

Natl Fish Hatchery data

7/14/2004

Attachment to Main Spring - Hagerman National Fish Hatchery

The diversions reported in the attached table are diverted under Water Right Nos. 36-00132 and 36-15448. Flow rates from eight measuring devices are used to compute the total diversion rate. Measuring device #1 (USFWS Site No. 423003) is a 48" concrete Parshall flume. Measuring device #2 (USFWS Site No. 423015) is an in-line propeller meter. Measuring device #3 (USFWS Site No. 423017) is an in-line ultrasonic meter. Measuring device #4 (USFWS Site No. 423018) is an in-line ultrasonic meter. Measuring device #5 (USFWS Site No. 423019) is an in-line turbine meter. Measuring device #6 (USFWS Site No. 544104) is a 6" Montana flume. Measuring device #7 (USFWS Site No. 423001) is an instantaneous measurement with a Marsh-McBirney current meter. The section for this measurement is a rectangular concrete channel. Measuring device #8 (USFWS Site No. 423002) is a 90 degree V-notch weir. The total diversion rate is computed by adding the measurements from the flumes, propeller meter, ultrasonic meters, and turbine meter and then subtracting the measurements from the V-notch weir and the current meter.

$$1 + 2 + 3 + 4 + 5 + 6 - 7 - 8 = \text{Main Spring}$$

- 1 - 410053 - Main Spring
- 2 - 410055 - Spring 13 (part)
- 3 - ~~none~~ Spring 11 overflow 410051 - Spring 11 (part or alternate?) data not provided
- 4 - Howmis 10 - Hatchery 2
- 5 - 410055 - Spring 13 (part)
- 6 - 410051 - Spring 11
- 7 - 410025 - Spring 16
- 8 - 410057 - Spring 15

Main Spring + Spring 11 + Spring 13 + Hatchery 2 - Spring 15 - Spring 16  
 (12 f' 14 included) (36-15449      36-15450)

sp. WR

Main + Springs 11-14

36-132, 36-15448A, 36-15448B

36-8354

7/14/2004 Main Spring = 24.8 + 0.46 + 1.04 + 2.25 - 1.15 - 6.95 = 20.45























No WMIS 1D

part of  
Per site plan - appears to be water from Spring 13/14/15 that is not diverted to Bratt's for a Ditch or overflowed to Main Spring. <sup>collection pond.</sup> Does not appear to be measuring flow ~~data~~ for weirs. Part of the water has already been measured @ USFWS 423002 / WMIS 410057.

SITE NAME: Hatchery 2 ultrasonic

SITE NUMBER: 423018

DATE (1)	TIME (2)	DIAL VOLUME (ft <sup>3</sup> or gal) (3)	TIME FOR VOLUME (sec or min) (4)	FLOW RATE (cfs or gpm) (5)	TOTALIZER READING (ft <sup>3</sup> , gal, ac-ft) (6)	VOLUME SINCE LAST READING (ft <sup>3</sup> , gal, ac-ft) (7)
10/1						
5/13	11:03	0.36		0.36		
5/19	10:19			0.42		
5/26	9:59			0.97		
6/2	8:36			1.38		
6/9	9:07			1.77		
6-11	8:13			1.95		
6-24	11:14			2.02		
6-30	9:20			2.24		
7-8	9:09			2.28		
7-14	9:35			2.25		



SITE NAME: Spring 17 Ultrasonic Meter

SITE NUMBER: 423004

DATE (1)	TIME (2)	DIAL VOLUME (ft <sup>3</sup> or gal) (3)	TIME FOR VOLUME (sec or min) (4)	FLOW RATE (cfs or gpm) (5)	TOTALIZER READING (ft <sup>3</sup> , gal, ac-ft) (6)	VOLUME SINCE LAST READING (ft <sup>3</sup> , gal, ac-ft) (7)
10/1/03	11:57			2.34		
10/9/03	10:39			2.30		
10/15/03	10:50			2.34		
10/21				—		
2/27						
03/03	8:43			2.87		
3/10	13:12			2.89		
3/18	10:27			2.84		
3/23	11:20			2.78		
				2.55		
4/18	11:13			2.70		
4/1	10:32			2.71		
4/21	14:43		est	2.71		
4/25	11:02			2.70		
5/5	11:30			2.69		
5/13				2.71		
5/19	10:29			2.70		
5/26	10:11					
6-24	10:15			2.61		
6-30	9:25			2.36		
7-8	9:05			2.37		
7-11	11:11			2.81		
7-14	11:10			2.81		





DATE (1)	TIME (2)	GAGE HEIGHT (3)	DISCHARGE (CFS) OR (MGD) (6)
6-13	8:00	1.16	3.598
6-19	10:20	1.16	3.598
6-16	9:00	1.16	3.598
6-24	9:05	1.16	3.598
6-30	8:30	1.16	3.598
7-8	9:56	1.16	3.598
8-9	9:02	1.15	3.598

90° V-notch weir

ONS INIT. (4)	REMARKS (7)
E.W.	
B	
B	
M.O.	
E.W.	
E.W.	
M.O.	

90 V-notch weir

This flow is remeasured at either "Hatchburg 2", "Main Spring", or Brailsford Ditch