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Motion of the Spokane Tribe of Indians to Amend Findings in Court's Memorandum Opinion

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UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF WASHINGTON

UNITED STATES OF AMERICA, Plaintiff, SPOKANE TRIBE OF INDIANS, Plaintiff-in-Intervention, v. BARBARA J. ANDERSON, et al, Defendants.	NO. 3643 MOTION OF SPOKANE TRIBE OF INDIANS TO AMEND FINDINGS IN COURT'S MEMORANDUM OPINION

The Spokane Tribe of Indians, through its undersigned attorneys, moves that the Court amend the findings in its Memorandum Opinion and Order dated July 23, 1979, in the following respects:

1. The Court accurately finds (line 7, page 4) that the average output of the Chamokane drainage system is 35,000 acre feet per year. In addition the Opinion should, as the evidence reflects, also find that of this amount an average of 16,000 acre feet are lost during annual runoff, that the recharge storage capacity of the aquifer is about 19,000 acre feet with an annual flow out of the massive springs of about 21,000 acre feet.

2. The Court accurately finds (line 14, page 9) that the Tribe has a reserved right to a maximum of 23,694 acre feet of ground or surface water from the basin each year for the irrigation of 7,898 acres with a priority date of August 18, 1877, and an additional 1,686 acre feet for 562 acres with a later priority date. The Court should also find that the Tribe, in its decision and policy not to use that water so as to preserve the esthetic, recreation and fishery uses of the creek, made a decision of use other than irrigation it was legally entitled to make, and may therefore continue to utilize all or part of this priority water right for the same purpose. The Court should in that case forbid and prevent non-priority users from using any part of that 25,380 acre feet for state permitted irrigation uses if such uses reduce the minimum stream flow below 30 CFS.

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3. The Court correctly finds that the Tribe has a reserved right to maintain Chamokane Creek for fishery purposes but the Opinion did not establish a sufficient minimum flow to assure the 68 degree maximum lower stream temperature needed to protect the fishery. The Opinion should therefore be modified increasing the 20 CFS minimum flow cited on page 10 to 30 CFS.

This Motion is based on the appended Affidavit of Robert D. Dellwo, the Exhibits and Affidavits attached thereto and the files and record herein.

DATED this 3rd day of August, 1979.

DELLWO, RUDOLF & SCHROEDER, P.S.

By Robert D. Dellwo
Robert D. Dellwo

By Kermit M. Rudolf
Kermit M. Rudolf

Attorneys for the Spokane Tribe of Indians

AFFIDAVIT OF ROBERT D. DELLWO

STATE OF WASHINGTON)
ss.
County of Spokane)

ROBERT D. DELLWO, being first duly sworn on oath, deposes and says:

This affidavit is made in support of the foregoing Motion and is in effect an analysis of the trial record with some additional supporting information.

COURT FINDING AS TO TEMPERATURE AND MINIMUM FLOW

The Court, page 10 of Opinion, rules as follows:

> "The Court finds that the quantity of water needed to carry out the reserved fishing purposes is related to water temperature rather than simply to minimum flow. The native trout cannot survive at a water temperature in excess of 68°F. The minimum flow from the falls into Lower Chamokane Creek which will maintain the water at 68°F varies, but is at least 20 cfs. The Court therefore holds that the plaintiffs have a reserved right to sufficient water to maintain the water temperature below the falls at 68°F or less, provided that at no time shall the flow past the falls be less than 20 cfs."

The Court goes on to find (line 29, page 10 to line 1, page 11) that ". . . the Tribe's reserved water rights for fishing uses are superior to any and all of defendants' claims."

The Court then (page 16) finds that the services of the water master will be to so monitor and manage the use of water by the various permittees that the temperature of the lower creek will not rise higher than 68° and the minimum or low flow will not drop to less than 20 cfs.

From this it appears that the Court considers that in normal years the 20 cfs minimum is sufficient to prevent the water temperatures from rising higher than 68°.

