

MEMO

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

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DATE: JULY 30, 2010

TO: File

FROM: Mat Weaver

SUBJECT: EVALUATION OF ADDITIONAL INCREMENTS OF BENEFICIAL
USE REGARDING THE CITY OF NAMPA'S WR PERMITS 63-
31949 & 63-32337

Introduction

Water right (WR) permit 63-31949 was issued in 2004 for the "municipal" beneficial use of 3.40 CFS. WR permit 63-32337 was issued in 2006 for the "municipal" beneficial use of 5.00 CFS. Neither WR was recognized in the application or the permit as a reasonably anticipated future needs (RAFN) municipal permit. Both permits contain a condition requiring the permit holder to submit a report in connection with proof of beneficial use that describes how the water diverted under the permit provides an additional increment of beneficial use for the municipal water system. Although the permits are for "municipal" use, the water put to beneficial use under both permits is specifically for irrigation. The City of Nampa has separate and distinct supply and delivery systems for both domestic and irrigation use and the wells developed under both permits *provide water only to the municipal irrigation delivery system*. Due to water quality issues it is unlikely that these wells will ever support the City's domestic or potable water supply system.

Proof of beneficial use (proof) was submitted for both permits on July 27, 2009¹. Field exams conducted by SPF Water Engineering (SPF) for each permit accompanied the proofs. SPF included a technical memorandum with each field exam, specifically addressing the additional increment of beneficial use developed in association with each permit. In both instances SPF concluded that an additional increment of beneficial use was developed. Unfortunately SPF's conclusion were broad based and lacked specific

¹ Notices of lapsed permits were incorrectly sent to the permit holder regarding both permits. Both the proof of beneficial use document and the field exam were submitted by SPF Water Engineering in a timely manner to the Western Regional Office and due to delay in routing the submittal package from the regional office to the state office a notice of lapsed permit was erroneously issued.

evidence in the form of diversion records from which it could safely be concluded that additional increments of beneficial use were indeed developed. As such, I have undertaken my own evaluation of this matter and my finding are presented below.

Analysis

Consistent with condition seven of permit 63-31949, the Field Exam contains the maximum total annual volume diverted (358 AF), the maximum daily volume (4.0 AF), and the maximum instantaneous rate of flow diverted (3.40 CFS)². In addition, included with the field exam are hand kept records of instantaneous measurements of flow rate, pressure and total gallons associated with the pump station for the period of time from April 2007 to October 2008 (two complete irrigation seasons). This data is included in the appendix.

Consistent with condition nine of permit 63-32337, the Field Exam contains the maximum total annual volume diverted (183.6 AF)³, the maximum daily volume (4.3 AF)⁴, and the maximum instantaneous rate of flow diverted (5.57 CFS).

SPF provided supplemental material for both Field Exams on July 27, 2010. This material identified the combined pump capacity of all City of Nampa irrigation wells as 62.78 CFS not including the pump stations associated with permits 63-31949 and 63-32337. If the pumps stations associated with the two permits are included the combined pump capacity increases to 71.18 CFS⁵. SPF's supplemental material is included in the appendix.

Independent of the Field Exam I obtained a partial copy of the City of Nampa's "Pressure Irrigation System Master Plan Update" (master plan) dated October 2008. A copy of the master plan material reviewed as part of my analysis is included in the appendix. Chapter 2 of the master plan details system wide irrigation water production and irrigation water demands from 2003 to 2007. Permit 63-31949's period of beneficial use spanned from August 26, 2004 to April 27, 2009. Permit 63-32337's period of beneficial use spanned from August 25, 2006 to April 27, 2009. Therefore, production data from 2007 is an

² As presented in the Field Exam, 3.40 CFS is a "reasonable estimation" of the typical maximum pumping capacity based on the manufacturer's pump curves and the physical configuration of the pump station. It is also consistent with the Proof of Beneficial Use statement. However, it should be noted that the maximum reliable instantaneous pumping rate observed, pumping against a pressurized distribution system, was 5.12 CFS (2,300 GPM) as observed on July 23, 2007 and May 16, 2008.

³ In supplemental field exam material submitted by SPF on August 27, 2010, monthly total annual diversion volumes are reported for June-October 2009 and May-July 2010. Proof for beneficial use was submitted on July 31, 2009. Because the Department can only recognize beneficial use that occurred prior to submittal of proof, the maximum total annual volume diverted is taken to be the total of June and July diversions from 2009. A copy of the supplemental material is included in the appendix.

⁴ Daily diversion volumes were not included with the Field Exam or any supplemental material. Therefore, the maximum daily diversion volume is reported as the average daily diversion volume from July 2009 as calculated from supplemental field exam material submitted by SPF on August 27, 2010.

⁵ SPF actually designates a combined pumping capacity of 71.70 CFS; however, the calculation assumes pump capacities of 3.90 CFS (63-31949) and 5.01 CFS (63-32337), which are contrary to the respective maximum pump capacities of 3.40 CFS and 5.00 CFS as recommended by SPF in the Field Exams.

appropriate means of evaluating the beneficial use developed in association with both permits.

In 2007 the average system wide irrigation production rate over the 180 day irrigation season was 63.73 CFS (28,600 GPM). The master plan also identifies a maximum instantaneous production rate of 95.59 CFS (42,900 GPM) for 2007⁶. The City of Nampa's municipal irrigation delivery system receives water from both surface water sources (i.e. irrigation delivery canals) and ground water sources (i.e. wells), the average and maximum instantaneous delivery rates previously described represent a combined surface and ground water pumping rate and illustrate the total capacity of the irrigation delivery system regardless of source.

The master plan identifies production values from 2007 as representative of a minimum baseline demand for all subsequent years (i.e. 2008 and beyond). The master plan also details an alternative means of estimating irrigation water demand, where estimated irrigation water demand is calculated as a function of estimated irrigated area within the City for 2008 (7,700 acres) and a maximum irrigation demand coefficient of 5.5 GPM (0.0123 CFS) per irrigated acre per day. The alternative method results in an estimated maximum irrigation water demand of 94.25 CFS (42,300 GPM).

In evaluating whether an additional increment of beneficial use has been developed I considered the following: (1) the maximum irrigation water demand during the period of beneficial use⁷ (i.e. maximum demand); (2) the maximum pumping capacity of the entire suite of municipal ground water rights during the period of beneficial use (i.e. maximum diversion capacity); and (3) the maximum capacity of the irrigation delivery system during the period of beneficial use (i.e. delivery capacity). The master plan provides two estimates, in close agreement with one another, for the maximum irrigation water demand: 95.59 CFS and 94.24 CFS. In SPF's supplemental material provided to the Department they detail a maximum diversion capacity of 71.18 CFS for all ground water pumping stations in association with the municipal irrigation system. Although neither the master plan nor the field exam identify a maximum system capacity for the entire irrigation delivery system, it is logical to assume that the maximum system capacity is at least equal to the maximum irrigation water production rate observed for 2007 (95.59 CFS).

The final issue that must be addressed is what contribution ground water made to the total supply during the period of analysis. If at any time during the irrigation season, when combined irrigation diversion rate exceeds 71.18 CFS, the ratio of the contribution of ground water (GW) to the combined irrigation diversion rate exceeds 0.75⁸, we can

⁶ The maximum instantaneous production rate was calculated by assuming that irrigation occurs in a 16 hour window during the day, therefore you take the average annual production for 2007 (7,414.1 MGal) divided by 180 days (irrigation season) multiply by 1.5 (16 hours/24 hours) and convert units. Refer to correspondence with J-U-B dated 10/4/2010 included in the appendix.

⁷ Once again, 2007 was the only period for which detailed monthly diversion records for the entire municipal system are provided as such analysis of need is constrained to this time period.

⁸ 0.75 is calculated by dividing the combined maximum diversion rate of wells by the maximum irrigation water production rate, i.e. 71.18 CFS divided by 95.59 CFS.

conclude that an additional increment of beneficial use has occurred. Conversely, if the ratio never exceeds 0.75, in times when the combined rate exceeds 71.18 CFS, we must conclude that no additional increment of beneficial use occurred.

Table 1, included in the appendix, is a summary of irrigation diversion rates for 2007 as presented in the master plan. Average monthly ground water diversion rates and surface water diversion rates are included in the table. The combined average diversion rate exceeds 71.18 CFS for the months of July and August. During that period the maximum ratio of GW diversions to combined diversions is 0.46 in the month of August. As such, the monthly data for 2007 as provided in the master plan does not support the conclusion that the ground water diversions under consideration represent unique increments of beneficial use.

It is conceivable that the instantaneous contribution of GW diversion to the total diversions exceeds 0.75 at some time during the irrigation season. It is also conceivable that this condition was met at a time during the development period other than the 2007 irrigation season. However, without finer resolution data (i.e. weekly, daily, or hourly) and more comprehensive data (2006, 2008, and 2009) the probability of that occurrence remains speculative.

Conclusion

I find the Beneficial Use Field Reports for permits 63-31949 and 63-32337, in conjunction with supplemental material received on August 27, 2010, to be adequate and I recommend approval of both Field Exams. In addition, the previous information coupled with the City of Nampa's "Pressure Irrigation System Master Plan Update", dated October 2008 provides sufficient evidence to conclude that no additional increment of beneficial use was developed in association with either permit.

As such, I would recommend licensing the permits with the diversion rates of 3.40 CFS (63-31949) and 5.00 CFS (63-32337) as recommended by SPF in the respective Field Exams. In addition, consistent with Application Processing Memo #18 no annual volume limitation is required on the license. Finally, due to the lack of evidence that the water diverted under either permit represents a unique increment of beneficial use, I recommend that both licenses be issued with a combined use limitation, limiting the combined diversion of municipal WRs in the City of Nampa to a value that is non-inclusive of the diversion rates developed under these permits. The following condition is recommended for inclusion on both water right licenses.

The diversion rate associated with this water right in combination with all other water rights is limited to the combined diversion rate of all other City of Nampa water rights and the diversion rate of this water right shall not be included in any assessment of the combined diversion rate authority of the City of Nampa both prior and subsequent to the priority date of this water right.

Appendix

1. Hand kept diversion records of instantaneous measurements of flow rate, pressure and total gallons associated with the Vista Ridge pump station (63-31949) for the period of time from April 2007 to October 2008.
2. Supplemental Material (Happy Valley well diversion data for 2009) to the Field Examination Dated August 27, 2010.
3. Supplemental Material (combined pump capacity of all City of Nampa irrigation wells) to the Field Examination Dated July 27, 2010.
4. Pressure Irrigation System Master Plan Update (master plan) dated October 2008
5. Personal correspondence with Kent Gingrich of J-U-B Engineers regarding the method for estimating the maximum instantaneous production rate presented in the master plan, dated 10/4/2010.
6. Table 1 – Summary of Monthly Irrigation Diversion Rates for 2007

Pump:

VISTA RIDGE

Month/Year:

APRIL 2007

Begin Read:

101650-000

End Read:

112484-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1				
2				
3				
4				
5				
6	500		101651-000	SET @ 500 gpm (IN HAND)
7				
8				
9	300	46	103002-000	
10				
11				
12	200	50	103898-000	
13				
14				
15				
16	300	45	105548-000	PUT IN AUTO
17				
18	150	84	106470-000	
19				
20	200	84	107127-000	
21				
22				
23	460	84	108564-000	
24				
25				
26	400	84	110087-000	
27				
28				
29				
30	400	80	112484-000	
31				

MONTH TOTALS: 10834-000

Pump: VISTA RIDGE

Month/Year: MAY

2007

Begin Read: 112484-000

End Read: 132579-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1				
2	400	80	113633-000	
3				
4	300	80	114450-000	
5				
6				
7	400	80	115856-000	
8				
9	900	88	117227-000	
10				
11	500	87	118673-000	
12				
13				
14	400	90	121458-000	
15				
16	400	87	122977-000	
17				
18	500	87	124393-000	
19				
20				
21	400	87	126667-000	
22				
23	400	79	127800-000	
24				
25	500	84	129170-000	
26				
27				
28				
29	500	84	131866-000	
30				
31	500	84	132579-000	

MONTH TOTALS: 20095-000

Pump: VISTA RIDGE

Month/Year: JUNE

2007

Begin Read: 132579-000

End Read: 150471-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1	400	87	133337-000	
2				
3				
4	2900	30	134740-000	WAS OFF
5				
6	400	79	135409-000	
7				
8	500	79	136895-000	NEW MOTOR SAVER
9				
10				
11	160	80	138823-000	
12				
13	200	80	139518-000	
14				
15	200	80	140848-000	
16				
17				
18	200	80	142827-000	
19				
20	300	79	144184-000	
21				
22	600	79	145502-000	
23				
24				
25	500	82	147404-000	
26				
27	500	80	148990-000	
28				
29	550	80	150471-000	
30				
31				

MONTH TOTALS: 17892-000

Pump: VISTA RIDGEMonth/Year: JULY

2007

Begin Read: 150471-000End Read: 172120-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1				
2	500	82	152682-000	
3				
4				
5	300	82	154948-000	
6	450	82	155554-000	
7				
8		8		
9	300	82	158244-000	
10				
11	300	60	159855-000	SET @ 60 PSI
12				
13	400	60	161213-000	
14				
15				
16	500	60	163219-000	
17				
18	200	60	164597-000	
19				
20	556	60	165648-000	
21				
22				
23	2300	720	167256-000	MOTOR SAVER ZALUT
24				
25				
26	400	60	169294-000	
27	500	60	169993-000	
28				
29				
30	400	60	172120-000	
31				

MONTH TOTALS: 21649-000

Pump: VISTA RIDGE

Month/Year: August 2007

Begin Read: 172120-000

End Read: 193583-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1				
2	250	60	174164-000	
3	350	60	174780-000	
4				
5	~~500~~	~~60~~	~~176917-000~~	
6	500	60	176917-000	
7				
8	300	60	178122-000	
9				
10	600	60	179464-000	
11				
12				
13	300	60	181607-000	
14				
15				
16				
17	200	24	184488-000	Put Set Point back to 60psi 9:00
18				
19				
20	500	60	186484-000	
21				
22	400	60	187642-000	
23				
24	400	60	188894-000	
25				
26				
27	400	60	190863-000	
28				
29	250	60	192170-000	
30				
31	300	60	193583-000	

MONTH TOTALS: 21463-000

Pump: VISTA RIDGEMonth/Year: SEPT

2007

Begin Read: 193583-000End Read: 205439-000

DAY	GPM	PSI	TOTAL GALLONS	COMMENT
1				
2				
3				
4	2400	0	193629-000	OFF
5				
6	250	60	194866-000	
7	100	60	195334-000	
8				
9				
10	400	60	196877-000	
11				
12	400	40	197939-000	
13				
14	400	60	199104-000	
15				
16				
17	400	60	200830-000	
18				
19	300	60	201811-000	
20				
21	300	60	202731-000	
22				
23				
24	350	60	203982-000	
25				
26	300	60	204736-000	
27				
28	350	60	205439-000	
29				
30				
31				

