BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF PETITION FOR CONJUNCTIVE MANAGEMENT OF GROUND WATER IN WATER DISTRICT NO. 13-T IN THE NAME OF WARREN LLOYD	))))))	**PRELIMINARY ORDER**

On August 6, 2003, Warren Lloyd ("Lloyd") filed a petition for delivery call with the Idaho Department of Water Resources ("IDWR"). Lloyd's point of diversion for water right 13-2313 is located in Water District No. 13-T, Bancroft-Lund.

A hearing was conducted on October 25, 2004. The hearing was conducted pursuant to IDWR's Rules of Conjunctive Management.

At the time of creation of Water District No. 13-T, IDWR limited the activities of the water district to measurement and reporting. Future administration of water was to begin only upon a finding that regulation was necessary to protect senior water right holders. As a result, IDWR conducted the hearing under Rule 30 of the Conjunctive Management Rules.

At the hearing, Lloyd represented himself. Randall C. Budge, Attorney at Law, represented Bart O. Christensen, Terry and Marjean Rindlisbaker, Kim Welch, Von M. Simonson, Eric Simonson, Dale and Nuelene Wistisen, Phil and Lisa J. Yost, Gem Valley Farms and Chad Neibaur, and Stoddard Farms and Curtis Stoddard. Bruce M. Larsen, Attorney at Law, represented Carl P. and Patricia Jorgensen, Keith Jorgensen, et ux., Jorgensen Brothers, Terry Jorgensen, et ux, and Don C. Rigby. After receiving testimony and documentary evidence, the hearing officer finds, concludes, and orders as follows:

FINDINGS OF FACT

1. In 1952, Lloyd began farming a 340-acre farm with his father. The farm was located between the towns of Central and Bancroft, Idaho.

2. In 1963, Lloyd purchased some additional land called the "Peterson Place."

3. In 1966, Lloyd irrigated 110 –120 acres with surface water delivered by the Last Chance Canal Company.

4. In 1966, Lloyd sold his shares in the Last Chance Canal Company and ceased irrigating with surface water.

5. In 1967, Lloyd obtained permit to appropriate water right no. 13-2313, authorizing appropriation of ground water.

6. Lloyd first drilled a well for irrigation in the "middle of the 160 acres." The hearing officer presumes the 160 acres is located in the S1/2SE1/4 of Section 14 and the N1/2NE1/4 of Section 23, T09S, R39E, Boise Meridian. The well was ultimately drilled to a depth of 385 feet. The well would not produce enough water for a domestic use.

7. Three well drillers' reports were admitted into evidence as Respondents' Exhibit no. 8. The first of these drillers' reports describes a well constructed by Bart Westlake during the winter of 1968, the approximate time when Lloyd began irrigating his farm with ground water. The driller's report locates the well in the NWNW[1], Section 23, T9S, R39E, Boise Meridian[2]. The testimony established that this well construction report represents the original production well for irrigation of the Lloyd farm. The hearing officer finds that the determination of location of the well by the IDWR field examiner in the NENE, Section 23, T9S, R39E, is the correct location of the well. This location was verified during the Bancroft Lund Adjudication.

8. At the time the first production well was drilled, the well would produce approximately 2,000 gallons of ground water per minute with very little draw down.

9. Lloyd's water right is recorded in the records of the department as water right no. 13-2313. The water right was licensed as follows:

Flow Rate:	3.68 cfs			
Annual Volume:	714 acre-feet			
Source of Water:	Ground water			
Priority Date:	September 29, 1966			
Nature of Use:	Irrigation			
Season of Use:	4/15 to 10/15			
Point of Diversion:	NENE, Section 23, T9S, R39E, Boise Meridian			
Place of Use:	T9S, R39E	Section 14	SESW	38.5 acres
			SWSE	39.5 acres
			SESE	39.5 acres
		Section 23	NENE	40 acres
			NWNE	39.5 acres
			NENW	36 acres
			NWNW	5 acres
			Total	238 acres

[1] The descriptor "1/4" will be assumed for all two alpha character public land survey locators in this decision unless otherwise written expressly in the text.

[2] The survey meridian line "Boise Meridian" is assumed for all subsequent public land survey descriptions in this decision.

10. Lloyd pumped water from the well for several irrigation seasons at full capacity In 1977, however, the pump in Warren Lloyd's well began to pump air. In addition, the well began to produce sand. In 1979, the pump filled Warren Lloyd's mainline and sprinkler lines with sand.

