WATER MASTER REPORT

GALLINAS RIVER

2012

Luis Pedro Aguirre

Gallinas River Watermaster

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SUMMARY

The Gallinas River Water Master met with the City of Las Vegas, the Acequias and OSE staff to get their input before sending out in early May the 2012 low flow rotation schedule.

Most of the diversions for the Acequias and Storrie Project occurred during the 2012 spring runoff season (late March, April, and early May) when approximately 75% of the 2012 Gallinas River flows occurred. Only the Dolores Ditch in the Middle Gallinas area, and the two ditches downstream of the City of Las Vegas Wastewater Treatment Plant return flows (San Augustin Community Ditch and La Concepcion Ditch) diverted their full allotment in 2012. The farthest downstream users: West Chaperito Ditch and Acequia Arriba de La Liendre did not divert due to the limited flows in that river section.

In 2012 the OSE installed a bubbler to measure flows in the Gallinas River downstream of Las Vegas and upstream of where the Pecos Arroyo meets with the Gallinas River. The OSE previously had a staff gage with direct read-out to monitor the stream in that area. Also, a solar panel was re-installed at the Roundhouse Ditch.

The state-wide Real Time Measurement site located on the OSE's webpage and started in 2011 was used more often by the interested public: http://meas.ose.state.nm.us/meas/district6.jsp. During the irrigation season, flows and diversions at OSE-installed stations are shown in real time (with only a few hours of delay).

An article in the October 9, 2012 Albuquerque Journal titled "N.M. Water Year: Too Little Under the Bridge" stated "the year just completed was an atrocious water year that with few exceptions left New Mexico's irrigation ditches near dry by late summer and the state's reservoirs near empty. Coming on top of a lousy 2010 - 2011, the Year 2012 was miserable. After teasing us with a wet start, things dried up in the spring. Much of what seemed a promising winter snowpack blew away in the dry spring winds rather than making it to New Mexico's rivers. Summer rains provided little relief."

The Year 2012 was almost the driest year on record for New Mexico. Only the Year 1956 was drier. The years 2011 and 2012 combined were the driest consecutive period on record for New Mexico.

INTRODUCTION

This report complies with the requirement, as stated in Section 72-3-5 of the New Mexico Water Code that "each water master shall report to the State Engineer the amount of water needed to supply the requirement of his districts, the amount available, the works which are without their proper supply, and such other information as the State Engineer may require. The reports shall, at the end of each irrigation season, be filed in the Office of the State Engineer (OSE)."

The State Engineer has the broad authority to administer water rights and it is specifically provided for in the Gallinas River basin by NMSA 1978, Section 72-3-1 (1919) and in Section 72-3-2 (1907). Administration in the Gallinas River basin was established by Declaration of the Gallinas River Water Sub-district of the Pecos River Stream System filed as New Mexico Administrative Code (NMAC) Order 19.26.11 which became effective August 29, 2003.

The Gallinas River basin is located in north-central New Mexico (Attachment A-01). The Gallinas River headwaters are located on the eastern slopes of the Sangre de Cristo Mountains, at an elevation of approximately 11,660 feet. From its headwaters, the river traverses southeasterly approximately 85 miles and enters the Pecos River six miles upstream of the Village of Colonias. The City of Las Vegas is located in the north-central part of the drainage basin. The Gallinas River has no major perennial tributaries. The larger tributaries are Porvenir Canyon, Trout Springs, Cañon Bonito, Pecos Arroyo, and Aguilar Creek. The drainage basin of the Gallinas River and its tributaries contains approximately 610 square miles.

The OSE Gallinas River Water Master has the responsibility of managing the Gallinas River water rights. The Gallinas River Water Master divides the river basin into three areas:

Upper Gallinas Area:	**Middle Gallinas Area:**
Judge Long Ditch	City of Las Vegas
Placita Arriba Ditch	United World College
Upper Maestes Ditch	Gallinas Canal
El Porvenir Ditch	Agapito Vigil Ditch
Gallegos Ditch	Storrie Project Water Users Association
Max Nordhaus Ditch	Acequia Madre de Los Vigiles
Trout Springs Ranch	Grzelachowski Ditch
Lower Gallinas Area:	Acequia Madre de Los Romeros
	Fresquez Family Diversion Point
San Augustin Community Ditch	Nuestra Señora de los Dolores Ditch
Stacy Montaño Diversion Point	Acequia Madre de Las Vegas
Archie Allemand Diversion Point	Roundhouse Ditch
La Concepcion Ditch	Pappen Ditch
Ancon del Gato Ditch	
Acequia Arriba de La Liendre	
West Chaperito Ditch	

The Upper Gallinas Area is from the headwaters to the USGS Montezuma gage. The Middle Gallinas Area is from the USGS Montezuma gage to the USGS Lourdes gage. The Lower Gallinas Area is from the USGS Lourdes gage to the Pecos River. The three areas have the above-mentioned diverters currently recognized in each area. There is an ongoing adjudication process in the Gallinas River basin; therefore, this listing is subject to changes as the court recognizes water rights (Attachment A-01).

WEATHER IN 2012 AND RELATED GALLINAS RIVER STREAM FLOWS

The Year 2012 was the **Second Driest** calendar year on record for New Mexico. Only the Year 1956 has been drier. According to the National Weather Service's October 2012 Report: the Years 2011 and 2012 combined were both the **Driest and Warmest** consecutive 2-year period on record for New Mexico (Attachment A-02).

The 2012 precipitation, measured on the Las Vegas Airport Weather Station (Attachment A-03), was reported as 6.89 inches for the year and 6.20 inches for the irrigation season (April – October). Ninety percent (90%) of the year's rain fell during the irrigation season. The Effective Rainfall (Attachment A-04) during the Irrigation Season was 5.84 inches. The Effective Rainfall is the portion of the total seasonal rainfall which is useful for crop production. The snow pack peaked on March 13, 2012 and had melted away by May 2, except for a small snowfall event a week later (Attachments A-05).

The recorded flows at the USGS Montezuma gage during the irrigation season totaled 4,494 acre-feet. For the total annual flows, ice affected the readings in December therefore; we only have partial month readings for the month of December. The 2012 spring snowmelt provided flows above 15 cfs from March 16th through May 16th. The flow remained below 5 cfs from May 30th to October 31st due to the low rainfall in 2012 (Attachments A-06 & A-07).

According to Table 5.5 "Summary of Annual Yield and Flow Distribution Statistics for Key Stream Gaging Stations" in Volume 1 of the Mora-San Miguel-Guadalupe Regional Water Plan the average annual water yield at the USGS Montezuma gage is 13,875 acre-feet.

Storrie Lake ended the year at 1,200 acre-feet of storage. The normal capacity of Storrie Lake at the 6,600 ft elevation is 21,747 acre-feet. The lake is at approximately 5% of its full capacity.

In the September 12, 2012 Las Vegas Optic editorial, titled "Waterless Refuge" it stated "a couple of years of especially dry summers have taken their toll on everything around here, and the Las Vegas Wildlife Refuge is no exception. One of the refuge's primary functions is for migratory waterfowl that depend on the refuge for food and water for safe roosting. Normally

the refuge plants grains as food for these birds, while water is usually available in the dozens of ponds scattered around. This year the spring planting died and only 3 of about 40 ponds have any water left in them at all. The refuge typically gets 4 inches of water from Storrie Lake, but because of the super-dry conditions this year's allocation was only 1 inch."

FLOW MEASUREMENTS IN THE GALLINAS RIVER IN 2012

The data provided in the 2012 Summary of Gallinas River Flows and Diversions table (Attachment A-08) was collected from the sites listed below. There are other minor diverters that are monitored, but at this time are not being measured. Gaps or overlap in the data are due to irrigation return flows, stormwater runoff flows, riparian evapo-transpiration and non-measurement of flood events at locations where we have staff gages only. Measurement sites and how they are measured are listed in the following table:

Gallinas River Basin Flow Measuring Sites	
OSE-installed flow measuring stations	Gallinas River Weir at Storrie Project POD
	Gallinas Canal flume
	Storrie Project WUA canal bubbler
	Acequia Madre de Los Vigiles flume
	Grzelachowski Ditch flume
	Acequia Madre de Los Romeros flume
	Roundhouse Ditch flume
	Gallinas R. below Las Vegas bubbler
	Sn Augustin Comm. Ditch culvert meter
	La Concepcion Ditch flume
Monitored and maintained by the U.S. Geological Survey	USGS Montezuma gage
	USGS Lourdes gage
OSE-installed staff gauges	Placita Arriba Ditch
	Upper Maestes Ditch
	El Porvenir Ditch
	Pappen Ditch
	Pecos Arroyo
Self-reporting sites	City of Las Vegas diversions
	Storrie Lake levels and storage
River pump meters	Trout Springs Ranch
	United World College
	Fresquez Family
	Archie Allemand
	Mays Ranch/R.Torres

The irrigation diversions measured near the diverters' head gates include "carriage" water. In previous water master reports, an average percentage was used to estimate project delivery for

each diverter. The Special Master should be conducting hearings in 2013 to determine the Project Delivery, therefore, this report does not include columns related to Project Delivery..