MONTH TOTALS: 11856 -000

Pump: VISTA RIDGE

Month/Year: OCT

2007

Begin Read: 205439-000

End Read:

Start Read: 205434-000			End Read:
DAY	GPM	PSI	TOTAL GALLONS
1	250	60	206728-000
2			
3	150	40	207236-000
4	450	60	707352-000
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

MONTH TOTALS:

Pump : Vista Ridge

Month/Year:

APRIL 2008

Begin Read:

207552

End Read: 218838-000

Day	GPM	PSI	Total Gallons	Comment
1			-000	
2			-000	
3			-000	
4	400	—	207552 -000	THROTTLED @ 400 GPM.
5			-000	
6			-000	
7	400	—	207593 -000	" " "
8	400	—	207625 -000	" " "
9	400	26	207682 -000	" " "
10	500	50	207693 -000	" " 500
11	500	60	208124 -000	AUTO 60 PSI
12			-000	
13			-000	
14	500	65	209392 -000	" 65 PSI
15			-000	
16	700	72	210177 -000	72 PSI
17	800	72	210738 -000	
18	300	72	211274 -000	
19			-000	
20			-000	
21	300	72	212952 -000	
22			-000	
23	200	72	214051 -000	
24	400	72	214542 -000	
25	400	75	215156 -000	75 PSI
26			-000	
27			-000	
28	500	75	217369 -000	
29	650	75	218145 -000	
30	700	75	218838 -000	
31			-000	

Month Totals: 11,286,000

MAV MTR 2008 04 01

Pump : Vista Ridge

Month/Year:

MAY 2008

Begin Read: 218838-000

End Read: 235058-000

Day	GPM	PSI	Total Gallons	Comment
1	—	75	219549 -000	SET @ 75 PSI.
2			-000	
3			-000	
4			-000	
5	—	75	222476 -000	
6	SAMPLES		-000	
7	700	75	223817 -000	
8	400	85	224158 -000	" " 85 P.S.I.
9	500	85	224895 -000	
10			-000	
11			-000	
12	700	85	226995 -000	
13	400	85	227662 -000	
14	600	92	228329 -000	IN HAND, 98 HZ, TO HILL R.T.
15	600	92	229194 -000	
16	2300	20	229361 -000	POWER WAS OUT!
17			-000	
18			-000	
19	500	90	231832 -000	
20	300	90	233135 -000	
21	SAMPLES		-000	
22	400	90	233714 -000	
23	600	80	233853 -000	SET @ 80 PSI.
24			-000	
25			-000	
26			-000	
27	—	80	234219 -000	
28	100	80	234536 -000	
29	200	80	234806 -000	
30	200	80	235058 -000	
31			-000	

Month Totals: 16,220,000

Pump : Vista Ridge

Month/Year:

JUNE 2008

Begin Read: 235058-000

End Read: 248958-000

Day	GPM	PSI	Total Gallons	Comment
1			-000	SET @ 80 PSI.
2	300	80	235889 -000	
3			-000	
4			-000	
5			-000	
6	300	80	237312 -000	
7			-000	
8			-000	
9	300	80	238507 -000	
10			-000	
11	100	82	239542 -000	
12			-000	
13	100	72	239920 -000	"FAULT"
14			-000	
15			-000	
16	700	80	241326 -000	
17	800	80	242437 -000	
18	600	85	242852 -000	SET @ 85 P.S.I.
19			-000	
20	500	85	244430 -000	
21			-000	
22			-000	
23	600	85	246814 -000	
24			-000	
25	400	85	248458 -000	
26			-000	
27			-000	
28			-000	
29			-000	
30			-000	
31			-000	

Month Totals: 13,400,000

Pump : Vista Ridge

Month/Year:

JULY 2008

Begin Read: 248458-000

End Read: 276882-000

Day	GPM	PSI	Total Gallons	Comment
1			-000	Sit @ 90 PSI
2	500	85	249993 -000	
3	800	90	250908 -000	
4			-000	
5			-000	
6			-000	
7	500	92	255505 -000	
8	500	90	256498 -000	
9	450	88	257425 -000	
10	650	88	258195 -000	
11	500	90	259281 -000	
12			-000	
13			-000	
14	600	88	262102 -000	
15			-000	
16	500	88	263923 -000	
17	600	88	264740 -000	
18	700	88	265661 -000	
19			-000	
20			-000	
21	600	88	268448 -000	
22	400	88	269456 -000	
23	300	88	270191 -000	
24			-000	
25	700	88	271704 -000	
26			-000	
27			-000	
28	600	88	274318 -000	
29			-000	
30	500	88	276033 -000	
31	500	88	276882 -000	

Month Totals: 28,424,000

Pump : Vista Ridge

Month/Year:

AUGUST 2008

Begin Read: 276882-000

End Read: 299989-000

Day	GPM	PSI	Total Gallons	Comment
1	700	88	277715 -000	
2			-000	
3			-000	
4	500	88	280228 -000	
5			-000	
6	500	88	281878 -000	
7	500	88	282685 -000	
8	350	90	283689 -000	
9			-000	
10			-000	
11	400	88	286297 -000	
12			-000	
13	500	88	287799 -000	
14			-000	
15	500	88	289499 -000	
16			-000	
17			-000	
18	500	88	292019 -000	
19			-000	
20	1100	88	292423 -000	
21	600	88	293230 -000	
22	~~350~~ 500	~~72~~ 88	294095 -000	
23			-000	
24			-000	
25	500	88	296573 -000	
26			-000	
27	700	88	298282 -000	
28			-000	
29	400	88	299108 -000	
30	500	90	299989 -000	
31			-000	

Month Totals: 23,107,000

Pump : Vista Ridge

Month/Year:

SEPTEMBER 2008

Begin Read: 299989-000

End Read: 322341-000

Day	GPM	PSI	Total Gallons	Comment
1			-000	
2	400	86	303256 -000	
3			-000	
4			-000	
5	500	88	305527 -000	
6			-000	
7			-000	
8	400	88	307803 -000	
9			-000	
10	450	88	309265 -000	
11			-000	
12	400	88	310796 -000	
13			-000	
14			-000	
15	500	88	312959 -000	
16	—	80	313791 -000	Set @ 80 PSI
17	400	85	314220 -000	" " 85 "
18			-000	
19	600	85	315579 -000	
20			-000	
21			-000	
22	300	85	317310 -000	
23			-000	
24	400	85	318414 -000	
25	400	85	319038 -000	
26	800	85	319541 -000	
27			-000	
28			-000	
29	400	84	321558 -000	
30	300	85	322341 -000	
31			-000	

Month Totals: 22,352,000

Pump : Vista Ridge

Month/Year:

OCTOBER 2008

Begin Read: 322341-000

End Read: 324252-000

Day	GPM	PSI	Total Gallons	Comment
1	400	85	322901-000	
2	400	85	323597-000	
3	—	—	324252-000	
4			-000	OFF?
5			-000	
6			-000	
7			-000	
8			-000	
9			-000	
10			-000	
11			-000	
12			-000	
13			-000	
14			-000	
15			-000	
16			-000	
17			-000	
18			-000	
19			-000	
20			-000	
21			-000	
22			-000	
23			-000	
24			-000	
25			-000	
26			-000	
27			-000	
28			-000	
29			-000	
30			-000	
31			-000	

Month Totals: 1,911,000

YEARLY TOTAL: 116,700,000

NORTH IRRIGATION PUMP TOTALS / SEASON TOTAL 2009									
PUMP STATION	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	TOTAL	
HAPPY VALLEY		0	0	16,416,000	43,396,000	42,503,000	36,859,000	1,099,000	140,273,000

Well Name	Pump Capacity (cfs)	Data Source
Port Meadows	0.45	rated capacity from City asset spreadsheet
Sugar Manor	1.11	reported by J-U-B
King's Rd. Estates	2.33	rated capacity from City asset spreadsheet
South Valley	1.11	City reported nominal capacity
Idaho Center I	0.89	reported by City staff 7/22/2010
Idaho Center II	0.67	reported by J-U-B
Canterbury	0.67	rated capacity from City asset spreadsheet
Mayor's	1.11	reported by City staff 7/22/2010
Near Mayor's Well	-	reported by City staff 7/22/2010
6th Street South	1.23	reported by City staff 7/22/2010
Lakeview	1.34	reported by City staff 7/22/2010
Phyllis	1.34	reported by City staff 7/22/2010
Kohler Lawn Cemetery #1	1.78	reported by City staff 7/22/2010
Kohler Lawn Cemetery #2	-	out of service
East Powerline	-	out of service
19th Ave North	-	out of service
15th Ave North	-	out of service
14th Ave North	0.56	reported by J-U-B
Indian Creek	0.78	reported by City staff 7/22/2010
Meyer	1.00	reported by City staff 7/22/2010
Chestnut	1.78	rated capacity from City asset spreadsheet
Kurtz	1.56	rated capacity from City asset spreadsheet
Maple	1.34	reported by City staff 7/22/2010
Holly	1.56	rated capacity from City asset spreadsheet
Fern	1.11	rated capacity from City asset spreadsheet
19th South	2.23	rated capacity from City asset spreadsheet
14th South	1.56	rated capacity from City asset spreadsheet
High St.	1.23	reported by City staff 7/22/2010
Hudson	1.11	rated capacity from City asset spreadsheet
4th St. South	1.11	rated capacity from City asset spreadsheet
Canyon	1.89	reported by City staff 7/22/2010
Sierra Park	0.33	reported by City staff 7/22/2010
13th Ave North	0.89	reported by City staff 7/22/2010
Birds Eye	2.67	reported by City staff 7/22/2010
State Street	0.89	reported by City staff 7/22/2010
Morgan	1.11	rated capacity from City asset spreadsheet
Grange Park	1.11	reported by City staff 7/22/2010
Centennial golf course	2.05	reported by City staff 7/22/2010
Colorado	1.78	reported by City staff 7/22/2010
Meadowbrook 1	1.11	reported by City staff 7/22/2010
Meadowbrook 2	1.11	reported by City staff 7/22/2010
Boone Ave.	1.11	rated capacity from City asset spreadsheet
Venice	1.11	reported by City staff 7/22/2010

Well Name	Pump Capacity (cfs)	Data Source
Westbrook	0.78	reported by City staff 7/22/2010
Sweetwood Circle	0.89	reported by City staff 7/22/2010
Winther Ave.	0.78	reported by City staff 7/22/2010
Young Ave.	0.65	rated capacity from City asset spreadsheet
Juniper Square	0.89	rated capacity from City asset spreadsheet
Augusta	1.11	reported by City staff 7/22/2010
Pheasant Hollow	1.34	reported by City staff 7/22/2010
Amity Ave.	3.12	reported by City staff 7/22/2010
Karcher Interchange	0.61	curve)
Farm & City	4.46	reported by City staff 7/22/2010
SUBTOTAL	62.78	
Vista Ridge	3.90	calculated by SPF (pump curve)
Happy Valley	5.01	calculated by SPF (pump curve)
SUBTOTAL	8.91	
TOTAL	71.70	

**CITY OF NAMPA
CANYON COUNTY, IDAHO**

**PRESSURE IRRIGATION
SYSTEM MASTER PLAN UPDATE**

October 2008



Prepared By

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*CITY OF NAMPA
CANYON COUNTY, IDAHO*

*PRESSURE IRRIGATION
SYSTEM MASTER PLAN UPDATE*

October 2008



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2008 PRESSURE IRRIGATION SYSTEM MASTER PLAN
CITY OF NAMPA
CANYON COUNTY, IDAHO

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CHAPTER 2 - GENERAL DATA GATHERING AND REVIEW

2.1 Update of Existing System

Since 2003 the City of Nampa has seen rapid growth in most parts of town. To begin the update of the pressure irrigation master plan we gather data on the pressure irrigation system and sources of supply added since 2003. Information from the City of Nampa's Geographical Information System (GIS) was used to identify those new developments which have been constructed over the past 5 years. In addition to the GIS information we also reviewed development plans, aerial photography, system maps from the water department and new sources of supply constructed as well as upgraded pumps and other system wide improvements.

Sources of Supply

The City's existing pressure irrigation system is supplied by numerous pumping stations and wells located throughout the City. Approximately one-half of the supply sources are groundwater wells, the remaining supplies are pumped from ditches, drains or laterals. Table 2-1 lists the pumping facility, source of supply, and the estimated pumping capacity for those supply facilities constructed up through June 2008. Note that the Happy Valley Well, and the Gateway Pump Station, which is nearing completion, are included as sources of supply in the existing system model.

A. Surface Water Supply

With the expansion of the Cities Study boundary we brought in five smaller irrigation districts in addition to the three irrigation districts already supplying irrigation water to the City of Nampa. There are three main irrigation districts including Pioneer Irrigation District, Nampa-Meridian Irrigation District and Boise-Kuna Irrigation District supply more than 95 percent of the city with irrigation water. The smaller districts included in the new study boundary, including New York Irrigation District, Wilder Irrigation District, Settlers Irrigation District and Franklin Ditch Company receive water from facilities operated by the three larger irrigation districts. Figure 2-1 shows the irrigation districts which are within the new Study Boundary for Nampa's pressure Irrigation System.

B. Groundwater Supply

In addition to the sources of supply from the irrigation districts the City maintains groundwater wells to help supply irrigation water to its customers. Groundwater supplies for Nampa's pressure irrigation system are monitored by the State of Idaho Department of Water Resources (IDWR). Each groundwater well has a predetermined diversion rate based on well construction and test pumping. Table 2-2 lists the existing groundwater rights, facility description and diversion rate for the City of Nampa's irrigation wells. It should also be noted that the Snake River Adjudication process is being finalized and there is a separate study being developed to summarize the groundwater supplies for Nampa.

2.2 EXISTING DISTRIBUTION

The 2008 existing City Pressure Irrigation System Model has over 330 miles of pipe varying in size from 2 inches up to 16 inches in diameter included in the existing model. Figure 1 shows the existing pressure irrigation system for Nampa. The 12-inch Happy Valley Road pipeline from Amity to the Happy Valley well site is included in the 2008 existing system model. The recent construction of the 12-inch main in Amity between King's Corner Overpass and South 25th Street is included in the existing irrigation model. Also, the 12-inch main in Southside Blvd. from Locust to the Madison Place Subdivision is part of the existing system which provides a current distribution system updated through September 2008.

Table 2-3 summarizes the pipe lengths for the various size pipes in the existing system. The majority of the pipe in the City is 6 inches in diameter or less.

