STATE OF CALIFORNIA DEPARTMENT OF FUELIC WORKS BEFORE THE STATE ENGINEER AND CHIEF OF THE DIVISION OF WATER RESOURCES

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In the Matter of Application 14952 by F. M. Van Dyke to Appropriate Water from Bunkham Slough and Application 14953 by H. F. Van Dyke to Appropriate Water from Coon Creek and from West Branch Bunkham Slough, in Sutter County, for Irrigation Purposes.

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Decision	A.	14952,	1495	3	D.	790	
Decided		April	26,	19	54		
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In Attendance at a Conference Conducted by the Division of Water

Resources at Lincoln, California, o	n June 17, 1953.
F. M. Van Dyke	Applicant
H. F. Van Dyke	Applicant
E. C. Wells	Protestant's Watermaster
F. H. Newcome	Protestant's Ditch Tender
A. S. Wheeler	Senior Hydraulic Engineer Division of Water Resources Department of Public Works Representing the State Engineer

<u>OPINION</u>

General Description of the Project

Under Application 14952 F. M. Van Dyke seeks to appropriate 11.3 cubic feet per second from April 1 to October 31 from Bunkham Slough for the irrigation of 404.5 acres of rice and 103.0 acres of pasture. Diversion is to be effected by means of three pumping plants, all located within the $E_2^{\frac{1}{2}}$ of Section 11, T12N R4E, MDB&M. Two of the pumps are to be 3500 gallons per minute and one 1600 gallons per minute in capacity. The proposed works include also 11,800 lineal feet of open ditch and 1500 lineal feet of 16-inch concrete pipe. The land to be irrigated lies within Sections 11 and 14 of the township mentioned. It is said to have no other water right than as sought in the application.

Under Application 14953 H. F. Van Dyke seeks to appropriate 3.1 cubic feet per second from April 1 to October 31 for irrigation from either or both of two sources, i.e., Coon Creek tributary to Auburn Ravine and West Branch Bunkham Slough tributary to Coon Creek. Diversion is to be effected from Coon Creek by means of a 1600 gallon-per-minute pump which is to be located within the NE¹/₄ SE¹/₄ of Section 10, T12N R4E, MDR&M; and from West Branch Bunkham Slough by gravity at a point within SW¹/₄ SW¹/₄ of Section 11 of the same township. The project is to include, besides the pump, a small concrete and flashboard diverting dam and 4100 lineal feet of open ditch. A total of 157.2 acres is to be irrigated, of which 90.2 acres are to be in rice and the remainder in pasture. The application mentions no other water right or source of water supply.

Protests

The Nevada Irrigation District protests both of the applications. Its protests are much alike, differing mainly in details relating to the various points at which the applicants seek to appropriate. The protestant asserts rights to divert at a point within the NWL of Section 15 and at a point within the NWL of SWL of Section 28, Tl2N R4E, MDE&M, claiming that such rights are based upon "the fact of prior use, prescription and the fact that the water is the property of protestant." As to present and past use it states "Diversion has been continuous at protestant's point of diversion since 1935". The basis of its objection against the two applications is set forth in the following quotation from its protest against Application 14953:

During the irrigation season of each year, the only water in Coon Creek and Bunkham Slough, at the point of applicant's proposed diversion is water introduced into said Creek and Slough by the protestant in the form of spill from District's conduits, and, return flow within the boundaries of the District, from irrigation water provided by the District. That protestant uses Coon Creek as a conduit to conduct its said water to a point in the NW# of Section 15, Tl2N, R4E, MDB&M, where the water is diverted from Coon Creek into a canal that runs southerly and said water is then diverted by protestant from said canal at a point in the NW# of the SW# of Section 28, Tl2N, R4E, MDB&M, and sold by protestant for rice culture in the area. That, in that manner, protestant has diverted and used all water in Coon Creek and Bunkham Slough, each irrigation season, from and including the year 1935 to date. That there is no unappropriated water in Coon Creek and Bunkham Slough during the summer months and all of the water in said Creek and Slough during the summer months is surplus water, and is the property of the protestant. This surplus water is sold outside the District boundaries on a year by year basis only, and it is clearly understood in the contract that this water can be withdrawn for use within the District when such demands necessitate.

- "2. Approval by the California District's Securities Commission of the sale of water outside of the District is unnecessary in this instance (See Section 22260 of Water Code).
- "3. The right to the water, and to sell same outside the District is claimed under Section 22259 of the Water Gode."

