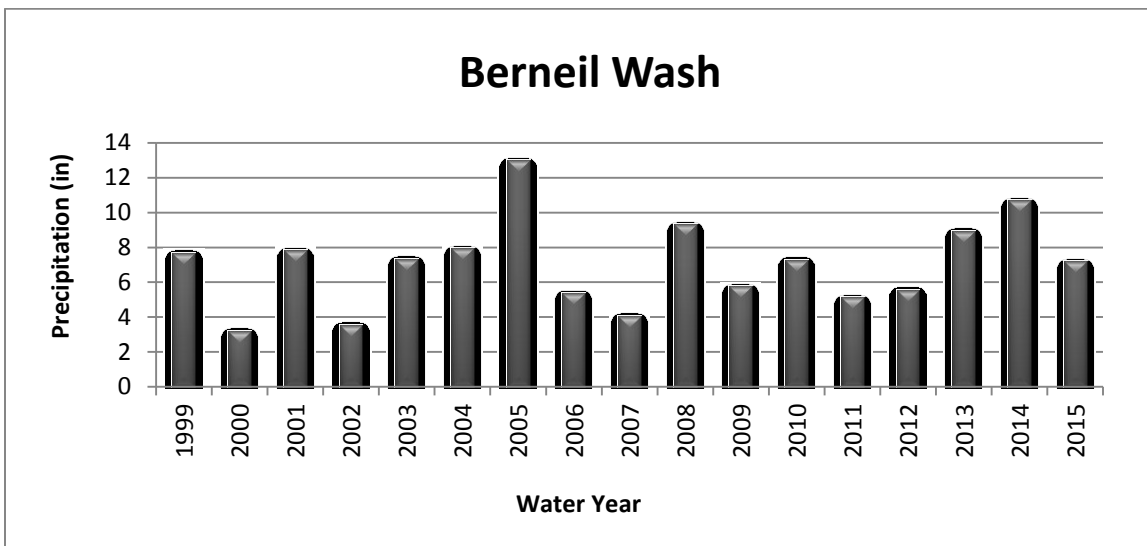




### Station Name: Berneil Wash

<b>Station ID Number History:</b>	4685 since 07/30/98
<b>Station Type:</b>	Rain/Stream
<b>Data Begins:</b>	07/30/1998
<b>Years Since Installation:</b>	17.17 (as of 10/01/15)
<b>Data Repeater:</b>	Thompson Peak
<b>County:</b>	Maricopa
<b>Latitude:</b>	33° 33' 58.5" (33.56626)
<b>Longitude:</b>	111° 56' 19.6" (111.93878)
<b>Elevation:</b>	1,325 ft. msl
<b>Location:</b>	Just east of Doubletree and Invergordon
<b>Data Record:</b>	
Incomplete Months:	None
Missing Months:	None
<b>Remarks:</b>	Records Good



**Data Statistics for Period of Record:**

Number of storms greater than 1 inch in 24 hours:	23	
Number of storms greater than 2 inches in 24 hours:	2	
Number of storms greater than 3 inches in 24 hours:	0	
		<b>Approx. T<sub>r</sub></b>
Greatest 15 minute total:	0.98" on 07/21/13	36 years
Greatest 1 hour total:	1.65" on 07/21/13	34 years
Greatest 3 hour total:	1.97" on 08/24/06	35 years
Greatest 6 hour total:	2.32" on 09/08/14	45 years
Greatest 24 hour total:	2.40" on 09/08/14	12 years
Greatest 72 hour total:	3.11" on 09/08/14	17 years

**Water Year Totals: (Mean of Complete Water Years [17] = 7.05 inches)**

Water Year	Total	Water Year	Total	Water Year	Total
2020		2010	7.28	2000	3.19
2019		2009	5.75	1999	7.68
2018		2008	9.33	1998	M
2017		2007	4.06	1997	
2016		2006	5.39	1996	
2015	7.20	2005	12.99	1995	
2014	10.67	2004	7.95	1994	
2013	8.94	2003	7.32	1993	
2012	5.55	2002	3.54	1992	
2011	5.12	2001	7.83	1991	