TABLE 2-3
EXISTING PIPE INVENTORY

<u>Diameter (Inches)</u>	<u>Length (Miles)</u>
4 and Smaller	108
6	116
8	65
10	18
12 and Larger	24
TOTAL	331

2.3 CONTROL OF SYSTEM

Currently, the City operates the Pressure Irrigation System by both manual and automatic methods. There is no Supervisory Control and Data Acquisition (SCADA) system for the existing pressure irrigation system. Variable Frequency Drives (VFD) have been utilized on most of the newer pumping station to allow better control of pressures throughout the distribution system. Some of the older pumps have also been fitted with VFD's as these pumps are upgraded or replaced. System pressures typically range between 40 and 70 psi and are higher near the sources.

At the beginning of the irrigation season, the City initially pressurizes the irrigation system using the smaller groundwater wells. Once the pipes are full, pressure has been established in the distribution system, and after water has been released into the various ditches and laterals, the City will systematically turn on the ditch pumps on and keep them running continuously throughout the season. The well pumps are then operated in "auto" mode using a pressure switch or transducer, turning the wells on or off depending on system pressure.

By operating the ditch pumps continuously during the irrigation season there are times during the day that water deliveries to the pump station exceed demand. This excess water cannot be discharged back into the laterals or ditches and must be discharged off-site to the nearest creek or drain. There are also times when the irrigation ditches need to be treated by the irrigation district and flows from the ditches are suspended. During these times the wells are utilized to help keep up with demands.

2.4 IRRIGATION WATER PRODUCTION

The City of Nampa maintains monthly water production records for each pumping facility. We reviewed the recorded monthly irrigation water production figures from all wells and ditch pumps from 2003 through the 2007 irrigation season. A summary of the total production for the 5 year period is shown in Table 2.4. This data shows an increase in the amount of irrigation water produced from 5.2 billion gallons per season in 2003 to over 7.3 billion gallons pumped in 2007.

The year 2007 water production records were used as the basis of the updated demands for the 2008 pressure irrigation model. A summary of the year 2007 production data recorded by pump station from April to October is shown in Table 2-5. In this table we have identified average production for the 180 days irrigation season (i.e. April 15th to Oct. 15th)

of approximately 28,600 gallons per minute (gpm). We have also identified a higher production condition, which includes a higher use of irrigation water within a 16 hour period versus a 24 hour period to estimate peak irrigation production during a shorter use period.

2.5 IRRIGATION WATER DEMANDS

Metered consumption data for the pressure irrigation system is not available since each service is not typically metered. Therefore, an accurate comparison of water production to water consumption cannot be done. As a result we have generally assumed the 2007 water production figures are equal to the 2007 consumption data.

Another way of calculating maximum demands is by estimating the amount of irrigable area within the City and applying a demand coefficient to these areas. We have determined that the current area within the City Limits is approximately 21,500 acres. If we subtract out the enclave areas of the county estimated to be 2,300 acres, which do not receive pressure irrigation service, and approximately 3,800 acres within the City limits which do not currently have pressure irrigation service this results in a net service area of approximately 15,400 acres. Figure 2-2 shows these areas excluded from pressure irrigation service for the 2008 Master Plan Update. Assuming 50% of the net service area requires pressure irrigation service, the existing irrigable area within Nampa's City limit is estimated to be 7,700 acres. By applying a maximum demand coefficient, for turf grass, of 5.5 gpm per irrigable acre per day, this results in an estimated maximum flow of approximately 42,300 gpm.

The 2008 peak demands for the existing system was estimated to be 39,400 gallons per minute (gpm). (This is over the average production rate of 28,600 gpm and slightly below the maximum calculated production rate of 42,900 gpm estimated for 2007 over a 16 hour use period. Therefore, the estimated maximum demands for the 2008 existing pressure irrigation model is 39,400 gpm.

Included in the existing demands are areas of higher irrigation water uses such as parks, schools, and cemeteries. For these areas we took the actual landscaped area and applied the maximum demand coefficient to identify the demand for that site. Table 2-6 lists these Park, Schools and Cemeteries and the estimated irrigation demand.

Infill Demands

Infill demands for the pressure irrigation system were estimated by identifying those larger areas (10 acres+) inside the city limits which are undeveloped or are existing and have the potential to be retrofitted with pressure irrigation service. Using the maximum demand coefficient of 5.5 gpm/acre on 60% of these added areas results in approximately 6,200 gpm additional demand on the existing system. Those areas shown in Figure 2-2, which have no existing pressure irrigation service, were not identified to be retrofitted with pressure irrigation service.

These infill demands were then added to the 2008 existing demands to estimate the higher demands to be supplied by the existing supply sources. Table 2-7 identifies the additional infill areas, retrofit areas and pressure irrigation demand associated to that area. Figure 2 shows the locations of the infill and retrofit areas we included in the infill model as well as an identification number matching that in Table 2-7.

Future Demands

Future demands outside existing City limits were then estimated by expanding the service area beyond the existing developments up to the Study Area (i.e. City's new impact boundary). Agricultural and rural areas were converted to new residential, commercial and institutional demands in accordance with the Future Land Use Figure 9-2 from Nampa's Comprehensive Plan and Demographics Forecast and Land Use Analysis dated June 2008. A copy of Figure 9-2 is included in the back of this Chapter for reference.

For all residential areas it was assumed that sixty (60) percent of the future gross service areas would require pressure irrigation. The remaining twenty (40) percent would be used for roadway Right-of-ways, parking lots, building footprints, driveways or similar non-irrigated surfaces. For the light and heavy industrial areas, which typically have a higher level of hardscaped areas it was assumed that 20% of these gross land use areas will required irrigation. Table 2-8 estimates the added service area by Distribution Zone and the projected future demands for each zone.

These future calculated demands were then added to the existing production figures and infill demands to calculate a future peak demand for pressure irrigation model within the study area of 131,600 gpm (293 cfs). Figure 3 shows the 2008 City of Nampa Future Pressure Irrigation System.

Table 2-2

**CITY OF NAMPA
EXISTING WATER RIGHTS FOR IRRIGATION
WELLS UTILIZED IN 2008**

FACILITY DESCRIPTION	WATER RIGHT	INSTANTANEOUS DIVERSION BY RIGHT (CFS)	REMARKS
MAYORS	63-02449	0.80	
6TH SOUTH	63-02484	1.62	
LAKEVIEW	63-02780	2.50	
PHYLISS	63-02787	1.40	
KOHLER LAWN CEMETARY 1	63-02787	1.20	
KOHLER LAWN CEMETARY 2	63-02787	1.50	
19TH AVE. NORTH	63-02787	0.80	OUT OF SERVICE
15TH AVE. NORTH	63-02787	1.00	USED AS BACK-UP
14TH NORTH	63-02787	0.80	
INDIAN	63-02787	1.00	
MEYER	63-02787	1.50	
CHESTNUT	63-02787	1.60	
KURTZ	63-02787	1.20	
MAPLE	63-02787	1.60	
HOLLY	63-02787	2.20	
FERN	63-02787	1.60	
19TH SOUTH	63-02787	1.20	
14TH SOUTH	63-02787	1.60	
HIGH STREET	63-02787	1.60	
HUDSON	63-02787	1.40	
4TH ST. SOUTH	63-02787	1.00	
CANYON	63-02943	1.74	
13TH AVE. NO.	63-05257	0.30	
BIRDSEYE	63-07003	7.68	
STATE ST.	63-07708	0.40	
SUNNY LANE	63-07954	1.78	DIVERSION FROM ELIJAH DRAIN
MORGAN	63-08312	0.50	
GRANGE PARK	63-09853	1.00	
COLORADO	63-09889	1.50	
MEADOWBROOK #1	63-10211	8.69	MULTIPLE WELLS (8) TOTAL 8.69cfs *
SWEETWOOD	63-10211	*	
BOONE	63-10211	*	
WINTHER	63-10211	*	
VENICE	63-10211	*	
YOUNG	63-10211	*	
JUNIPER	63-10211	*	
KARCHER	63-11511	1.50	
AUGUSTA	63-11894	0.51	
PHEASANT HOLLOW	63-12322	0.84	
VISTA RIDGE	63-31949	3.40	
AMITY	63-31504	4.00	
KARCHER INTERCHANGE	63-31598	0.20	
FARM CITY	63-31961	1.70	DIVERSION INCLUDES 63-32179
HAPPY VALLEY	63-32337	5.00	
GREENBRIER	--	--	AQUIRED WITH GREENBRIER SUBDIVISION
	Total >>	69.86	
	=	31,350 GPM	

TABLE 2.4 CITY OF NAMPA IRRIGATION PRODUCTION SUMMARY 2003 - 2007 (Gallons)							Page 1 of 2	
Well or Surface	Facility Name	2003	2004	Year 2005	2006	2007	5 Yr. Ave. Production	Comment
Surface	Asbury Park/000	27,925,000	30,116,000	0	74,167,000	84,380,000	43,197,600	
Well	Augusta/000	73,596,000	74,649,000	0	86,105,000	68,018,000	60,473,600	
Well	Army/000	0	0	0	232,087,000	231,277,000	92,672,800	
Surface	Bayhill	0	0	0	0	0	0	
Surface	Birch Lane/000	59,086,000	0	0	60,878,000	67,675,000	37,527,800	
Well	Birdseye/000	108,492,000	181,918,000	133,786,000	147,975,000	147,088,000	146,651,800	
Well	Boone/00	59,480,300	76,495,900	0	29,479,400	35,344,400	40,160,000	
Surface	Brandis/000	53,926,000	0	0	1,552,000	23,737,000	15,843,000	
Well	Canterbury/00	11,655,700	0	0	0	10,500,400	4,431,220	
Well	Canyon/000	99,031,000	95,780,000	54,621,000	58,456,000	37,043,000	68,786,200	
Surface	Carriage Hill	0	0	0	0	0	0	
Surface	Cedar Park	0	0	0	0	0	0	
Well	Cemetery I/000	44,415,000	74,657,000	62,815,000	112,745,000	121,670,000	83,260,400	
Well	Chestnut I/00	99,038,600	120,460,400	73,486,200	126,666,200	117,546,100	107,439,500	
Surface	Chestnut II/000	262,788,000	297,686,000	164,780,000	239,741,000	172,849,000	227,568,800	
Well	Colorado/00	116,228,200	166,925,300	75,700,200	122,769,800	98,424,800	116,029,660	New in 2007
Surface	Copper River/000	0	0	0	0	206,284,000	41,256,800	
Surface	Costco	0	0	0	0	0	0	
Surface	Coulter Bay/000	0	0	0	177,698,000	60,755,000	47,690,600	
Surface	Creekside/000	0	0	0	0	57,289,000	11,457,800	New in 2007
Surface	Crestwood/00	17,734,600	34,857,600	0	37,549,600	28,022,500	23,632,860	
Surface	Eagle Crest/000	79,511,000	58,511,000	0	27,378,000	16,394,000	36,358,800	
Well	E. Powerline	76,494,000	0	0	0	0	15,298,800	
Well	Farm City/000	0	0	0	69,929,000	106,774,000	35,340,600	
Well	Fern/000	88,064,600	100,900,500	91,936,800	63,881,700	109,854,800	90,927,680	Under Construction
Surface	Gateway	0	0	0	0	0	0	
Surface	Georgia/000	264,176,000	300,723,000	0	242,339,000	312,691,000	223,986,200	
Well	Grange Park/000	104,076,000	107,222,000	0	92,100,000	63,885,000	73,456,600	
Well	Greenbriar/000	0	0	0	0	15,393,000	3,078,600	
Surface	Greens/00	27,637,300	14,204,300	14,240,300	79,607,600	13,946,600	29,927,220	
Surface	Herron/000	0	0	0	0	169,541,000	33,908,200	New in 2007
Well	High/00	94,074,800	67,633,600	79,699,800	72,210,000	95,102,300	81,744,100	
Well	Holly/000	62,056,000	47,409,000	31,346,000	30,266,000	19,551,000	38,126,000	
Surface	Horton/000	223,510,000	267,808,000	0	185,472,000	258,277,000	187,013,400	
Well	Hudson/000	50,379,000	41,527,000	49,175,000	70,097,000	62,217,000	54,679,000	
Well	Idaho Center/000	13,280,000	0	0	15,019,000	25,084,000	10,676,600	
Well	Idaho Center II	23,036,000	0	0	0	4,607,200	0	
Well	Indian Creek/000	59,414,200	44,931,000	29,082,000	42,030,000	38,833,000	42,858,040	
Surface	Islands/000	226,065,000	234,863,000	189,929,000	286,858,000	235,658,000	234,679,400	
Well	Juniper/00	38,030,000	30,406,200	5,542,400	55,383,300	61,595,800	38,191,540	Irrigation supply for Karcher Interchange Removed from System
Well	Karcher Interchange	0	0	0	0	0	0	
Well	Kensington I	19,205,000	0	0	0	99,694,000	3,841,000	
Well	Kensington II/000	0	0	0	92,207,000	99,694,000	38,380,200	
Well	Kings Rd. Est./000	153,157,000	0	0	16,610,000	105,453,000	55,044,000	
Well	Kurtz/00	106,237,300	144,299,000	123,943,900	134,643,700	127,488,900	127,322,560	
Well	Lakeview/00	105,637,000	124,332,000	100,176,300	143,308,300	121,693,600	119,029,440	
Surface	Lava Springs	0	0	0	0	0	0	New in 2008
Surface	Lonestar/000	0	0	0	337,077,000	286,368,000	124,689,000	
Well	Maple/00	60,952,300	113,195,400	61,186,700	76,034,200	58,118,700	73,897,460	
Surface	Maplewood/000	31,340,000	0	34,902,000	66,019,000	71,708,000	40,792,600	
Well	Mayors/00	71,234,600	84,999,500	67,994,300	27,514,700	93,819,400	69,112,500	
Well	Meadowbrook/00	68,392,000	68,285,000	34,097,000	43,963,400	51,715,800	53,290,640	
Well	Meadowbrook II/000	47,073,000	105,624,000	55,689,000	63,990,000	74,533,000	69,381,800	
Well	Meyers/000	60,874,000	66,377,000	85,360,000	76,878,000	44,206,000	66,739,000	
Subtotal >>		3,185,830,500	3,176,795,700	1,619,486,900	3,932,678,900	4,307,499,100	3,244,456,620	

