

RHODE ISLAND DROUGHT MANAGEMENT

Regional Drought Analysis through January, 2008

Statewide Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation 6 months cumulative in Eastern, Central East, Southern & New Shoreham regions	#3 Groundwater – 29 gages Below Normal 5 months – 5 gages 6 months – 4 gages 7 months – 4 gages 8 months – 15 gages 9 months - 1 gage	#4 Streamflow – 17 gages Below normal 7 months - 3 gages 8 months – 11 gages 9 months – 3 gages Hunt River (8) , Mossasuck River (15), & Peepthead Brook (24)	Reservoirs Scituate – 77% Aquidneck Island – 69% Jamestown – +24 inches Cumberland - +14 inches Woonsocket - +42 inches Pawtucket – 65% (up from 48%)
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RHODE ISLAND DROUGHT INDICES AND PHASES

Prepared for the Drought Steering Committee Meeting
February 14, 2008

Drought Phase	Palmer Drought Index+	Crop Moisture Index*	Precipitation +	Ground Water** +	Streamflow +	Reservoirs**
Normal	-1.0 to -1.99	0.0 to -1.0 Slightly Dry	1 month below normal	1 month below normal	2 consecutive months below normal	Reservoir levels at or near normal for the time of year
Advisory	-2.0 to -2.99	-1.0 to -1.9 Abnormally Dry	2 month cumulative below 65% of normal	At least 2 out of 3 months below normal	3 consecutive months below normal	Small index Reservoirs below normal
Watch	-3.0 to 3.99	-2.0 to -2.9 Excessively Dry	1 of the following criteria met: 3 month cum. < 65% or 6 month cum. < 70% or 12 month cum. < 70%	4-5 consecutive months below normal	At least 4 out of 5 consecutive months below normal	Medium index Reservoirs below normal
Warning	-4.0 and below	> -2.9 Severely Dry	2 out of 3 of the above criteria met: 3 month cum. < 65% and 6 month cum. < 65% or 6 month cum. < 65% and 12 month cum. < 65% or 3 month cum. < 65% and 12 month cum. < 65%	6-7 consecutive months below normal Observation wells recording monthly record lows	At least 6 out of 7 consecutive months below normal	Large index reservoirs below normal
Emergency	-4.0 and below	> -2.9 Severely Dry	Same criteria as Warning And Previous month was Warning or Emergency	>7months below normal Observation wells recording monthly record lows	>7 months below normal	Continuation of previous month's conditions

+ Major Hydrologic Indicators (#1, #2, #3 & #4)

** Local triggers from the water supply system management plans will also be considered in assessing drought phases on a regional basis. The Water Resources Board will review local plans and work with suppliers to coordinate regarding drought phases and to collect, review and report surface reservoir and ground water data. Normal is defined as the statistical average of the data for the period of record. Percentages for precipitation are relative to normal.

Eastern Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation 6 months cumulative Eastern Region – 62%	#3 Groundwater Below normal for 5 months	#4 Streamflow Below normal for last 5 months	Reservoirs
			1 Month 2.38" 52% 2 Month 6.84" 77% 3 Month 9.66" 71% 6 Month 15.69" 62%	19-RI-TIW 274 - 22-RI-POW 551 - 24-RI-LTW 142 – WATCH? (Blank – insufficient info)	No Stream Gage info	Aquidneck Island – 69% Jamestown - +24 inches Watson Reservoir

Southern Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation 6 months cumulative Southern Region 65%	#3 Groundwater Below normal for 4 months 8 dry observation wells	#4 Streamflow Below normal for last 7-9 months	Reservoirs
			1 Month 2.52" 53% 2 Month 7.30" 78% 3 Month 10.97" 76% 6 Month 17.22" 65%	18-RI-EXW 158 Advisory 20-RI-EXW-6 Emergency 21-RI-EXW-238 Emergency 23-RI-EXW-475 Emergency 25-RI-EXW-554 Warning 26-RI-HOW-67 Emergency 27-RI-NKW-255 Warning 28-RI-EXW-278 No data 29-RI-RIW-417 Emergency 30-RI-SNW-6 Emergency 31-RI-RIW-785 Watch 32-RI-CHW-587 No data 33-RI-CHW-586 ?Above mean? 34-RI-CHW-18 Emergency 35-RI-WEW-522 Emergency 37-RI-SNW-1198 Emergency 39-RI-RIW-600 Emergency (* = No data for the month)	08-01117000 Emergency 09-01117350 <u>Emergency</u> 10-01117420 11-01117468 <u>Emergency</u> 12-01117500 <u>Emergency</u> 13-01117800 <u>Emergency</u> 14-01118500 Warning 21-01117430 25-01117370 <u>Emergency</u> 26-01118000 28-01116850 (Blank – Insufficient data)	No surface water storage

New Shoreham Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation 6 months cumulative New Shoreham Region – 65%	#3 Groundwater	#4 Streamflow	Reservoirs
			1 Month 2.52" 53% 2 Month 7.30" 78% 3 Month 10.97" 76% 6 Month 17.22" 65%		Insufficient data	Insufficient information

Central West Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation Central West Region – 71%	#3 Groundwater	#4 Streamflow	Reservoirs
			1 Month 3.32" 68% 2 Month 8.88" 94% 3 Month 12.12" 83% 6 Month 19.39" 71%	13-RI-COW 342 Emergency 16-RI-WGW-181 Watch? 17-RI-WGW 206 Emergency 38-RI-COW-466	17-01115630 18-01115670 19-01115770 20-01115800 27-01115833 (Blank - Insufficient data)	No surface water storage

Central East Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation Central East Region – 66%	#3 Groundwater Below normal for 4 months	#4 Streamflow Below normal for last 5 months	Reservoirs
			1 Month 2.93" 672% 2 Month 7.56" 89% 3 Month 10.36" 80% 6 Month 15.80" 66%	9-RI-PRW 48* 11-RI-CRW 439* 14-RI-WCW-59 Emergency 15-RI-COW 411 Watch (Blank – Insufficient data)	01-01109403 <u>Emergency</u> 06-01116000 Warning 07-01116500 <u>Emergency</u> 15-01114000 Emergency	Pawtucket Reservoirs 65% - up from 48%

North East Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation Northeast Region – 72%	#3 Groundwater	#4 Streamflow	Reservoirs
			1 Month 3.89" 86% 2 Month 10.22" 113% 3 Month 13.07" 95% 6 Month 18.96" 72%	01-RI-NSW 21 Warning 05-RI-CUW 265 Watch? 08-RI-UW-84 Warning	02-01111500 Warning 03-01112500 <u>Emergency</u> 04-01114500 <u>Emergency</u> 16-01113895 23-01113696 (Blank – insufficient data)	Woonsocket Reservoirs - +42 inches

North West Region Current Conditions	#1 Palmer -1.00 to -1.99 Near Normal	Crop Moisture +1.00 to +1.99 Abnormally Moist	#2 Precipitation Northwest Region – 77%	#3 Groundwater	#4 Streamflow	Reservoirs
			1 Month 4.12" 83% 2 Month 10.51" 109% 3 Month 13.36" 92% 6 Month 21.72" 77%	02-RI-BUW 396 03-RI-BUW 187 Emergency 04-RI-BUW 397 06-RI-BUW 395 07-RI-BUW 398 10-RI-FOW-40 Warning 12-RI-FOW 290	05-01115187 Warning? 22-01111300 <u>Emergency</u> 24-01115098 (Blank – insufficient data)	Scituate Reservoir 77% of capacity