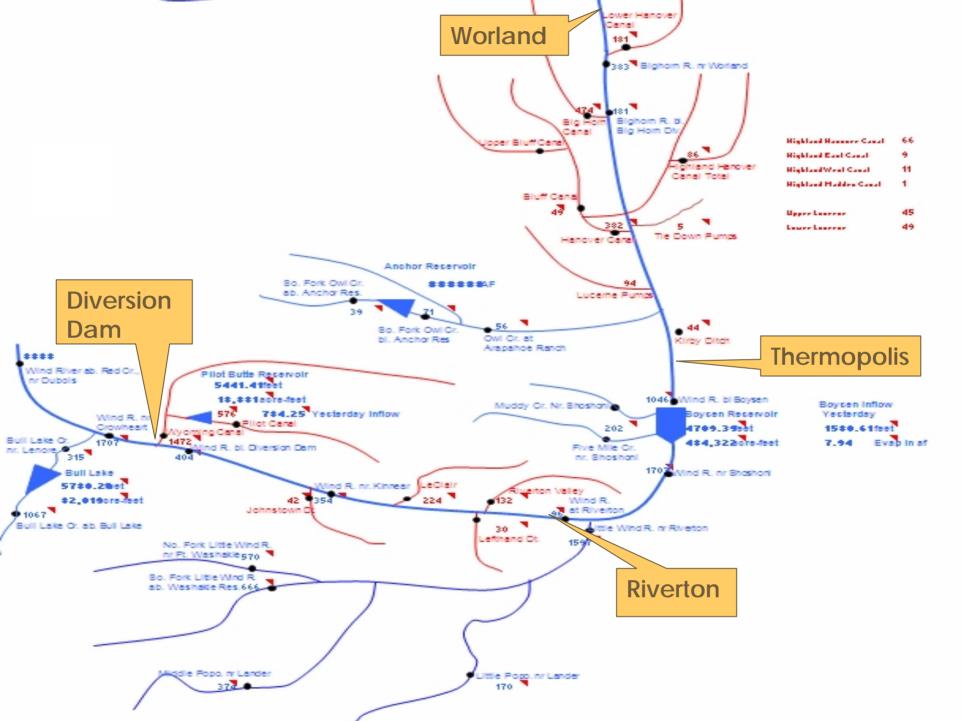
#### Administration of Water Rights on the Big Horn River System

Loren Smith, Superintendent Water Division III

Presentation to Big Horn River Long-term Issues Group

June 8, 2007





## **Big Horn Basin Administration**

#### Modeled Shortages considering a full supply to all permitted rights

class M	Full Supply Diversion	Shortages (	ac-ft)		Shortages (	percent)				
Basin	(ac-ft)	Dry	Normal	Wet	Dry	Normal	Wet			
Clarks Fork	106,293	30,402	18,786	11,645	29%	18%	11%			
Yellowstone	0	0	0	0	0%	0%	0%			
Sub-Total	106,293	30,402	18,786	11,645	29%	18%	11%			
Upper Wind	933,909	192,930	54,067	43,948	21%	6%	5%			
Little Wind	344,734	97,916	38,741	29,206	28%	11%	8%			
Lower Wind	80,635	20,537	15,839	11,634	25%	20%	14%			
Sub-Total	1,359,278	311,384	108,648	84,788	23%	8%	6%			
Upper Bighorn	329,300	12,220	7,499	5,450	4%	2%	2%			
Owl Creek	116,769	39,790	24,919	19,590	34%	21%	17%			
Nowood	117,327	7,482	5,273	3,362	6%	4%	3%			
Lower Bighorn	170,209	26,747	11,169	6,943	16%	7%	4%			
Greybull	505,395	172,142	47,001	29,905	34%	9%	6%			
Shoshone	829,711	29,097	18,348	9,801	4%	2%	1%			
Sub-Total	2,068,711	287,478	114,210	75,050	14%	6%	4%			
Total	3,534,282	629,263	241,644	171,483	18%	7%	5%			

Notes:

(1) Shortages are for historical Full Supply Conditions without Futures projects.