TABLE 2-4 CITY OF NAMPA IRRIGATION PRODUCTION SUMMARY 2003 - 2007 (Gallons)								Page 2 of 2
Well or Surface	Facility Name	2003	2004	Year 2005	2006	2007	5 Yr. Ave. Production (MG)	Comments
Surface	Midland Park 1000	186,376,000	169,127,000	0	212,738,000	352,194,000	184,087,000	Removed from System in 2004
Surface	Middlecreek	18,129,000	0	0	0	0	3,625,800	
Well	Morgan 100	57,521,600	57,879,500	0	56,219,900	45,211,500	43,366,500	
Surface	Moss Point 100	12,930,500	17,147,600	0	40,014,400	45,742,500	23,147,000	
Surface	N.I.C. 1000	38,000	0	0	200,200	1,120,000	271,640	
Surface	Oakhurst 1000	163,844,000	318,079,000	180,522,000	370,452,000	279,623,000	262,504,000	
Surface	Orchard Heights 1000	91,541,660	243,873,000	0	211,118,000	260,564,000	161,419,332	
Surface	Parkridge 1000	65,723,000	0	0	171,115,000	129,107,000	73,189,000	
Well	Pleasant Hollow 1000	4,939,000	35,503,800	50,155,000	74,340,000	91,496,000	51,286,760	
Surface	Pleasants	36,752,000	8,811,000	0	12,066,000	0	11,525,800	
Well	Port Meadows 1000	0	0	0	0	1,082,000	216,400	
Surface	Rainree 1000	98,451,000	123,915,000	88,228,000	109,654,000	107,882,000	105,626,000	
Surface	Royal Meadows 1000	144,525,000	203,096,000	17,637,300	217,740,000	193,375,000	155,254,660	
Well	Sierra Park	0	0	0	0	0	0	
Surface	Skylark 1000	60,444,000	50,775,000	27,284,000	64,219,000	80,786,000	56,702,800	
Surface	Southcanyon 1000	80,525,000	45,741,000	32,976,000	75,296,000	57,964,000	58,500,400	
Well	South Valley 100	52,426,200	51,769,900	40,635,100	44,450,300	63,130,900	50,482,480	
Well	State Street 1000	32,540,000	63,195,000	47,573,000	58,762,000	60,752,000	52,564,400	
Surface	Sugar Ave	28,987,000	0	0	59,302,000	0	17,657,800	
Well	Sugar St.1000	0	0	0	0	39,859,000	7,971,800	
Well	Sugar Manor 1000	42,173,000	0	0	0	66,054,000	21,645,400	
Ditch	Sunny Lane 1000	64,235,000	0	0	19,104,000	3,211,000	17,310,000	
Surface	Sunnyridge 1000	0	168,282,000	68,438,000	135,725,000	93,736,000	93,236,600	
Surface	Sunset Oaks 1000	73,276,000	0	0	160,386,000	201,242,000	86,980,800	
Well	Sweetwood Cir. 1000	32,682,000	46,412,000	0	33,499,000	22,096,000	26,937,800	
Well	Venice 1000	55,142,000	0	0	540,000	87,426,000	28,621,600	
Surface	Victory 100	93,529,700	70,061,400	0	98,374,800	35,188,700	59,430,920	
Well	Vista Ridge 1000	0	0	0	101,560,000	105,902,000	41,492,400	
Surface	Westbrook	59,458,000	69,719,000	0	35,026,000	22,686,000	37,377,800	
Well	Winther 100	29,502,500	17,051,200	0	5,041,900	24,427,400	15,204,600	
Surface	Wild Flower 1000	136,120,000	90,106,000	69,793,000	142,885,000	143,273,000	116,435,400	
Well	Young	0	0	0	0	0	0	
Well	4th St. So. 1000	0	55,074,000	91,154,000	0	24,361,000	34,117,800	
Well	6th St. So. 100	56,682,300	46,256,700	65,235,000	48,123,200	78,895,100	59,038,460	
Well	14th Ave. So. 100	75,241,700	89,568,000	25,520,500	34,265,100	61,753,500	57,269,760	
Well	19th Ave. So. 100	87,932,300	120,402,900	136,563,300	170,613,600	170,164,100	137,135,240	
Well	5th St. N. & Phyllis 100	118,179,000	87,468,600	40,391,000	61,747,900	10,859,200	63,733,340	
Well	13th Ave. No. 1000	36,342,000	79,902,000	67,255,000	64,305,000	60,557,000	61,672,200	
Well	14th Ave. No.	0	0	0	0	0	0	
Well	15th Ave. No.	0	0	0	0	0	0	
Well	19th Ave. No.	0	120,402,900	0	0	0	24,080,580	
Well	14 (Domestic)	0	50,391,000	0	18,332,000	3,405,000	14,425,600	
Subtotal >>		2,096,088,460	2,500,035,500	1,049,260,200	2,907,215,300	3,025,129,900	2,315,545,872	
Total >>		5,281,918,960	5,676,831,200	2,668,749,100	6,839,894,200	7,332,629,000	5,560,004,492	

TABLE 2-4A CITY OF NAMPA IRRIGATION PRODUCTION SUMMARY 2003 - 2007 (Gallons)								Page 1 of 2
Well or Surface	Facility Name	2003	2004	Year 2005	2006	2007	5 Yr. Ave. Production	Comment
Ditch	Sunny Lane 000	64,235,000	0	0	19,104,000	3,211,000	17,310,000	
Surface	Asbury Park 000	27,325,000	30,116,000	0	74,167,000	84,380,000	43,197,600	
Surface	Bayhill	0	0	0	0	0	0	
Surface	Birch Lane 000	59,086,000	0	0	60,878,000	67,675,000	37,527,800	
Surface	Brandis 000	53,926,000	0	0	1,552,000	23,737,000	15,843,000	
Surface	Carriage Hill	0	0	0	0	0	0	
Surface	Cedar Park	262,788,000	297,686,000	154,780,000	239,741,000	172,849,000	227,568,800	
Surface	Chestnut II 000	0	0	0	0	206,284,000	41,256,800	New in 2007
Surface	Copper River 000	0	0	0	0	0	0	
Surface	Cosco	0	0	0	177,698,000	60,755,000	47,690,600	
Surface	Coulter Bay 000	0	0	0	0	57,289,000	11,457,800	New in 2007
Surface	Creekside 000	0	0	0	0	28,022,500	23,632,860	
Surface	Crestwood 00	17,734,600	34,857,600	0	37,549,600	16,394,000	36,358,800	
Surface	Eagle Crest 000	79,511,000	58,511,000	0	27,378,000	0	0	Under Construction
Surface	Gateway	0	0	0	242,339,000	312,691,000	223,986,200	
Surface	Georgia 000	264,178,000	300,723,000	0	79,607,600	13,946,600	29,927,220	
Surface	Greens 00	27,637,300	14,204,300	14,240,300	0	169,541,000	33,908,200	
Surface	Heron 000	0	0	0	0	258,277,000	187,013,400	New in 2007
Surface	Horton 000	223,510,000	267,808,000	0	185,472,000	235,658,000	234,679,400	
Surface	Islands 000	226,089,000	234,863,000	189,929,000	286,858,000	0	0	New in 2008
Surface	Lava Springs	0	0	0	337,077,000	286,368,000	124,689,000	
Surface	Lonestar 000	0	0	0	66,013,000	71,708,000	40,792,600	
Surface	Maplewood 000	31,340,000	169,127,000	34,902,000	212,738,000	352,194,000	184,087,000	Removed from System in 2004
Surface	Midland Park 000	186,376,000	0	0	0	0	0	
Surface	Middlecreek	18,129,000	0	0	0	0	0	
Surface	Mass Point 00	12,830,500	17,147,600	0	40,014,400	45,742,500	23,147,000	
Surface	N.I.C. 000	38,000	0	0	200,200	1,120,000	271,640	
Surface	Oakhurst 000	163,844,000	318,079,000	180,522,000	370,452,000	279,623,000	262,504,000	
Surface	Orchard Heights 000	91,541,660	243,873,000	0	211,118,000	260,564,000	161,419,332	
Surface	Parkridge 000	65,723,000	0	0	171,115,000	129,107,000	73,189,000	
Surface	Pleasant	36,752,000	8,811,000	0	12,066,000	0	11,525,800	
Surface	Raintree 000	98,451,000	123,915,000	88,228,000	109,654,000	107,882,000	105,626,000	
Surface	Royal Meadows 000	144,525,000	203,096,000	17,537,300	217,740,000	193,375,000	155,254,660	
Surface	Skyview 000	60,444,000	50,779,000	27,284,000	64,219,000	80,788,000	56,702,800	
Surface	South Canyon 000	80,525,000	45,741,000	32,976,000	75,296,000	57,964,000	58,500,400	
Surface	Sugar Ave	28,967,000	0	0	59,302,000	0	17,657,800	
Surface	Sunnyridge 000	0	168,282,000	68,438,000	135,725,000	93,738,000	93,236,600	
Surface	Sunset Oaks 000	73,276,000	0	0	160,386,000	201,242,000	86,980,800	
Surface	Victory 00	93,529,700	70,061,400	0	98,374,800	35,188,700	59,430,920	
Surface	Westbrook	59,458,000	69,719,000	0	35,026,000	22,686,000	37,377,800	
Surface	Wild Flower 000	136,120,000	90,106,000	69,783,000	142,885,000	143,273,000	116,435,400	
	totals	2,687,909,760	2,817,505,900	888,629,600	3,951,745,600	4,073,273,300	2,883,812,832	

TABLE 2-4A
CITY OF NAMPA
IRRIGATION PRODUCTION SUMMARY 2003 - 2007
(Gallons)

Well or Surface	Facility Name	2003	2004	Year 2005	2006	2007	5 Yr. Ave. Production	Comment
Well	Augusta 0000	73,596,000	74,649,000	0	86,105,000	68,018,000	60,473,600	
Well	Anthy 0000	0	0	0	232,087,000	231,277,000	92,672,800	
Well	Birds-eye 0000	1,08,492,000	181,918,000	133,786,000	161,975,000	147,088,000	146,951,800	
Well	Boone 00	59,480,300	76,495,900	0	29,479,000	35,344,400	40,160,000	
Well	Cantebury 00	11,655,700	0	0	0	0	4,431,220	
Well	Canyon 0000	98,031,000	95,780,000	54,621,000	58,456,000	37,043,000	68,786,200	
Well	Clematis 1 0000	44,415,000	74,857,000	62,815,000	112,745,000	121,670,000	83,260,400	
Well	Chestnut 1 000	99,038,600	120,460,300	73,486,200	128,666,200	117,546,100	107,439,500	
Well	Colorado 00	116,328,200	166,925,300	75,700,200	122,769,800	98,424,800	116,029,660	
Well	E. Powerline	76,494,000	0	0	0	0	15,298,800	
Well	Farm City 0000	0	0	0	89,929,000	106,774,000	35,340,600	
Well	Fern 00	88,064,600	100,900,500	91,936,800	63,881,700	109,854,800	90,927,680	
Well	Grange Park 0000	104,076,000	107,222,000	0	92,100,000	63,885,000	73,456,600	
Well	Greenbriar 0000	0	0	0	0	15,393,000	3,078,600	
Well	High 00	94,074,800	67,633,600	79,699,800	72,210,000	95,102,300	81,744,100	
Well	Holly 0000	62,058,000	47,409,000	31,346,000	30,266,000	19,551,000	38,126,000	
Well	Hudson 0000	50,379,000	41,527,000	49,175,000	70,097,000	62,217,000	54,679,000	
Well	Idaho Center 0000	13,280,000	0	15,019,000	25,084,000	25,084,000	10,676,600	
Well	Idaho Center II	23,036,000	0	0	0	0	4,607,200	
Well	Indian Creek 0000	59,414,200	44,931,000	29,082,000	42,030,000	38,833,000	42,858,040	
Well	Juniper 00	38,030,000	30,406,200	5,542,400	55,363,300	61,595,800	38,191,540	
Well	Karcher Interchange	0	0	0	0	0		Irrigation supply for Karcher Interchange
Well	Kensington I	19,205,000	0	0	0	--	3,841,000	Removed from System
Well	Kensington II 0000	0	0	0	92,207,000	99,694,000	38,390,200	
Well	Kings Rd. Est. 0000	153,157,000	0	0	16,610,000	105,453,000	55,044,000	
Well	Kurtz 00	106,237,300	144,299,000	123,943,900	134,643,700	127,488,900	127,322,560	
Well	Lakeview 00	105,637,000	124,332,000	100,176,300	143,308,300	121,693,600	119,029,440	
Well	Maple 00	60,952,300	113,195,400	61,186,700	76,034,200	58,118,700	73,897,460	
Well	Mayors 00	71,234,800	84,999,500	67,994,300	27,514,700	93,819,400	69,112,500	
Well	Meadowbrook 00	68,392,000	66,265,000	34,097,000	43,963,400	51,715,800	53,290,640	
Well	Meadowbrook II 0000	47,073,000	105,624,000	55,689,000	63,990,000	74,533,000	69,381,800	
Well	Meyers 0000	60,874,000	66,377,000	85,360,000	76,878,000	44,206,000	66,739,000	
Well	Morgan 00	57,521,600	57,189,500	56,219,900	45,211,500	43,366,500	43,366,500	
Well	Phasant Hollow 0000	4,939,000	95,503,800	50,155,000	74,340,000	91,496,000	51,286,760	
Well	Port Meadows 0000	0	0	0	0	1,082,000	21,400	
Well	Sierra Park	0	0	0	0	0	0	
Well	South Valley 00	52,426,200	51,769,900	40,635,100	44,450,300	63,130,900	50,482,480	
Well	State Street 0000	32,540,000	63,195,000	47,573,000	58,762,000	60,752,000	52,564,400	
Well	Sugar St. 0000	0	0	0	0	39,859,000	7,971,800	
Well	Sugar Manor 0000	42,173,000	0	0	0	66,054,000	21,645,400	
Well	Sweetwood Cir. 0000	32,682,000	46,412,000	0	33,499,000	22,096,000	26,937,800	
Well	Venice 0000	55,142,000	0	0	540,000	87,426,000	28,621,600	
Well	Vista Ridge 0000	29,502,500	0	0	101,560,000	105,902,000	41,492,400	
Well	Winnier 00	0	17,051,200	0	5,041,900	24,427,400	15,204,600	
Well	Young	0	0	0	0	0	0	
Well	4th St. So. 0000	0	55,074,000	91,154,000	0	24,361,000	34,117,800	
Well	6th St. So. 0000	56,682,300	46,256,700	65,235,000	48,123,200	78,895,100	59,038,460	
Well	14th Ave. So. 00	75,241,700	89,568,000	25,520,500	34,265,100	61,753,500	57,269,760	
Well	19th Ave. So. 00	87,932,300	120,402,900	136,563,300	170,613,600	170,164,100	137,135,240	
Well	5th St. N. & Phyllis 00	118,179,000	87,489,600	40,391,000	61,747,900	10,859,200	63,733,340	
Well	13th Ave. No. 0000	36,342,000	79,902,000	67,255,000	64,305,000	60,557,000	61,672,200	
Well	14th Ave. No.	0	0	0	0	0	0	
Well	15th Ave. No.	0	0	0	0	0	0	
Well	19th Ave. No.	0	120,402,900	0	0	0	24,080,560	
Totals		2,594,009,200	2,808,934,300	1,780,119,500	2,869,816,600	3,255,950,700	2,661,766,060	
Grand Total (MG)		5,281,918,960	5,626,440,200	2,668,749,100	6,821,562,200	7,329,224,000	5,545,578,892	
Grand Total (MGD)		29,343,994	31,258,001	14,826,384	37,897,568	40,717,911	30,808,772	
Well	14 (Domestic)	0	50,391,000	0	18,332,000	3,405,000	14,425,600	