11. In the ensuing years, a pattern of water shortage developed. At the beginning of the irrigation season, there was sufficient water in Lloyd's well to pump the full capacity of his licensed water right. Beginning approximately June 15 of each year, Lloyd was not able to divert his entire water right. Lloyd's production from his well declined by 600 to700 gallons per minute by approximately July 15. After July 15, water levels rose again in the well, and some of the lost well production returned

12. In 1984, Lloyd became frustrated with his ability to obtain water, and tried to construct a new irrigation well. The first new well did not produce sufficient water for Warren Lloyd's irrigation needs. As a result, Warren Lloyd contracted with a well driller to drill a second new irrigation well approximately ten (10) feet from the original production well. Casing was placed in the well to a depth of 98 feet and the remainder of the well was constructed "open hole," or without casing that would preserve the well bore. Some of the natural material below the casing caved into the open hole portion of the well.

13. In 1984, Lloyd began using the new well located next to the original production well and discontinued use of the original production well

14. Water right no. 13-2313 was decreed in the Bancroft-Lund adjudication in 1991.

15. In 1993, Lloyd filed an application for transfer to readjust the place of use so the farm could be irrigated with circular pivot irrigation systems IDWR approved the application for transfer.

16. In 2002, Lloyd filed another application for transfer seeking to add a point of diversion to water right no 13-2313. IDWR approved the application for transfer

17 In the spring of 2003, Lloyd contracted with a driller to ream out his production well. The second well drillers' report of Respondents' Exhibit no. 8 represents the additional construction in Lloyd's production well

18 Lloyd has never employed a professional engineer or geologist to evaluate the condition of his production well, including the uncased portion of the well in which the open bore material fell into the bore hole.

19. In 2003, Lloyd drilled another well in the SESE, Section 14, Township 9 South, Range 39 East A well log for the well is the third page of Respondent's Exhibit No 8 Water was not pumped from this well in 2004, however, because the well did not produce enough water to justify diversion for irrigation.

20 During the period of irrigation with ground water, Lloyd drilled at least one other irrigation well on his farm that would not produce sufficient water for irrigation in addition to the wells previously discussed. In total, Lloyd drilled five irrigation wells. In addition to drilling of five irrigation wells, Lloyd drilled three other test wells that were dry or produced very little ground water.

21 During recent years the production from Lloyd's wells continued to decline in June and early July. In some years of drought, the loss of production from Lloyd's well continued through the entire summer.

22 Water right no. 13-2313 is presently shown in IDWR's records as follows:

Flow Rate:	3.68 cfs			
Annual Volume:	714 acre-feet			
Source of Water:	Ground water			
Priority Date:	September 29, 1966			
Nature of Use:	Irrigation			
Season of Use:	4/15 to 10/15			
Point of Diversion:	SESE, Section 14, and NENENE, Section 23, T9S, R39E			
Place of Use:	T9S, R39E	Section 14	SESW	28 acres
			SWSE	39 acres
			SESE	39 acres
		Section 23	NENE	33 acres
			NWNE	39.5 acres
			NENW	33 acres
			SENW	5.5 acres
			NWSE	20 acres
				237 acres

23. Lloyd's wells are located on the western side of the Gem Valley in Caribou County. The Bancroft-Lund aquifer underlies the Gem Valley and is a part of the larger Bear River Basin. The Bear River flows from Soda Springs westerly towards Lloyd's property. At Alexander Point, the Bear River turns south and flows through Grace, Idaho. Lloyd's property is located approximately eight miles west of Alexander Point.

24. The Bear River loses surface water into the ground water in the vicinity of Alexander Point. The ground water flows radially north, west, and south from Alexander Point into the Gem Valley. Ground water contours decline from east to west in the direction of Lloyd's property.

25. Bear River surface water diverted into the Last Chance Canal near Grace is delivered to farms in canals and ditches traversing the Central-Bancroft-Lund area. Surface water delivered through the Last Chance Canal system is lost in the canals and ditches and when

the water is applied to the land for irrigation. The lost surface water percolates into the ground water, raising ground water levels

26. Ground water in the Bancroft-Lund area resides primarily in basalt formations. The basalt originated from a location near the intersection of U.S. Highway 30 and Idaho State Highway 34, approximately five miles north of Grace, Idaho. The lava flowed in an east-to-west direction into the Gem Valley. The lava flowed over ancient sediments and cooled forming a layer of basalt. As the lava flowed from east to west, the depth of the basalt decreased. The lava encountered shallower alluvial formations on the west side of the valley. Several alternating events of lava flow and sedimentation caused a fingering effect on the west side of the valley.

27. Lloyd's wells are completed within some of the shallower basalt zones. Lloyd's wells are also completed in alluvial water bearing zones that do not produce as much water as the basalt. Finally, a thick impervious formation of clay is encountered at shallower depths below the Lloyd property than in the center of the Gem Valley east of Lloyd's farm.