(2) The modeled shortages do not include releases from Greybull Valley Reservoir.

Wind/Big Horn basin plan executive summary

### **Big Horn Basin Administration**

- Irrigation season accounting.
  - When system is not in a surplus water condition
    - Voluntary process and compliance by canals
    - Only affects the major diverters but accounts for use by all diversions from the main stem.
    - Based on priorities
    - Accounts tribal water use on diversions below Diversion Dam.

 Irrigation accounting system operational from April 1 through October each year

- Accounting diversions between
   Diversion Dam and Worland
- Mix of Burec and Private Irrigation
   Districts
- Burec Accounting Year vs. Non-Accounting years

 Accounting Program includes 9 sheets of data and multiple graphs Requires Daily input of 30 data values Daily web posting of diversion rates http://seo.state.wy.us/Wind\_BigHornFlows/Division3.pdf • Multiple primary goals: Tracking usage above Boysen to meet SE order of equal access to water Tracking of storage use for Burec contracts

#### UPPER WIND RIVER BASIN ACCOUNTING

 MV
 LC
 RV

 AS OF
 Todays
 Tracking
 -2.3%
 -7.4%
 0.0

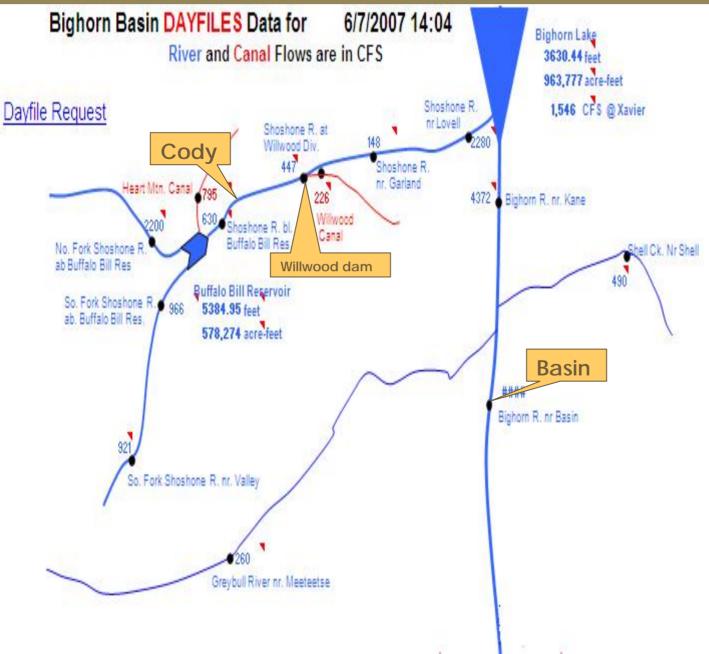
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	1			.3		5 Bull Lake	6	7	8	9	10	11 Wyoming	12	13	14		16	17	19 RWTP	20 LeCiair	21 22	23	74 Riverton	25	26	27	28 Wind River	29	30	31	32	33
	Bull Lake	Bull Lake	Reservoir	Bull Lake		Creek Below	Bull Lake			Total	Buill Lake	Canal	Pilot Butte	Pilot Butte			MID. % (		Diversion	Canal Total			Valley Cana	Riverton			@ HWY 26	Wind River			Johnstown	Leftha
Date	Creek Above (BLAY)	Reservoir Inflow (BLR)	Outflow (BLR)	Creek Below (BLCK)	v @ Crowheart (WRCH)		Creek Below Direct Flow		Total Supplus Available	Available Svepty	Storage Release	Diversion (WYCY)	inflow (PBR)	Outflow (PBR)	Storage Release	MID Surplu Available		Bull & Pilot USB	t From LeClair Canal (mgd)		Storage Lise Available	e (15.4%)	Diversion (RVCY)	Valley Storage Use	RVID surplus available		Bridge (WRWD)	@ Kinnear (NVRKY)	Hurtado Ditch	Aragon Ditch	Ditch (JHNY)	Ditcl