The following graphs were taken from data in the 2012 Summary table:

- Upstream Las Vegas Area: compares: the USGS Montezuma gage flows, City of Las Vegas diversions, Storrie Project WUA diversions and the Gallinas River Weir flows during the April – October irrigation season with each other.
- Diverters Upstream of the Gallinas River gate compares diversions from: Storrie Project WUA, Gallinas Canal and Acequia Madre de Los Vigiles during the April – October irrigation season with each other.
- Diverters downstream of the Gallinas River gate compare diversions from: Grzelachowski Ditch, Acequia Madre de Los Romeros, Dolores Ditch, Acequia Madre de Las Vegas and the Roundhouse Ditch during the April – October irrigation season with each other.

The Real Time Measurement page is located on the OSE's website: http://meas.ose.state.nm.us/meas/district6.jsp. During the irrigation season, flows and diversions at OSE-installed flow measuring stations can be accessed there.

PUBLIC MEETINGS

Staff from the OSE Water Rights Santa Fe office met with members of the Storrie Project Board per their request. Storrie has concerns that they are not receiving their fair share of the Gallinas River flows. The Gallinas River Water Master was invited as a speaker at the December 15, 2012 Rio Gallinas Acequia Association Workshop on Water Transfers and Water Sharing. On February 13, 2013 the OSE set up a display booth at the Roundhouse for Science Earth Day on the OSE's Real Time Measurement site, which the Gallinas River Water Master staffed.

In early April 2012, members of the Gallinas River Acequia Association met with the State Engineer Scott Verhines and his staff where the Association's members expressed their concerns regarding their talks on water rights priority dates with the City of Las Vegas and other matters. Also on June 29, 2012 the State Engineer Scott Verhines traveled to the Gallinas River basin to see first-hand the drought conditions along the Gallinas River basin. The State Engineer met briefly with City of Las Vegas officials whom talked to him about the City's plans to improve their water supply.

The Gallinas River Water Master attended the Northeastern New Mexico Regional Water Symposium held at Luna Community College on October 30, 2012. The focus was on joint regional water planning with local government agency staff from Colfax, Harding, San Miguel

and Guadalupe Counties in attendance. The Water Master participated on December 15, 2012 at an Acequia Workshop on Water Transfers that was held at the Plaza Hotel in Las Vegas.

GALLINAS RIVER WATER MASTER RELATED ACTIVITIES IN 2012

The Gallinas River Water Master met with the City of Las Vegas, the Acequias and OSE staff to get their input before sending out in early May the 2012 low flow rotation schedule. This rotation schedule was meant to be temporary because the Rio Gallinas Acequia Association had stated their desire for the OSE to implement a rotation schedule agreed to by the local users. Since the local users did not prepare a rotation schedule, the temporary rotation schedule proposed by the OSE, was the one followed in 2013. (See Attachment A-09) The City of Las Vegas days on and off the river affect the water available for the other diverters (See Attachment A-10).

The Gallinas River Water Master made adjustments to the Gallinas River gate during the winter months at the request of the Acequias. They requested additional flows for stock use. In an average year, the OSE has provided 2 – 3 cfs in the winter for stock use.

The Gallinas River Water Master is tasked with monitoring flows and diversions throughout the Gallinas River basin. A routine field check of each of the flow-measuring stations is performed once or twice a week for data quality control. OSE staff supported the Gallinas Watermaster in keeping the flow measuring stations in good working order. The San Augustin Com. Ditch culvert meter was removed early in the year due to faulty readings. The equipment shelter was vandalized in early spring therefore it was reinforced. The culvert meter continued to provide faulty readings throughout the irrigation season so it was removed and shipped for calibration. We replaced the solar panel at the Roundhouse Ditch. In 2012 we added another flow measuring station. A bubbler was installed to measure Gallinas River flows downstream of the City of Las Vegas city limits and upstream of the Pecos Arroyo. Due to the lack of flows, a stream flow curve has not been developed for this site. The OSE previously used a staff gage to measure flows at that location. A data recorder was replaced at the Storrie Project bubbler due to drifting which was then shipped for calibration. Both bubblers' firmware was upgraded.

At OSE's request, the City of Las Vegas (COLV) began procedures to replace their diversion meter. The COLV repaired a few of their distribution pipes that were leaking large amounts of water to improve their distribution efficiencies.

In 2012 Storrie Project WUA protested that they were not receiving their fair share of Gallinas River surface water diversions; they requested that the Special Master order the OSE to enforce the annual allocations of water rights in the basin. Further action is pending in this case.

Two ponds in the Gallinas Canyon area are going through the permitting process. The applicants are retiring irrigation water rights to make up for the ponds' evaporation losses.

In early May 2013 the Gallinas Watermaster mailed out the 2012 Low Flows Rotation Schedule.

Due to the extreme drought conditions during the 2-year period 2011 – 2012 the stretch of river downstream of the San Augustin Community Ditch reported dry river beds during the summer months. Water normally flows there due to the constant discharges back into the stream from the City of Las Vegas Wastewater Plant.

The Water Master noted river pump diversions from the Gallinas River without the proper water rights permits. Also noted was the filling of water tanks in the river. The Water Master requested that these non-permitted activities cease.

OUTLOOK FOR 2013 AND BEYOND

An article in the October 9, 2012 Albuquerque Journal stated "New Mexico faces three problems in the new water year. 1) The winter forecast itself. This year's El Niño has been slow and weak, not offering a very hopeful forecast as a result. 2) After two consecutive drought years, the state's watersheds are like a dry sponge right now. A big chunk of whatever snow we get this winter will simply soak into dry ground before runoff can start reaching streams. 3) In recent years, for a given size snowpack, we have seen substantially less water actually making it into New Mexico's rivers. The reason behind the runoff drop-off remains a mystery".

In the December 14, 2013 Las Vegas Optic column titled Your Friday Water mentioned that the City of Las Vegas reservoirs were at 66.5% capacity, (27% lower than a year ago).