M: One or more months contain partial or missing data

**Design Rainfall for this Geographic Location:**

**Click this [link](#) for Point Precipitation Frequency Estimates (Annual Maximum Series) in Tabular and Graphical Formats from NOAA Atlas 14, Volume I, Version 5**



**Flood Control District of Maricopa County ALERT System**  
Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2014

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1						.71								
2						.04					.24			
3											.12			
4														
5														
6														
7														
8												2.40		
9												.71		
10														
11														
12											.04			
13											.20			
14														
15										.39				
16														
17														
18											.04			
19			.08								.79			
20			.43								.16			
21		.35												
22		1.65									.04			
23		.39								.04				
24		.04									.04			
25														
26										.24				
27												1.38		
28											.12	.04		
29					----									
30					----									
31		----			----		----		----			----		
SUM	0.00	2.44	0.51	0.00	0.00	0.75	0.00	0.00	0.00	0.67	1.77	4.53		
ACC	0.00	2.44	2.95	2.95	2.95	3.70	3.70	3.70	3.70	4.37	6.14	10.67		
MAX	0.00	1.65	0.43	0.00	0.00	0.71	0.00	0.00	0.00	0.39	0.79	2.40		
NO.	0	4	2	0	0	2	0	0	0	3	10	4		
												Maximum Daily Rainfall	2.40	
													Maximum Monthly Rainfall	4.53
													Total Annual Rainfall	10.67
													Number of Days with Rain	25

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**Flood Control District of Maricopa County ALERT System**  
Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2012

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												
3												
4	.04	.16								.04		
5		.31										
6												
7		.24										.16
8												
9								.04				
10												
11										.12		.08
12		.04	.35							.75		
13		.24	.71									
14			.04				.04			.08	.04	
15												
16											.08	
17											.08	
18			.12			.35						
19												
20												
21											.28	
22											.08	
23											.43	
24												
25												
26												
27												
28										.12		
29										.12		
30					----							
31		----			----		----		----	.43		----
SUM	0.04	0.98	1.22	0.00	0.00	0.35	0.04	0.04	0.00	1.65	0.98	0.24
ACC	0.04	1.02	2.24	2.24	2.25	2.60	2.64	2.68	2.68	4.33	5.31	5.55
MAX	0.04	0.31	0.71	0.00	0.00	0.35	0.04	0.04	0.00	0.75	0.43	0.16
NO.	1	5	4	0	0	1	1	1	0	6	5	2
											Maximum Daily Rainfall	0.75
											Maximum Monthly Rainfall	1.65
											Total Annual Rainfall	5.55
											Number of Days with Rain	26

**Flood Control District of Maricopa County ALERT System**  
**Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2011**

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												
3											.16	
4												
5	.35											
6							.04					
7												
8												
9							.31					
10												.08
11										.47		
12												
13											.16	.04
14												
15												
16			.24								.08	
17												
18								.16				
19					.39							
20					.04							
21	.31	.16				.08						
22			.35									
23			.04									
24										.12		
25										.04		
26												
27					.39							
28												
29			.75		----							
30			.12		----							
31		----			----		----		----	.24		----
SUM	0.67	0.16	1.50	0.00	0.83	0.08	0.35	0.16	0.00	0.87	0.39	0.12
ACC	0.67	0.83	2.32	2.32	3.15	3.23	3.58	3.74	3.74	4.61	5.00	5.12
MAX	0.35	0.16	0.75	0.00	0.39	0.08	0.31	0.16	0.00	0.47	0.16	0.08
NO.	2	1	5	0	3	1	2	1	0	4	3	2
							Maximum Daily Rainfall					0.75
							Maximum Monthly Rainfall					1.50
							Total Annual Rainfall					5.12
							Number of Days with Rain					24