The evidence is overwhelming that 20 cfs would not be adequate and that the only way to guarantee a maximum temperature of 68° during the annual summertime hot spells is to maintain a minimum stream flow of 30 cfs. The water master in reading the trial record will immediately conclude that a combination of a several day hot spell with air temperatures in the 90's and a stream flow of less than 25 cfs will invariably result in water temperatures in excess of 68°.

The record establishes this with a certainty. The Court should therefore revise the quoted paragraph of its Opinion to provide for and require a minimum flow substantially higher than the 20 cfs.

Affiant suggests the following to insure maintenance of a minimum flow of 30 cfs.

1. Condition the maintenance of the higher flow upon the Tribe not exercising its irrigation rights as found by the Court in page 5 of Opinion and allowing the transfer of those rights to the maintenance of the minimum flow.

2. Allowing defendant Smithpeter (or his successor) to pump only during periods of time when the flow is in excess of 30 cfs but at no time during the hot summer months of July and August.

3. Applying forthwith a formula for reduction in irrigation diversions by the principal pumpers. It is suggested that the reductions be such that applying the column of figures (pages 13 and 14 of Opinion) entitled "Effective reduction of flow of lower creek," but excluding the Smithpeter permit and limiting it to pumpers from the aquifer, the cumulative total of all of the figures in that column will be at least 5 cfs less, thereby presumably causing a 5 cfs increase in the base, summertime flow of the creek in the following year.

MAXIMUM ALLOWABLE TEMPERATURE OF 68° IS NOT CONSISTENT WITH MINIMUM FLOW OF 20 CFS

The testimony of all Tribal witnesses, notably Tribal Chairman, Alex Sherwood, Vice-Chairman, Alfred McCoy, and Executive Director, Glen Galbraith, bears out the undisputed fact that Chamokane Creek was, from the earliest days, valued and utilized by the Tribe as an excellent fishery and as an esthetic, recreational jewel on this otherwise rather barren Reservation. There is no question, from the evidence, that until the irrigation diversions permitted by the State of Washington the summertime flow of the creek was always in excess of 30 cfs and that this flow was sufficient to carry the fishery through the hot summers.

The State's own evidence, notably the Department's reports of the more recent applications of defendants Newhouse, Seagle and Smithpeter, recognized the value of the stream as a fishery and its decline as a result of irrigation diversions. The decline was so marked in the springs feeding the fish hatchery that more springs had to be utilized in order to maintain that vital flow.

The evidence is overwhelming, and largely undisputed by the State of Washington that, with the utilization of the various

irrigation permits (tabulated by the Court on page 13 of its Opinion) the mean average flow of the creek will drop to 19 to 20 cfs every summer and that invariably this lowered stream flow in combination with annual periods of time when the air temperatures are in excess of 90° will result in water temperatures in excess of the 68° maximum required by the Court.

The State of Washington does not dispute the foregoing. It rather takes the position that the Tribe has no Winters Rights to any of the water for irrigation or to preserve the fishery and that therefore the defendants are entitled to continue to deplete the creek and the aquifer.

WOODWARD - NAVARRE TESTIMONY

Attached hereto as Exhibits I and II are summaries and excerpts made by affiant from the key testimony of Walter L. Woodward and fish biologist Richard J. Navarre. With next to no rebutting testimony from defendants, these two witnesses conclusively established that since the onset of pump irrigation diversions the low flows of the creek have repeatedly dropped to 22 cfs and less, and that, during the times tested, principally in 1973, the temperature of the creek at the lower gauging station (Station #3) exceeded 68° during a typical summertime hot spell of 90° or over.

The gist of the Woodward testimony is that, whereas in the early days the base flow of the creek was in the range of 30-35 cfs, was 33 to 35 cfs in 1961, and averaged 30 cfs in the 1960-71 decade, it dropped to 17 to 24 cfs during the summer of 1973, rising somewhat thereafter.

The Woodward testimony not only shows the direct coincidence of the pump diversions and the drop in the dry weather flows but illustrates the direct relationship between the lower flows and the higher water temperatures. Whereas he found flows of 17 to 24 cfs in the dry year of 1973, he testified that if the state permittees had not been pumping that year the low flows would have been 24 to 27 cfs (sufficient to maintain the fishery). He cited 29 cfs as the base flow in 1971 which he pointed to as a most typical year.