Answers

In answer to the protests the two applicants wrote the following joint letter:

- "We do not agree with the N. I. D. protests to our applications 14952-14953.
- "1. The N. I. D. did not use Coon Creek and Bunkham Slough as a conduit in the 1951 or 1952 irrigation season.
- "2. The present plan is not to use these creeks as conduits in the 1953 season.
- ⁿ3. Until there is more water put in storage there will be no water for irrigation from N. I. D. in these creeks.
- "4. We have three deep well pumps in Sections 8 and 9, T 12 N, R 5 E, MDB&M, that discharge into said creeks above points of applications Diversion."

Field Investigation

The applicants and the protestant with the approval of the Department having stipulated to the submittal of the applications and protests upon the official records of the Department, the matters at issue were set for field investigation. A conference was held with the parties by an engineer of the Division at Lincoln on June 17, 1953. The applicants were present and the protestant represented during that conference. As a result of the conference a field investigation appeared unnecessary and was omitted.

Records Relied Upon

Applications 14430, 14952 and 14953 and all data and information on file therewith; Reports of Sacramento-San Joaquin Water Supervision for 1941 to 1952, both inclusive.

Information Based upon Conference of June 17, 1953

Extracts from the report of the investigation (conference) of June 17, 1953, are as follows:

"The sources under these applications are named as Coon Creek and Bunkham Slough whereas they are the same source since Bunkham Slough is in reality the south channel of Coon Creek

"The creek, while stated in the applications as being tributary to Auburn Ravine, is now tributary to District 1001 Drain and thence the Sacramento River

"The creek heads in the Sierra Nevada Foothills, flows westerly to the drain and its watershed above applicants' projects has an area of about 120 square miles, is wooded in the upper portion, more or less barren in the lower portion and has an average annual rainfall of about 20 inches.

"About 80 per cent of the watershed lies within the boundaries of the Nevada Irrigation District

"It is understood that prior to 1910 and 1912, when importation of water commenced, the stream normally had no surface flow in its lower reaches during the summer but that subsurface flow kept pools sufficiently supplied to permit a limited amount of pumping.

"Since importation commenced, it appears that runoff caused by increasing use of imported waters and waters derived from wells has caused a gradual increase in summer flow and further increases are expected as additional lands are placed under irrigation by such waters.

"Runoff from lands within the watershed, which are irrigated with well waters, cannot be claimed by protestant. In this connection ... on lands within the watershed, which are outside the protestant's boundaries, around 40 cubic feet per second was used from wells for irrigation during 1953. The irrigated areas included in the neighborhood of 1500 acres of rice. It would therefore appear that the runoff from such use alone was usually sufficient to provide applicants with the total of 14.4 cubic feet per second applied for without any runoff from lands within protestant's boundaries. However, the Van Dykes stated that at times there was insufficient water for them and that they pumped from wells.

"The supply in Coon Creek is further augmented, insofar as Application 14953 is concerned, by a drain which has been dug along the R. 4-5 E. line from Yankee (Slough) Ravine to the north channel of the creek.

"Mr. Wells stated that, other than delivery of such local runoff as protestant may be entitled to, Coon Creek was not used to deliver water to lands outside of protestant's boundaries but that Auburn Ravine was used for this purpose. Protestant delivers purchased and other waters to the ravine and then diverts such waters through a ditch heading at Lincoln and by means of pumps from District 1001 Drain to which the ravine is

now tributary.

"In addition to Coon Creek and Auburn Ravine, protestant secures water from Markham Ravine which also discharges into District 1001 Drain. The waters thus secured consist of such runoff within protestant's boundaries as protestant may be entitled to. No records of flow in the ravine are available but as nearly as could be determined, the summer flow is about one—third that recorded for Coon Creek.

"Yankee (Slough) Ravine also receives some runoff from lands within protestant's boundaries but the effect on the supply available in District 1001 Drain is slight.

"Records of flow in Reclamation District 1001 Drain are available The recording station is below the points at which protestant's customers divert from the drain. Records are therefore indicative of the amount available in the drain in excess of protestant's use.

"Use by protestant in this case involves use only on lands outside of protestant's boundaries. The bulk of these lands are served by a ditch from Auburn Ravine which does not involve the waters of Coon Creek. The only lands which have been involved with Coon Creek waters are, therefore, those served from District 1001 Drain. In the past few years the maximum supplied with water from the drain has been 600 acres devoted to the growing of rice. Based on normal requirements of rice the protestant's maximum use from the drain has been 15 cubic feet per second. In 1952 only 300 acres were served and in 1953 only 129 acres. Protestant depended mainly upon Auburn Ravine to supply the 15 cubic feet per second and ... purposely places water in that ravine for that purpose.