Annual Total (mm): 130

Days Down: 0

**Flood Control District of Maricopa County ALERT System**  
 Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2010

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1						.04							
2													
3													
4													
5													
6						.04							
7			.39		.12	.51							
8			.04			.08							
9						.12							
10										.04			
11			----										
12			----										
13			----										
14													
15													
16													
17									----		.31		
18				.08					----				
19				.87					----				
20					.20								
21				1.38	.31								
22			.28	.16	.16						.12		
23				.04		.04							
24													
25													
26													
27				.08									
28				.04	.83								
29					----								
30					----								
31		----			----		----		----	1.02		----	
SUM	0.00	0.00	0.71	2.64	1.61	0.83	0.00	0.00	0.00	1.06	0.43	0.00	
ACC	0.00	0.00	0.71	3.35	4.96	5.79	5.79	5.79	5.79	6.85	7.28	7.28	
MAX	0.00	0.00	0.39	1.38	0.83	0.51	0.00	0.00	0.00	1.02	0.31	0.00	
NO.	0	0	3	7	5	6	0	0	0	2	2	0	
												Maximum Daily Rainfall	1.38
												Maximum Monthly Rainfall	2.64
												Total Annual Rainfall	7.28
												Number of Days with Rain	25

**Notes:**

Annual rainfall in millimeters: 185  
 Gage 4685 down from 12/10 10:50 (11) through 12/14 16:51 (11) due to repeater failure; no rain fell.  
 Gage 4685 down from 06/16 16:16 (147) through 06/20 04:16 (147) due to data collision; no rain fell.



**Flood Control District of Maricopa County ALERT System**  
**Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2009**

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												
3										.16		
4				.04								
5												.08
6												
7												
8					.67							
9					.79							
10												
11							.43					
12												
13											.20	
14												
15			.04									
16			.20									
17			.04		.08							
18			.12									
19												
20										.04		
21								.16			.43	
22			.20	.12				.31			.08	
23			.12							.24		
24										.04		
25			.28									
26		.16	.28									
27		.47										
28												
29					----							
30					----							
31		----			----		----		----			----
SUM	0.00	0.63	1.26	0.16	1.54	0.00	0.43	0.47	0.00	0.47	0.71	0.08
ACC	0.00	0.63	1.89	2.05	3.58	3.58	4.02	4.49	4.49	4.96	5.67	5.75
MAX	0.00	0.47	0.28	0.12	0.79	0.00	0.43	0.31	0.00	0.24	0.43	0.08
NO.	0	2	8	2	3	0	1	2	0	4	3	1
							Maximum Daily Rainfall					0.79
							Maximum Monthly Rainfall					1.54
							Total Annual Rainfall					5.75
							Number of Days with Rain					26

**Notes:**

Annual rainfall in millimeters: 146

Total down-time: 0.00 days



**Flood Control District of Maricopa County ALERT System**  
**Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2007**

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												
3												
4												
5				.04							.04	
6	.16										.04	
7												
8												
9												
10												
11												
12							.08					
13							.16					
14	.20										.16	
15												
16										.04		
17												
18												
19				.20	.20							
20												
21				.24			.12					
22			.31			.63						
23						.04						.04
24						.04						
25											.04	
26												
27												
28			.12									
29			.04									
30				.04	----					.24		
31		----		.16	----		----		----	.71		----
SUM	0.35	0.00	0.47	0.67	0.20	0.71	0.35	0.00	0.00	0.98	0.28	0.04
ACC	0.35	0.35	0.83	1.50	1.69	2.40	2.76	2.76	2.76	3.74	4.02	4.06
MAX	0.20	0.00	0.31	0.24	0.20	0.63	0.16	0.00	0.00	0.71	0.16	0.04
NO.	2	0	3	5	1	3	3	0	0	3	4	1
							Maximum Daily Rainfall					0.71
							Maximum Monthly Rainfall					0.98
							Total Annual Rainfall					4.06
							Number of Days with Rain					25