The attached analysis of the Navarre testimony supports and adds to the testimony and findings of Woodward. Specifically he found that in 1973 with low flows in the range of 22 cfs the water temperature at the lower station exceeded the 68° maximum each time the Spokane airport temperature exceeded 90°. He found water temperatures as high as 75° with the local air temperature of 94° and a stream flow of 22 cfs on July 17, 1979. He pointed

out that it was essential to get the trout through these hot spells (though of short duration) in order to get them through the summer.

PRESENT STREAM FLOWS AND TEMPERATURES

Upon receipt of the Court's Opinion on July 23, 1979, the writer requested Ira D. Woodward, surviving partner of Walter L. Woodward, to visit Chamokane Creek and find the stream flows and temperatures during the current hot spell. (Similar to the one reported on for 1973 and already lasting about three weeks.)

His affidavit is attached. It discloses, as expected that on July 24 he found air temperatures of 86°, water temperature of 70° and a stream flow of 23 cfs. On July 30 he found similar readings, with air temperatures of 92° and a stream flow about the same as on the earlier date he found the water temperature at the Boardman Crossing to be 72°.

On August 2, 1979, he found an air temperature of 89.5°, water temperature of 72.5°, and that the stream flow had decreased to less than the 23 cfs he found on July 24, 1979.

Mr. Woodward also found that there was no pumping going on at the Smithpeter diversion during the time of his recent visits and that there was no evidence of any pump irrigating at all from that diversion during this irrigation season. Affiant can also affirm that he personally has driven by the Smithpeter farm several times in 1979, has seen no evidence of sprinkler irrigation going on and from the bone dry burnt brown appearance of the alfalfa has concluded that that irrigation system has been shut down at least during the 1979 season. Thus the recent Woodward readings are without the Smithpeter diversion. Were he or his successor pumping at the times of the recent Woodward visits the stream flows would have been approximately 2 cfs less and the stream temperatures correspondingly higher.

Attached also is the Affidavit of Peter Nault, legal intern of affiant's law office. It reports his findings from his examination of records of the U.S. Weather Service at the Spokane International Airport to find the record of dates and temperatures when the maximum temperatures were 90° or higher each year since 1973. While there is some difference between the years as to the duration and intensity of the annual

heat waves, the records demonstrate that heat waves with temperatures at the Airport of 90° or higher do occur every year.

ANALYSIS OF MADDOX AND NAVARRE TESTIMONY

The only evidence in the record possibly controverting any of the above would have to be gleaned from the testimony of George E. Maddox, former hydrologist engineer of the State, and Richard R. Simon who testified for the state as a fish biologist.

From a reading of their testimony in the record it is apparent that neither conducted any studies on the creek itself. They had studied and accepted as true all of the data developed by the Woodward Brothers. Mr. Maddox offered no testimony as to the fishery, stream flows and temperatures.

The gist of the Simon testimony, not disagreeing in any way with the findings of Navarre or Woodward as to stream flows and temperatures, was that the Lower Chamokane was already so infested with scrap fish it was impractical and unrealistic to think of rehabilitating it as a quality trout stream. While he did not disagree with Mr. Navarre on the effects of higher temperatures on trout, he indicated that the scrap fish would continue to fourish, crowding out the trout, at sub-68° temperatures.

CONCLUSION: The evidence is conclusive that a stream flow of 20 cfs will not maintain the maximum temperature of 68° during the annual recurring summertime hot spells. With a stream flow of less than 25 cfs it is obviously clear that the 68° maximum temperature will be breached every year so that the Lower Chamokane will never enjoy any improvement as a fishery. While these facts will inevitably be established by the water master, the record is more than adequate at this point to justify the Court in requiring a minimum or low flow base of the 30 cfs requested by plaintiffs. The Court should at the same time require the reduction in pump irrigation diversions by the State permittees to assure this minimum flow.

Robert D. Dellwo

Subscribed and sworn to before me this 8 day of August, 1979.