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COPY

**TABLE 2-5
CITY OF NAMPA
2007 IRRIGATION PRODUCTION REPORT
(Gallons)**

Page 1 of 2											
Well or Surface	Facility Name	April	May	June	July	August	September	October	Metered Production (MG)	Estimated Pumping Capacity (gpm)	VFD
Surface	Asbury Park/000	4,208,000	12,332,000	14,440,000	19,927,000	18,164,000	15,309,000	0	84.4	500	
Well	Agusta/000	6,613,000	10,155,000	10,956,000	14,640,000	9,507,000	14,145,000	2,002,000	68.0	450	
Well	Amity/000	24,085,000	40,197,000	35,290,000	45,240,000	44,380,000	35,831,000	6,254,000	231.3	1400	X
Surface	Bayhill								0.0	100	
Surface	Birch Lane/000	1,465,000	11,668,000	13,148,000	18,064,000	14,900,000	7,552,000	878,000	67.7	300	
Well	Birdseye/000	0	21,660,000	25,274,000	51,862,000	37,327,000	10,965,000	0	147.1	1200	
Well	Boone/00	2,376,100	5,131,900	1,584,600	12,341,700	10,836,400	2,877,100	196,600	35.3	400	
Surface	Brandts/000	1,000	21,000	0	7,440,000	11,654,000	4,621,000	0	23.7	200	
Well	Canterbury/00	0	0	0	493,700	2,848,900	3,331,800	3,826,000	10.5	300	
Well	Canyon/000	0	0	9,627,000	16,020,000	7,282,000	4,114,000	0	37.0	800	
Surface	Carriage Hill								0.0	840	X
Surface	Ceder Park								0.0	100	
Well	Cemetery I /000	16,792,000	21,521,000	20,087,000	22,236,000	21,026,000	17,516,000	2,492,000	121.7	400	
Well	Chestnut I /00	20,030,300	15,084,400	11,351,400	23,034,600	19,604,000	24,297,300	4,144,100	117.5	600	
Surface	Chestnut II /000	0	52,361,000	49,013,000	39,823,000	31,652,000	0	0	172.8	2000	
Well	Colorado /00	88,300	5,148,400	19,218,400	24,044,600	24,440,200	21,120,400	4,364,500	98.4	750	
Surface	Colter Bay /000	0	0	0	0	36,972,000	22,424,000	1,359,000	60.8	3000	X
Surface	Copper River /000	0	3,639,000	46,182,000	87,219,000	61,342,000	7,902,000	0	206.3	3000	X
Surface	Costco								0.0	1500	X
Surface	Creekside /000	0	0	1,023,000	13,347,000	42,919,000	0	0	57.3	2000	X
Surface	Crestwood /00	0	6,257,100	6,194,000	7,744,400	5,435,400	2,391,600	0	28.0	1200	
Surface	Eagle Crest /000	0	0	0	0	0	16,394,000	0	16.4	450	
Well	Farm City /000	1,994,000	21,150,000	20,668,000	31,583,000	22,387,000	8,914,000	78,000	106.8	2000	X
Well	Fern/00	12,741,300	19,282,800	10,495,400	22,455,100	21,309,000	19,547,500	4,023,700	109.9	500	
Surface	Gateway								0.0	750	X
Surface	Georgia /000	44,437,000	61,070,000	52,146,000	70,364,000	39,813,000	39,870,000	4,991,000	312.7	2000	X
Well	Grange Park /000	12,447,000	6,240,000	3,812,000	19,208,000	13,752,000	7,298,000	1,128,000	63.9	450	
Well	Greenbriar /000	0	0	0	3,552,000	5,660,000	5,066,000	1,115,000	15.4	200	
Surface	Greens /00	6,225,000	3,253,900	4,074,000	381,000	12,700	0	0	13.9	100	
Surface	Herron /000	4,836,000	25,850,000	37,968,000	51,997,000	40,291,000	8,599,000	0	169.5	1500	X
Well	High /00	9,800,200	15,242,800	16,199,700	20,517,100	18,276,500	14,452,400	614,500	95.1	500	
Well	Holly /000	0	0	0	9,762,000	7,357,000	1,455,000	0	18.6	300	
Surface	Horton /000	0	37,800,000	54,727,000	63,473,000	52,621,000	42,895,000	6,761,000	258.3	1500	
Well	Hudson /000	4,848,000	10,745,000	10,425,000	15,748,000	11,197,000	8,869,000	385,000	62.2	350	
Well	Idaho Center /000	750,000	119,000	518,000	2,097,000	11,390,000	10,210,000	0	25.1	300	
Well	Idaho Center II								0.0	300	
Well	Indian Creek /000	2,206,000	131,000	6,833,000	12,998,000	11,261,000	5,332,000	72,000	38.8	300	
Surface	Islands /000	20,300,000	54,488,000	47,266,000	59,516,000	54,088,000	0	0	235.7	1500	
Well	Juniper /00	7,677,400	10,402,400	10,059,500	11,880,900	11,941,800	7,629,500	2,004,300	61.6	200	
Well	Kensington II /000	6,984,000	15,622,000	16,729,000	24,232,000	22,712,000	12,008,000	1,407,000	99.7	2000	X
Well	Kings Rd. Est. II /000	0	0	20,132,000	37,270,000	27,346,000	20,705,000	0	105.5	1500	
Well	Kurtz /00	19,036,100	14,111,200	18,464,300	27,155,100	25,126,400	19,523,100	4,072,700	127.5	500	
Well	Lakeview /00	8,891,600	18,939,200	20,552,900	29,600,300	28,020,700	15,688,900	0	121.7	500	
Surface	Lava Springs								0.0	3000	X
Surface	Lonestar /000	26,449,000	67,236,000	49,441,000	43,035,000	60,382,000	36,544,000	3,281,000	286.4	3000	X
Well	Maple /00	2,439,500	1,308,700	2,374,300	18,556,100	16,687,200	14,830,400	1,922,500	58.1	500	
Surface	Maplewood /000	0	16,361,000	5,103,000	31,278,000	18,966,000	0	0	71.7	800	
Well	Mayors /00	12,704,300	19,023,500	18,418,200	20,625,300	19,760,400	3,287,700	0	93.8	400	
Well	Meadowbrook /00	1,658,300	6,716,200	5,786,800	15,692,300	9,964,200	10,137,200	1,760,800	51.7	500	
Well	Meadowbrook II /000	7,413,000	15,735,000	14,777,000	17,293,000	11,001,000	8,314,000	0	74.5	300	
Well	Meyers /000	0	0	0	11,971,000	16,703,000	3,066,000		44.2	400	
	Sub-Total (MG)	289	646	710	1,076	978	544	62	4,307	47,640	
								Subtotal (MG)	4,307	47,640	

TABLE 2-5 CITY OF NAMPA 2007 PRODUCTION REPORT - Cont. (Gallons)											
Well or Surface	Facility Name	April	May	June	July	August	September	October	Metered Production (MG)	Estimated Pumping Capacity (gpm)	VFD
Surface	Midland Park \000	43,215,000	63,140,000	61,076,000	96,418,000	81,515,000	6,830,000	0	352.2	3000	X
Well	Morgan \00	5,578,200	6,203,700	4,985,400	11,267,700	9,055,800	7,155,000	965,700	45.2	300	
Surface	Moss Point \00	1,765,400	6,537,000	8,064,200	12,694,200	10,368,400	6,313,300	0	45.7	500	
Surface	N.I.C. \000	6,000	214,000	360,000	305,000	235,000	0	0	1.1	100	
Surface	Oakhurst \000	23,451,000	42,485,000	73,889,000	73,850,000	65,948,000	0	0	279.6	2000	
Surface	Orchard Heights \000	4,703,000	59,553,000	55,757,000	71,059,000	41,914,000	27,578,000	0	260.6	1500	
Surface	Parkridge \000	3,054,000	35,317,000	32,412,000	30,274,000	28,050,000	0	0	129.1	1000	X
Well	Phesant Hollow \000	12,003,000	15,204,000	12,418,000	16,099,000	16,810,000	15,873,000	3,089,000	91.5	600	
Surface	Pleasants								0.0	350	
Well	Port Meadows \000	0	0	0	0	0	1,082,000	0	1.1	100	
Surface	Raintree \000	5,052,000	17,140,000	22,142,000	27,565,000	23,230,000	10,733,000	2,020,000	107.9	1500	X
Surface	Royal Meadows \000	11,488,000	38,396,000	39,039,000	51,879,000	52,573,000	0	0	193.4	1500	X
Well	Sierra Park								0.0	100	
Surface	Skyview \000	5,591,000	13,423,000	16,760,000	22,651,000	22,363,000	0	0	80.8	500	
Surface	SouthCanyon \000	0	6,046,000	15,213,000	16,453,000	20,252,000	0	0	58.0	600	
Well	South Valley \00	5,646,900	8,640,100	8,387,200	13,746,800	12,304,600	11,974,400	2,430,900	63.1	500	
Well	State Street \000	9,755,000	9,481,000	6,838,000	13,724,000	13,082,000	7,872,000	0	60.8	350	
Well	Sugar \000	2,477,000	12,306,000	7,164,000	9,591,000	8,321,000	0	0	39.9	400	
Well	Sugar Manor \000	4,045,000	18,010,000	11,350,000	18,363,000	7,313,000	6,973,000	0	66.1	450	
Ditch	Sunny Lane \000	0	0	0	0	2,784,000	427,000	0	3.2	550	
Surface	Sunnyridge \000	6,607,000	20,266,000	20,088,000	19,716,000	27,061,000	0	0	93.7	1800	X
Surface	Sunset Oaks \000	19,516,000	37,750,000	37,456,000	42,474,000	41,398,000	18,871,000	3,777,000	201.2	1000	
Well	Sweetwood Cir. \000	732,000	0	0	9,092,000	8,297,000	3,975,000	0	22.1	300	
Well	Venice \000	8,372,000	17,812,000	14,499,000	19,892,000	17,352,000	9,364,000	135,000	87.4	400	
Surface	Victory \00	0	21,060,200	14,128,500	0	0	0	0	35.2	500	
Well	Vista Ridge \000	10,834,000	105,902,000	17,892,000	21,649,000	21,463,000	11,856,000	2,113,000	191.7	2000	X
Well	Westbrook \000	0	7,436,000	8,583,000	3,664,000	3,003,000	0	0	22.7	350	
Well	Winther \00	6,036,800	1,520,300	577,700	6,029,900	6,663,200	3,172,300	427,200	24.4	300	
Surface	Wild Flower \000	0	33,839,000	26,953,000	41,091,000	41,390,000	0	0	143.3	800	
Well	Young								0.0	250	
Well	4th St. So. \000	0	0	0	0	11,707,000	12,654,000	0	24.4	500	
Well	6th St. So. \00	8,892,500	11,296,400	13,915,700	21,730,500	12,977,500	9,223,000	859,500	78.9	500	
Well	14th Ave. So. \00	3,730,300	1,651,000	7,342,600	22,558,500	14,738,800	11,342,400	389,900	61.8	500	
Well	19th Ave. So. \00	17,283,400	28,232,600	28,114,500	32,587,400	32,065,000	26,364,900	5,516,300	170.2	550	
Well	5th St. N. & Phylis \00	4,496,200	1,515,000	0	4,848,000	0	0	0	10.9	600	
Well	13th Ave. No. \000	3,804,000	7,736,000	10,690,000	14,779,000	13,088,000	9,069,000	1,391,000	60.6	250	
Well	14th Ave. No.								0.0	250	
	Total (MG) >>	518	1,294	1,286	1,822	1,646	763	85	7,414.1	74,390	
								6 Mon. Average	1,235.7		
								Total (MG)	7,414.1		
								Average Production @ 24 hrs usage	(cfs)	63.7	
									(gpm)	28,603.6	
								Maximum Production @ 16 hrs usage	(cfs)	95.6	
									(gpm)	42,905	

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**TABLE 2-6
CITY OF NAMPA
PRESSURE IRRIGATION SYSTEM**

Existing Parks, Schools & Cemetery Demands (gpm)

	% of Gross Area Irrigated	Demand Coefficient (gpm/Ac)	Gross Area (Acres)	Demand (gpm)
<u>Public Parks</u>				
City Acres Park	100%	5.5	1.5	15
East Side Park	100%	5.5	3	20
Hunter Park	100%	5.5	1	15
Indian Creek Park	100%	5.5	2	15
Kings Road Park	100%	5.5	3	20
Lakeview Park	100%	5.5	52	290
Liberty Park	100%	5.5	12	70
Lions Park	100%	5.5	22	125
Maple Wood Park and Greenbelt	100%	5.5	22	121
Mary Ellens Meadow	100%	5.5	2	15
Optimist Park	100%	5.5	25	140
Skyview Park	100%	5.5	19	105
South Fork Park	100%	5.5	5	30
Stampede Park	100%	5.5	10	55
Sunset Oaks Park	100%	5.5	7	40
West Park	100%	5.5	37	205
West Roosevelt Park	100%	5.5	3	20
Wilson Creek Park	100%	5.5	12	66
<u>Schools</u>				
Birch Elementary School	60%	5.5	16	56
Centennial Elementary School	70%	5.5	17	70
Central Elementary School	50%	5.5	5	15
Endeavor Elementary School	60%	5.5	16	56
Franklin D. Roosevelt Elementary School	50%	5.5	12	35
Greenhurst Elementary School	50%	5.5	12	35
Iowa Elementary School	50%	5.5	12	35
Lakeridge Elementary School	50%	5.5	15	45
Owyhee Elementary School	50%	5.5	12	35
Park Ridge Elementary School	50%	5.5	12	35
Reagan Elementary School	50%	5.5	12	35
Sherman Elementary School	50%	5.5	12	35
Snake River Elementary School	50%	5.5	10	30
Willow Creek Elementary School	50%	5.5	13	40
East Valley Middle School	60%	5.5	30	125
Lone Star Middle school	75%	5.5	18	75
South Middle School	65%	5.5	26	95
West Middle School	60%	5.5	21	70
Columbia High School	65%	5.5	63	225
Nampa High School	55%	5.5	45	140
Skyview High School	65%	5.5	50	180
Nampa Christian School	50%	5.5	15	45
BSU West Campus	25%	5.5	150	210
NNU Campus and old Kurtz Park	50%	5.5	75	210
<u>Misc.</u>				
Kohler Lawn Cemetery	100%	5.5	37	205
Mount Calvary Cemetery	100%	5.5	10	55
TOTAL			954.5	3559 gpm

7.93 cfs

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Birdseye\000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	0	0	0	0	0
May	726565	748225	21660	21,660,000	501
June	748225	773499	25274	25,274,000	585
July	773499	825361	51862	51,862,000	1,201
August	825361	862688	37327	37,327,000	864
September	862688	873653	10965	10,965,000	254
October	0	0	0	0	0
Season End Total			147088		