**Notes:**

Annual rainfall in millimeters: 103

Total down-time: 0.00 days

**Flood Control District of Maricopa County ALERT System**  
**Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2006**

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												.12
3												
4												
5										.04		
6												
7												.04
8												
9												
10												
11						1.30						
12											.35	
13												
14												.12
15												
16												
17	.04											
18	.47											
19						.12						
20												
21											.04	
22												
23												
24										.08	1.97	
25										.43		
26										.20		
27												
28												
29						----						
30						----				.08		
31		----				----	----		----			----
SUM	0.51	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.83	2.36	0.28
ACC	0.51	0.51	0.51	0.51	0.51	1.93	1.93	1.93	1.93	2.76	5.12	5.39
MAX	0.47	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.43	1.97	0.12
NO.	2	0	0	0	0	2	0	0	0	5	3	3
											Maximum Daily Rainfall	1.97
											Maximum Monthly Rainfall	2.36
											<b>Estimated</b> Annual Rainfall	5.39
											Number of Days with Rain	15

**Notes:**

Estimated annual rainfall in millimeters: 137 Total down-time: 2.61 days  
 Gage 4685 down from 3/10 21:05 (13) through 3/13 11:42 (46) due to tipping bucket failure; rainfall for 3/11 storm **estimated** from nearby stations.

**Flood Control District of Maricopa County ALERT System**  
**Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2005**

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2											1.81	
3				1.18							.16	
4			.28	.47								
5			.24			.20						
6			.24			.04						
7		.12										
8		.08									.08	.04
9											.43	
10					.12							
11				.24	1.14							
12					.39						.08	
13												
14												
15												
16												
17					.16							
18					.28							
19					.83							
20		.04			.24							
21	.39	.08			.16							
22		.28			.04						.04	
23					.04		.28					
24				.12	.12	.04	.04			.04		
25						.04						
26				.67								
27												
28	.51		.08									
29			.94	.16	-----							
30			.04		-----							
31		-----			-----		-----		-----	.04		-----
SUM	0.91	0.59	1.81	2.83	3.50	0.31	0.31	0.00	0.00	0.08	2.60	0.04
ACC	0.91	1.50	3.31	6.14	9.65	9.96	10.28	10.28	10.28	10.35	12.95	12.99
MAX	0.51	0.28	0.94	1.18	1.14	0.20	0.28	0.00	0.00	0.04	1.81	0.04
NO.	2	5	6	6	11	4	2	0	0	2	6	1
											Maximum Daily Rainfall	1.81
											Maximum Monthly Rainfall	3.50
											Total Annual Rainfall	12.99
											Number of Days with Rain	45

**Notes:**

Annual rainfall in millimeters: 330

Total down-time: 0.00 days



**Flood Control District of Maricopa County ALERT System**  
 Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2003

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1						.08					.08	
2												
3												
4												
5												
6												
7												.04
8				.35								
9				.12								
10				.04								
11												
12					.08							
13					1.34							
14					.67						.35	
15							.20					
16						.39						
17			.08			.47						
18												
19											.35	
20			.04	.08								
21												
22												
23			.24									
24												.04
25					.75							
26	.16				.20							
27					.24							
28					.04							
29		.28			-----					.59		
30		.04			-----							
31		-----			-----		-----		-----			-----
SUM	0.16	0.31	0.35	0.59	3.31	0.94	0.20	0.00	0.00	0.59	0.79	0.08
ACC	0.16	0.47	0.83	1.42	4.72	5.67	5.87	5.87	5.87	6.46	7.24	7.32
MAX	0.16	0.28	0.24	0.35	1.34	0.47	0.20	0.00	0.00	0.59	0.35	0.04
NO.	1	2	3	4	7	3	1	0	0	1	3	2
							Maximum Daily Rainfall					1.34
							Maximum Monthly Rainfall					3.31
							Total Annual Rainfall					7.32
							Number of Days with Rain					27

