



November 18, 2011

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000, Sacramento, CA 95812
Attn: Mr. Rich Satkowski

Re: *Comment Letter – Water Measurement*

This letter is in response to your Notice of Opportunity to Comment on Guidance for Complying with Water Diversion Measurement Requirements for Statement Holders. These comments are on behalf of Georgetown Divide Public Utility District. In order to understand the context of the comments herein as they pertain to Georgetown Divide Public Utility District's (GDPUD) Stumpy Meadows Project, the GDPUD history and the Stumpy Meadows Project operations must be understood. This letter provides a history of the formation of the District and its water rights, comments on the Guidance provided by the State Water Resources Control Board, and comments on the new statement reporting form.

HISTORY¹

The predecessors to Georgetown Divide Public Utilities District claimed and exercised pre-1914 rights in the South Fork Rubicon and Pilot Creek drainages dating back to before the turn of the century. These rights included water supply from Loon Lake, Little South Fork Rubicon, Gerle Creek, Onion Creek and Pilot Creek as well as tributaries to Pilot Creek that were used to serve the foothill region near Georgetown. The point of diversion for this supply was on Pilot Creek at Stumpy Meadows.

In the late 1940's and early 1950's, SMUD was in the process of developing the Upper American River Project. SMUD offered GDPUD financial assistance in the construction of a 20,000 acre-foot reservoir at Stumpy Meadows on Pilot Creek in exchange for the rights and facilities in the

¹ The "History" is largely summarized from "Georgetown Divide Public Utilities District – Claim to Pre-1914 Water Rights", a document prepared by Sierra Hydrotech in support of the District's continuing claim and exercise of pre-1914 water rights on Pilot Creek and on minor tributaries to Pilot Creek, attached.

South Fork Rubicon River watershed. The details of the agreement between SMUD and GDPUD were finalized in 1961. The facilities and pre-1914 water rights on Pilot Creek and the remainder of the conveyance system that carried water to the Georgetown Area remained GDPUD's. GDPUD retained the pre-1914 rights to divert the waters of Pilot Creek on a year-round basis up to the capacity of the then existing diversion and conveyance facilities at Stumpy Meadows and up to the capacity of the then existing enroute diversion and conveyance facilities. These enroute tributaries are Mutton Canyon, Bacon Canyon, an unnamed tributary and Deep Canyon.

In accordance with the agreement with SMUD, GDPUD built the Stumpy Meadows Project with the assistance of a loan administered by U.S. Bureau of Reclamation. This project, which consisted of the 20,000 acre-foot Stumpy Meadows Reservoir, the Pilot Creek diversion dam, approximately 10 miles of El Dorado Conduit (a conveyance system which paralleled the Georgetown Divide Ditch and brought the water back to the Georgetown Ditch near Tunnel Hill) and enroute diversions, was completed in 1962. The District had filed applications for Permits to operate the Stumpy Meadows Project and now holds the appropriate permits required for operation of the Stumpy Meadows Project. However, according to the former District General Manager, the District has continued to make use of water under pre-1914 rights from Pilot Creek by direct diversion (and redirection of that direct diversion) and from intercepted tributaries of Pilot Creek after construction of the Stumpy Meadows Project. The construction of Stumpy Meadows Reservoir inundated the original Pilot Creek diversion headworks. The pre-1914 rights on Pilot Creek are now based on the available flow at the Pilot Creek gage above Stumpy Meadows Reservoir limited by the capacity of the old Stumpy Meadows headworks.

COMMENTS ON GUIDANCE

- Based on the pre-1914 rights, GDPUD maintains that it is entitled to direct diversion from Pilot Creek equal to what would have been available at the old Stumpy Meadows headworks. Since the old headworks are now inundated by Stumpy Meadows Reservoir, there is no way to measure Pilot Creek flow which should be available to GDPUD for direct diversion. The gage above Stumpy Meadows Reservoir approximately represents the entitlement water available for direct diversion at the Pilot Creek diversion dam. In

addition, because GDPUD has both pre-1914 direct diversion rights and appropriative rights that use the same point of diversion, it is not possible to differentiate by measurement what is diverted under the pre-1914 right and what is diverted under the appropriative right. This can only be calculated.