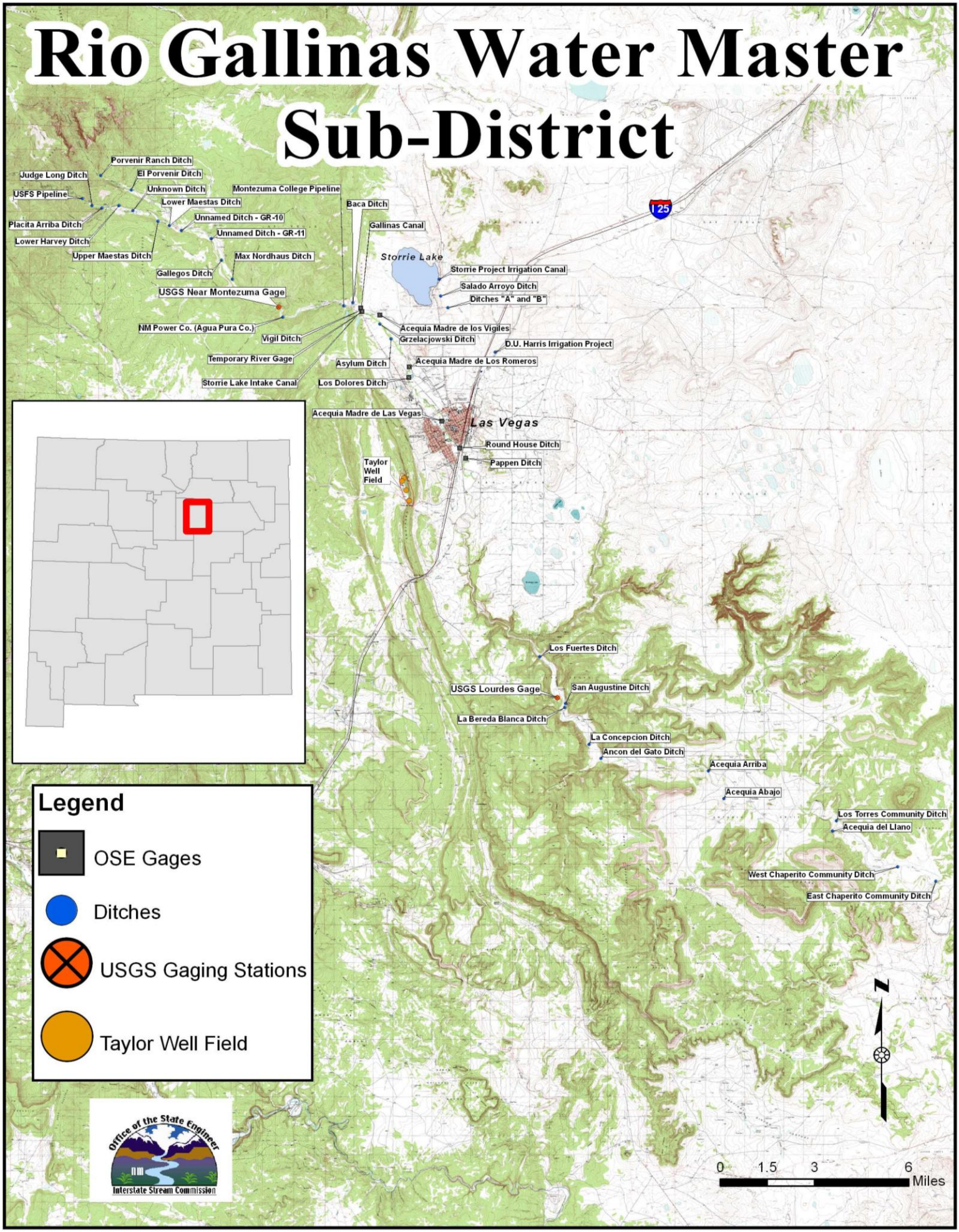
A January 14, 2013 editorial in the Las Vegas Optic titled "Water Wars" summed up the challenges facing the Gallinas River basin in the coming years. That in the Las Vegas area the biggest of all water battles is the one over pueblo water rights. In 2004 the Supreme Court overturned it and sent the water rights issue back to the lower courts for more equitable settlements. In recent years, locals have sought to resolve the water rights issues without the lawyers. There are unresolved issues that remain. It went on to mention the delicate relationships between water users. The editorial mentioned the perception that "as it gets drier

and drier, the city is taking a greater percentage of the river water, leaving the acequias dry as a bone". The editorial mentioned in closing that "Water is likely to become scarcer, and more valuable, in the years ahead."

In a March 22, 2013 report, the state-federal Drought Monitoring Working Group stated that the early snowmelt does not appear to be showing up yet in the streams. Snowpack at the USDA Wesner Springs stations shows 50% of normal for this time of the year, and the spring runoff could be bad. The latest forecast states that warm and dry weather is likely for the next several months, according to National Weather Service meteorologist Chuck Jones.

As of March 23, 2013, the SNOTEL site showed 20.0 inches of snow that contain 7.4 inches of snow water equivalent, which is approximately 50 % of the average yearly snowfall (Attachment A-05, A-11).

Rio Gallinas Water Master Sub-District



New Mexico Precipitation Rankings
(For 2012)

- Calendar Year 2012 was the **2nd *Driest*** year on record for New Mexico. (Statewide precipitation was just 60% of normal...only 1956 was drier!)
- 2011 + 2012 was both the ***Driest*** & ***Warmest*** consecutive 2 year period on record for New Mexico.

Period	Amount	20th Century Average	Departure	Rank	Wettest/Driest Since	Record Year
Jul - Dec 2012 6-month period	5.69" (144.53 mm)	8.84" (224.54 mm)	-3.15" (-80.01 mm)	6th Driest 113th Wettest	Driest since: 2003 Wettest since: 2011	Driest: 1956 Wettest: 1941
Jan - Dec 2012 12-month period	8.17" (207.52 mm)	13.52" (343.41 mm)	-5.35" (-135.89 mm)	2nd Driest 117th Wettest	Driest since: 1956 Wettest since: 2011	Driest: 1956 Wettest: 1941
Jan 2011 - Dec 2012 24-month period	17.46" (443.48 mm)	27.03" (686.56 mm)	-9.57" (-243.08 mm)	1st Driest 117th Wettest	Driest to Date Wettest since: 2011	Driest: 2012 Wettest: 1942

Las Vegas Municipal Airport

Daily Precipitation Records in Inches for 2012

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2			0.04	0.12		0.01						
3		0.05		0.12				0.05				
4						0.04	0.04	0.78				
5						0.16	0.13	0.04				
6					0.14							
7					0.05		0.04					
8	0.03											
9			0.14				0.53					0.02
10		0.01	0.05	0.05			0.02	0.01			0.03	
11			0.01	0.10		0.07						
12					0.55	0.04		0.02	0.05	0.36		
13					0.14			0.25	0.01			
14								0.01				0.09
15								0.15				
16	0.04						0.01	0.06				
17		0.08						0.06	0.12			
18							0.33					
19												
20			0.01					0.06				
21					0.05			0.01				
22				0.01				0.13				
23						0.42		0.05				
24												
25							0.03					0.01
26												
27									0.57			
28				0.02					0.08			
29				0.11								
30												
31												0.08
Total	**0.07**	**0.14**	**0.25**	0.53	0.93	0.74	1.13	1.68	0.83	0.36	**0.03**	**0.20**
Max	**0.04**	**0.08**	**0.14**	0.12	0.55	0.42	0.53	0.78	0.57	0.36	**0.03**	**0.09**
Min	**0.03**	**0.01**	**0.01**	0.01	0.05	0.01	0.01	0.01	0.01	0.36	**0.03**	**0.01**
Count	2	3	5	7	5	6	8	14	5	1	1	4

Irrigation Season (April 1 - October 31)

2012 Annual Precipitation	61	days	6.89	inches
2012 Irrigation Season Precipitation	**46**	days	**6.20**	inches

2012 Monthly Rainfall and Effective Rainfall

2012 Las Vegas Airport Precipitation (NOAA Weather Data in inches)

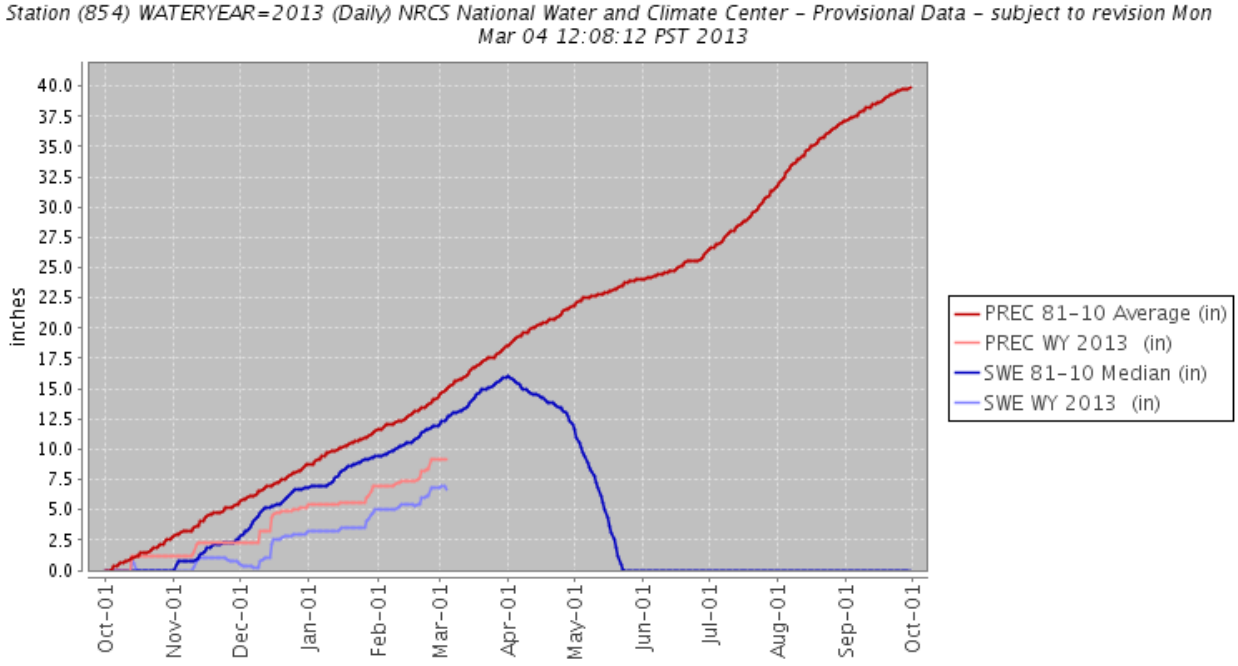
Month	Rain	Effective Rainfall
January	0.07	
February	0.14	
March	0.25	
Irrigation Season		
April	**0.53**	**0.50**
May	**0.93**	**0.88**
June	**0.74**	**0.70**
July	**1.13**	**1.07**
August	**1.68**	**1.56**
September	**0.83**	**0.79**
October	**0.36**	**0.34**
Season Totals	**6.20**	**5.84**
November	0.03	
December	0.20	
Annual Totals	**6.89**	