**Notes:**

Total annual rainfall in millimeters: 186

Total down-time: 0.00 days







**Flood Control District of Maricopa County ALERT System**  
Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 2000

DAY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2												
3												
4												
5						.67					.04	
6						1.42						
7						.31					.16	
8												
9												
10												
11					----							
12					----							
13					----							
14												
15												
16												
17											.12	
18												
19												
20									.24			
21												
22									.08			
23												
24											.04	
25												
26												
27												
28						.08						
29												
30					----					.04		
31		----			----		----		----			----
SUM	0.00	0.00	0.00	0.00	0.00	2.48	0.00	0.00	0.31	0.04	0.35	0.00
ACC	0.00	0.00	0.00	0.00	0.00	2.48	2.48	2.48	2.80	2.83	3.19	3.19
MAX	0.00	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.24	0.04	0.16	0.00
NO.	0	0	0	0	0	4	0	0	2	1	4	0
	Maximum Daily Rainfall											1.42
	Maximum Monthly Rainfall											2.48
	Total Annual Rainfall											3.19
	Number of Days with Rain											11

**Notes:**

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Annual rainfall in millimeters: 81 Total down-time: 4.0 days  
Gage 4685 down from 2/10 20:41 (0) through 2/14 20:41 (0) due to repeater failure; no rain fell.



**Flood Control District of Maricopa County ALERT System**  
Daily Rainfall at Berneil Wash (gage # 4685) for Water Year 1998

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	----	----	----	----	----	----	----	----	----	----			
2	----	----	----	----	----	----	----	----	----	----			
3	----	----	----	----	----	----	----	----	----	----			
4	----	----	----	----	----	----	----	----	----	----		.16	
5	----	----	----	----	----	----	----	----	----	----			
6	----	----	----	----	----	----	----	----	----	----		.31	
7	----	----	----	----	----	----	----	----	----	----			
8	----	----	----	----	----	----	----	----	----	----			
9	----	----	----	----	----	----	----	----	----	----			
10	----	----	----	----	----	----	----	----	----	----			
11	----	----	----	----	----	----	----	----	----	----			
12	----	----	----	----	----	----	----	----	----	----	.04		
13	----	----	----	----	----	----	----	----	----	----			
14	----	----	----	----	----	----	----	----	----	----			
15	----	----	----	----	----	----	----	----	----	----	.08		
16	----	----	----	----	----	----	----	----	----	----			
17	----	----	----	----	----	----	----	----	----	----	.20		
18	----	----	----	----	----	----	----	----	----	----			
19	----	----	----	----	----	----	----	----	----	----			
20	----	----	----	----	----	----	----	----	----	----			
21	----	----	----	----	----	----	----	----	----	----			
22	----	----	----	----	----	----	----	----	----	----		.24	
23	----	----	----	----	----	----	----	----	----	----			
24	----	----	----	----	----	----	----	----	----	----	.04		
25	----	----	----	----	----	----	----	----	----	----			
26	----	----	----	----	----	----	----	----	----	----			
27	----	----	----	----	----	----	----	----	----	----			
28	----	----	----	----	----	----	----	----	----	----	.08		
29	----	----	----	----	----	----	----	----	----	----			
30	----	----	----	----	----	----	----	----	----	----			
31	----	----	----	----	----	----	----	----	----	----		----	
SUM	----	----	----	----	----	----	----	----	----	0.00	0.43	0.71	
ACC	----	----	----	----	----	----	----	----	----	0.00	0.43	1.14	
MAX	----	----	----	----	----	----	----	----	----	0.00	0.20	0.31	
NO.	----	----	----	----	----	----	----	----	----	0	5	3	
												Maximum Daily Rainfall	0.31
												Maximum Monthly Rainfall	0.71
												<b>Partial</b> Annual Rainfall	1.14
												Number of Days with Rain	8

**Notes:**

Annual rainfall in millimeters: 29  
Station installed on 7/30/98.

Total down-time: 0 days