28. During the same approximate time Lloyd began irrigating with ground water instead of surface water, other landowners also drilled wells. Some of these wells were drilled to irrigate lands previously irrigated with surface water similar to Lloyd's well. A farmer named Welch discontinued delivery of surface water to a nearby farm in 1978 – 1979. Another farmer named Holsten discontinued delivery of surface water to a nearby farm in 1986.

29. Other wells were drilled to supplement lands irrigated by Last Chance Canal water. Finally, many wells were drilled to irrigate dry land farms. By the early 1980s, ground water development, the conversion to sprinkler irrigation, and the irrigation of additional acreage raised concerns about ground water availability for additional appropriation. In 1980, IDWR petitioned the Sixth Judicial District Court of the State of Idaho to commence a general adjudication of the water rights in the Bancroft-Lund area

30. In 1991, IDWR created a ground water management area designated as the Bancroft-Lund Ground Water Management Area. The management plan for the ground water management area limited additional appropriations of water from within the boundaries of the management area.

31. Shane Bendixsen, a hydrogeologist for the Idaho Department of Water Resources, prepared staff memorandum at the request of the hearing officer. The Bendixsen report was received into evidence as Respondent's Exhibit no. 11. The report contains hydrographs depicting water levels in the Bancroft-Lund area. The page titled "Short Term Local Data" contains four hydrographs. These hydrographs depict ground water levels for wells located near the Lloyd property measured from 1996 through 2003. The hydrographs register the deepest declines in ground water levels during June and July of each year. The deepest water levels may have been measured while the wells were pumping, however. Nevertheless, the contribution of surface water to ground water from the Last Chance delivery systems is reflected by hydrographs showing peak ground water levels in the fall of the year.

32. IDWR has monitored ground water levels in a well called the "Holsten well," located approximately 1/4 mile southeast of the Lloyd farm. The ground water level data from the well is particularly important because water from the well has not been pumped during recent years of monitoring. IDWR maintained a continuous ground water level recorder in the Holsten well during the 1999, 2000, and 2001 irrigation seasons. The data collected by the recorder is depicted in the attachment to the Bendixsen report titled "Continuous Recorder Data." The hydrographs are also included as Respondents' Exhibit no. 10. Water level measurements in the Holsten well begin with a measured water level in the spring that is lower than the annual peak shown in the fall. Water levels decline in June and the first part of July, and then begin a gradual incline to a peak in October. This information contradicts some of the testimony about high water levels in the spring of the year. USGS monitoring wells measured quarterly may not reflect declines in the spring because the quarterly measurements of water levels are taken during June and July.

33. The Last Chance Canal Co. delivers surface water during June and July at the time of most severe declines in the Holsten well. Pumping in the Bancroft-Lund area has some effect on other wells in the area during the early part of the irrigation season. Surface water percolating from the canals and ditches does not immediately reach the aquifer when significant water is being pumped during the high irrigation demand period of late June and early July. By July, however, the surface water recharge to ground water reflected by increases in ground water levels.

34. The hearing officer finds that recovery of the ground water in the last part of the irrigation season is a result of surface water percolation into the ground and incidental recharge by the surface water to the ground water.

35. The Bendixsen report contains nine hydrographs depicting changes in ground water levels in the Bancroft-Lund area. All of the hydrographs depict a direct relationship between ground water levels and climate. During good surface water years, ground water levels in the Bancroft-Lund area stabilize or rise. During low water years, particularly during years of extended drought, ground water levels decline and do not rise to previous annual levels.

36. The range of fluctuations in water levels in any given year is approximately four to five feet in elevation.

37. The specific capacity of Lloyd's well is approximately 45 gallons per minute per foot of draw down. Lloyd's well is a good producing well.

38. The Bendixsen report stated: "Data in the same section as Mr. Lloyd show the difference in water levels between 1982 and 1996 was 1.8 feet." Long term hydrographs depict water levels that fluctuate with drought conditions, and also fluctuate annually, but have remained relatively stable.

39. Owners of other irrigation wells within one-half mile to one mile of Lloyd's well have experienced production problems from their wells.

40. Lloyd presently irrigates 175 acres through four circular pivot systems. The circular pivots consist of one large pivot, two small full pivots, and one half-circle pivot.

41. In the late 1990's, Glen Sorenson rented Lloyd's farm. Sorenson did not continue to rent the farm because of lack of water.

42. In 2001, 2002, 2003, and 2004, Terry Rindlisbaker rented Lloyd's farm. Rindlisbaker was able to divert sufficient ground water to irrigate his potato crop. Rindlisbaker could not adequately irrigate other crops on Lloyd's farm because of the insufficiency of water supply.