10/1/2006	82.21 60.83	75.74 76.89	97.53 54.10	97.29 73.69	399 45 375 52	15.32	61.97 73.69	384.13 375.52	9.00 6.00	384.13 375.52	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	1	0.00	0.00	416.68 393.99	463.80 475.54	0.00	0.00	0.00	0.00
10/3/2006	83.31	B2.72	27.98	21.60	339.91	16.80	0.0D	323.11	0.00	323.11	0.00	0.00	0.00	0.00	0.00	0.00	B.00	0.00		0.00	0.00	0.00	0.00		0.00	00.0 00.0 00.0	345.35	413.45	0.00	0.00	0.00	0.00
10/4/2006	B4.22 87.62	94.40 126.87	29.02 29.08	21.43	386.D1 386.56	16.43 16.81	0.00	369.58	0.00	369.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	D.D0 0.00	0.00	0.00		D.00 00:0	0.00	391.99 403.66	430.12 452.50	0.00	0.00	0.00	0.00
10/6/2006	115 72	116 30	29.14	21.66	395 13	16.66	0.00	378.47	6.00	378.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	415.65	453.74	0.00	0.00	0.00	0 00
10/7/2006	169.58 198.90	225.45	29.22 29.32	21.56 22.25	405.36 426.12	17.25	0.0D 0.0D	369.90 406.87	0.00	369.80 406.87	0.00	0.00	0.00	00.0 00.0	0.00	0.00	0.00	0.00	-	0.00	0.00 D.00	0.00	0.00		00,0 00,0	0.00 0.00	442.14 461.08	469.02 484.85	00.0 00.0	0.00	0.00 D.D0	0.00 D.D0
10/9/2006	199.07 189.94	246 85 204 54	29.47 29.61	23.75 21.86	469 58 483 06	18.75 16.06	0.0D 0.00	450.83 466.20	0.00 6.00	450.83 456.20	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00	0.00		0.00	00.0 00.0	0.00	0.00		0.00	0.00	510.16 540.90	530.47 567.50	0.00	0.00	0.00	0.00
10/11/2006	176.94	184.39	29.73	19.72	464.97	14.72	0.0D	450.25	6.00	450.25	8.06	0.00	0.00	0.00	0.00	0.00	0.00	00.9		0.00	0.00	0.00	0.00		0.00	0.01	N/A	533.79	0.00	0.00	0.00	0.00
10/12/2006	163.15 151.18	162.90 164.05	30.87 31.49	20.36	469.D0 451.52	15.36 17.00	0.0D 0.0D	453.64	0.00	453.64 434.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00 D.00	0.00		0.00	0.00	0.00	0.00		00.0	0.00 D.D0	N/A N/A	549.56 525.73	0.00	0.00	D.D0 0.00	D.DQ D.DQ
10/14/2006	140 73 131,48	152 83 142 13	31.58 31.66	22.15 22.18	441 77 432 51	17.15	0.00	424.62	0.00 8.00	424.62 415.33	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	N/A N/A	520.58 501.80	0.00	0.00	0.00	0 00
10/16/2006	124.54	142.22	31.75	22.00	415.B6	17.00	0.0D	415.33 399.66	0.00	399.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	00.0	0.00	0.00		00.0	0.00	N/A	486.63	0.00	0.00	0.00	D.DQ