- It is important to recognize that in the strategy for operation of Stumpy Meadows Reservoir that GDPUD calculates the flow which would have been available at the old Stumpy Meadows headworks (prior to reservoir construction). This water is assumed to be available for direct diversion to use under the Pre-1914 entitlement. It simply passes through the reservoir and is rediverted at the Pilot Creek Diversion Dam as continuing use of the Pre-1914 entitlement.
- The GDPUD conveyance system, constructed about 1962, follows the general alignment of the old Georgetown Ditch. Where the ditch crosses tributaries to Pilot Creek, flow from these drainages is diverted into the conveyance system. The maximum rates of diversion from each of these control structures are governed by the physical layout of the structures. In other words, the maximum diversion of the structure is equal to the maximum diversion allowed. The maximum diversion rates of these structures range from 3 to 5 cfs. These are small diversions in a remote area on the northern slope of a ridge. There are no power lines in the area. Because these diversions are on the northern slope, solar power is a problem as sunlight only reaches these areas for a few hours per day during the winter months. Satellite communication is often difficult in this remote forested area. Installation of 3 gages using "Best Available Technology" for a maximum diversion of 11 cfs for a few weeks a year is not locally cost effective.

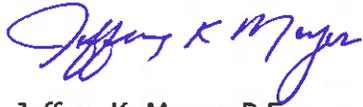
COMMENTS ON NEW STATEMENT REPORTING FORM

The new Statement Reporting Form is probably adequate, but there are likely several water rights holders that have both pre-1914 and appropriative rights at the same point of diversion. Measuring diversions under one right or the other cannot be done. In the case of GDPUD's Pilot Creek diversion, the option for reporting the usage on the currently proposed form would

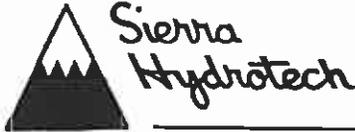
have to be "other". Adding a "computed" option seems necessary to properly capture the method of estimating the diversion when two or more rights use the same point of diversion.

Thank you for the opportunity to comment. If you have any questions or would like further clarification, please feel free to contact me.

Sincerely,



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GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT CLAIM TO PRE-1914 WATER RIGHTS

1.0 INTRODUCTION

Georgetown Divide Public Utility District (GDPUD) owns and operates the Stumpy Meadows Project as a water supply for the District service area lying between the North-Middle Fork and the South Fork of the American River. The Stumpy Meadows Project consists principally of a 20,000 acre-foot reservoir on Pilot Creek, a diversion structure on Pilot Creek and certain conveyance facilities. GDPUD also operates a conveyance system, regulatory reservoirs, and water treatment facilities to deliver water to the service area. The Stumpy Meadows Project represents the only major water supply facility for the District.

GDPUD has appropriative water rights under SWRCB to operate the Stumpy Meadows Project as a water supply, including the necessary SWRCB permits. Additionally, GDPUD claims and exercises a pre-1914 right for year-around direct diversion from Pilot Creek in the vicinity of the present Stumpy Meadows Reservoir. The original diversion headworks were located about 0.75 miles upstream from Stumpy Meadows damsite.

GDPUD also claims and exercises a pre-1914 right for direct diversion from several tributaries of Pilot Creek which were historically diverted into the *Georgetown Divide Ditch* between Stumpy Meadows and the "tunnel" (no longer in use) through Tunnel Hill. This now abandoned tunnel conveyed flow in the Georgetown Divide Ditch from the Pilot Creek watershed into Rock Creek watershed, a tributary to South Fork American River. The original tunnel has been replaced by a new tunnel on the El Dorado Conduit.