43. The Bancroft-Lund Adjudication, and past department determinations about the relationship of the ground water in the area establishes that the ground water within the Bancroft-Lund area, or more specifically, within Water District 13-I is water having a common water supply.

ANALYSIS

Water lost from the Bear River to ground water underflows through the basalt aquifers to the west. This migration of ground water may fill the shallower aquifers underlying the Lloyd property.

In addition to ground water underflow to the west, additional water was contributed to the ground water through percolation from ditches and canals delivering Bear River surface water to the area overlying the Lloyd farm. Discontinuation of the use of the surface water supplied by Lloyd, and conversion from surface water to ground water by other water users, combined with greater efficiency of application of water, has reduced the amount of recharge to the aquifer underlying the Lloyd property.

The first irrigation well Lloyd attempted to drill in 1966 or 1967 would not produce enough water to supply a domestic use. Several additional irrigation or test wells were drilled but were unusable because they did not produce sufficient water.

Lloyd diverted ground water for irrigation almost exclusively from two irrigation wells from 1967 until the present. The second well was constructed 10 feet from the first well.

Ground water levels have not declined significantly since Lloyd began irrigating with ground water.

The construction and condition of Lloyd's wells have not been evaluated by a competent professional to determine whether Lloyd's wells could be reconstructed or rehabilitated to provide the water he needs for irrigation.

There is evidence that Lloyd's discontinued use of his surface water rights and the reduction in surface water deliveries in the direct area of Lloyd's farm reduced recharge to

ground water in the immediate area of Lloyd's wells. There is a correlation between discontinuation of surface water delivery to the Welch property and the reduced production of the original Lloyd well. Lloyd's ground water right should stand alone in its order of priority without consideration of whether he or other surface water users ceased receiving surface irrigation water. Nonetheless, the reduction in surface water losses to the aquifer in Lloyd's immediate area may be the greater contributor to ground water declines in Lloyd's original well than pumping from the ground water at more remote locations in the aquifer.

The inability of Lloyd to find ground water in sufficient quantities within the confines of his property lends credibility to the theory that at least some of the ground water problems encountered by Lloyd are the result of (a) geological structures that (i) restrict the quantity of recharge from the Bear River and (ii) limit the amount of ground water under his farm; (b) conversion from flood irrigation with surface water to sprinkler irrigation with ground water in the direct vicinity of the Lloyd farm, reducing the recharge to ground water in the immediate vicinity of the Lloyd farm; and (c) substandard construction of the production wells that resulted in open borehole failures when water levels dropped in the well.

Lloyd did not present technical information at the hearing to eliminate these alternative causes of reduced production from his well. As a result, Lloyd failed to establish that pumping of ground water by junior ground water right holders depleted the ground water in sufficient quantity or depth that Lloyd could no longer divert his water right entitlement. In conclusion, Lloyd failed to prove that his water right is being injured by the diversion of water under junior priority ground water rights.

CONCLUSIONS OF LAW

1. Rule 30 of the Conjunctive Management Rules defines the procedures for "responses to calls for water delivery made by the holders of senior-priority surface or ground water rights against the holders of junior-priority ground water rights within areas of the state not in organized water districts or *within water districts where ground water regulation has not been included in the functions of such districts* or within areas that have not been designated ground water management areas." Water District 13-T was organized with the express limitation that the watermaster would not regulate the ground water rights by priority unless instructed to do so by the director. Rule 30 governs consideration of Warren Lloyd's petition for conjunctive management.

2. Rule 30 of the Conjunctive Management Rules states that the filing of a petition for a conjunctive management creates a contested case. Parties to a contested case are entitled to a hearing before IDWR. A hearing was held.

3. Warren Lloyd, as the petitioner for conjunctive management, bears the burden of proving, by the preponderance of evidence, the following:

a. That other water users, identified by his petition and by IDWR, are diverting water from a water supply common to his diversion of water.

b. There are water users holding rights within the area of common water supply that are junior in priority to his rights.

c. That diversion of water by the junior water right holders is injuring his water right by diminishing the quantity of water available to Mr. Lloyd

d. That Warren Lloyd's diversion and use of water is reasonable under the circumstances.

4. Lloyd did not prove, by preponderance of evidence, that pumping by junior water right holders caused injury to his water right.

5. Lloyd did not prove that his diversion and use of water is reasonable under the circumstances.

6. Lloyd's petition for conjunctive management should be DENIED.

ORDER

IT IS HEREBY ORDERED that Warren Lloyd's petition for conjunctive management is **DENIED**, without prejudice.

Dated this 31st day of January, 2005

Gary Spackman
Hearing Officer