10/17/2006	119.31 111.90	108.88 120.25	31.81 31.87	24.49 26.30	431.46 425 13	19.49 21.30	0.0D 00.0	411.97 403.83	0.00	411.97 403.83	0.00	0.00	0.00	0.00	0.00	0.00	D.0G 0.00	0.00		0.00	0.00	0.00	0.00		00.0 00.0	0.00 00.0	N/A N/A	490.23 499.73	0.00	00.0	0.00	0.00
10/19/2006	107 54	96.00	29.72	25.71	382 67	20.71	0.00	362.16	8.00	362.16	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	1	0.00	0.00	N/A	454.37	0.00	0.00	0.00	0.00
10/20/2006	105.46	105.99 107.49	28.78 28.83	24.28 24.06	400.46 415.55	19.06	0.0D 0.0D	381.18 396.49	0.00	381.18 396.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	B.00 0.00		0.00	00.0 00.0	00.0 00.0	0.00		00.0 00.0	0.00 00.0	N/A N/A	455.97 481.95	0.00 00.0	00.0	0.00	0.00
10/22/2006	101 11 97,90	107 00	28.88 28.93	24.02 23.75	386 51 370 79	19.02 18.75	0.00	367,49 352,04	6.00 8.00	367.49 352.04	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	N/A N/A	459.85 435.52	0.00	0.00	0 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00
10/24/2006	94.65	95.63	28.98	23.96	367.77	18.96	0.0D	348.61	00.9	348.81	0.00	0.00	0.00	0.00	0.00	0.00	00.0	0.00		0.00	D.00	0.00	0.00	-	0.00	0.00	N/A	421.79	0.00	0.00	0.00	0.00
10/25/2006	94.69 96.06	163.41 86.37	29.03 29.10	24.80 24.54	390.97 415 52	19.60 19.54	0.0D 0.0D	371.17 395.98	0.00	371.17 395.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	1	0.00	00.0	N/A N/A	449.85 496.72	00.0 00.0	00.0	0.00	D.DO 0.00
10/27/2006	92.89 88.43	96.79	29.15	23.88	368 21	19.89	0.00	349.33	8.00	349.33	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	N/A N/A	441.84	0 00	0 00	0.00	0.00
10/28/2006	B4.05	85.45 74.02	29.18 29.22	23.79 24.06	368.37 361.32	18.78 19.06	0.0D 0.0D	349.58 342.26	0.00	349.58 342.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.00	0.00	00.0 00.0	0.00	1	0.00	0.00 00.0	N/A	428.79 420.44	0.00	0.00	0.00 D.D0	D.DQ
10/30/2006	79.20	74.04 62.59	29.25 29.27	23.85	357 D7 248 17	18.85 19.05	0.0D	338.22 229.12	6.00 0.00	338.22 229.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	B.00 0.00		0.00	00.0 00.0	0.00	0.00	+	D.00 0.00	0.00	N/A N/A	418.12 415.40	0.00	0.00	0.00	0.00 0.00
11/1/2006	60.94 62.64	51.68 63.18	29.29	24.06	297.40 289.36	19.06	0.00 0.00	278.34 270.30	0.00	278.34 270.30	0.00				0.00	0.00	0.00	0.00	-		0.00	0.00	1	1	0.00	00.0		365.14 330.80				