Note that in the case of both the old Stumpy Meadows diversion and the enroute diversions, the point of diversion under a pre-1914 right can be changed under Water Code section 1706.

Conversations with former General Manager, Charles F. Gierau, verified that the District has claimed and has exercised the pre-1914 rights on Pilot Creek and on the enroute diversions, although no statements have been filed. Present Board Member, Bob Flynn, also recalls claim and use of pre-1914 rights by the District.

The purpose of this memorandum is to describe and define the pre-1914 rights on Pilot Creek and the enroute tributaries as they relate to operation of the Stumpy Meadows Project.

2.0 HISTORY

Georgetown Divide Water Company and its predecessors in interest, including Sierra Pacific Power Company, the Loon Lake Water and Power Company, California Water Company, Pilot Creek Water Company and their predecessors, claimed and exercised pre-1914 rights in the South Fork Rubicon and Pilot Creek drainages dating back well before the turn of the century. The pre-1914 rights encompassed storage in Loon Lake, diversion from Gerle Creek and South Fork Rubicon River, and from Pilot Creek and its tributaries, all in the Rubicon River drainage. Water was diverted directly and rediverted from storage in Loon Lake into a canal and flume system which conveyed water from the South Fork Rubicon drainage into Pilot Creek drainage near the present location of Uncle Tom's Cabin. The water from this Upper Rubicon basin was released into the channel of Pilot Creek and rediverted along with direct diversion of water from the natural flow of Pilot Creek at Stumpy Meadows (then a meadow and not a reservoir) to the Georgetown Divide Ditch and conveyed to a service area in the foothill region around Georgetown for domestic, agricultural and mining uses. Water was also diverted from Onion Creek, a tributary of Silver Creek in South Fork American River, into the Pilot Creek watershed above the point of diversion on Pilot Creek at Stumpy Meadows.

Pursuant to the California Public Utility District Act and in accordance with Ordinance Number 137 of the El Dorado Board of Supervisors, formation of the Georgetown Divide Public Utility District was submitted to and approved by the qualified electors within the District boundaries on June 4, 1946. The statutory authority enabling the Georgetown Divide Public Utility District to construct, finance, maintain and operate a water system is set forth in Section 16461 of the Public Utilities Code of California.

GDPUD negotiated with Georgetown Divide Water Company for acquisition of the facilities and rights of the company. GDPUD acquired the Company facilities by purchase in June 1952, and took over water service to the Georgetown service area at that time. A recorded deed, dated June 1961, conveyed to GDPUD the facilities of Georgetown Divide Water Company, including Loon Lake, the trans-basin diversions from Rubicon and Onion Creek watersheds to Pilot Creek, the diversion from Pilot Creek, diversions from enroute tributaries to Pilot Creek, the conveyance to the District service area and other facilities and rights. A copy of that deed is attached. The pre-1914 rights for water to operate the system were conveyed to the District in the same deed, along with the facilities (Recorders page 378 of deed). GDPUD continued to operate the water supply system in much the same manner as its predecessors until about 1962 when the Stumpy Meadows Project was constructed.

Sacramento Municipal Utility District in the late 1940's and early 1950's was desirous of obtaining the rights and facilities of GDPUD in the South Fork Rubicon River watershed, including Loon Lake, for development of SMUD's Upper American River Project (UARP). In exchange, SMUD offered GDPUD financial assistance in construction of a 20,000 acre-foot reservoir at Stumpy Meadows on Pilot Creek. GDPUD's use of water from Pilot Creek would not affect SMUD's planned UARP and all of GDPUD's interests in the Upper Rubicon basin would be neutralized.