Jean O. Bruegeman

NOTARY PUBLIC in and for the State of Washington, residing at Spokane

EXHIBIT I

ANALYSIS OF TESTIMONY OF WALTER L. WOODWARD

[Comment: The Court finds that the average annual output of the basin is 35,000 acre feet but it makes no finding as to the portion that enters the relevant aquifer as recharge. The following references, citations and excerpts from the Woodward testimony establish that about 19,000 acre feet goes into recharge, the balance leaving the Reservation as runoff during the high runoff seasons. The page references are to the Transcript of Official Record of Proceedings.]

Page 60: All the water going through the gauging station "totals about 34,000 acre feet."

Page 61 and 62: "18 or 19,000 acre feet goes into recharge" and the rest "is flood flow that gets away from us" and it is the recharge acre feet that comes out of the springs "that would be our base flow for the Lower Chamokane."

Page 69 and 70: He speaks of 1972 as the typical year with 35,000 total output, 16,300 acre feet which "has runoff as flood waters" with 18,700 acre feet ending up in the aquifer "in our bank, the water bank."

Mr. Woodward then on page 70 estimated that "18,000 represents 25 cfs" outflow at the springs.

Page 84: Concludes that the base flow in 1961 was 33 to 35 cfs with an average flow of 30 cfs in the 1960-70 decade and a higher flow prior to that time.

Page 106: Base flow in the dry year 1973 was 17 to 24 cfs and (page 107) if the certificates had not been used would have been "24 to 27, somewhere in there."

Page 115: Points out here and elsewhere that if the Tribe irrigated its nearby irrigable acres it would dry up the creek. "It's gone, it would take it up." And "we try to maintain a 30 (cfs) in the Lower Chamokane for fish life."

Page 133 et seq: Mr. Woodward explains the "lag effect," namely how there is a lag, less the closer they are to the massive springs, in the effect of the pump irrigating on the spring overflow.

Page 174: He begins to testify on the relationship between flow and temperature. . . "The more water we get in, the cooler we get."

Page 175: The temperature is quite constant at the springs and "the less water, the more pollution."

Page 179: Testifies that "Esthetic, recreation, fishing" are the highest and best use of the stream and "my thinking is, it should be a 30 second foot stream."

Page 199: Points out the wide range of conditions in the years he studied. "71 was a typical year, 73 very dry followed by late 73 and early 74 which was very wet."

Page 207: Reiterates the estimate of 18,700 acre foot recharge of aquifer.

Pages 221, 237 and 238 refer again to the dry year, 1973, with a base flow of 20 cfs and a minimum of 17.

Page 240: Testifies that the base flow was about 29 in 1971, 27 in 1972 and 22 in 1973 and cites 1971 as a normal year.

NOTE: These figures repeat themselves throughout the Woodward testimony. They vary because of his different approaches, for example page 373 he again lists 18,700 acre foot as the average annual output of the springs, but estimated that that output was 22,000 in 1971.

Page 869: Woodward discusses the monitoring methods to predict the next year's flows. He suggests that his measurements in the test wells and stream be kept up and that in combination with observation of weather, snow pack, etc., will result in quite close predictions.

Page 901: He discusses the large proportion of the net or base flow taken in a dry year by Smithpeter "10% if flow is 25 cfs."

On page 4 of Intervener's (Spokane Tribe's) submittal of the updated reports of Walter L. Woodward, he stated at Paragraph 4:

> "4. We find there is a direct relationship between the flow of the Lower Chamokane Creek and its effect on the water temperature of the creek. For example, when the records in earlier testimony indicated that on July 19, 1973, there was a flow of 21 cfs, a water temperature was 70° with the air temperature of 93°."

EXHIBIT II

ANALYSIS OF TESTIMONY OF RICHARD J. NAVARRE

[Comment: As in the case of Walter L. Woodward, the Navarre testimony is the only detailed testimony of the fishery aspects of the stream, including on site studies and evaluations. It begins on page 413 and should be read in detail.

