a row, all of eastern Dorado and western Saskan suffered what they call "prolonged, extreme drought." We've had no measurable rain for more than 15 weeks, and Milgram Creek only ran about [xx cfs] last week. But, shoot, in those long droughts, that creek ran dry . . . stayed dry year round. In the '50s, of course, Ft. Murphy consisted of about 6,500 souls and there was maybe a third of what there is now in agriculture on Milgram Creek.

SI: With the heat, the dust, the grasshoppers, and those forest fires upriver folks say we're in a drought. Are we?

GH: There are various ways to define drought. But the short answer is no. Sure, we've had a dry growing season for the past three years. September's year-to-date precipitation in Ft. Murphy was well below what it was last year. But, late last fall we had three or four heavy snows, from here all the way up to Manko Creek. That snow soaked our soils. At the higher elevations it stayed frozen and returned as spring runoff. From a streamflow perspective, then, we got ahead this year, we've replenished the irrigation pool at Utton Reservoir.

Rather than worrying whether drought is upon us, I think we'd be better off accepting its inevitability.

SI: What do you mean? That the whole valley should pick up and move?

GH: That's not necessary. But it's long past time to put together a workable drought contingency plan for eastern Dorado. Maybe we need to treat the ground water in the valley as a safe minimum reserve, refrain from using it except during dire shortages. And Ft. Murphy's per capita water consumption could be reduced by half without any adverse consequences to speak of. There's quite a bit that could be done in the way of water conservation.

SI: One last question. You're in a better position than most of our readers to evaluate possible impacts on our river basin of global climate change. What do you think? Is it likely that climate change will improve the region's water future?

GH: Don't count on it. The scenario that strikes me as most probable is that climate change would be expressed in our valley by even greater variability—in temperature ranges, annual precipitation, stream discharge, everything. All the more reason to [finish]