11/3/2006	63.60	73.58	29.33	24.09	312.92	19.09	0.0D	293.63	0.00	293.83	0.00				0.00	0.00	0.00	0.00			B.D0	0.00			D.00	0.00		359.54				
11/4/2006 11/5/2006	59.11 57.48	63.23 51.77	29.36 29.38	24.12 24.06	347 76 345 28	19.12 19.06	0.00	328.64 326.22	0.00 0.00	328.64 326.22	0.00 0.00	-			0.00	0.00	0.00	0.00		-	0.00	0.00		-	0.00	0.00		402.99 406.39		-		
11/6/2005	55.76	74.19	29.40	24.08	337.18	19.08	0.0D	318.10	0.00	318.10	0.00				0.00	0.00	D.00	00.0	_		0.00	D0.0			0.00	00.0		396.93				
11/7/2006	56.91 57.85	40.34 63.31	29.41 29.44	24.06 24.07	333.56 351.04	19.06 19.07	0.00 0.00	314.50 331.97	0.00 0.00	314.5D 331.97	0.00				0.00	0.00	0.00	0.00			D.D0 0.00	0.00			0.00	0.00 0.00 0.00		391.17 395.60				
11/3/2006	64.95 62.15	85.18 53.35	29.46 29.48	24.95 24.21	409 12 383.71	19.95 19.21	0.00 0.0D	389.17 364.50	0.00 0.00	389.17 364.50	0.00				0.00	0.00	0.00 0.00	0.00			00.0 00.0	0.00	-		0.00	0.00 D.D0		460.18 464.08				
11/11/2006	58.72	62.83	29.51	24.08	321.49	19.08	0.00	302.41	0.00	302.41	0.00				0.00	0.00	00.0	0.00	-		D.00	0.00			0.00	0.00		399.60				
11/12/2006	59.71 79.66	40.69 41.15	29.52	24.03 24.06	307 58 308 24	19.03 19.06	0.0D	288.55 289.18	0.00 0.00	288.55 289.18	0.00				0.00	0.00	0.00 0.00	00.0	-		00.D 00.0	0.00	+		00.0 00.0	0.00		361.63 364.33				<b></b>
11/14/2006 11/15/2006	64.68 66.19	53.31 41.15	29.53 29.54	24.03 24.61	290.25 294.16	19.03 19.61	0.0D 0.0D	271.22	0.00	271.22	8.00 0.00				0.00	0.00	0.00	0.00			0.00 D.00	0.00	-		00,0	0.00 0.00		348.88 345.27				
11/16/2006	69.01	63.32	29.55	25.54	281 37	20.54	0.0D	260.83	0.00	260.83	0.00				0.00	0.00	B.00	0.00	-		0.00	00.0			00.0	D.D0		338.68				
11/17/2006 11/18/2006	62.68 59.65	63.88 74.97	29.56 29.57	25.50 25.52	322.46 327.06	20.50 20.52	0.00	301.96 306.54	0.00	301.96 306.54	0.00				0.00	0.00	0.00	0.00			0.00	0.00	-	1	0.00	0.00		374.10 386.29				
11/19/2006 11/20/2006	54.89 56.54	29.58 74.98	29.58	25.50 25.50	305.83 291.10	20.50	0.0D 0.0D	285.33 270.60	6.00 0.00	285.33	0.00				0.00	0.00	0.00 B.00	00.0			00.0	0.00 D.00	-		00.0	0.00 DQ.Q		374.68				
11/21/2006	52.84	52.29	29.60	25.51	313 72	20.61	0.00	293.21	0.00	293.21	0.00				0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00		377.27				