"It appears to the writer that, in view of the extent of the runoff from areas irrigated from wells inside and outside of protestant's boundaries, there was usually sufficient water present to supply the amount sought by the applicants. In addition, there is available to applicants some natural flow for at least a portion of the irrigation season and, during a considerable portion of the season, water is present which could be claimed by protestant but is not used by protestant.

"Mr. Wells stated that the filing of the protest was more or less of a formality, that it was filed for the purpose of placing on record the fact that certain waters involved were claimed by protestant and that it was not proposed to press the protest. He also stated that he realized that at times there was considerable water available to which protestant had no claim and admitted that there was water present which the protestant could claim but was not using."

The investigator summarizes his report as follows:

- "1. Water is present most of the time in the sources involved to which protestant has no claim.
- "2. Water is present most of the time which could be claimed by protestant but is not used by protestant.

"3. Protestant's representatives stated that the protest was filed for the purpose of placing on record the fact that certain waters involved were claimed and that it was not proposed to press the protest."

Information Secured from other Sources

No applications other than Applications 14952 and 14953 to appropriate from Bunkham Slough are of record. Prior applications to appropriate from Coon Creek include the following:

Application 13938 Permit 8381, Nader, 1.3 cubic feet per second, May 1 to October 31, irrigation. Diversion to head within $SE^{\frac{1}{4}}$ NW $^{\frac{1}{4}}$ of Section 31, T13N R6E, MDB&M. Use of water reported complete.

Application 14351 Permit 8711, Steelhammer, 1.5 cubic feet per second, April 1 to November 1, irrigation. Two diversion points contemplated, both within E_2^1 NW $_4^1$ Section 33, Tl3N R5E, MDBUM. Completion expected in 1954.

Application 14430 Permit 9330, J. M. and M. E. Brown, 2.0 cubic feet per second, April 1 to November 1, irrigation. Point of diversion within NE¹/₄ SE¹/₄ Section 2, Tl2N R4E, MDB&M. No complaint as to adequacy of supply.

Application 14478 Permit 9331, Ahart and Tucker, 1.5 cubic feet per second,

April 15 to November 30, irrigation. One point of diversion within SW¹/₄

NE¹/₄ of Section 36, another within SE¹/₄ SW¹/₄ of Section 35, Tl3N R5E, MDB&M.

Use reported complete.

Application 1/479 Permit 9332, Bonnifield, 1.5 cubic feet per second, April 1 to November 1, irrigation. One point of diversion within SE_4^1

NW¹, another within NE¹/₄ SW¹/₄ of Section 34, Tl3N R5E, MDB&M. Use reported complete.

Application 14480 Permit 9333, Mariner, 2.0 cubic feet per second, April 1 to November 1, irrigation. One point of diversion within NW_{+}^{1} SW_{+}^{1} of Section 35, and one within NE_{+}^{1} SE_{+}^{1} of Section 33, Tl2N R5E, MDR&M. Permittee reports insufficiency of supply due to interference by users next upstream. Application 14482 Permit 9334, H. W. and N. E. Brown, 0.63 cubic foot per second, April 15 to November 15, irrigation. Movable point of diversion within S_{2}^{1} NE_{+}^{1} of Section 34, T 13N R5E, MDR&M. No complaint as to adequacy of supply.

Applications 13938 and 14351 were unprotested. Applications 14430, 14478, 14479, 14480 and 14482 were all protested by Nevada Irrigation District, the interested parties stipulated to submit the matter upon the official records of the Department and a field investigation was conducted by an engineer of the Division. That engineer summarized the report of this field investigation, which took place on October 10, 1952, as follows:

- "1. Flow in Coon Creek at the time of the investigation was about 18.0 cfs.
- *2. Flow in Coon Creek is usually in excess of protestant's requirements.
- "3. Protestant relies mainly on other sources to meet its requirements.
- "4. A high percentage of the summer flow does not originate within protestant's boundaries.

- *5. Additional runoff from lands outside the protestant's boundaries can be expected.
- "6. Unappropriated water appears available to applicants."

The flow of Coon Creek has been measured by the Division at Highway 99E, which skirts the westerly edge of the protestant District.

