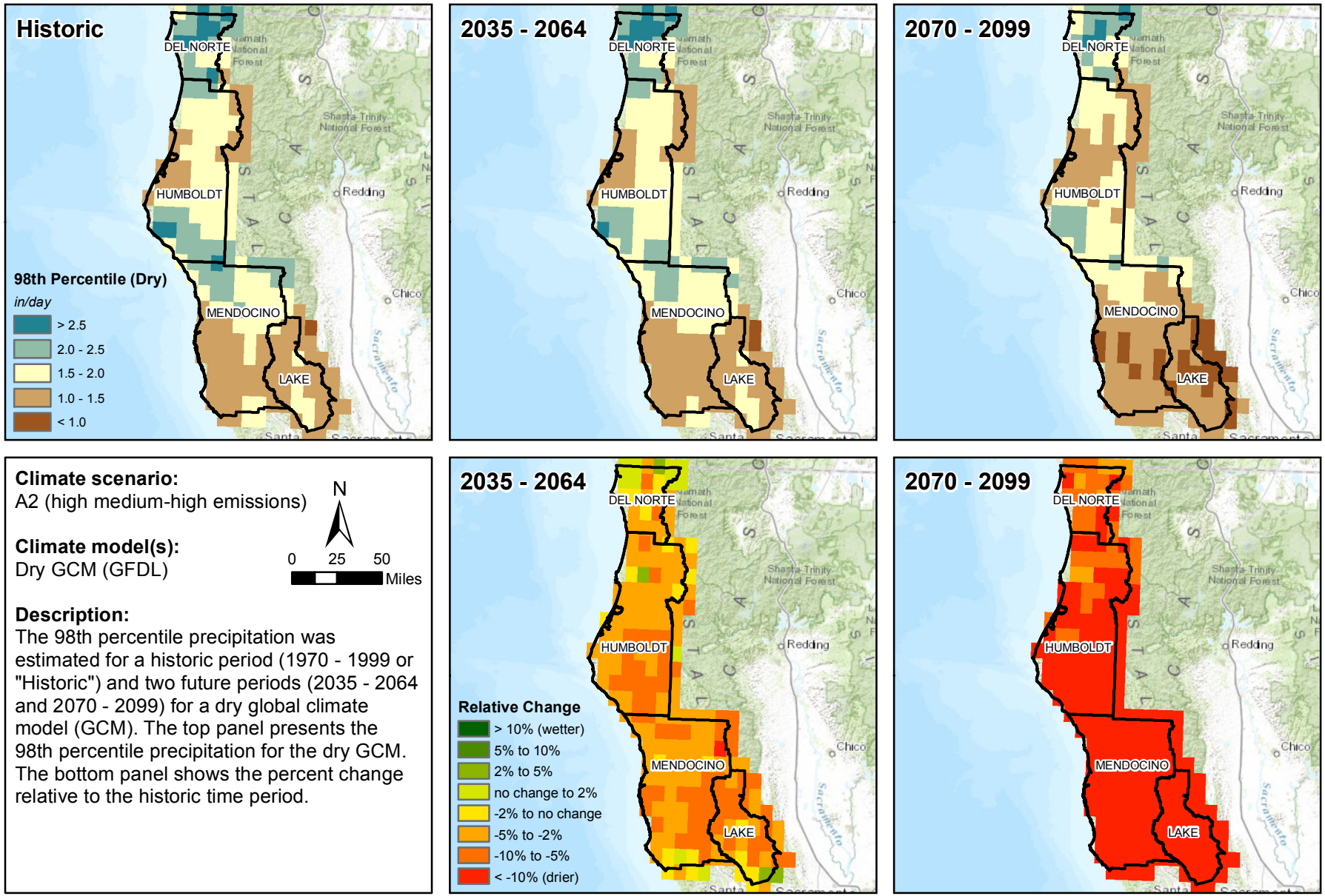


Climate scenario:
A2 (high medium-high emissions)

Climate model(s):
Dry GCM (GFDL)

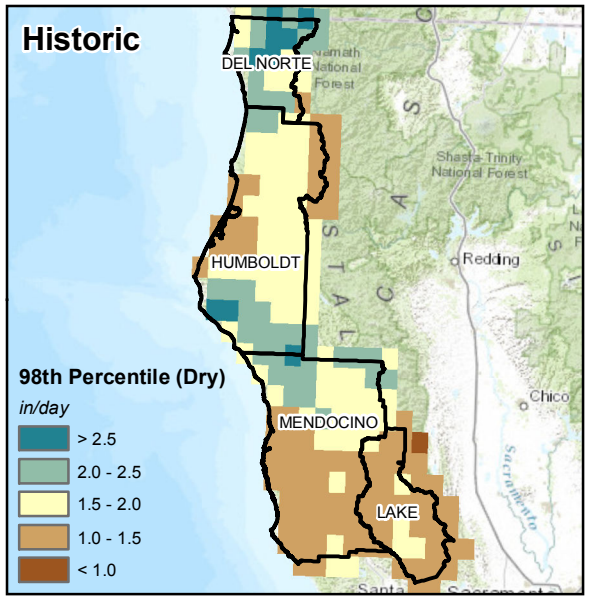
Description:
The 98th percentile precipitation was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a dry global climate model (GCM). The top panel presents the 98th percentile precipitation for the dry GCM. The bottom panel shows the percent change relative to the historic time period.