11/22/2006	50.52 49.06	52.30 51.76	29.60 29.61	25.50 25.51	316 20 306.99	20.50 20.51	0.00 0.00	295.70 286.48	0.00 0.00	295.70 286.48	0.00 0.00				0.00	0.00	0.00	0.00 B.00			0.00 D.D0	0.00	+		0,00 0.00	0.00 0.00		412.60 398.48				ł
11/24/2006	34.18 39.08	29.61 41.24	29.61 29.62	25.50	278.37 266 35	20.50	0.0D	257.87 245.54	0.00	257.87 245.54	0.00				0.00	0.00	0.00	0.00			0.00	D.DQ 00.0	-		00.0	D.00 0.00		370.60 331.81				
11/26/2006	37.29	40.69	29.62	25,70	264 98	20.70	0.00	244.28	0.00	244.28	0.00				0.00	0.00	0.00	0.00			0,00	0.00			0.00	0.00		351.22				
11/27/2006	40.79 33.23	41.25 40.70	29.62 29.63	25.63 25.73	279.D2 274.49	20.63 20.73	0.0D 0.0D	258.19	0.00 0.00	258.19 253.76	0.00				0.00	0.00	0.00	0.00			0.00	0.00 0.00	+		0.00	0.00 00.0		357.58 352.48				Į
11/29/2006	20.06 22.03	18.65 18.00	29.63 29.62	31.31 57.45	283 41	26.31	0.0D 0.00	257.10 1287.23	0.00	257.10 1287.23	0.00				0.00	0.00	0.00	0.00	1		0.00 0.00	0.00	-	1	00.0	0.00		337.83 189.65				
12/1/2006	36.20	41.25	29.62	31.53	1339.68	26.53	0.0D	1698,48	300.48	1693.48	0.00				0.00	228.36	0.00	0.00			46.21	0.00	-		25.90	u,uu .		250.35		1		
12/2/2006	27.95	29.62 40.70	29.62	32.31 59.65	1814.5D 1756.33	27.31 54.65	0.0D 0.0D	1787.19		1787.19 1701.68	0.00				0.00	295.78	0.00	0.00 B.00	-		59.86 46 71		+	1	33.55 26.18	0.00		246.76 185.72		-		
12/4/2006	33.29 39.47	29.62 29.63	29.62 29.63	25.86 26.13	1711.26		0.00	1690.40		1690.40	0.00 0.00				0.00	222.22	0.00	0.00			44.97 0.00	0.00		-	25.20 0.00	0.00		314.88 356.64				
12/6/2006	35.48	41.26	29.63	25.90	1310.84	20.90	0.0D	1289.94	0.00	1289.94	0.00				0.00	0.00	0.00	0.00			0.00	D.00		1	0.00	0.00		350.34		L		
12/7/2006	30.19 28.61	40.71 41.27	29.63 29.64	26.21 26.26	1335.31 1326.25	21.26	0.0D	1314.10 1304.99	0.00 0.00	1314.10 1304.99	0.00				0.00	0.00 0.00	0.00	B.00 0.00			D.D0 0.00	0.00	+	+	D.D0 0.00	0.00 00.0		362.08 377.71				<b></b>
12/9/2006	28.31 27.22	40.71 41.27	29.64 29.64 29.64	26.28 26.30	1254.24 1178.98		0.00 0.00	1232.96		1232.96	0.00				0.00	0.00	0.00 B.00	00.0			0.00	0.00	-		0.00	0.00		380.25 385.24				
12/11/2006	25.92	40.72	29.65	26.28	1052.76	21.28	0.0D	1031.48	0.00	1031.48	0.00				0.00	0.00	00.0	0.00	-		D.00	0.00	-		00.0	00.0 00.0		393.03				