Monthly mean flows at that point, in cubic feet per second, according to published reports of Sacramento-San Joaquin Water Supervision, during irrigation seasons of years of published record, have been as follows:

Month	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u> 1952</u>
April	41.4	43.7	34.2	48.7
May	22.4	32.6	58.3	31.2
June	6.4	12.4	15.5	18.0
July	4.8	10.6	10.9	15.4
August	6.2	11.2	10.2	9.8
September	4.7	15.5	22.4	15.4
October	10.6	35.5	67.6	15.8

As a map of the locality indicates, a considerable area of valley land drains into the roughly 10-mile reach of Coon Creek between Highway 99E and the applicants' proposed intakes. In this connection the report of the field investigation of October 10, 1952 contains the following statements:

[&]quot;Mr. J. W. Brown stated that prior to 1910 or 1912, when importations of water commenced, the stream normally had no surface flow in its lower reaches during the summer but sub-surface flow kept pools sufficiently supplied to permit a limited amount of pumping.

^{*}Since importations commenced, it appears that runoff caused by increasing use of imported waters and waters derived from wells has caused a gradual increase in summer flow and further

increases are expected as additional lands are placed under irrigation. In this connection the writer viewed some new areas being prepared for irrigation during 1953 with water from new wells."

"... on lands within the watershed, outside of the protestant's boundaries, between 30 and 40 cfs was used for irrigation during 1952. These irrigated areas included about 1300 acres of rice."

"The supply of Coon Creek is further augmented ... by a new drain ... along the R 4 - 5 E line from Yankee (Slough) Ravine to the north channel of Coon Creek."

"Use by protestant in this case involves use only on lands outside of protestant's boundaries. The bulk of these lands are served by a ditch from Auburn Ravine which does not involve the waters of Coon Creek. The only lands involved with Coon Creek waters are therefore those served by diversions from District 1001 Drain. In the past few years the maximum supplied with water from the drain by protestant has been 600 acres devoted to ... rice. Based on the normal requirements for rice the protestant's maximum use has therefore been 15.0 cfs.

"Protestant depends mainly upon Auburn Ravine to supply the 15.0 cfs and ... purposely places water in that ravine for that purpose."

Records of flow in Reclamation District 1001 Drain, mentioned by the investigator, are contained in the Division's Sacramento-San Joaquin Water Supervision reports. According to those reports monthly mean flows in said Drain, into "Cross Canal," in cubic feet per second, have been as follows:

Year	<u>April</u>	May	June	July	Aug.	Sept.	Oct.
1941	198.	32.	13.	5.	1.7	0	1.
1942	73.	28.	16.	8.	2.	7.	6.
1943	29.	18.	12.	4.	3.	5.	1.
1944	2.8	12.9	2.	ò	5.5	5.	0
1945	11.9	21.1	15.3	Ö	0	Ó	44.
1946	6.	9.	6.	0.7	0	Ö	Ò
1947	2.	11.1	4.5	0	Ō	Ō	0
1948	3.6	9.8	5.4	Ó	0	0	0
1949	5.8	12.1	Ó	Ö	0	0	Ö
1950	2.3	5.4	1.5	0	Ö	3.9	1.3
1951	12.1	18.5	0	Ō	Ó	ō í	0
1952	21.5	21.2	15.2	2.9	Ō	Ō	Ö

Discussion

The assertions in the protests that all of the water in Coon Creek and Bunkham Slough at the applicants' proposed points of diversion during the summer months is the property of Nevada Irrigation District do not appear to be literally true. According to the information adduced the summer flow of the channels mentioned includes some water to which the protestant probably may lay claim but it also includes waters to which rights are not seen to attach, the latter being made up both of waters originating within the District but not applied to beneficial use and waters originating outside of the District. Insofar as the flow consists of water that the District is entitled to divert and utilize under valid rights, that flow apparently is at the disposal of the District to sell, temporarily, to users outside of its boundaries, as "surplus" water, at least if it is actually possible, physically, to utilize that water within the District in future and if it is the District's bona fide intention to convert to such use, reasonably soon. Insofar however as

the flow is composed of waters not covered by rights held by the District or by anyone else, such flow plainly is subject to appropriation.

The amount of water currently subject to appropriation cannot be estimated closely from the data at hand, those data including only the record of flow of Coon Creek at Highway 99E, the experience of water users as reflected in their progress reports, the information reported by the investigator and the records of flow in Reclamation District 1001 Brain into which the residual flow of Coon Creek and Bunkham Slough is reported to pass. The data do indicate however that unappropriated water exists in substantial although fluctuating amounts. It is significant that the applicants in their answer to the protest and in their statement to the investigator mention wells which afford them a supplemental supply.