USBR Effective Rainfall table (in inches)

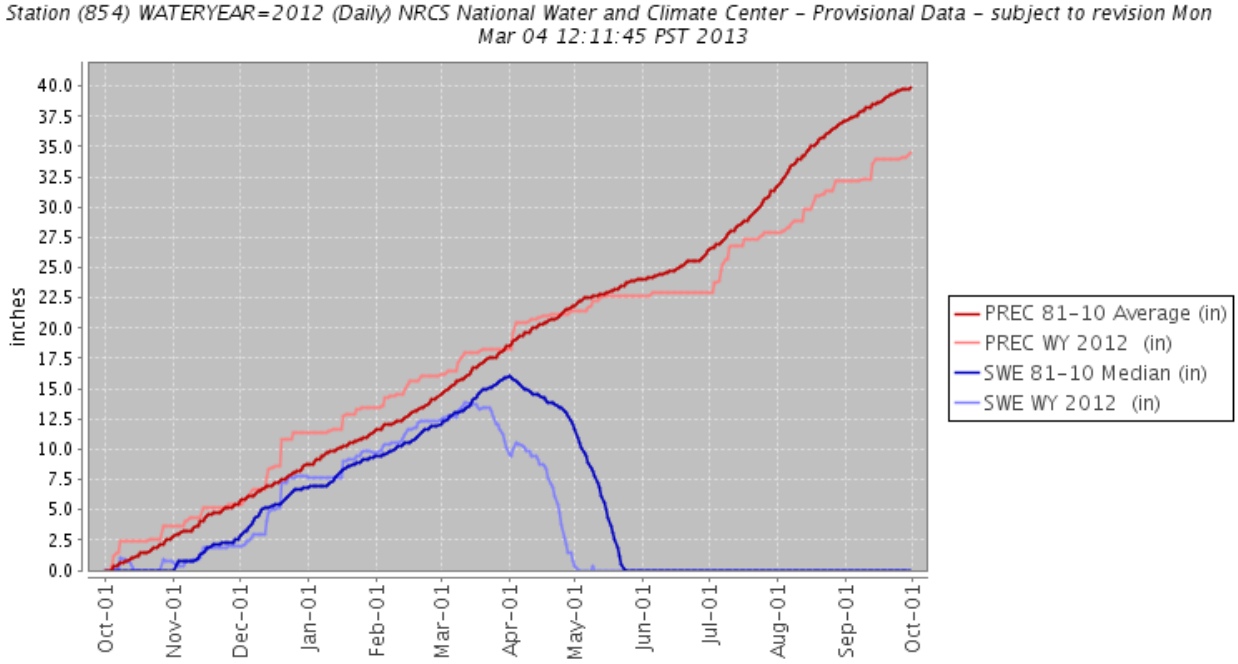
Monthly Rainfall (R)	Effective Rainfall (R_e)
R <= 1	R_e = 0.95 R
1 < R <= 2	R_e = 0.95 + 0.90 (R – 1)
2 < R <= 3	R_e = 1.85 + 0.82 (R - 2)
3 < R <= 4	R_e = 2.67 + 0.65 (R – 3)
4 < R <= 5	R_e = 3.32 + 0.45 (R – 4)
5 < R <= 6	R_e = 3.77 + 0.25 (R – 5)
R > 6	R_e = 4.02 + 0.05 (R – 6)

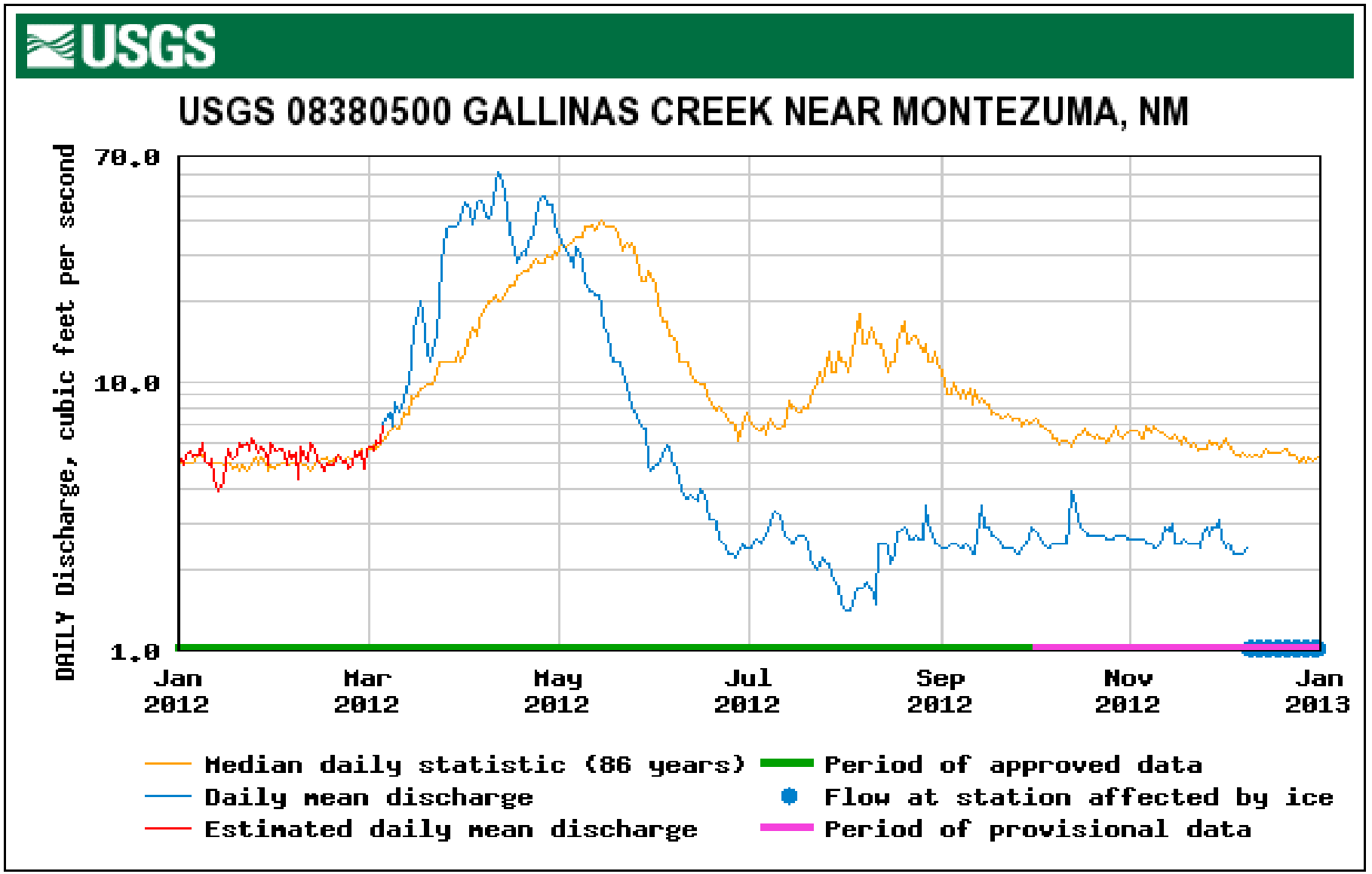
SNOTEL GRAPHS FOR THE YEARS 2012 AND 21013

WESNER SPRINGS FOR WATER YEAR 2013



WESNER SPRINGS FOR WATER YEAR 2012




USGS
USGS 08380500 GALLINAS CREEK NEAR MONTEZUMA, NM
DAILY Discharge, cubic feet per second
70.0
10.0
1.0
Jan 2012
Mar 2012
May 2012
Jul 2012
Sep 2012
Nov 2012
Jan 2013
Median daily statistic (86 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Flow at station affected by ice
Period of provisional data

USGS Gallinas River near Montezuma, N.M.