12/12/2006	24.00 23.65	29.65 29.65	29.65 29.65	26.17 26.33	876 24 754 33		0.00	857.07 733.00	0.00 6.00	857.07 733.00	0.00 0.00				0.00	0.00	0.00	0.00			0.00	0.00	+	+	0.00	0.00		358.96 326.31				ł
12/14/2005	24.58 26.20	29.65 41.28	29.65 29.65	26.32 26.26	544.55 41B.D9	21.32	0.0D 0.0D	523.23 396.83		401.73	0.00		121.50 122.01	0.00 00.0	121.50	0.00	0.00 0.00	0.00			0.00 B.00	0.00	-		0.00 00.0	0.00 0.00		269.37 153.58				
12/16/2006	20.26	29.65	29.65	33.67	262 65	21.26 28.67	0.0D	233.98	9.00	112.98	9.00		121.00	0.00	·122.01 ·121.00	0.00	0.00	00.0	-		0.00	0.00	1	1	00.0	0.00		128.18		<u> </u>		
12/17/2006	16.93 16.26	18.02 18.58	29.65	102 17 82.87	247 59 232.03	97.17 77.87	0.00 0.0D	150.42 154.16	6.00 6.00	28.92 34.57	0.00		121.50 119.49	0.00	121.50	0.00	0.00 0.00	0.00	-		0.00	0.00			0.00	0.00		105.22 81.99		<u> </u>		Γ]
12/19/2006	17.31	29.65	29.65	62.84 42.02	596.96 1890.94	57.84	0.0D 0.0D	539.12	0.00	416.12	0.00	-	121.00	0.00	121.09	0.00	0.00	0.00	-		0.00 0.00 70.12	00.0	-	1	D.D0 39.30	0.00 0.00 0.00		59.43 81.75		-		
12/21/2006	22.50	29.65	29.65 29.65 29.65	31.82	426 79	26.82	0.00	1853.92 399.97 637.33	0.00	279.47	0.00		121.50 120.50 122.51	0.00	120.50	0.00	0.00	0.00			0.00	0.00			39.30 0.00 0.00	0.00		81.75 121.86 179.07				
12/22/2006 12/23/2006	23.00 22.41	41.28 29.65	29.65 29.65	27.19	659.52 310.93	22.19 22.15	0.0D 0.0D	637.33 288.79	6.06 0.00	514.82 169.29	0.00 0.00		122.51 119.49	0.00 00.0	-122.51	0.00	0.00	0.00			0.00 D.DO	0.00	+		0,00	0.00		179.07 229.43				
12/24/2006	21.80	40.73	29.66	28.06	2987.26	23.06	0.0D	2964.20	1556.20	2843.20	0.00		121.00	0.00	·121.00	1190.31	D.0G	0.00			240.88	D.D0			135.01	D.D0		208.33				
12/25/2006	20.31 21.83	29.66 29.66	29.66 29.66	27.20 27.26	837 63 572 43	22.20 22.26	0.00	815.43 550.17	6.00 6.00	693.93 429.17	0.00 8.00		121.50 121.00	0.00	-121.50	0.00	0.00	0.00			0.00	0.00	1	1	0.00	0.00		228.75 245.17				
12/27/2006	20.98	41.29	29.66	27.18	333.26	22.18	0.00	311.08	0.00	191.09	0.00		119.99	0.00	-119.99	0.00	0.00	B.00			00.00	0,00	-		0.00	0,00		279.57				
12/28/2006	20.21	52.36	29.66	27.65	326.95	22.65	0.0D	364.30	0.00	161.28	0.00		123.02	0.00	·123.02	0.00	0.00	00.0	1	1	0.00	D.D0	1	1	0.00	0.00		275.03		1		