An agreement was finalized, and the GDPUD physical works and associated rights in the South Fork Rubicon watershed were conveyed to SMUD by deed, also dated 1961. A copy of the GDPUD to SMUD deed is attached. The facilities and pre-1914 water rights *in the Upper Rubicon watershed* acquired by GDPUD from Georgetown Divide Water Company were in turn conveyed to SMUD by that deed. Facilities on Pilot Creek and the remainder of the water conveyance system, including the pre-1914 rights, remained in ownership of GDPUD. SMUD then applied for appropriative water rights permits in the Upper Rubicon watershed, including Loon Lake, diversions into Loon Lake and additional diversions out of South Fork Rubicon basin into Silver Creek basin, a tributary of South Fork American River. It is not believed that SMUD claims any pre-1914 water rights to any of the facilities or water features conveyed by GDPUD to SMUD. GDPUD agreed not to interfere with the SMUD applications for water in the Upper Rubicon basin.

Even though the actual transfers by deed did not occur until 1961, GDPUD, Georgetown Divide Water Company and SMUD were negotiating their positions and developing their plans during the 1950's. After the agreements were struck with Georgetown Divide Water Company and SMUD, GDPUD retained pre-1914 rights to divert the waters of Pilot Creek on a year-around basis up to capacity of the diversion and conveyance facilities at Stumpy Meadows (the meadow) and up to the capacities of the then existing enroute diversion and conveyance facilities. This is verified by GDPUD's filing for A5644-A for Assignment of a State Filing for the Stumpy Meadows Project which includes the following statement with regard to the District's pre-1914 rights to water for serving the GDPUD service area.

"Old rights of undetermined amounts* dating back 100 years. Includes 10,000* acre-feet in Loon Lake, direct diversion from Gerle Creek, Pilot Creek and all intervening streams up to capacities of existing ditch system."

GDPUD gave up the water rights to Loon Lake, Gerle Creek and South Fork Rubicon in the agreement with SMUD, but claims and exercises the right to direct diversion from Pilot Creek and all intervening streams to capacities of the then existing ditch system. The intervening streams including Mutton Canyon, Bacon Canyon, an unnamed tributary, and Deep Canyon.

In accordance with the agreement with SMUD, GDPUD built the Stumpy Meadows Project with the assistance of a PL-984 loan administered by US Bureau of Reclamation. This project, which consisted of the 20,000 acre-foot Stumpy Meadows Reservoir, a diversion dam on Pilot Creek about 2.5 miles downstream from Stumpy Meadows Reservoir, approximately 10 miles of El Dorado Conduit (a conveyance system which paralleled the Georgetown Divide Ditch and brought the water back to the Georgetown Divide Ditch near Tunnel Hill) and enroute diversions, was completed in 1962. The District had filed Applications for Permits to operate the Stumpy Meadows Project (A12421, A16212 and A16688). GDPUD also filed an Application for partial assignment of State Filing A5644. GDPUD holds the appropriate permits required for operation of the Stumpy Meadows Project. However, according to the former District General Manager, the District has continued to make use of water under pre-1914 rights from Pilot Creek by direct diversion (and rediversion of that direct diversion) and from intercepted tributaries of Pilot Creek after construction of the Stumpy Meadows Project.

3.0 UTILIZATION OF PRE-1914 RIGHTS BY GDPUD

The appropriate water rights permits for operation of the Stumpy Meadows Project were granted to GDPUD under Decision 893 in 1958. These water rights included storage rights as well as direct diversion from Pilot Creek, but had a limitation on the time of diversion to storage or direct diversion excluding the period from "about August 1 through about November 1" of each year. The former District Manager, Charles F. Gierau has indicated that the District had used its pre-1914 rights to permit *direct diversion* from Pilot Creek and some enroute tributaries of Pilot Creek during that period.

Based on the pre-1914 rights, GDPUD maintains that it is entitled to direct diversion from Pilot Creek equal to that which would have been available at the old Stumpy Meadows diversion point to the Georgetown Divide Ditch. However, the old ditch diversion headworks have been inundated by Stumpy Meadows Reservoir. Consequently, in order to make use of the pre-1914 entitlement, the quantity of water which would have been available from Pilot Creek itself at the old diversion headworks must be bypassed through Stumpy Meadows Reservoir back into Pilot Creek and rediverted at the Pilot Creek Diversion Dam into the El Dorado Conduit. GDPUD can not *store* water from this pre-1914 right in Stumpy Meadows Reservoir. It must be diverted directly. The District maintains that it is entitled to divert from Pilot Creek from about August 1 through about November 1 period when the appropriate permits exclude diversion from Pilot Creek.