2012 Daily Mean Discharge, cubic feet per second

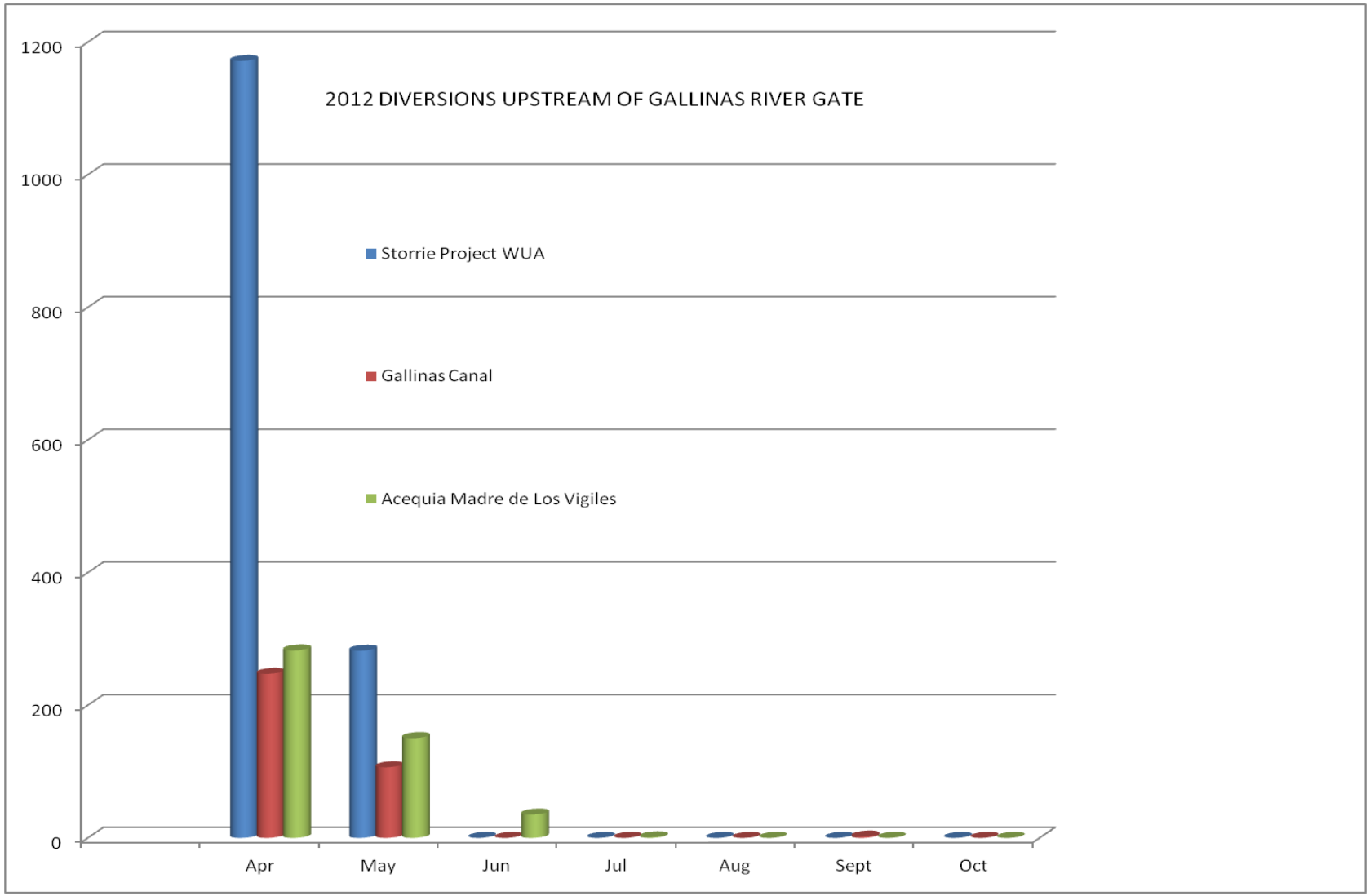
Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.20	5.60	5.70	47.00	36.00	4.90	2.40	1.40	2.40	2.80	2.60	2.40
2	4.90	5.70	5.80	46.00	34.00	4.90	2.40	1.40	2.40	2.70	2.60	2.50
3	5.40	5.70	5.60	43.00	32.00	5.10	2.50	1.40	2.40	2.60	2.60	2.40
4	5.60	4.90	6.10	39.00	31.00	5.40	2.60	1.50	2.50	2.50	2.60	2.30
5	5.30	5.60	6.00	46.00	29.00	5.90	2.50	1.70	2.50	2.40	2.60	2.30
6	5.40	5.20	6.80	48.00	27.00	5.80	2.60	1.70	2.50	2.40	2.50	2.30
7	5.40	5.50	7.40	48.00	32.00	5.20	2.70	1.70	2.40	2.50	2.50	2.30
8	6.00	4.40	7.70	42.00	30.00	4.80	3.00	1.80	2.40	2.50	2.40	2.40
9	5.10	5.80	6.80	41.00	28.00	4.30	3.20	1.70	2.50	2.50	2.40	Ice
10	4.90	5.20	8.40	43.00	24.00	4.00	3.30	1.70	2.40	2.50	2.50	Ice
11	5.20	5.10	7.80	55.00	22.00	3.70	3.20	1.50	2.30	2.50	2.60	Ice
12	4.40	6.00	8.00	61.00	22.00	3.70	2.90	2.50	2.30	2.90	2.90	Ice
13	3.90	5.70	8.70	59.00	21.00	3.80	2.70	2.50	3.10	3.90	2.80	Ice
14	4.10	5.10	10.00	51.00	21.00	3.70	2.60	2.50	3.50	3.40	3.00	Ice
15	4.30	5.00	12.00	43.00	19.00	3.60	2.50	2.40	2.90	3.10	2.50	Ice
16	5.70	4.70	16.00	37.00	16.00	4.00	2.50	2.10	2.90	2.90	2.50	Ice
17	5.30	5.00	18.00	31.00	15.00	3.80	2.70	2.30	2.70	2.80	2.50	Ice
18	5.20	4.90	20.00	28.00	13.00	3.40	2.70	2.80	2.70	2.70	2.60	Ice
19	5.40	4.90	18.00	29.00	12.00	3.10	2.70	2.80	2.60	2.70	2.50	Ice
20	6.00	5.20	13.00	31.00	12.00	3.10	2.50	2.90	2.50	2.70	2.50	Ice
21	5.80	5.40	12.00	30.00	12.00	3.00	2.20	2.80	2.40	2.70	2.50	Ice
22	6.00	5.00	13.00	33.00	11.00	2.60	2.10	2.60	2.40	2.70	2.50	Ice
23	5.60	5.10	15.00	36.00	9.70	2.50	2.00	2.60	2.40	2.70	2.40	Ice
24	6.20	4.80	20.00	40.00	8.80	2.40	2.10	2.70	2.40	2.60	2.70	Ice
25	5.80	4.90	28.00	46.00	8.20	2.30	2.20	2.60	2.30	2.60	2.90	Ice
26	5.50	5.60	37.00	50.00	7.50	2.30	2.10	2.60	2.30	2.60	2.70	Ice
27	5.80	5.30	38.00	50.00	7.10	2.20	2.10	3.50	2.40	2.70	2.90	Ice
28	5.50	5.60	38.00	46.00	6.90	2.30	1.90	3.00	2.50	2.70	2.90	Ice
29	4.90	4.80	38.00	46.00	6.70	2.50	1.80	2.70	2.60	2.70	3.10	Ice
30	6.00		39.00	39.00	4.90	2.40	1.70	2.50	2.90	2.70	2.60	Ice
31	5.60		41.00		4.70		1.50	2.50		2.60		Ice
Count	**31**	**28**	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	**30**	**8**
Max	**6.20**	**6.00**	**41.00**	**61.00**	**36.00**	**5.90**	**3.30**	**3.50**	**3.50**	**3.90**	**3.10**	**2.50**
Min	**3.90**	**4.40**	**5.60**	**28.00**	**4.70**	**2.20**	**1.50**	**1.40**	**2.30**	**2.40**	**2.40**	**2.30**
Total	**328.15**	**300.97**	**1025.33**	**2547.46**	**1117.98**	**219.63**	**150.59**	**139.67**	**151.78**	**167.25**	**156.54**	**37.50**
Irrigation Season				**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**		**Totals**
Days > 15 cfs				30	16	0	0	0	0	0		46
Days <= 15 cfs				**0**	**15**	**30**	**31**	**31**	**30**	**31**		**168**
Provisional values taken from the USGS website:												