Summary and Conclusions

Applicant F. M. Van Dyke seeks to appropriate 11.3 cubic feet per second from Bunkham Slough, Applicant H. F. Van Dyke 3.1 cubic feet per second from Coon Creek and/or West Branch Bunkham Slough, from April 1 to October 31, for irrigation. In their applications they deny having any other source of water supply but in their joint answer they intimate that they pump from three deep wells. The applications are protested by Nevada Irrigation District which claims that there is no unappropriated water in the sources filed upon, in the summer months, that it, the District, has diverted and used all water flowing in those

sources during each irrigation season since 1935 inclusive, that it uses Coon Creek as a conduit for water which it owns and sells to users at points downstream. The applicants in answer to the protest deny that the protestant District used Coon Creek and Bunkham Slough as conduits in the 1951 or 1952 irrigation season or plans to so use them in the 1953 season and assert that they (the applicants) pump water into those streams, from deep well pumps, above the points at which they seek to appropriate.

The parties having stipulated to proceedings in lieu of hearing the matters at issue were set for field investigation. At a conference held by an engineer of the Division at Lincoln on the date set and attended by the applicants and by representatives of the protestant, it developed that a field investigation was unnecessary and the latter was omitted.

According to the report of the investigation (conference) just mentioned, Bunkham Slough is in reality the south channel of Coon Creek and the latter is actually tributary to Reclamation District 1001 Drain; before irrigation became extensive there was no surface flow in the lower reaches of Coon Creek in summer but there was enough underflow to support limited pumping; irrigation by means of imported waters has resulted in summer flow in Coon Creek and such flow will probably increase as irrigation expands further; during 1953, on lands within Coon Creek watershed but outside of the protestant District's boundaries, some 40 cubic feet per second were pumped from wells for the

irrigation of some 1500 acres of rice, and the return flow therefrom reached Coon Creek; the flow of Coon Creek is further augmented by the flow in a drain leading from Yankee (Slough) Ravine; Auburn Ravine rather than Coon Creek is used for delivery of water to the District's customers west of the District's westerly boundary; the District also secures water from Markham Ravine; Coon Creek, Auburn Ravine and Markham Ravine all discharge into Reclamation District 1001 drain; the gaging station on the drain mentioned is below the District's lowest customer; the only lands served by the District with waters from Coon Creek receive waters that enter the drain; in recent years not over 600 acres have been supplied from the drain, requiring possibly 15 cubic feet per second, most of which comes from Auburn Ravine. According to the same report Watermaster Wells (representing the District) stated that the protest was filed mainly to place on record the fact that the District claims certain rights on Coon Creek, that the District does not propose to press the protest, that he (Wells) realizes that there is water at times in Coon Creek that the District cannot claim and that there is water occasionally that the District could claim but does not use.

There are in all seven applications before this office to appropriate from Coon Creek at points between the protestant District's westerly boundary and the applicants' proposed points of diversion. The amounts sought under these applications aggregate 10.43 cubic feet per second. Two of the applications were unprotested, five were protested

by Nevada Irrigation District on grounds substantially the same as set forth in its protests against Applications 14952 and 14953. The seven applications were approved and permits were issued. Four of the permittees have reported their projects complete and water used in the amounts sought. Supply appears to have been sufficient for all but one of the seven, that one reporting interference from users next upstream.

Published records of the flow in Coon Creek at Highway 99E (skirting westerly edge of Nevada Irrigation District) indicate monthly means (during months when water is to be used) as small as 4.7 and as large as 67.6 cubic feet per second. Similar records of the flow in Reclamation District 1001 Drain, which includes the residual flow of Coon Creek, indicate substantial flows, generally, during April, May and June, occasional flows in October and no flow at all during most of the months of July, August and September. The deficiency of summer flow at the point of measurement on Reclamation District 1001 Drain is believed of little significance as an indicator of conditions obtaining at the applicants' proposed points of diversion, because of the considerable distance intervening and the probable channel losses over that distance. Greater weight, it is believed, should attach to the apparent sufficiency of supply at the permittees' points of diversion next upstream from the applicants Van Dyke, and to the observations of the investigator.

From the information above summarized it is concluded that unappropriated water exists at times in the sources from which the applicants seek to appropriate and that such water may be taken and used in the manner proposed by the applicants without injury to the protestant. It is the opinion of this office therefore that Applications 14952 and 14953 should be approved and permits issued, subject to the usual terms and conditions.

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ORDER

Applications 14952 and 14953 having been filed with the Division of Water Resources as above stated, protests having been filed, stipulations having been submitted, an investigation having been conducted and the State Engineer now being fully informed in the premises:

IT IS HEREBY ORDERED that Applications 14952 and 14953 be approved and that permits be issued to the applicants, subject to such of the usual terms and conditions as may be appropriate.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 26th day of April, 1954

A. D. Edmonston State Engineer