Additionally, GDPUD maintains that it is entitled to divert under the pre-1914 rights from tributaries to Pilot Creek which were intercepted by the old Georgetown Divide Ditch and are now intercepted by the El Dorado Conduit. Claimed diversion rates are up to the conveyance capacity of the old Georgetown Divide Ditch and the pertinent diversion

structures. Pre-1914 direct diversion rights are claimed on the following tributaries of Pilot Creek.

TRIBUTARY	PRESENT DIVERSION STRUCTURE	REMARKS
Mutton Canyon	None	Mutton Canyon Flow used beneficially to meet fish release requirements at USGS gaging station "Pilot Creek below Mutton Canyon".
Bacon Canyon	Bacon Canyon Diversion Structure	Direct diversion to El Dorado Conduit
Unnamed tributary of Pilot Creek	Control Structure #1	Direct diversion to El Dorado Conduit
Deep Canyon	Control Structure #2	Direct diversion to El Dorado Conduit

There are several important points to consider here. First, under Decision 893 the District is required to make fish releases below Stumpy Meadows Dam and below Pilot Creek Diversion Dam (as measured at the USGS stream gaging station "Pilot Creek below Mutton Canyon"). Since these are required for operation of the Stumpy Meadows Project as it exists today, the pre-1914 rights would *not exempt* Stumpy Meadows Project from the fish release requirements.

Second, GDPUD may divert under the pre-1914 entitlement from Pilot Creek only that water which would have been available at the old Stumpy Meadows diversion headworks, even though the rediversion is at Pilot Creek Diversion Dam, located just upstream from the confluence of Pilot Creek and Mutton Canyon. GDPUD would not be entitled to diversion of any flow accumulating between the present Stumpy Meadows Dam and the Pilot Creek Diversion Dam during the period when direct diversion is prohibited under D-893 and the Permits.

This approach to the pre-1914 rights exercised by GDPUD subsequent to construction of the Stumpy Meadows Project requires the District to bypass the inflow to Stumpy Meadows Reservoir during the exclusionary period, and redirect those flows at Pilot Creek Diversion Dam, while continuing to make the fish release requirement at the USGS stream gage "Pilot Creek below Mutton Canyon". On almost all occasions during the August through October period when GDPUD is redirecting flows at Pilot Creek Diversion Dam, the total diversions to El Dorado Conduit at Pilot Creek Diversion Dam would *exceed the inflow* to Stumpy Meadows Reservoir (as measured at the USGS gage Pilot Creek above Stumpy Meadows Lake), and consequently exceed the pre-1914 entitlement. The remaining water for diversion or rediversion at Pilot Creek Diversion Dam would come from the appropriative permits, including release from storage. This would effectively remove the restraint on diversion from Pilot Creek, but releases below Pilot Creek Diversion Dam would have to be equal to the Exhibit 15 fish release or the accumulation of natural flow between Stumpy Meadows Dam and Pilot Creek Diversion Dam, whichever is greater.

4.0 QUANTIFICATION OF PRE-1914 RIGHTS

4.1 PILOT CREEK

There is currently no method for directly measuring the diversion at the old diversion headworks to quantify the pre-1914 rights for direct diversion at Stumpy Meadows. Historically, measurements were made in the Loon Lake-Pilot Creek system in the 1910 to 1914 time-frame, just prior to codification of California water rights law. Between approximately 1948 and 1960, measurements were made in the Pilot Creek watershed and published by USGS which are appropriate to investigating the availability and use of water under the pre-1914 rights prior to construction of the Stumpy Meadows Project. The three stations are:

- ▶ 4315 Georgetown Divide Ditch above Pilot Creek near Georgetown, California
- ▶ 4320 Georgetown Divide Ditch near Georgetown, California
- ▶ 4325 Pilot Creek near Georgetown, California

The first station measured the import from the Rubicon basin (from Loon Lake and South Fork Rubicon) into the Pilot Creek basin, while the second measurement was the diversion and rediversion from Pilot Creek into the Georgetown Divide Ditch. The third measurement site was at the approximate location of the present Stumpy Meadows Dam, just below the old Stumpy Meadows diversion headworks. By adding the third station measurement to the second station measurement and then subtracting the first station measurement, the magnitude of the direct diversion from Pilot Creek may be estimated. Any import from Onion Creek was not measured, but would have not been very significant during most mid-summer and fall months. Attached is a summary of monthly runoff for the above three stations for water years 1951-1960 published by USGS.

Shortly after GDPUD started to serve the District from Georgetown Divide Water Company facilities in the Rubicon River basin and Pilot Creek, the heavy snows during the winter of 1952 damaged the flumes which transferred water from the Rubicon River into Pilot Creek. Consequently, for most of the year there was no import to the Pilot Creek basin, and all of the water which was diverted at Stumpy Meadows headworks originated in the Pilot Creek watershed (with the possible exception of a minor diversion from Onion Creek). Consequently, the flows into the Georgetown Divide Ditch during the summer of 1952 probably represent the cleanest historical measure of diversion from Pilot Creek itself. Note that 1952 was a very heavy snowmelt runoff year.

There are currently other streamflow measurements in Pilot Creek drainage appropriate to both operation of Stumpy Meadows Project and to quantification of the pre-1914 entitlements. GDPUD provides funding to maintain two USGS stream gages in the Pilot Creek watershed.

- ▶ 11431800 Pilot Creek above Stumpy Meadows Lake, California
- ▶ 11433040 Pilot Creek below Mutton Canyon, near Georgetown, California

The gage above Stumpy Meadows Lake represents the approximate inflow to Stumpy Meadows Reservoir (at least during the drier periods of the year). It would also represent very closely the amount of water that would have been available *from Pilot Creek* and subject to diversion under the pre-1914 rights at the Stumpy Meadows diversion headworks. Consequently, it would seem appropriate to judge the quantity of pre-1914 entitlement water available from the measurement of Pilot Creek above Stumpy Meadows Lake. This pre-1914 entitlement must be bypassed at Stumpy Meadows Reservoir and rediverted at Pilot Creek Diversion Dam. It would still be necessary to make an estimate of incremental flow between Stumpy Meadows Dam and Pilot Creek Diversion Dam during August through October in order to assure that fish release requirements at the Diversion Dam exceeded the accumulation in the reach. It is suggested that an estimate of accumulation during August through October might be based on

$$\text{Accumulation} = 0.325 \times \text{Pilot Creek above Stumpy Meadows Lake}$$

If the estimated accumulation exceeds the fish release during this period, then the release at Pilot Creek Diversion Dam as measured at Pilot Creek below Mutton Canyon must be increased to the estimated accumulation.

4.2 ENROUTE TRIBUTARIES

Sierra Hydrotech prepared a yield analysis for the Stumpy Meadows Project in 1986. The flows from Mutton Canyon, Bacon Canyon, and other enroute diversions were estimated on the basis of the observed flow at Pilot Creek above Stumpy Meadows Lake, intercepted tributary area, precipitation differences and other factors. Based on that analysis, it is suggested that a realistic estimation of the water available from the enroute tributaries at the diversion points would be approximately as indicated below.

Mutton Canyon	=	0.158 X Pilot Creek above Stumpy Meadows Lake
Bacon Canyon	=	0.069 X Pilot Creek above Stumpy Meadows Lake.
Unnamed Tributary	=	0.017 X Pilot Creek above Stumpy Meadows Lake.
Deep Canyon	=	<u>0.041</u> X Pilot Creek above Stumpy Meadows Lake.
		0.285

