

## Grimm, Angie

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**From:** Yenter, Cindy  
**Sent:** Monday, February 10, 2020 1:30 PM  
**To:** Grimm, Angie  
**Subject:** RE: little fourth of july creek  
**Attachments:** Little Fourth of July.xlsx; Little Fourth of July StreamStats.xlsx; LFJC.jpg

There's not much out there on Little FJC. Jeff Richards IDFG gave me a reference to a USGS online application called StreamStats which appears to be a regression-based flow model based on annual precipitation and physical stream characteristics. As Jeff says, its better than nothing. The report is interesting and revealing if you trust the numbers. <https://streamstats.usgs.gov/ss/>

Attached is a map, water rights list and the StreamStats report. I selected the report parameters peak flows, low flows, and monthly duration (exceedance?) flows April to September. There are more options on the site but this provides both ends of the flow spectrum.

There are 5 existing water users and 11 authorized diversions on LFJC. Three users with 8 diversions are upstream from the Stenlund application, two users with three diversions are below. Total authorized water rights are 2.98 cfs, with 2.76 cfs of this amount diverted above Stenlund. All rights bear various priority dates in 1913, except for a single right at the top of the drainage with a 1972 priority.

The Hallen right diverts from Little FJC immediately below Stenlund. Hallens's right authorizes an on-stream pond (no diversion to storage), and a ditch for irrigation. Sweaney diverts from LFJC below Hallen, with an irrigation rate of flow of 0.06. I am able to locate about 7 irrigation rights in the amount of 0.94 cfs that divert from Fourth of July Ck, below the Little FJC confluence. A total of 1.12 cfs under senior water rights downstream from Stenlund could potentially call on water diverted under the Stenlund right, although much of that required flow might be available from Fourth of July proper.

I have not conducted inventories in this area and do not know which of these diversions are active. Most of the Hallen place of use under 75-2003 appears unirrigated.

The StreamStats report indicates Little FJC is a very small, very steep drainage with a very brief runoff period. Peak flows on LFJC appear to reach 11 cfs or higher during spring runoff. However, by April, theoretical flows fall off to between 1 and 3 cfs, and by September to 0.3 cfs or less. Early in the irrigation season there will be enough flow to satisfy all rights, but flows appear severely limited during summer months when compared with the authorized diversions. The stream flows of 0.5 cfs that Chris Gaughan took in LFJC last fall may be realistic for late summer, or may be higher than normal if upstream diversions were not in use at the time.

This right should be available very early in the irrigation season, and administerable in regulation the rest of the time. If upstream diversions are not calling or are satisfied, and stream flows are 0.5 cfs, Stenlund should be able to divert. Even if Hallen and Sweaney were calling for water, 0.5 cfs would be enough to satisfy these 3 rights in LFJC. However, a late season call from downstream senior right 75-4086 in FJC could take all remaining flows in LFJC. This possibility should not prevent the approval of the permit. There will be times when the permit is in priority. If Stenlund diversions are limited to those times when the permit is in priority, injury to downstream rights will not occur.

The permit should be specifically conditioned as subject to administration in any future water district. A lockable valve or diversion works is indicated, measurement is not.

**From:** Grimm, Angie  
**Sent:** Thursday, February 06, 2020 1:32 PM  
**To:** Yenter, Cindy <Cindy.Yenter@idwr.idaho.gov>  
**Subject:** RE: little fourth of july creek

Thanks Cindy! I appreciate your help.

**From:** Yenter, Cindy  
**Sent:** Thursday, February 6, 2020 9:07 AM  
**To:** Grimm, Angie <[Angie.Grimm@idwr.idaho.gov](mailto:Angie.Grimm@idwr.idaho.gov)>  
**Subject:** little fourth of july creek

I have some additional insight on this source from IDFG. Not actual data unfortunately but a statistical app from USGS that I've run. I'm going to play with that some more and compare to the existing water rights then I'll send you what I find.

*Cindy Yenter  
Idaho Dept of Water Resources  
Salmon Field Office  
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208-742-0655  
208-731-0901 cell*