Boone\00	Begin Read	End Read	Total		
March			0		
April	307750	331511	23761	2,376,100	110
May	331511	382830	51319	5,131,900	119
June	382830	398676	15846	1,584,600	37
July	398676	522093	123417	12,341,700	286
August	522093	630457	108364	10,836,400	251
September	630457	659228	28771	2,877,100	67
October	659228	661194	1966	196,600	9
Season End Total			353444		

Brandts\000	Begin Read	End Read	Total		
March	0	0	0		
April	208159	208160	1	1,000	0
May	208160	208181	21	21,000	0
June	208181	208181	0	0	0
July	208181	215621	7440	7,440,000	172
August	215621	227275	11654	11,654,000	270
September	227275	231896	4621	4,621,000	107
October			0	0	0
Season End Total			23737		

Canterbury\00	Begin Read	End Read	Total		
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July	229537	234474	4937	493,700	11
August	234474	262963	28489	2,848,900	66
September	262963	296281	33318	3,331,800	77
October	296281	334541	38260	3,826,000	177
Season End Total			105004		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Canyon\000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June	155325	164952	9627	9,627,000	223
July	164952	180972	16020	16,020,000	371
August	180972	188254	7282	7,282,000	169
September	188254	192368	4114	4,114,000	95
October			0	0	0
		Season End Total	37043		

Chestnut II00	Begin Read	End Read	Total		
March			0		
April	317416	517719	200303	20,030,300	927
May	517719	668563	150844	15,084,400	349
June	668563	782077	113514	11,351,400	263
July	782077	12423	230346	23,034,600	533
August	12423	208463	196040	19,604,000	454
September	208463	451436	242973	24,297,300	562
October	451436	492877	41441	4,144,100	192
		Season End Total	1175461		

Chestnut II000	Begin Read	End Read	Total		
March			0		
April			0	0	0
May	637417	689778	52361	52,361,000	1,212
June	689778	738791	49013	49,013,000	1,135
July	738791	778614	39823	39,823,000	922
August	778614	810266	31652	31,652,000	733
September			0	0	0
October			0	0	0
		Season End Total	172849		

Colorado\000	Begin Read	End Read	Total		
March			0		
April	464870	465753	883	88,300	4
May	465753	517237	51484	5,148,400	119
June	517237	709421	192184	19,218,400	445
July	709421	949867	240446	24,044,600	557
August	949867	194269	244402	24,440,200	566
September	194269	405473	211204	21,120,400	489
October	405473	449118	43645	4,364,500	202
		Season End Total	984248		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Moss Point/00	Begin Read	End Read	Total
March			0
April	49929	67583	17654
May	67583	132953	65370
June	132953	213595	80642
July	213595	340537	126942
August	340537	444221	103684
September	444221	507354	63133
October			0
Season End Total			457425

MG	GPM
1,765,400	82
6,537,000	151
8,064,200	187
12,694,200	294
10,368,400	240
6,313,300	146
0	0

Cemetery/000	Begin Read	End Read	Total
March	0	0	0
April	324619	341411	16792
May	341411	362932	21521
June	362932	383019	20087
July	383019	405255	22236
August	405255	426281	21026
September	426281	443797	17516
October	443797	446289	2492
Season End Total			121670

16,792,000	777
21,521,000	498
20,087,000	465
22,236,000	515
21,026,000	487
17,516,000	405
2,492,000	115

5th & Phyllis/00	Begin Read	End Read	Total
March	0	0	0
April	474375	519337	44962
May	519337	534487	15150
June	534487	534487	0
July	534487	582967	48480
August	582967	582967	0
September	582967	582967	0
October	582967	582967	0
Season End Total			108592

4,496,200	208
1,515,000	35
0	0
4,848,000	112
0	0
0	0
0	0

Lakeview/00	Begin Read	End Read	Total
March			0
April	29030	117946	88916
May	117946	307338	189392
June	307338	512867	205529
July	512867	808870	296003
August	808870	1089077	280207
September	1089077	1245966	156889
October			0
Season End Total			1216936

8,891,600	412
18,939,200	438
20,552,900	476
29,600,300	685
28,020,700	649
15,688,900	363
0	0

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Mayors/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	716587	843630	127043	12,704,300	588
May	843630	1033865	190235	19,023,500	440
June	1033865	1218047	184182	18,418,200	426
July	1218047	1424300	206253	20,625,300	477
August	1424300	1621904	197604	19,760,400	457
September	1621904	1654781	32877	3,287,700	76
October			0	0	0
Season End Total			938194		

13th Ave N/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	442457	446261	3804	3,804,000	176
May	446261	453997	7736	7,736,000	179
June	453997	464687	10690	10,690,000	247
July	464687	479466	14779	14,779,000	342
August	479466	492554	13088	13,088,000	303
September	492554	501623	9069	9,069,000	210
October	501623	503014	1391	1,391,000	64
Season End Total			60557		

Indian Creek/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	324049	326255	2206	2,206,000	102
May	326255	326386	131	131,000	3
June	326386	333219	6833	6,833,000	158
July	333219	346217	12998	12,998,000	301
August	346217	357478	11261	11,261,000	261
September	357478	362810	5332	5,332,000	123
October	362810	362882	72	72,000	3
Season End Total			38833		

19th Ave S/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	866347	1039181	172834	17,283,400	800
May	1039181	1321507	282326	28,232,600	654
June	1321507	1602652	281145	28,114,500	651
July	1602652	1928526	325874	32,587,400	754
August	1928526	2249176	320650	32,065,000	742
September	2249176	2512825	263649	26,364,900	610
October	2512825	2567988	55163	5,516,300	255
Season End Total			1701641		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Meyer/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	583745	583745	0	0	0
May	583745	583745	0	0	0
June	583745	583745	0	0	0
July	0	11971	11971	11,971,000	277
August	11971	28674	16703	16,703,000	387
September	28674	41140	12466	12,466,000	289
October	41140	44206	3066	3,066,000	142
		Season End Total	44206		

Fern/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	36254	163667	127413	12,741,300	590
May	163667	356495	192828	19,282,800	446
June	356495	461449	104954	10,495,400	243
July	461449	686000	224551	22,455,100	520
August	686000	899090	213090	21,309,000	493
September	899090	1094565	195475	19,547,500	452
October	1094565	1134802	40237	4,023,700	186
		Season End Total	1098548		

Holly/000	Begin Read	End Read	Total	MG	GPM
March	283821	284798	977		
April	284798	284798	0	0	0
May	284798	284798	0	0	0
June	284798	284798	0	0	0
July	284798	294560	9762	9,762,000	226
August	294560	301917	7357	7,357,000	170
September	301917	303372	1455	1,455,000	34
October			0	0	0
		Season End Total	19551		

Maple/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	56592	80987	24395	2,439,500	113
May	80987	94074	13087	1,308,700	30
June	94074	117817	23743	2,374,300	55
July	117817	303378	185561	18,556,100	430
August	303378	470250	166872	16,687,200	386
September	470250	618554	148304	14,830,400	343
October	618554	637779	19225	1,922,500	89
		Season End Total	581187		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Kurtz Park/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	756817	947178	190361	19,036,100	881
May	947178	1088290	141112	14,111,200	327
June	1088290	1272933	184643	18,464,300	427
July	1272933	1544484	271551	27,155,100	629
August	1544484	1795748	251264	25,126,400	582
September	1795748	1990979	195231	19,523,100	452
October	1990979	2031706	40727	4,072,700	189
		Season End Total	1274889		

14th Ave So./00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	38316	75619	37303	3,730,300	173
May	75619	92129	16510	1,651,000	38
June	92129	165555	73426	7,342,600	170
July	165555	391140	225585	22,558,500	522
August	391140	538528	147388	14,738,800	341
September	538528	651952	113424	11,342,400	263
October	651952	655851	3899	389,900	18
		Season End Total	617535		

6th St. So./00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	988431	1077356	88925	8,892,500	412
May	1077356	1190320	112964	11,296,400	261
June	1190320	1329477	139157	13,915,700	322
July	1329477	1546782	217305	21,730,500	503
August	1546782	1676557	129775	12,977,500	300
September	1676557	1768787	92230	9,223,000	213
October	1768787	1777382	8595	859,500	40
		Season End Total	788951		

4th St. So./000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	11707	11707	11,707,000	271
September	11707	24361	12654	12,654,000	293
October			0	0	0
		Season End Total	24361		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Sunset Oak/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	183149	202665	19516	19,516,000	904
May	202665	240415	37750	37,750,000	874
June	240415	277871	37456	37,456,000	867
July	277871	320345	42474	42,474,000	983
August	320345	361743	41398	41,398,000	958
September	361743	380614	18871	18,871,000	437
October	380614	384391	3777	3,777,000	175
		Season End Total	201242		

High/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	532670	630672	98002	9,800,200	454
May	630672	783100	152428	15,242,800	353
June	783100	945097	161997	16,199,700	375
July	945097	1150268	205171	20,517,100	475
August	1150268	1333033	182765	18,276,500	423
September	1333033	1477557	144524	14,452,400	335
October	1477557	1483702	6145	614,500	28
		Season End Total	951032		

State St./000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	202044	211799	9755	9,755,000	452
May	211799	221280	9481	9,481,000	219
June	221280	228118	6838	6,838,000	158
July	228118	241842	13724	13,724,000	318
August	241842	254924	13082	13,082,000	303
September	254924	262796	7872	7,872,000	182
October	0	0	0	0	0
		Season End Total	60752		

So Canyon/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	0	0	0	0	0
May	537305	543351	6046	6,046,000	140
June	543351	558564	15213	15,213,000	352
July	558564	575017	16453	16,453,000	381
August	575017	595269	20252	20,252,000	469
September	0	0	0	0	0
October	0	0	0	0	0
		Season End Total	57964		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Green/00	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	521984	584234	62250	6,225,000	288
May	584234	616773	32539	3,253,900	75
June	616773	657513	40740	4,074,000	94
July	657513	661323	3810	381,000	9
August	661323	661450	127	12,700	0
September			0	0	0
October			0	0	0
		Season End Total	139466		

Hudson/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	467637	472485	4848	4,848,000	224
May	472485	483230	10745	10,745,000	249
June	483230	493655	10425	10,425,000	241
July	493655	509403	15748	15,748,000	365
August	509403	520600	11197	11,197,000	259
September	520600	529469	8869	8,869,000	205
October	529469	529854	385	385,000	18
		Season End Total	62217		

Sunnylane/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	863134	865918	2784	2,784,000	64
September	865918	866345	427	427,000	10
October	0	0	0	0	0
		Season End Total	3211		

Kensington/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	232909	239893	6984	6,984,000	323
May	239893	255515	15622	15,622,000	362
June	255515	272244	16729	16,729,000	387
July	272244	296476	24232	24,232,000	561
August	296476	319188	22712	22,712,000	526
September	319188	331196	12008	12,008,000	278
October	331196	332603	1407	1,407,000	65
		Season End Total	99694		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Idaho Center/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	128291	129041	750	750,000	35
May	129041	129160	119	119,000	3
June	129160	129678	518	518,000	12
July	129678	131775	2097	2,097,000	49
August	131775	143165	11390	11,390,000	264
September	143165	153375	10210	10,210,000	236
October			0	0	0
Season End Total			25084		

Farm City/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	3568	5562	1994	1,994,000	92
May	5562	26712	21150	21,150,000	490
June	27671	48339	20668	20,668,000	478
July	48339	79922	31583	31,583,000	731
August	79922	102309	22387	22,387,000	518
September	102309	111223	8914	8,914,000	206
October	111223	111301	78	78,000	4
Season End Total			106774		

NIC/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	6127	6133	6	6,000	0
May	6133	6347	214	214,000	5
June	6347	6707	360	360,000	8
July	6707	7012	305	305,000	7
August	7012	7247	235	235,000	5
September			0	0	0
October			0	0	0
Season End Total			1120		

Sugar Manor/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	9	4054	4045	4,045,000	187
May	4054	22064	18010	18,010,000	417
June	22064	33414	11350	11,350,000	263
July	33414	51777	18363	18,363,000	425
August	51777	59090	7313	7,313,000	169
September	59090	66063	6973	6,973,000	161
October			0	0	0
Season End Total			66054		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Venice/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	11	8383	8372	8,372,000	388
May	8383	26195	17812	17,812,000	412
June	29195	43694	14499	14,499,000	336
July	43694	63586	19892	19,892,000	460
August	63586	80938	17352	17,352,000	402
September	80938	90302	9364	9,364,000	217
October	90302	90437	135	135,000	6
		Season End Total	87426		

Amity/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	762424	786509	24085	24,085,000	1,115
May	786509	826706	40197	40,197,000	930
June	826706	861996	35290	35,290,000	817
July	861996	907236	45240	45,240,000	1,047
August	907236	951616	44380	44,380,000	1,027
September	951616	987447	35831	35,831,000	829
October	987447	993701	6254	6,254,000	290
		Season End Total	231277		

Kings Road/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April			0	0	0
May			0	0	0
June	750675	770807	20132	20,132,000	466
July	770807	808077	37270	37,270,000	863
August	808077	835423	27346	27,346,000	633
September	835423	856128	20705	20,705,000	479
October			0	0	0
		Season End Total	105453		

Parkridge/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	106704	109758	3054	3,054,000	141
May	109758	145075	35317	35,317,000	818
June	145075	177487	32412	32,412,000	750
July	177487	207761	30274	30,274,000	701
August	207761	235811	28050	28,050,000	649
September			0	0	0
October			0	0	0
		Season End Total	129107		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Sugar St/000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	552374	554851	2477	2,477,000	115
May	554851	567157	12306	12,306,000	285
June	567157	574321	7164	7,164,000	166
July	574321	583912	9591	9,591,000	222
August	583912	592233	8321	8,321,000	193
September			0	0	0
October			0	0	0
		Season End Total	39859		

Coulter Bay/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July			0	0	0
August	336487	373459	36972	36,972,000	856
September	373459	395883	22424	22,424,000	519
October	395883	397242	1359	1,359,000	63
		Season End Total	60755		

Crestwood/00	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	223266	285837	62571	6,257,100	145
June	285837	347777	61940	6,194,000	143
July	347777	425221	77444	7,744,400	179
August	425221	479575	54354	5,435,400	126
September	479575	503491	23916	2,391,600	55
October			0	0	0
		Season End Total	280225		

Grange Park/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	351122	363569	12447	12,447,000	576
May	363569	369809	6240	6,240,000	144
June	369809	373621	3812	3,812,000	88
July	373621	392829	19208	19,208,000	445
August	392829	406581	13752	13,752,000	318
September	406581	413879	7298	7,298,000	169
October	413879	415007	1128	1,128,000	52
		Season End Total	63885		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Winther/00	Begin Read	End Read	Total	MG	GPM
March			0		
April	552143	612511	60368	6,036,800	279
May	612511	627714	15203	1,520,300	35
June	627714	633491	5777	577,700	13
July	633491	693790	60299	6,029,900	140
August	693790	760422	66632	6,663,200	154
September	760422	792145	31723	3,172,300	73
October	792145	796417	4272	427,200	20
		Season End Total	244274		

