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### TECHNICAL MEMORANDUM

Date: April 22, 2014

To: Bonnie Bartling, Weather Specialist – NWS

From: Dr. Stuart Styles, Director – ITRC  
Hilary Olsen, Engineering Technician - ITRC

**Subject: Streamlining Precipitation Data for the Years 2006-2010**

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This memo is a request for the National Weather Service (NWS) to make sure that the data provided by the government reflects the accurate data provided by the ITRC. The data provided by the Western Regional Climate Center (WRCC) from the years 2006-2010 is not in alignment with the data kept by the Irrigation Training and Research Center (ITRC) in San Luis Obispo County (as shown in **Table 1**). Below is a description of the issue and how it has been resolved.

Between the years 2006-2010, the official Coop Precipitation Gauge 047851 was not properly maintained (clogged, plugged, uncollected, etc.) which created inaccurate data. In 2010 when the ITRC took over the operation and maintenance of the gauge, the mistake was noticed and measures were taken to correct the imprecise data. This was done by using data from the San Luis Obispo County Reservoir data for those five years. The data from the reservoir gauge was determined to be accurate by the ITRC's several precipitation gauges in conjunction with local hydrologist, Tim Cleath. It was decided that using data from the one gauge at the reservoir would be more consistent than using data from multiple gauges at the ITRC in order to fill in the five year gap.

In order to continue with consistency throughout the local, state, and federal databases, the ITRC requests that the data provided by the ITRC in **Table 1** be used as the official historical precipitation record for San Luis Obispo, and that the WRCC change their historic data to reflect this. Along with the monthly data provided in **Table 1**, the ITRC has daily records from the county reservoir to back up the changes requested to be made to the WRCC site. Based on the data evaluation, 50 months within the past seven years on the WRCC site needs to be corrected.

Table 1. Seven year comparison between the ITRC and WRCC data; months highlighted in yellow indicate inconsistent values.

Year	Month	ITRC	SLO County	WRCC
2012	Jul	0.01	0.01	0.01
	Aug	0.03	0.03	0.03
	Sep	0.00	0.00	0.00
	Oct	1.35	1.35	1.35
	Nov	3.07	3.07	3.07
	Dec	6.42	6.42	6.42
	Jan	1.35	1.35	1.35
	Feb	0.89	0.89	0.89
	Mar	0.90	0.90	0.90
	Apr	0.00	0.00	0.00
	May	0.31	0.31	0.31
	Jun	0.01	0.01	0.01
<b>Annual Totals</b>		<b>14.33</b>	<b>14.34</b>	<b>14.34</b>
2011	Jul	0.01	0.01	0.03
	Aug	0.00	0.00	0.00
	Sep	0.00	0.00	0.01
	Oct	0.51	0.51	0.51
	Nov	3.20	3.20	3.20
	Dec	0.26	0.26	0.26
	Jan	3.27	3.27	3.27
	Feb	0.73	0.73	0.73
	Mar	2.95	2.95	2.95
	Apr	3.69	3.69	3.69
	May	0.00	0.00	0.00
	Jun	0.00	0.00	0.00
<b>Annual Totals</b>		<b>14.62</b>	<b>14.62</b>	<b>14.65</b>
2010	Jul	0.00	0.00	0.04
	Aug	0.00	0.00	0.00
	Sep	0.01	0.01	0.00
	Oct	2.20	2.20	1.70
	Nov	2.24	2.24	1.85
	Dec	12.09	12.09	9.67
	Jan	0.47	0.47	2.26
	Feb	4.33	4.33	0.96
	Mar	7.20	7.20	0.17
	Apr	0.16	0.16	0.01
	May	1.42	1.42	1.08
	Jun	1.38	1.38	1.34
<b>Annual Totals</b>		<b>31.50</b>	<b>31.50</b>	<b>19.08</b>
2009	Jul	0.00	0.00	0.00
	Aug	0.00	0.00	0.00
	Sep	0.08	0.08	0.00
	Oct	7.36	7.36	0.57
	Nov	0.08	0.08	0.12
	Dec	4.80	4.80	3.40
	Jan	8.94	8.94	6.15
	Feb	5.75	5.75	4.46
	Mar	1.81	1.81	1.40
	Apr	2.40	2.40	2.42
	May	0.51	0.51	0.16
	Jun	0.00	0.00	0.00
<b>Annual Totals</b>		<b>31.73</b>	<b>31.73</b>	<b>18.68</b>

Year	Month	Cal Poly	County New	WRCC
2008	Jul	0.00	0.00	0.00
	Aug	0.16	0.16	0.07
	Sep	0.00	0.00	0.00
	Oct	0.19	0.19	0.33
	Nov	1.58	1.58	1.51
	Dec	1.89	1.89	1.90
	Jan	0.87	0.87	0.91
	Feb	3.11	3.11	5.86
	Mar	1.49	1.49	1.35
	Apr	0.51	0.51	0.49
	May	0.20	0.20	0.22
	Jun	0.35	0.35	0.40
<b>Annual Totals</b>		<b>10.35</b>	<b>10.35</b>	<b>13.04</b>
2007	Jul	0.00	0.00	0.00
	Aug	0.08	0.08	0.13
	Sep	0.04	0.04	0.07
	Oct	0.98	0.98	0.57
	Nov	0.08	0.08	0.06
	Dec	4.45	4.45	0.00
	Jan	9.84	9.84	0.00
	Feb	3.58	3.58	2.75
	Mar	0.12	0.12	0.14
	Apr	0.71	0.71	0.29
	May	0.00	0.00	0.03
	Jun	0.00	0.00	0.00
<b>Annual Totals</b>		<b>19.88</b>	<b>19.88</b>	<b>4.04</b>
2006	Jul	0.20	0.20	0.00
	Aug	0.00	0.00	0.00
	Sep	0.00	0.00	0.00
	Oct	0.08	0.08	0.00
	Nov	0.63	0.63	0.01
	Dec	3.03	3.03	0.00
	Jan	1.61	1.61	1.39
	Feb	4.14	4.14	3.39
	Mar	0.51	0.51	0.44
	Apr	0.75	0.75	0.60
	May	0.08	0.08	0.04
	Jun	0.00	0.00	0.00
<b>Annual Totals</b>		<b>11.03</b>	<b>11.03</b>	<b>5.87</b>