Basin	Sequence	Suffix	Water Right Type	Status	Source	Tributary	Priority	Dat	TWP	RGE	SEC	QQQ	LOT	PD Type	Diversion Name	Overall Max Diversion Rate(cfs)	Overall Max Diversion Volume(af)
75	10433		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	8/13/1913	24N	21E	25	NWSESE				LFJC1	0.06	
75	2003		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/20/1913	24N	21E	25	SWNESE				HALLEN POND	0.12	
75	2003		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/20/1913	24N	21E	25	NWNESE				LFJC2	0.12	
75	14951		Water Application	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	6/28/2019	24N	21E	25	SENE				LFJC3	0.04	
75	14951		Water Application	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	6/28/2019	24N	21E	25	SENE				LFJC3A	0.04	
75	11627		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	21E	24	SESESE				LFJC4	0.17	
75	14821		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	21E	24	SESESE					0.13	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	SWSW		4		LFJC5	1.08	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	NWSW		3		LFJC5A	1.08	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	NWSW		3		LFJC5B	1.08	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	SWNW		2		LFJC5C	1.08	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	SWNW		2		LFJC5D	1.08	
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	NWNW		1		LFJC5E	1.08	
75	7027		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	6/5/1972	24N	22E	19	NWNW		1		LFJC5F	1.38	207
75	4011		Water Right	Active	LITTLE FOURTH OF JULY CREEK	FOURTH OF JULY CREEK	5/22/1913	24N	22E	19	NWNW		1			1.08	
TOTAL WATER RIGHTS DIVERSIONS ABOVE STENLUND																2.98 CFS 2.76 CFS	

Total Acres	Acre Limit	Water Use(s)	Current Owner(s)	Combined Limit	POD ID	Well Drilling	Water District	Admin by WD
	2	IRRIGATION	SWEANEY, PAMELA A; SWEANEY, STANLEY P	646966			NWD - No Water Distr	No
	7.5	IRRIGATION, RECREATION STORAGE, STOCKWATER	HALLEN, ROBERT R	695152			NWD - No Water Distr	No
	7.5	IRRIGATION, RECREATION STORAGE, STOCKWATER	HALLEN, ROBERT R	720432			NWD - No Water Distr	No
	0	DOMESTIC	STENLUND, AMY J; STENLUND, CHRISTOPHER H	933743			TBD - To Be Determin	No
	0	DOMESTIC	STENLUND, AMY J; STENLUND, CHRISTOPHER H	933744			TBD - To Be Determin	No
	8.5	IRRIGATION	ANICH, DALE A; ANICH, SUZANNE M	623538			NWD - No Water Distr	No
	6.5	IRRIGATION	SCHULER, DANIEL CARL; SCHULER, NICOLE ANN	881662			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	675697			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	680738			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	675694			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	680735			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	675696			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	680734			NWD - No Water Distr	No
	69	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	637644			NWD - No Water Distr	No
	54	IRRIGATION	JESKE, KENNETH; VETRUS, ARNE; VETRUS, PATRICIA; VETRUS, STEVEN	675692			NWD - No Water Distr	No

# StreamStats Output Report

State/Region ID ID  
 Workspace ID ID20200210161906734000  
 Latitude 45.37711  
 Longitude -113.91788  
 Time 2/10/2020 9:19:25 AM

## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	4.33	square miles
PRECIP	Mean Annual Precipitation	18.7	inches
PRECPRIS10	Basin average mean annual precipitation for 1981 to 2010 from PRISM	20.9	inches
FOREST	Percentage of area covered by forest	39	percent
ELEV	Mean Basin Elevation	5730	feet
RELIEF	Maximum - minimum elevation	4860	feet
BSLDEM30M	Mean basin slope computed from 30 m DEM	48.8	percent

## Low-Flow Statistics Parameters

100 Percent Low Flow Region 6 2006  
5053

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.33	square miles	6.4	6236.7
PRECIP	Mean Annual Precipitation	18.7	inches	15.3	42.3

## \*\*\* Low-Flow Statistics Disclaimers \*\*\*

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Warnings

100 Percent Low Flow Region 6 2006  
5053

Statistic	Value	Unit
1 Day 10 Year Low Flow	0.163	ft <sup>3</sup> /s

7 Day 2 Year Low Flow	0.29 ft <sup>3</sup> /s
7 Day 10 Year Low Flow	0.181 ft <sup>3</sup> /s
30 Day 5 Year Low Flow	0.273 ft <sup>3</sup> /s

Peak-Flow Statistics Parameters

100 Percent Peak Flow Region 6 and 8  
2016 5083

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area		4.33 square miles	2.77	3740
PRECPRIS10	Mean Annual Precip PRISM 1981 2010		20.9 inches	18.9	54.6

Peak-Flow Statistics Flow Report

100 Percent Peak Flow Region 6 and 8  
2016 5083

PII: Prediction Interval- Lower, Plu: Prediction  
Interval- Upper, SEp: Standard Error of Prediction,  
SE: Standard Error (other-- see report)

Statistic	Value	Unit	PII	Plu	SEp	SE
1.25 Year Peak Flood	11.1	ft <sup>3</sup> /s		3.72	33	66.9
1.5 Year Peak Flood	15	ft <sup>3</sup> /s		5.28	42.9	63.7
2 Year Peak Flood	20.6	ft <sup>3</sup> /s		7.51	56.8	61.3
2 33 Year Peak Flood	23.7	ft <sup>3</sup> /s		8.61	65.1	61.1
5 Year Peak Flood	36.8	ft <sup>3</sup> /s		13.2	102	61.7
10 Year Peak Flood	50.4	ft <sup>3</sup> /s		17.6	145	63.8
25 Year Peak Flood	69.1	ft <sup>3</sup> /s		22.7	211	68.1
50 Year Peak Flood	84.3	ft <sup>3</sup> /s		26.5	269	71.5
100 Year Peak Flood	103	ft <sup>3</sup> /s		30.9	347	75.1
200 Year Peak Flood	121	ft <sup>3</sup> /s		34.4	425	78.8
500 Year Peak Flood	151	ft <sup>3</sup> /s		40.1	566	84