Horton/000	Begin Read	End Read	Total		
March			0		
April			0	0	0
May	162253	200053	37800	37,800,000	875
June	200053	254780	54727	54,727,000	1,267
July	254780	318253	63473	63,473,000	1,469
August	318253	370874	52621	52,621,000	1,218
September	370874	413769	42895	42,895,000	993
October	413769	420530	6761	6,761,000	313
		Season End Total	258277		

Orchard Heights/000	Begin Read	End Read	Total		
March			0		
April	653754	658457	4703	4,703,000	218
May	658457	718010	59553	59,553,000	1,379
June	718010	773767	55757	55,757,000	1,291
July	773767	844826	71059	71,059,000	1,645
August	844826	886740	41914	41,914,000	970
September	886740	914318	27578	27,578,000	638
October			0	0	0
		Season End Total	260564		

Morgan/00	Begin Read	End Read	Total		
March			0		
April	399531	455313	55782	5,578,200	258
May	455313	517350	62037	6,203,700	144
June	517350	567204	49854	4,985,400	115
July	567204	679881	112677	11,267,700	261
August	679881	770439	90558	9,055,800	210
September	770439	841989	71550	7,155,000	166
October	841989	851646	9657	965,700	45
		Season End Total	452115		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Sweetwood/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	616969	617701	732	732,000	34
May	617701	617701	0	0	0
June	617701	617701	0	0	0
July	617701	626793	9092	9,092,000	210
August	626793	635090	8297	8,297,000	192
September	635090	639065	3975	3,975,000	92
October			0	0	0
Season End Total			22096		

Lonestar/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	460361	486810	26449	26,449,000	1,224
May	486810	554046	67236	67,236,000	1,556
June	554046	603487	49441	49,441,000	1,144
July	603487	646522	43035	43,035,000	996
August	646522	706904	60382	60,382,000	1,398
September	706904	743448	36544	36,544,000	846
October	743448	746729	3281	3,281,000	152
Season End Total			286368		

Westbrook/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	673577	681013	7436	7,436,000	172
June	681013	689596	8583	8,583,000	199
July	689596	693260	3664	3,664,000	85
August	693260	696263	3003	3,003,000	70
September			0	0	0
October			0	0	0
Season End Total			22686		

Well #14/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	91379	94784	3405	3,405,000	158
May			0	0	0
June			0	0	0
July			0	0	0
August			0	0	0
September			0	0	0
October			0	0	0
Season End Total			3405		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Copper River/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	713	4352	3639	3,639,000	84
June	4352	50534	46182	46,182,000	1,069
July	50534	137753	87219	87,219,000	2,019
August	137753	199095	61342	61,342,000	1,420
September	199095	206997	7902	7,902,000	183
October			0	0	0
Season End Total			206284		

Creekside/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June	6	1029	1023	1,023,000	24
July	1029	14376	13347	13,347,000	309
August	14376	57295	42919	42,919,000	993
September			0	0	0
October			0	0	0
Season End Total			57289		

Victory/00	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	863687	1074289	210602	21,060,200	488
June	1074289	1215574	141285	14,128,500	327
July			0	0	0
August			0	0	0
September			0	0	0
October			0	0	0
Season End Total			351887		

Midland Park/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	63	43278	43215	43,215,000	2,001
May	43278	106418	63140	63,140,000	1,462
June	106418	167494	61076	61,076,000	1,414
July	167494	263912	96418	96,418,000	2,232
August	263912	345427	81515	81,515,000	1,887
September	345427	352257	6830	6,830,000	158
October			0	0	0
Season End Total			352194		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Herron/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	16	4852	4836	4,836,000	224
May	4852	30702	25850	25,850,000	598
June	30702	68670	37968	37,968,000	879
July	68670	120667	51997	51,997,000	1,204
August	120667	160958	40291	40,291,000	933
September	160958	169557	8599	8,599,000	199
October			0	0	0
Season End Total			169541		

Georgia/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	412117	456554	44437	44,437,000	2,057
May	456554	517624	61070	61,070,000	1,414
June	517624	569770	52146	52,146,000	1,207
July	569770	640134	70364	70,364,000	1,629
August	640134	679947	39813	39,813,000	922
September	679947	719817	39870	39,870,000	923
October	719817	724808	4991	4,991,000	231
Season End Total			312691		

Eaglecrest/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July			0	0	0
August			0	0	0
September	502925	519319	16394	16,394,000	379
October			0	0	0
Season End Total			16394		

South Valley/00	Begin Read	End Read	Total	MG	GPM
March			0		
April	601568	658037	56469	5,646,900	261
May	658037	744438	86401	8,640,100	200
June	744438	828310	83872	8,387,200	194
July	828310	965778	137468	13,746,800	318
August	965778	88824	123046	12,304,600	285
September	88824	208568	119744	11,974,400	277
October	208568	232877	24309	2,430,900	113
Season End Total			631309		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Raintree/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	472929	477981	5052	5,052,000	234
May	477981	495121	17140	17,140,000	397
June	495121	517263	22142	22,142,000	513
July	517263	544828	27565	27,565,000	638
August	544828	568058	23230	23,230,000	538
September	568058	578791	10733	10,733,000	248
October	578791	580811	2020	2,020,000	94
		Season End Total	107882		

Greenbriar/000	Begin Read	End Read	Total		
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July	0	3552	3552	3,552,000	82
August	3552	9212	5660	5,660,000	131
September	9212	14278	5066	5,066,000	117
October	14278	15393	1115	1,115,000	52
		Season End Total	15393		

Vista Ridge/000	Begin Read	End Read	Total		
March			0		
April	101650	112484	10834	10,834,000	502
May	112484	132579	20095	20,095,000	465
June	132579	150471	17892	17,892,000	414
July	150471	172120	21649	21,649,000	501
August	172120	193583	21463	21,463,000	497
September	193583	205439	11856	11,856,000	274
October	205439	207552	2113	2,113,000	98
		Season End Total	105902		

Meadowbrook II/000	Begin Read	End Read	Total		
March			0		
April	63990	71403	7413	7,413,000	343
May	71403	87138	15735	15,735,000	364
June	87138	101915	14777	14,777,000	342
July	101915	119208	17293	17,293,000	400
August	119208	130209	11001	11,001,000	255
September	130209	138523	8314	8,314,000	192
October			0	0	0
		Season End Total	74533		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Meadowbrook/00	Begin Read	End Read	Total	MG	GPM
March			0		
April	680121	696704	16583	1,658,300	77
May	696704	763866	67162	6,716,200	155
June	763866	821734	57868	5,786,800	134
July	821734	978657	156923	15,692,300	363
August	978657	78299	99642	9,964,200	231
September	78299	179671	101372	10,137,200	235
October	179671	197279	17608	1,760,800	82
		Season End Total	517158		

Juniper/00	Begin Read	End Read	Total	MG	GPM
March			0		
April	360904	437678	76774	7,677,400	355
May	437678	541702	104024	10,402,400	241
June	541702	642297	100595	10,059,500	233
July	642297	761106	118809	11,880,900	275
August	761106	880524	119418	11,941,800	276
September	880524	956819	76295	7,629,500	177
October	956819	976862	20043	2,004,300	93
		Season End Total	615958		

Sunnyridge/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	460012	466619	6607	6,607,000	306
May	466619	486885	20266	20,266,000	469
June	486885	506973	20088	20,088,000	465
July	506973	526689	19716	19,716,000	456
August	526689	553750	27061	27,061,000	626
September			0	0	0
October			0	0	0
		Season End Total	93738		

Skyview/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	329171	334762	5591	5,591,000	259
May	334762	348185	13423	13,423,000	311
June	348185	364945	16760	16,760,000	388
July	364945	387596	22651	22,651,000	524
August	387596	409959	22363	22,363,000	518
September			0	0	0
October			0	0	0
		Season End Total	80788		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Islands/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	744366	764666	20300	20,300,000	940
May	764666	819154	54488	54,488,000	1,261
June	819154	866420	47266	47,266,000	1,094
July	866420	925936	59516	59,516,000	1,378
August	925936	980024	54088	54,088,000	1,252
September			0	0	0
October			0	0	0
Season End Total			235658		

Maplewood/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	129369	145730	16361	16,361,000	379
June	145730	150833	5103	5,103,000	118
July	150833	182111	31278	31,278,000	724
August	182111	201077	18966	18,966,000	439
September			0	0	0
October			0	0	0
Season End Total			71708		

Royal Meadows/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	798020	809508	11488	11,488,000	532
May	809508	847904	38396	38,396,000	889
June	847904	886943	39039	39,039,000	904
July	886943	938822	51879	51,879,000	1,201
August	938822	991395	52573	52,573,000	1,217
September			0	0	0
October			0	0	0
Season End Total			193375		

Pheasant Hollow/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	725847	737850	12003	12,003,000	556
May	737850	753054	15204	15,204,000	352
June	753054	765472	12418	12,418,000	287
July	765472	781571	16099	16,099,000	373
August	781571	798381	16810	16,810,000	389
September	798381	814254	15873	15,873,000	367
October	814254	817343	3089	3,089,000	143
Season End Total			91496		

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Oakhurst/000	Begin Read	End Read	Total	MG	GPM
March			0		
April	927937	951388	23451	23,451,000	1,086
May	951388	993873	42485	42,485,000	983
June	993873	67762	73889	73,889,000	1,710
July	67762	141612	73850	73,850,000	1,709
August	141612	207560	65948	65,948,000	1,527
September			0	0	0
October			0	0	0
		Season End Total	279623		

Wildflower/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May	777287	811126	33839	33,839,000	783
June	811126	838079	26953	26,953,000	624
July	838079	879170	41091	41,091,000	951
August	879170	920560	41390	41,390,000	958
September			0	0	0
October			0	0	0
		Season End Total	143273		

Port Meadows/000	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July			0	0	0
August			0	0	0
September	129459	130541	1082	1,082,000	25
October			0	0	0
		Season End Total	1082		

	Begin Read	End Read	Total
March			0
April			0
May			0
June			0
July			0
August			0
September			0
October			0
		Season End Total	0

CITY OF NAMPA
2007 IRRIGATION PRODUCTION DATA

Asbury Park\000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	218252	222460	4208	4,208,000	195
May	222460	234792	12332	12,332,000	285
June	234792	249232	14440	14,440,000	334
July	249232	269159	19927	19,927,000	461
August	269159	287323	18164	18,164,000	420
September	287323	302632	15309	15,309,000	354
October			0	0	0
Season End Total			84380		

Augusta\000	Begin Read	End Read	Total	MG	GPM
March			0		
April	487809	494422	6613	6,613,000	306
May	494422	504577	10155	10,155,000	235
June	504577	515533	10956	10,956,000	254
July	515533	530173	14640	14,640,000	339
August	530173	539680	9507	9,507,000	220
September	539680	553825	14145	14,145,000	327
October	553825	555827	2002	2,002,000	93
Season End Total			68018		

Bayhill\00	Begin Read	End Read	Total	MG	GPM
March			0		
April			0	0	0
May			0	0	0
June			0	0	0
July			0	0	0
August			0	0	0
September			0	0	0
October			0	0	0
Season End Total			0		

Birch Lane\000	Begin Read	End Read	Total	MG	GPM
March	0	0	0		
April	512552	514017	1465	1,465,000	68
May	514017	525685	11668	11,668,000	270
June	525685	538833	13148	13,148,000	304
July	538833	556897	18064	18,064,000	418
August	556897	571797	14900	14,900,000	345
September	571797	579349	7552	7,552,000	175
October	579349	580227	878	878,000	41
Season End Total			67675		

2006 Irrigation Production - City of Nampa

Water Right #	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Shallow Well
Name	Sunset Oaks	Victory	Westbrook	Wild Flower	Abandoned Wycliff	Birch Lane	
Rate (cfs)							
Volume (afa)							
Pumping Rate (gpm)	700	650	400	600	100	300	
Priority Date							
Use Period							
Year Built	2002	1998	1993	1995		2000	
Yearly Total							
2002	0	0	0	0	0	0	
2003	73,276,000	93,529,700	59,458,000	136,120,000	0	59,086,000	
2004	0	70,061,400	69,719,000	90,106,000	0	0	
2005	0	0	0	69,793,000	0	0	
2006	160,386,000	98,374,800	35,026,000	142,885,000	0	60,878,000	

Ditch Pumps
Ground Water

	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch
Water Right # Name	Parkridge ✓	Pleasants v ✓	Rainforest ✓	Royal Meadows ✓	Abandoned Sherwood Forest ✓	Skyview ✓	S. Canyon ✓	Well ✓	Sugar Ave ✓	Sugar Manor ✓	Sunnyridge ✓		
Rate (cfs)													
Volume (afa)													
Pumping Rate (gpm)	1000	400	1500	2000		500		400	450	560	1200		
Priority Date													
Use Period													
Year Built	1997	1990	2002	2001		1996	1995	1990	1998	1994	2002		
Yearly Total													
2002	0	0	0	0	0	0	0	0	0	0	0		
2003	65,723,000	36,752,000	98,451,000	144,525,000	0	60,444,000	80,525,000	52,426,200	28,987,000	42,173,000	0		
2004	0	8,811,000	123,915,000	203,095,000	0	50,779,000	45,741,000	51,769,900	0	0	168,282,000		
2005	0	0	88,228,000	17,537,300	0	27,284,000	32,976,000	40,635,100	0	0	68,438,000		
2006	171,115,000	12,066,000	109,654,000	217,740,000	0	64,219,000	75,296,000	44,450,300	55,302,000	0	135,725,000		

Ditch Pumps
Ground Water

2006 Irrigation Production - City of Nampa

Water Right #	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch
Name	Horton	Abandoned Hospital	Islands	Kensington II	Lonestar	Maplewood	Abandoned Middle Creek	Midland Park	Moss Point	NIC	Oakhurst	Orchard Heights	
Rate (cfs)													
Volume (afa)													
Pumping Rate (gpm)	1700	350	1100	1800	3000	300	150	1500	100	100	1500	650	
Priority Date													
Use Period													
Year Built	1994		2000	2004	2005	1995		2002	2003	2000	2001	2000	
Yearly Total													
2002	0	0	0	0	0	0	0	0	0	0	0	0	
2003	223,510,000	0	226,089,000	0	0	31,340,000	18,129,000	186,376,000	12,830,500	38,000	163,844,000	91,541,660	
2004	267,808,000	0	234,863,000	0	0	0	0	169,127,000	17,147,600	0	318,079,000	243,873,000	
2005	0	0	189,929,000	0	0	34,902,000	0	0	0	0	180,522,000	0	
2006	185,472,000	0	286,858,000	92,207,000	337,077,000	66,013,000	0	212,738,000	40,014,400	200,200	370,452,000	211,118,000	