- Only one call for administrative regulation in recent history
  - July 2002 call from Worland area canals on the Big Horn River
  - Call was to bring senior direct flow water intended to satisfy these canals from above diversion dam through Boysen Reservoir.
  - Affected all main stem diversions as well as all diversions on all tributary streams
  - Exchange contracts became valid

- Goals
  - Satisfy senior direct flow appropriations
    - Most senior rights are near Worland
  - Make the greatest beneficial use of available natural flows.
    - Efficient delivery
  - Track use of storage water contracts
    - Permanent Contracts (28)
    - Temporary Contracts (8)
  - Storage use is based on Direct Flow in priority at any time.

#### **Shoshone River Administration**



### **Shoshone River Administration**

- Approximately 94,000 acres of project land in 4 Burec projects
  - Shoshone, Heart Mountain, Deaver and Willwood
     Districts
- Non-project lands served under:
  - Hunt, Globe, Cody Canal, Lakeview, Sidon & Elk/Lovell Districts
- Daily water orders taken through Shoshone
   District with State Engineer oversight
- Accounting system dictates amount available for diversion
- Accounting Year round
- Voluntary program

Danaio	Din Reserv			10511			10000			. MT2111		DAM TO WILL
	1									HTM-139	15%	
	(	Content	Area		Evaporation Fa	actor (Ft):				G-513	55%	64%
		(AF)	(Acres)		Reservoir Eva	poration (AF):	145			D-209	22%	26%
Basic	Buffalo Bill Reservoir Total	561138			Municipal Pipe	eline (cfs):	5			W-74	8%	10%
Condition	J				Outflow to Rive	er-QRIVS-(cfs	1059			TOTAL-935	100%	
	North Fork Shoshone (cfs):				<b>River Passing</b>	Willwood (cfs					AF	CFS
info.	South Fork Shoshone (cfs):							Direct flow to Dis	tribute (inflow	+ gain - past will	4726	2383
	Measured Inflow (cfs):	0		Required Bypa	ass at Willwood	d (cfs):						
				Accrual BB to	Willwood (cfs):		82	RIGHT	AMOUNT	DIRECT FLOW	REMAINING	1
	ζ.								CFS	CFS	CFS	
		Heart Mtn.	Garland	Deaver	Willwood	Total		HTM 2111	139	139	2244	
		Canal	Canal	Canal	Canal	Canals		G 2111	513	461	1783	461
	Canal Readings (cfs)	857	610	268	263	1998		D 2111	209	188	1595	188
	2111 D.F. res. inflow (cfs)	278	557	188	148	1171		W 2111	74	74	1521	66
	2111 D.F. below res. (cfs)		52	21	8	82		HTM 1189E	185	185	1336	
	Enl. Direct Flow (cfs)	482		58	107	647		W 1191E	87	87	1249	
	Total D.F. Diversion (AF)	1507	1209	530	522	3769		D 10138	79	58	1191	
	Storage Diversion (AF)	192	0	0	0	192		HM 6099E	49	49	1142	
Current	Cumulative D.F. Div. (AF)	27331	29389	12071	14254	83045		HM 2111 (2ND)	139	139	1003	Direct flow
Usage 🔨	Cumulative Storage Div. (AF	8529	1559	282	2835	13204		G 2111 (2ND)	513	96	907	
info.	Cumulative Total Div. (AF)	35860	30948	12352	17089	96249		D 2111 (2ND)	209	0	907	<i>distribution</i>
INIO.	1 22 12							W 2111 (2ND)	74	74	833	by priority
								HM 1189(2ND)	185	185	648	
	Computed Inflow (AF):	4726		Storable Inflov	v (AF):	1120		W 1191E(2ND)	87	20	628	
	Measured Inflow (AF):	0						D 10138 (2ND)	79	0	628	
	Reservoir Balance (AF):	4726	[computed mir	nus measured	inflow]			HM 6099(2ND)	49	49	579	
								HTM 6425E	7	7	572	
								W 6579E	1	0	572	
			ACCC	UNTS		Total	Total	HM 6425(2ND)	7	7	565	
		Shoshone	Polecat	Private	State	Accounts	Reservoir	W 6579(2ND)	1	0	565	
	(	Project										
	Storage Brought Forward (A	303847	68971	14211	131591	518619	560367					)
	Reservoir Balance (AF)					0						
	Daily Storage Release (AF)	194		10		204						
	Daily Storage Evap. (AF)	85	19	4	37	145						
Reservoir	Inflow Distribution (%)	0.956	0.000	0.044	0.000	1.000						
status	Daily Storage Accrual (AF)	1071	0	49	0	1120						
info.	Fill Allowed (AF)	44053	2389	1703	4818	52963						
HIU.	Stored To Date (AF)	21974	2389	1000	4818	30180						
	Fill Remaining (AF)	22079	2303	703	4010	22783						
	Storage Carried Forward (Al	304639	68951	14246	131554	519390	561138					
	Storage Carned Forward (A	304039	00901	14240	131004	019090	001100					

#### Buffalo Bill Reservoir and Shoshone River Accounting Sheet

Notes:

#### **Shoshone River Administration**

- Goals
  - Bypass minimum necessary at Willwood
     Dam to satisfy downstream users
    - Generally about 50 CFS
  - Return Flows plus bypass satisfies downstream rights.
  - Track reservoir accounts
  - Storage use is based on Direct Flow in priority at any time and whether or not Buffalo Bill Reservoir has achieved permitted fill.

#### • Other basin streams:

- Priority Regulation requests generally on about a dozen stream systems in the basin each year.
- Reservoir delivery administration on Greybull River and Owl Creek drainages
- Cover the basin with a staff of 8 hydrographers, 1 assistant- superintendent and an administrative assistant

# **Big Horn Basin Administration**