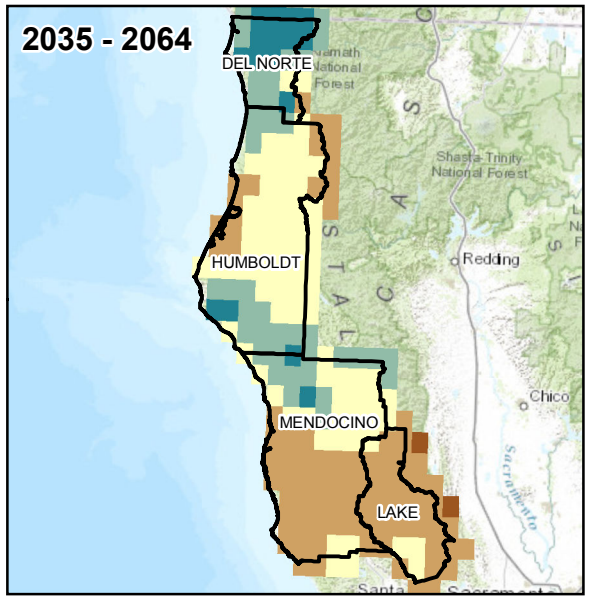
G:\130588_HCAOG-ClimateChange\MXDs\Figures\Precip_98Percentile_11Jun2014.mxd

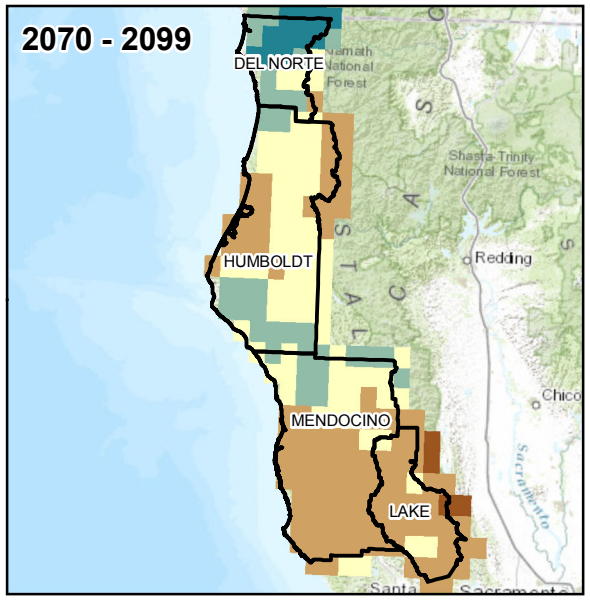
SOURCE: Cal Adapt, 2014

Figure 11

98th Percentile Precipitation: Average Values and Relative Change for Scenario A2, Dry Model

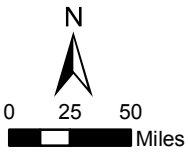




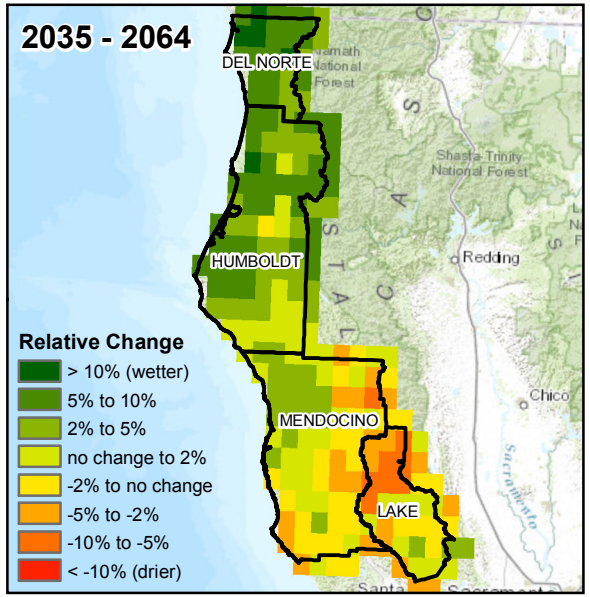


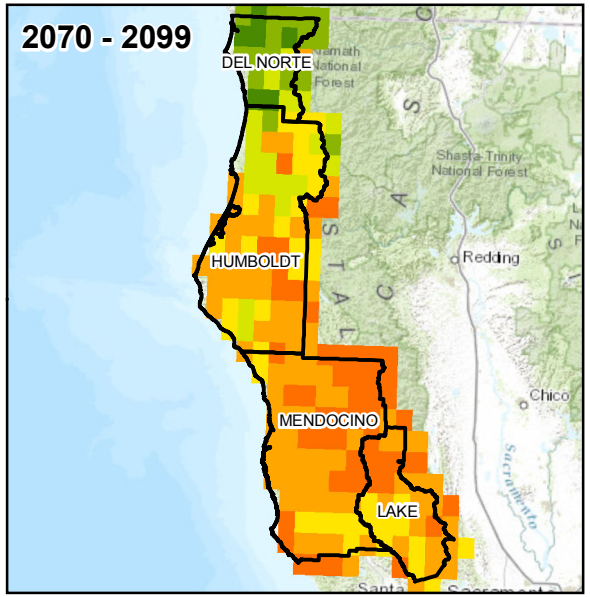
Climate scenario:
B1 (low emissions)