Of primary interest is his study and evaluation of the reciprocal effects of lower stream flows and higher air temperatures, in every instance pushing the stream temperature at Boardman Bridge to something over 68°. His studies were in 1973.]

Page 426-427: He expressed his concern (on his first visit July 13) to the flow of stream as it exposed stream feeding areas and resulted in temperature increases. By 4:30 p.m. with an air temperature of 94, the stream temperature at the Boardman Bridge was 75° (Page 431) and the flow was 22 cfs (Page 432).

Page 440: He explained the effects of temperature on trout. "When the temperature continues to rise and gets to a temperature of 66°, they cease to feed, at this point the stress is so great that they can't maintain their positions in the stream. . ." He explained how at that point they just drift downstream and disappear with the "net loss of little fish first." "I don't think they would ever get back into the stream." (Page 443) from the Spokane River. He outlined other effects of higher temperatures and small streams "less food, higher disease. . ."

Page 453: He concluded. "I believe we need 30 cfs to have an adequate habitat of water no higher than 68°. . ." "I believe we need more cool water emanating from the springs."

Page 454: On July 17 he found a temperature of 75° with a flow of 22 cfs and he explained (page 475) that these high readings were all below the Falls.

There was some contention made during cross examination that the foregoing were short duration effects that the fish could survive. Answering this (Page 499) he said that July 17 was "the most critical day. I think you have to get fish through the most critical days in order to get them through the rest of the year."

The Navarre testimony, while emphasizing the need for a flow of 30 cfs to guarantee maximum temperatures not exceeding 68°, finds this as only one reason for maintaining that flow. He also emphasized the bad effects of a 20 cfs flow on the size and nature of the habitat, the destruction of feeding, riffle areas, and the general downgrading of the fishery. In effect he testified that there could be a "quality fishery" with a minimum flow of 30 cfs but, at best a marginal fishery at anything less that 25 cfs and certainly a diminishing, disappearing fishery at recurring flows of 20 cfs.

Navarre in his testimony (Page 454) restricting himself to temperature, explains his 30 cfs figure. He explains that on July 17, with a stream flow of 22 cfs the maximum water temperature that day was 75° (truly a disaster to the fish). He explains the increase in temperature from 47° at the springs to that 75° and concludes that "you have to increase the flow by one-quarter" times the 22 cfs thereby adding 5-1/2 cfs which, widening the exposed creek would add another warming factor requiring still more, hence the needed 30 cfs.

Page 532: "I believe at 30 cfs the temperatures would remain at 68 or below in the summer."

Exhibit #64 is a special report of the witness entitled "Factors Affecting the Status of Trout Populations in Lower Chamokane Creek." It encapsulates and documents most of his oral testimony excerpted above. Attached are key pages from that report.

Page 9 is the first page of his Table 1 which shows the direct, historic relationship between temperatures at the Spokane Airport and water temperatures in the Lower Chamokane during July and August 1973 when the average flow of the creek was 22 cfs.

It is noted that each time the maximum temperature at the Spokane Airport was 90° or above the maximum stream temperature at Station 3 (above the Boardman Bridge below the Falls) was 68 or higher. (One exception - August 14).

On page 22 he states:

"Trout were scarce in the lower reaches of Chamokane Creek (Station 3). Excessively high water temperatures occurring in the summer in the lower reaches of the stream are believed to be the most limiting factor responsible for the low trout

populations" and in his recommendations he concludes:

"Pumping of water which reduces stream flows should be curtailed. A minimum flow of 30 cfs should be maintained in the lower reaches of Chamokane Creek to provide favorable habitat for trout populations."

Comment: The record shows that the lowest flows of the creek (resulting from irrigation pumping) invariably coincides with the hottest season (July and August). From the Navarre testimony it becomes absolutely clear that, with recurring Airport temperatures of 90 or more at the Spokane Airport in July and August, the stream temperature will (with absolute certainty) exceed 68° unless the springs are producing at least 25 cfs.

Attached are pages from Exhibit 64. Particular attention should be paid to page 18 which shows graphically the reciprocal effects of low stream flows and high temperatures in July, 1973.