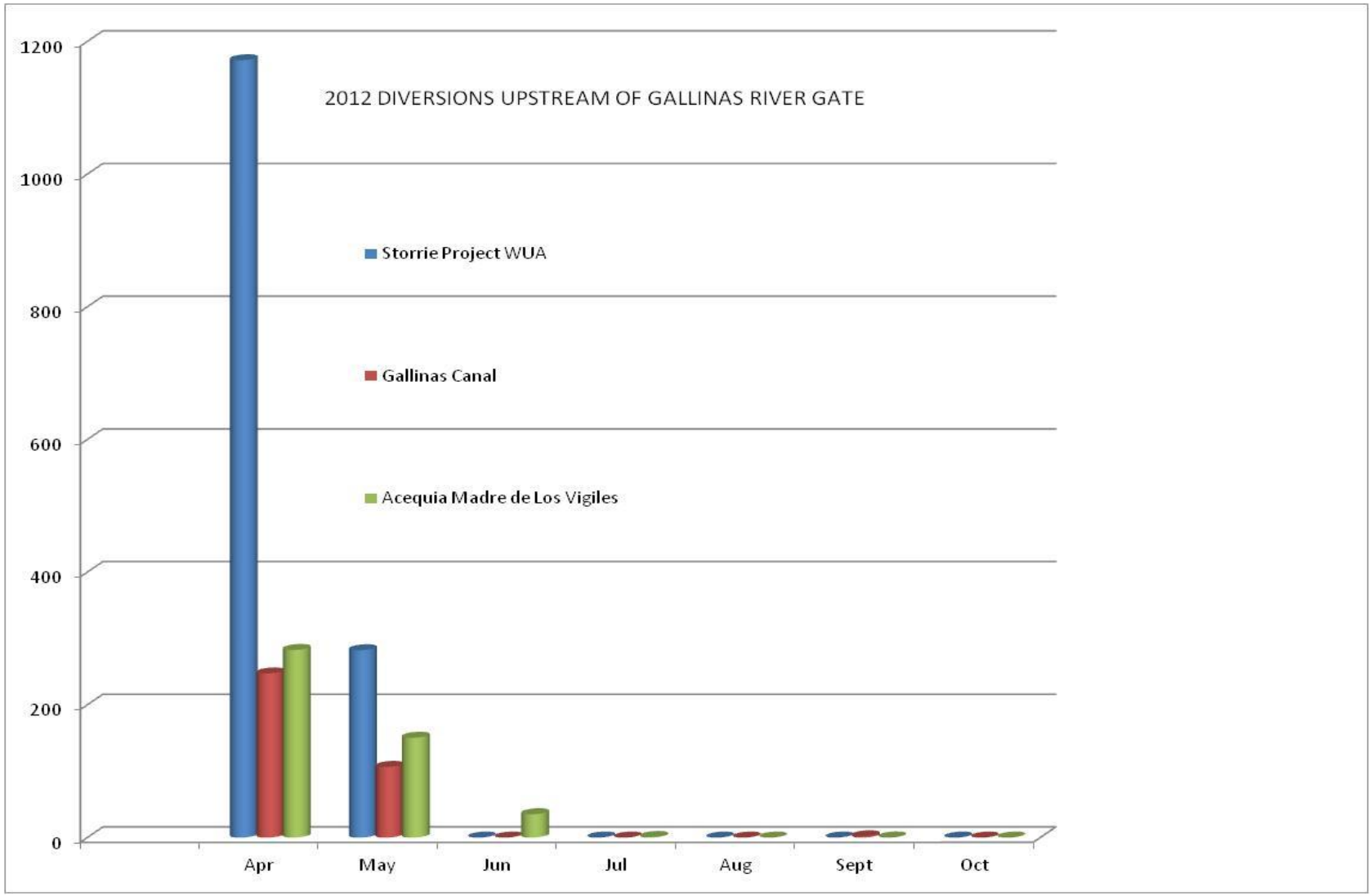
2012 GALLINAS RIVER FLOWS AND DIVERSIONS (acre-feet)

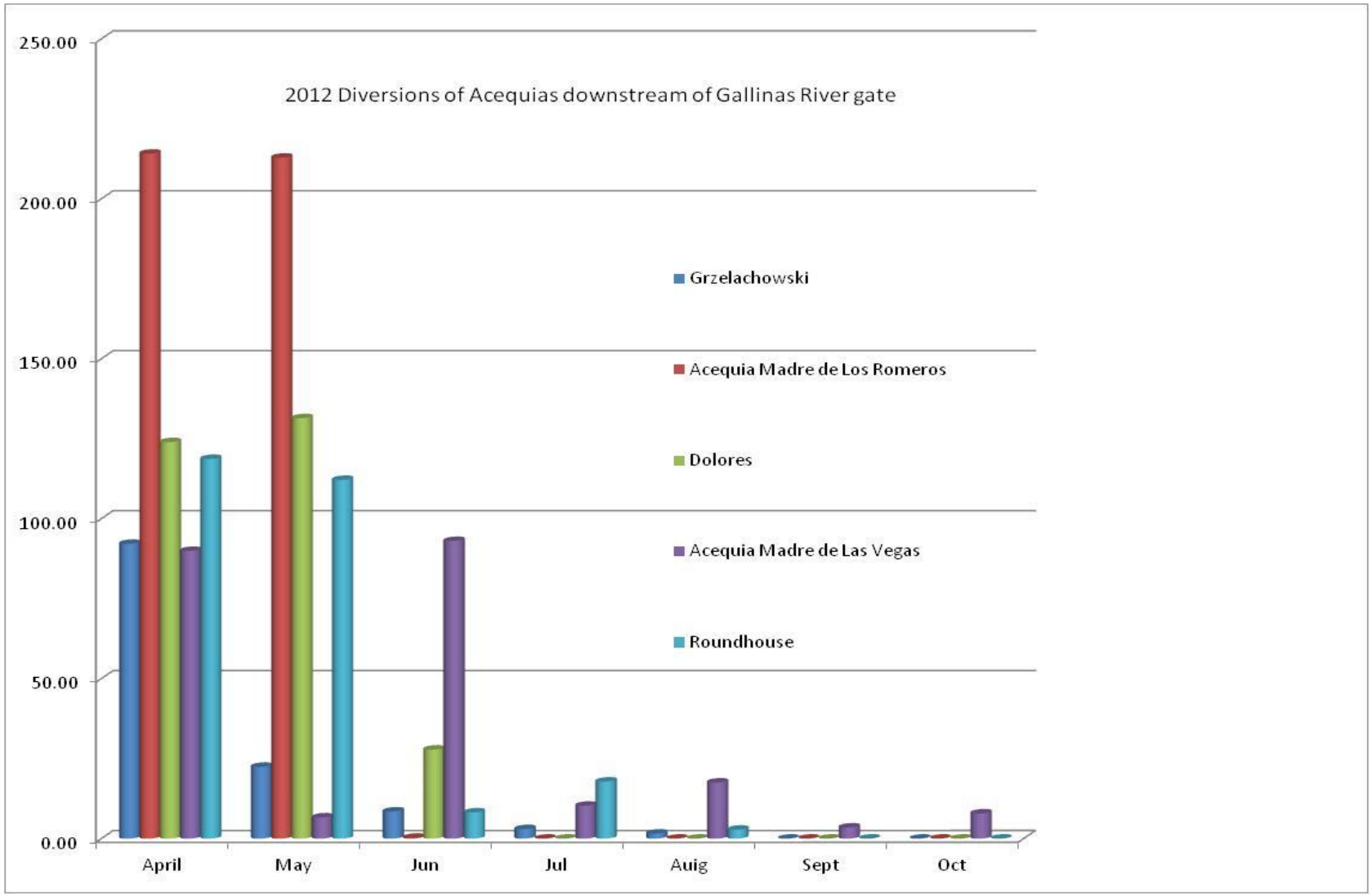
STATIONS	Jan-Feb	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Nov-Dec	Totals
USGS Montezuma**	**629.12**	**1,025.33**	**2,547.46**	**1,117.98**	**219.63**	**150.59**	**139.67**	**151.78**	**167.25**	**203.36**	**6,352.17**
City of Las Vegas	378.61	189.3	248.24	123.12	68.99	126.87	109.13	107.01	149.3	292.32	1,792.89
Gallinas Canal		94.31	247.34	106.56	0	0	0	2	0		450.21
Storrie Project		414.43	1,171.71	282.34	0	0	0	0	0		1,868.48
Acq Md Los Vigiles		36.21	282.74	150.47	35.17	0.94	0	0.13	0		505.66
Gallinas River weir	**357.56**	**365.63**	**575.55**	**567.89**	**128.39**	**64.5**	**79.77**	**74.11**	**92.33**		**2,305.73**
Grzelachowski		9.09	92.15	22.45	8.46	2.97	1.56	0	0		136.68
Acq Md L. Romeros		51.26	214.13	212.88	0.26	0	0	0	0		478.53
Dolores		26.67	123.94	131.44	27.83	0	0	0	0		309.88
Acq Md Las Vegas		2.84	89.93	6.62	93.03	10.26	17.52	3.45	7.86		231.51
Roundhouse		72.41	118.7	112.13	8.17	17.83	2.76	0	0		332
COLV WWTP*	220.96	122.09	114.18	112.27	111.62	112.51	120.61	107.91	97.33	182.94	1,302.42
USGS Lourdes**		**120**	**361.98**	**457.79**	**62.4**	**47.07**	**47.39**	**39.25**	**60.71**	**107.84**	**1,304.43**
Concepcion			53.64	66.44	17.89	1.26	0	0	0		139.23
West Chaperito		0	0	0	0	0	0	0	0		0