April Flow-Duration Statistics Parameters

100 Percent Monthly Annual Region 6  
2001 4093

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area		4.33 square miles	6.4	6236.7

BSLDEM30M	Mean Basin Slope from 30m DEM	48.8 percent	8.6	66.2
FOREST	Percent Forest	39 percent	14.5	80.2

\*\*\* April Flow-Duration Statistics Disclaimers \*\*\*

Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

April Flow-Duration Statistics Flow Report	100 Percent Monthly Annual Region 6
Statistic	2001 4093
	Value Unit
April 20 Percent Duration	3.02 ft^3/s
April 50 Percent Duration	1.6 ft^3/s
April 80 Percent Duration	1.09 ft^3/s

May Flow-Duration Statistics Parameters	100 Percent Monthly Annual Region 6				
	2001 4093				
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area		4.33 square miles	6.4	6236.7
FOREST	Percent Forest		39 percent	14.5	80.2
ELEV	Mean Basin Elevation		5730 feet	6258.1	9461

\*\*\* May Flow-Duration Statistics Disclaimers \*\*\*

Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

May Flow-Duration Statistics Flow Report	100 Percent Monthly Annual Region 6
Statistic	2001 4093
	Value Unit
May 20 Percent Duration	2.88 ft^3/s
May 50 Percent Duration	1.12 ft^3/s
May 80 Percent Duration	0.3 ft^3/s

June Flow-Duration Statistics Parameters		100 Percent Monthly Annual Region 6 2001 4093			
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.33	square miles	6.4	6236.7
FOREST	Percent Forest	39	percent	14.5	80.2
ELEV	Mean Basin Elevation	5730	feet	6258.1	9461
RELIEF	Relief	4860	feet	3015.2	9419.7

\*\*\* June Flow-Duration Statistics Disclaimers \*\*\*

Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

June Flow-Duration Statistics Flow Report		100 Percent Monthly Annual Region 6 2001 4093	
Statistic	Value	Unit	
June 20 Percent Duration	2.54	ft^3/s	
June 50 Percent Duration	0.719	ft^3/s	
June 80 Percent Duration	0.107	ft^3/s	

July Flow-Duration Statistics Parameters		100 Percent Monthly Annual Region 6 2001 4093			
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.33	square miles	6.4	6236.7
BSLDEM30M	Mean Basin Slope from 30m DEM	48.8	percent	8.6	66.2
ELEV	Mean Basin Elevation	5730	feet	6258.1	9461

\*\*\* July Flow-Duration Statistics Disclaimers \*\*\*

Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

July Flow-Duration Statistics Flow Report	100 Percent Monthly Annual Region 6 2001 4093	
Statistic	Value	Unit
July 20 Percent Duration	0.664	ft^3/s
July 50 Percent Duration	0.274	ft^3/s
July 80 Percent Duration	0.201	ft^3/s

August Flow-Duration Statistics Parameters	100 Percent Monthly Annual Region 6 2001 4093				
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.33	square miles	6.4	6236.7
BSLDEM30M	Mean Basin Slope from 30m DEM	48.8	percent	8.6	66.2
ELEV	Mean Basin Elevation	5730	feet	6258.1	9461

\*\*\* August Flow-Duration Statistics Disclaimers \*\*\*

Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

August Flow-Duration Statistics Flow Report	100 Percent Monthly Annual Region 6 2001 4093	
Statistic	Value	Unit
August 20 Percent Duration	0.304	ft^3/s
August 50 Percent Duration	0.198	ft^3/s
August 80 Percent Duration	0.154	ft^3/s

September Flow-Duration Statistics Parameters	100 Percent Monthly Annual Region 6 2001 4093				
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.33	square miles	6.4	6236.7
BSLDEM30M	Mean Basin Slope from 30m DEM	48.8	percent	8.6	66.2

ELEV	Mean Basin Elevation	5730 feet	6258.1	9461
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\*\*\* September Flow-Duration Statistics Disclaimers  
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Warnings

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

September Flow-Duration Statistics Flow Report	100 Percent Monthly Annual Region 6
Statistic	2001 4093
	Value Unit
September 20 Percent Duration	0.3 ft^3/s
September 50 Percent Duration	0.201 ft^3/s
September 80 Percent Duration	0.174 ft^3/s

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