Ditch Pumps
Ground Water

2006 Irrigation Production - City of Nampa

Water Right # Name	Water Right?										
	Well	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Well
Rate (cfs)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Volume (afa)	Sierra Park	Asbury Park	Bayhill	Brandts	Carriage Hill	Chestnut Hill	Coulter Bay	Crestwood	Eagle Crest	Georgia	Greens
Pumping Rate (gpm)	150	150	100	400	500	2000	1200	800	450	1500	200
Priority Date											
Use Period											
Year Built	1994	2001	1998	1994	1998	2001	2004	2002	1998	2002	1997
Yearly Total											
2002	0	0	0	0	0	0	0	0	0	0	14,204,300
2003	0	27,325,000	0	53,926,000	0	262,788,000	0	17,734,600	79,511,000	284,178,000	27,637,300
2004	0	30,116,000	0	0	0	297,686,000	0	34,857,600	58,511,000	300,723,000	14,204,300
2005	0	0	0	0	0	164,780,000	0	0	0	0	14,204,300
2006	0	74,167,000	0	1,552,000	0	239,741,000	177,698,000	37,549,600	27,378,000	242,339,000	79,607,600

Ditch Pumps
Ground Water

2006 Irrigation Production - City of Nampa

Water Right #	Pot or Non-Pot		Isolated	Isolated	Isolated	Water Right?	Water Right?	Water Right?	Water Right?	Water Right?
	Well	Cent. Golf Course								
12951	Well # 14	Cent. Golf Course	10319	11339	20264	Well	Shallow Well	Shallow Well	Well	Well
Rate (cfs)		2.05	0.40	0.40	0.06	Canterbury	Abandoned Kensington	Kings Rd.	Meadowbrook IV	Port Meadows
Volume (afa)		720	1.2							
Pumping Rate (gpm)	1800					500	400	1500	325	125
Priority Date		8/28/1985	3/26/1990		6/3/1925					
Use Period		3/15-11/15	1/1-12/31		1/1-12/31					
Year Built	2004					2000		2001	1994	
Yearly Total										
2002	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	11,655,700	19,205,000	153,158,000	47,073,000	0
2004	50,391,000	0	0	0	0	0	0	0	105,624,000	0
2005	0	0	0	0	0	0	0	0	55,689,000	0
2006	18,332,000	0	0	0	0	0	0	16,610,000	63,990,000	0

Ditch Pumps
Ground Water

[illegible]

Ground Water

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100	100

Ditch Pumps
Ground Water

[illegible]

Ditch Pumps
Ground Water

[illegible]

Ditch Pumps	
Ground Water	

CONFIDENTIAL

[illegible]

Ditch Pumps	
Ground Water	

TABLE 2-5 CITY OF NAIMPA 2007 IRRIGATION PRODUCTION REPORT (Gallons)												
Page 1 of 2	Well or Surface	Facility Name	April	May	June	July	August	September	October	Metered Production (MG)	Estimated Pumping Capacity (gpm)	VFD
	Surface	Asbury Park 000	4,208,000	12,332,000	14,440,000	19,927,000	18,164,000	15,309,000	0	84.4	500	
	Well	Agusta 000	6,613,000	10,155,000	10,956,000	14,640,000	9,507,000	14,145,000	2,002,000	68.0	450	
	Well	Amity 000	24,085,000	40,197,000	35,290,000	45,240,000	44,380,000	35,831,000	6,254,000	231.3	1400	X
	Surface	Bayhill								0.0	100	
	Surface	Birch Lane 000	1,465,000	11,668,000	13,148,000	18,064,000	14,900,000	7,552,000	876,000	67.7	300	
	Well	Birdseye 000	0	21,660,000	25,274,000	51,862,000	37,327,000	10,965,000	0	147.1	1200	
	Well	Boone 00	2,376,100	5,131,900	1,584,600	12,341,700	10,836,400	2,877,100	196,600	35.3	400	
	Surface	Brands 000	1,000	21,000	0	7,440,000	11,654,000	4,621,000	0	23.7	200	
	Well	Canterbury 00	0	0	0	493,700	2,848,900	3,331,800	3,826,000	10.5	300	
	Well	Canyon 000	0	0	9,627,000	16,020,000	7,282,000	4,114,000	0	37.0	800	
	Surface	Carriage Hill								0.0	840	X
	Surface	Cedar Park								0.0	100	
	Well	Cemetary 1 000	16,792,000	21,521,000	20,087,000	22,236,000	21,026,000	17,516,000	2,492,000	121.7	400	
	Well	Chestnut 1 00	20,030,300	15,084,400	11,351,400	23,034,600	19,604,000	24,297,300	4,144,100	117.5	600	
	Surface	Chestnut II 000	0	52,361,000	49,013,000	39,823,000	31,652,000	0	0	172.8	2000	
	Well	Colorado 00	88,300	5,148,400	19,218,400	24,044,600	24,440,200	21,120,400	4,364,500	99.4	750	
	Surface	Coller Bay 000	0	0	0	0	36,972,000	22,424,000	1,359,000	60.8	3000	X
	Surface	Copper River 000	0	3,639,000	48,182,000	87,219,000	61,342,000	7,902,000	0	206.3	3000	X
	Surface	Costco	0	0	1,023,000	13,347,000	42,919,000	0	0	57.3	1500	X
	Surface	Creekside 000	0	6,257,100	6,194,000	7,744,400	5,435,400	2,391,600	0	28.0	1200	
	Surface	Crestwood 00	0	0	0	0	0	16,394,000	0	16.4	450	
	Surface	Eagle Crest 000	0	1,994,000	20,668,000	31,583,000	22,387,000	8,914,000	78,000	106.8	2000	X
	Well	Farm City 000	12,741,300	19,282,800	10,495,400	22,455,100	21,309,000	19,547,500	4,023,700	109.9	500	
	Well	Fern 00	0	0	0	0	0	0	0	0.0	750	X
	Surface	Gateway	44,437,000	61,070,000	52,146,000	70,384,000	39,813,000	39,870,000	4,991,000	312.7	2000	X
	Surface	Georgia 000	12,447,000	6,240,000	3,812,000	19,208,000	13,752,000	7,298,000	1,128,000	63.9	450	
	Well	Grange Park 000	0	0	0	3,552,000	5,660,000	5,066,000	1,115,000	15.4	200	
	Surface	Greenbriar 000	0	0	0	381,000	12,700	0	0	13.9	100	
	Surface	Greens 00	6,225,000	3,253,900	4,074,000	51,997,000	40,291,000	8,599,000	0	169.5	1500	X
	Surface	Herron 000	4,836,000	25,850,000	37,968,000	20,517,100	18,276,500	14,452,400	614,500	95.1	500	
	Well	High 00	9,800,200	15,242,800	16,199,700	20,517,100	7,357,000	1,455,000	0	18.6	300	
	Well	Holly 000	0	0	0	63,473,000	52,621,000	42,895,000	6,761,000	258.3	1500	
	Surface	Horton 000	0	37,800,000	54,727,000	15,748,000	11,197,000	8,869,000	385,000	62.2	350	
	Well	Hudson 000	4,848,000	10,745,000	10,425,000	15,748,000	11,197,000	8,869,000	0	25.1	300	
	Well	Idaho Center 000	750,000	119,000	518,000	2,097,000	11,390,000	10,210,000	0	0.0	300	
	Well	Idaho Center II								0.0	300	
	Well	Indian Creek 000	131,000	6,833,000	6,833,000	12,998,000	11,261,000	5,332,000	72,000	38.8	300	
	Surface	Islands 000	20,300,000	54,488,000	47,266,000	59,516,000	54,088,000	0	0	235.7	1500	
	Well	Juniper 00	7,677,400	10,402,400	10,059,500	11,880,900	11,941,800	7,629,500	2,004,300	61.6	200	
	Well	Kensington II 000	6,984,000	15,622,000	16,729,000	24,232,000	22,712,000	12,008,000	1,407,000	99.7	2000	X
	Well	Kings Rd. Est. II 000	0	0	20,132,000	37,270,000	27,346,000	20,705,000	0	105.5	1500	
	Well	Kurtz 00	19,036,100	14,111,200	18,464,300	27,155,100	25,126,400	19,523,100	4,072,700	127.5	500	
	Well	Lakeview 00	8,891,600	18,939,200	20,552,900	29,600,300	28,020,700	15,688,900	0	121.7	500	
	Surface	Lava Springs								0.0	3000	X
	Surface	Lonestar 000	26,449,000	67,236,000	49,441,000	43,035,000	60,382,000	36,544,000	3,281,000	288.4	3000	X
	Well	Maple 00	2,439,500	1,308,700	2,374,300	31,278,000	16,687,200	14,830,400	1,922,500	58.1	500	
	Surface	Maplewood 000	0	16,361,000	5,103,000	31,278,000	18,966,000	0	0	71.7	800	
	Well	Mayors 00	12,704,300	19,023,500	18,418,200	20,625,300	19,760,400	3,287,700	0	93.8	400	
	Well	Meadowbrook 00	1,658,300	6,716,200	5,786,800	15,692,300	9,964,200	10,137,200	1,760,800	51.7	500	
	Well	Meadowbrook II 000	7,413,000	15,735,000	14,777,000	17,293,000	11,001,000	8,314,000	0	74.5	300	
	Well	Meyers 000	0	0	0	11,971,000	16,703,000	12,466,000	62	44.2	400	
	Well	Sub-Total (MG)	289	646	710	1,076	978	544	62	4,307	47,640	
									Subtotal (MG)	4,307		

TABLE 2-5
CITY OF NAMPA
2007 PRODUCTION REPORT - Cont.
(Gallons)

TABLE 2-5 CITY OF NAMPA 2007 PRODUCTION REPORT - Cont.													Page 2 of 2
(Gallons)													
	Well or Surface	Facility Name	April	May	June	July	August	September	October	Metered Production (MG)	Estimated Pumping Capacity (gpm)	VFD	
	Well	Midland Park 1000	43,215,000	63,140,000	61,076,000	96,418,000	81,515,000	6,830,000	0	352.2	3000	X	
	Well	Morgan 100	5,578,200	6,203,700	4,985,400	11,267,700	9,055,800	7,155,000	965,700	45.2	300		
	Surface	Moss Point 100	1,765,400	6,537,000	8,064,200	12,694,200	10,368,400	6,313,300	0	45.7	500		
	Surface	N.I.C. 1000	6,000	214,000	380,000	305,000	235,000	0	0	1.1	100		
	Surface	Oakhurst 1000	23,451,000	42,485,000	73,889,000	73,889,000	65,948,000	0	0	279.6	2000		
	Surface	Orchard Heights 1000	4,703,000	59,553,000	55,757,000	71,059,000	41,914,000	27,578,000	0	280.6	1500		
	Surface	Partridge 1000	3,054,000	35,317,000	32,412,000	30,274,000	28,050,000	0	0	129.1	1000	X	
	Well	Pheasant Hollow 1000	12,003,000	15,204,000	12,418,000	16,099,000	16,810,000	15,873,000	3,089,000	91.5	600		
	Surface	Pleasant's	0	0	0	0	0	1,082,000	0	0.0	350		
	Well	Poor Meadows 1000	0	0	0	0	0	1,082,000	0	1.1	100		
	Surface	Rainforest 1000	5,052,000	17,140,000	22,142,000	27,565,000	23,230,000	10,733,000	2,020,000	107.9	1500	X	
	Surface	Royal Meadows 1000	11,488,000	38,396,000	39,039,000	51,879,000	52,573,000	0	0	193.4	1500	X	
	Well	Sierra Park	0	0	0	0	0	0	0	0.0	100		
	Surface	Skyview 1000	5,591,000	13,423,000	16,760,000	22,651,000	22,363,000	0	0	80.8	500		
	Surface	South Canyon 1000	0	6,046,000	15,213,000	16,453,000	20,252,000	0	0	58.0	600		
	Well	South Valley 100	5,646,900	8,387,200	13,746,800	12,304,600	11,974,400	2,430,900	0	63.1	500		
	Well	State Street 1000	9,755,000	9,481,000	6,838,000	13,724,000	13,082,000	7,872,000	0	350	350		
	Well	Sugar 1000	2,477,000	12,306,000	7,164,000	9,591,000	8,321,000	0	0	39.9	400		
	Well	Sugar Manor 1000	4,045,000	18,010,000	11,350,000	18,363,000	7,313,000	6,973,000	0	66.1	450		
	Ditch	Sunny Lane 1000	0	0	0	0	2,784,000	427,000	0	3.2	550		
	Surface	Sunnyridge 1000	6,607,000	20,266,000	20,088,000	19,716,000	27,081,000	0	0	93.7	1800	X	
	Surface	Sunset Oaks 1000	19,516,000	37,750,000	37,456,000	42,474,000	41,398,000	18,871,000	3,777,000	201.2	1000		
	Well	Sweetwood Cir. 1000	732,000	0	0	9,092,000	8,297,000	3,975,000	0	22.1	300		
	Well	Venice 1000	8,372,000	17,812,000	14,499,000	19,892,000	17,352,000	9,364,000	135,000	87.4	400		
	Surface	Victory 100	0	21,060,200	14,128,500	0	0	0	0	35.2	500		
	Well	Vista Ridge 1000	10,834,000	105,902,000	17,892,000	21,649,000	21,463,000	11,856,000	2,113,000	191.7	2000	X	
	Well	Westbrook 1000	0	7,436,000	8,583,000	3,664,000	3,003,000	0	0	22.7	350		
	Well	Winther 100	6,036,800	1,520,300	577,700	6,029,900	6,663,200	3,172,300	427,200	24.4	300		
	Surface	Will Flower 1000	0	33,839,000	26,953,000	41,091,000	41,390,000	0	0	143.3	800		
	Well	Young	0	0	0	0	0	0	0	0.0	250		
	Well	4th St. So. 1000	0	0	0	0	11,707,000	12,654,000	0	24.4	500		
	Well	6th St. So. 100	8,892,500	11,296,400	13,915,700	21,730,500	12,977,500	9,223,000	859,500	78.9	500		
	Well	14th Ave. So. 100	1,651,000	7,342,600	7,342,600	22,558,500	14,735,800	11,342,400	389,900	61.3	500		
	Well	19th Ave. So. 100	17,283,400	28,232,600	28,114,500	32,587,400	32,065,000	26,364,900	5,516,300	170.2	550		
	Well	5th St. N. & Phyllis 100	4,493,200	1,515,000	0	4,848,000	0	0	0	10.9	600		
	Well	13th Ave. No. 1000	3,804,000	7,736,000	10,690,000	14,779,000	13,088,000	9,069,000	1,391,000	60.6	250		
	Well	14th Ave. No.	0	0	0	0	0	0	0	0.0	250		
	Well	Total (MG) >>	518	1,294	1,286	1,822	1,646	763	85	7,414.1	74,390		
									6 Mon. Average	1,235.7			
										</			