** USSGS gage stations: Montezuma and Lourdes were affected by ice in December. Data frrom December is partial.

*COLV WWTP return flows to the river.


2012 DIVERSIONS UPSTREAM OF GALLINAS RIVER GATE
1200
1000
800
600
400
200
0
Storrie Project WUA
Gallinas Canal
Acequia Madre de Los Vigiles
Apr
May
Jun
Jul
Aug
Sept
Oct


2012 DIVERSIONS UPSTREAM OF GALLINAS RIVER GATE
1200
1000
800
600
400
200
0
Storrie Project WUA
Gallinas Canal
Acequia Madre de Los Vigiles
Apr
May
Jun
Jul
Aug
Sept
Oct


2012 Diversions of Acequias downstream of Gallinas River gate
250.00
200.00
150.00
100.00
50.00
0.00
April
May
Jun
Jul
Auig
Sept
Oct
Grzelachowski
Acequia Madre de Los Romeros
Dolores
Acequia Madre de Las Vegas
Roundhouse

2012 Gallinas River Low Flow Rotation Schedule (Middle Gallinas Area)
(Gallinas River section: USGS Montezuma gauge - USGS Lourdes gauge)

The Rio Gallinas Acequia Association (RGAA) and the City of Las Vegas (COLV) are currently in River Sharing Agreement meetings for 2012. The Office of the State Engineer requests that the Gallinas River users follow the below rotation until their Agreement can be reviewed and implemented by the OSE.

General Notes

See flows and diversions at http://meas.ose.state.nm.us/district6.jsp
River flows will be determined by the 8:00 a.m. readings at the USGS Montezuma gauge.
Gallinas Canal can divert until flows are less than (<) 15 cfs.
If available, Storrie Project WUA may divert when flows are greater than (>) 20 cfs.
During storm events, the Gallinas Canal and/or Storrie Project may divert flows when the senior users are satisfied.

ROTATION SCHEDULES WILL APPLY **ONLY** WHEN FLOWS ARE
> 4 CFS AT THE USGS MONTEZUMA GAUGE AND
< 12 CFS AT THE GALLINAS RIVER WEIR.

City of Las Vegas Rotation Notes

For flows less than (<) 4 cfs, the COLV may divert at all times all the flows
The City of Las Vegas will be on a 7-day rotation – 7 days off, 7 days on.
For flows: 4 – 10 cfs, the COLV may divert up to 3 cfs.
For flows 11 – 15 cfs, the COLV may divert up to 5 cfs.

Acequias and River Pumps

Two (2) groups of the diverters will be on a 2-week rotation:

GROUP A	GROUP B
Acequia Madre de Los Vigiles	Acequia Madre de Los Romeros
Acequia Madre de Las Vegas	Grzelachowski Ditch
Dolores Ditch	River Pumps
Roundhouse Ditch	Pappen Ditch

See attached calendars for your turn on the rotation. For any questions, concerns or comments, please contact the Gallinas River Watermaster, Luis Aguirre at (505) 718-2011. Alternate number for emergencies: OSE Santa Fe office (505) 827-6120.

May 2012

May 2012

S	M	T	W	T	F	S
		1	2	3	4	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		

June 2012

S	M	T	W	T	F	S
					1	2
3	4	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

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Apr 29 - May 5	**Apr 29**	**30**	**May 1**	**2**	**3**	**4** Group A	**5** Group A
May 6 - 12	**6** Group A	**7** Group A	**8** Group A	**9** Group A	**10** Group A	**11** COLV Group A	**12** COLV Group A
May 13 - 19	**13** COLV Group A	**14** COLV Group A	**15** COLV Group A	**16** COLV Group A	**17** COLV Group A	**18** Group B	**19** Group B
May 20 - 26	**20** Group B	**21** Group B	**22** Group B	**23** Group B	**24** Group B	**25** COLV Group B	**26** COLV Group B
May 27 - Jun 2	**27** COLV Group B	**28** COLV Group B	**29** COLV Group B	**30** COLV Group B	**31** COLV Group B	**Jun 1**	**2**

June 2012

June 2012

S	M	T	W	T	F	S
					1	2
3	4	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

July 2012

S	M	T	W	T	F	S
1	2	3	4	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				

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 27 - Jun 2	**May 27**	**28**	**29**	**30**	**31**	**Jun 1** Group A	**2** Group A
Jun 3 - 9	**3** Group A	**4** Group A	**5** Group A	**6** Group A	**7** Group A	**8** COLV Group A	**9** COLV Group A
Jun 10 - 16	**10** COLV Group A	**11** COLV Group A	**12** COLV Group A	**13** COLV Group A	**14** COLV Group A	**15** Group B	**16** Group B
Jun 17 - 23	**17** Group B	**18** Group B	**19** Group B	**20** Group B	**21** Group B	**22** COLV Group B	**23** COLV Group B
Jun 24 - 30	**24** COLV Group B	**25** COLV Group B	**26** COLV Group B	**27** COLV Group B	**28** COLV Group B	**29** Group A	**30** Group A

July 2012

July 2012

S	M	T	W	T	F	S
1	2	3	4	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				

August 2012

S	M	T	W	T	F	S
			1	2	3	4
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	

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jul 1 - 7	**Jul 1** Group A	**2** Group A	**3** Group A	**4** Group A	**5** Group A	**6** COLV Group A	**7** COLV Group A
Jul 8 - 14	**8** COLV Group A	**9** COLV Group A	**10** COLV Group A	**11** COLV Group A	**12** COLV Group A	**13** Group B	**14** Group B
Jul 15 - 21	**15** Group B	**16** Group B	**17** Group B	**18** Group B	**19** Group B	**20** COLV Group B	**21** COLV Group B
Jul 22 - 28	**22** COLV Group B	**23** COLV Group B	**24** COLV Group B	**25** COLV Group B	**26** COLV Group B	**27** Group A	**28** Group A
Jul 29 - Aug 4	**29** Group A	**30** Group A	**31** Group A	**Aug 1**	**2**	**3**	**4**

August 2012

August 2012

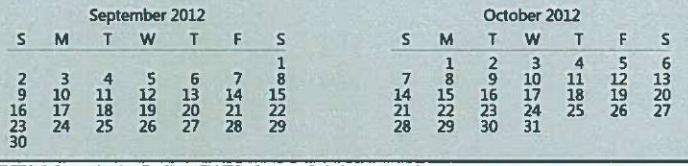
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September 2012

S	M	T	W	T	F	S
						1
2	3	4	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						

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jul 29 - Aug 4	**Jul 29**	**30**	**31**	**Aug 1** Group A	**2** Group A	**3** COLV Group A	**4** COLV Group A
Aug 5 - 11	**5** COLV Group A	**6** COLV Group A	**7** COLV Group A	**8** COLV Group A	**9** COLV Group A	**10** Group B	**11** Group B
Aug 12 - 18	**12** Group B	**13** Group B	**14** Group B	**15** Group B	**16** Group B	**17** COLV Group B	**18** COLV Group B
Aug 19 - 25	**19** COLV Group B	**20** COLV Group B	**21** COLV Group B	**22** COLV Group B	**23** COLV Group B	**24** Group A	**25** Group A
Aug 26 - Sep 1	**26** Group A	**27** Group A	**28** Group A	**29** Group A	**30** Group A	**31** COLV Group A	**Sep 1**

September 2012



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8/26 - 31	**Aug 26**	**27**	**28**	**29**	**30**	**31**	**Sep 1** COLV Group A
9/2 - 7	**2** COLV Group A	**3** COLV Group A	**4** COLV Group A	**5** COLV Group A	**6** COLV Group A	**7** Group B	**8** Group B
9/9 - 14	**9** Group B	**10** Group B	**11** Group B	**12** Group B	**13** Group B	**14** COLV Group B	**15** COLV Group B
9/16 - 21	**16** COLV Group B	**17** COLV Group B	**18** COLV Group B	**19** COLV Group B	**20** COLV Group B	**21** Group A	**22** Group A
9/23 - 28	**23** Group A	**24** Group A	**25** Group A	**26** Group A	**27** Group A	**28** COLV Group A	**29** COLV Group A
9/30 - 10/5	**30** COLV Group A	**Oct 1**	**2**	**3**	**4**	**5**	**6**

October 2012

October 2012

S	M	T	W	T	F	S
	1	2	3	4	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			

November 2012

S	M	T	W	T	F	S
				1	2	3
4	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	

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sep 30 - Oct 6	**Sep 30**	**Oct 1** COLV Group A	**2** COLV Group A	**3** COLV Group A	**4** COLV Group A	**5** Group B	**6** Group B
Oct 7 - 13	**7** Group B	**8** Group B	**9** Group B	**10** Group B	**11** Group B	**12** COLV Group B	**13** COLV Group B
Oct 14 - 20	**14** COLV Group B	**15** COLV Group B	**16** COLV Group B	**17** COLV Group B	**18** COLV Group B	**19** Group A	**20** Group A
Oct 21 - 27	**21** Group A	**22** Group A	**23** Group A	**24** Group A	**25** Group A	**26** COLV Group A	**27** COLV Group A
Oct 28 - Nov 3	**28** COLV Group A	**29** COLV Group A	**30** COLV Group A	**31** COLV Group A	**Nov 1**	**2**	**3**

City of Las Vegas Days On or Off Gallinas River*

2012

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	On	On	On	On	On	On	On	On	On	On	On	On
2	On	On	On	On	On	Off	On	On	On	On	On	On
3	On	On	On	On	On	Off	On	On	On	On	On	On
4	On	On	On	On	On	Off	On	On	On	On	On	On
5	On	On	On	On	On	Off	On	On	On	On	On	On
6	On	On	On	On	On	Off	On	On	On	On	On	On
7	On	On	On	On	On	Off	On	On	On	On	On	On
8	On	On	On	On	On	On	On	On	On	On	On	On
9	On	On	On	On	On	On	On	On	On	On	On	On
10	On	On	On	On	On	On	On	On	On	On	On	On
11	On	On	On	On	On	On	On	On	On	On	On	On
12	On	On	On	On	On	On	On	On	On	On	On	On
13	On	On	On	On	On	On	On	On	On	On	On	On
14	On	On	On	On	On	On	On	On	On	On	On	On
15	On	On	On	On	On	On	On	On	On	On	On	On
16	On	On	On	On	On	Off	On	On	On	On	On	On
17	On	On	On	On	On	Off	On	On	On	On	On	On
18	On	On	On	On	On	Off	On	On	On	On	On	On
19	On	On	On	On	On	Off	On	On	On	On	On	On
20	On	On	On	On	Off	Off	On	On	On	On	On	On
21	On	On	On	On	Off	Off	On	On	On	On	On	On
22	On	On	On	On	Off	On	On	On	On	On	On	On
23	On	On	On	On	Off	On	On	On	On	On	On	On
24	On	On	On	On	Off	On	On	On	On	On	On	On
25	On	On	On	On	Off	On	On	On	On	On	On	On
26	On	On	On	On	Off	On	On	On	On	On	On	On
27	On	On	On	On	Off	On	On	On	On	On	On	On
28	On	On	On	On	Off	On	On	On	On	On	On	On
29	On	On	On	On	On	On	On	On	On	On	On	On
30	On		On	On	On	On	On	On	On	On	On	On
31	On		On		On		On	On		On		On
Count	31	29	31	30	31	30	31	31	30	31	30	31

Irrigation Season										
Month			Apr	May	Jun	Jul	Aug	Sept	Oct		Totals
Days On			30	22	18	31	31	30	31		193
Days Off			0	9	12	0	0	0	0		21

* Information compiled from City of Las Vegas monthly reports submitted to the OSE.

Wesner Springs 2012 – 2013 SNOTEL Report

(Natural Resource Conservation Service - United States Department of Agriculture)

Month	October		November		December		January		February		March	
Day	SWE	Snow	SWE	Snow	SWE	Snow	SWE	Snow	SWE	Snow	SWE	Snow
1	0.0	0.0	0.0	0.0	0.5	0.0	3.2	17.0	5.0	21.0	6.8	27.0
2	0.0	0.0	0.0	0.0	0.4	0.0	3.2	16.0	5.0	20.0	6.8	26.0
3	0.0	0.0	0.0	0.0	0.4	0.0	3.2	16.0	5.0	19.0	6.8	25.0
4	0.0	0.0	0.0	0.0	0.3	0.0	3.2	15.0	5.0	19.0	6.7	23.0
5	0.0	0.0	0.0	0.0	0.3	0.0	3.3	14.0	5.0	18.0	6.9	24.0
6	0.0	0.0	0.0	0.0	0.3	0.0	3.3	14.0	5.0	18.0		
7	0.0	0.0	0.0	0.0	0.2	0.0	3.3	13.0	5.0	17.0		
8	0.0	0.0	0.0	0.0	0.2	0.0	3.3	13.0	5.0	17.0		
9	0.0	0.0	0.0	0.0	0.2	0.0	3.3	13.0	5.0	17.0		
10	0.0	0.0	0.2	0.0	0.8	11.0	3.3	12.0	5.1	20.0		
11	0.0	0.0	0.8	4.0	0.9	8.0	3.3	12.0	5.1	20.0		
12	0.0	0.0	0.9	7.0	1.0	6.0	3.3	15.0	5.3	22.0		
13	0.7	3.0	1.0	4.0	1.0	4.0	3.3	15.0	5.3	21.0		
14	0.6	2.0	1.0	4.0	1.0	4.0	3.3	14.0	5.4	20.0		
15	0.0	0.0	1.0	3.0	2.2	14.0	3.4	15.0	5.4	19.0		
16	0.0	0.0	1.0	3.0	2.5	16.0	3.5	15.0	5.4	19.0		
17	0.0	0.0	1.0	2.0	2.5	15.0	3.5	15.0	5.4	19.0		
18	0.0	0.0	1.0	2.0	2.6	13.0	3.5	14.0	5.3	18.0		
19	0.0	0.0	1.0	2.0	2.6	12.0	3.5	13.0	5.4	18.0		
20	0.0	0.0	1.0	2.0	2.7	14.0	3.5	13.0	5.5	20.0		
21	0.0	0.0	1.0	1.0	2.8	13.0	3.5	13.0	6.0	24.0		
22	0.0	0.0	1.0	1.0	2.8	12.0	3.5	12.0	6.0	24.0		
23	0.0	0.0	1.0	1.0	2.8	12.0	3.5	12.0	6.1	25.0		
24	0.0	0.0	1.0	0.0	2.8	12.0	3.5	11.0	6.3	25.0		
25	0.0	0.0	0.9	0.0	2.9	12.0	3.5	11.0	6.8	32.0		
26	0.0	0.0	0.8	0.0	2.9	12.0	3.5	11.0	6.8	29.0		
27	0.0	0.0	0.8	0.0	2.9	12.0	4.0	14.0	6.8	29.0		
28	0.0	0.0	0.7	0.0	2.9	12.0	4.2	15.0	6.8	28.0		
29	0.0	0.0	0.7	0.0	2.9	12.0	4.6	19.0				
30	0.0	0.0	0.6	0.0	2.9	12.0	4.8	23.0				
31	0.0	0.0			3.1	13.0	4.9	21.0				
Mean	**0.0**	**0.2**	**0.6**	**1.2**	**1.8**	**6.8**	**3.6**	**13.7**	**5.5**	**21.4**	**6.8**	**25.0**
Max	**0.7**	**3.0**	**1.0**	**7.0**	**3.1**	**16.0**	**4.9**	**23.0**	**6.8**	**17.0**	**6.9**	**23.0**
Min	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**0.0**	**3.2**	**11.0**	**5.0**	**28.0**	**6.7**	**27.0**