Climate model(s):
Dry GCM (GFDL)



Description:
The 98th percentile precipitation was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a dry global climate model (GCM). The top panel presents the 98th percentile precipitation for the dry GCM. The bottom panel shows the percent change relative to the historic time period.



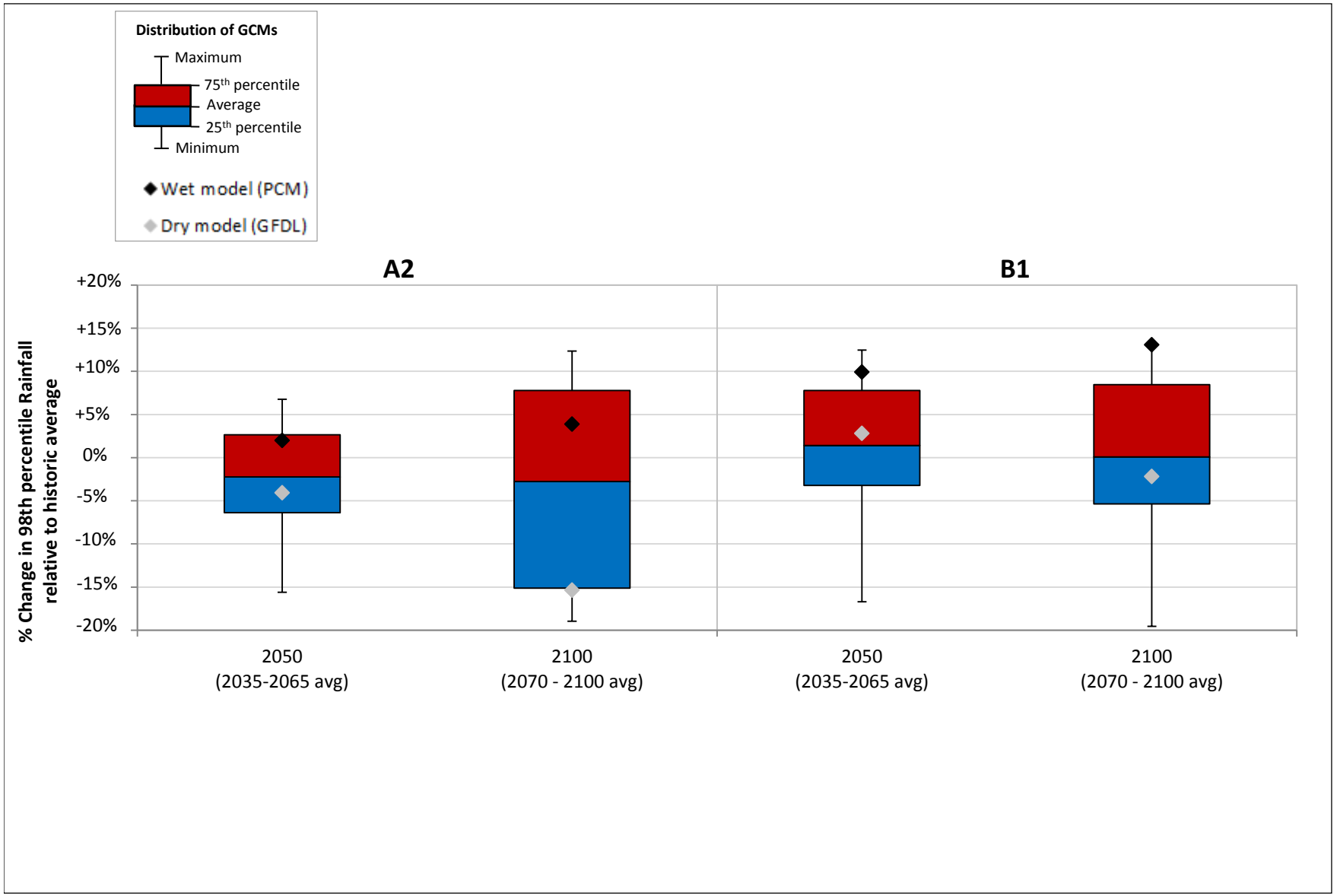


G:\130588_HCAOG-ClimateChange\MXDs\Figures\Precip_98Percentile_11Jun2014.mxd

SOURCE: Cal Adapt, 2014

Figure 12

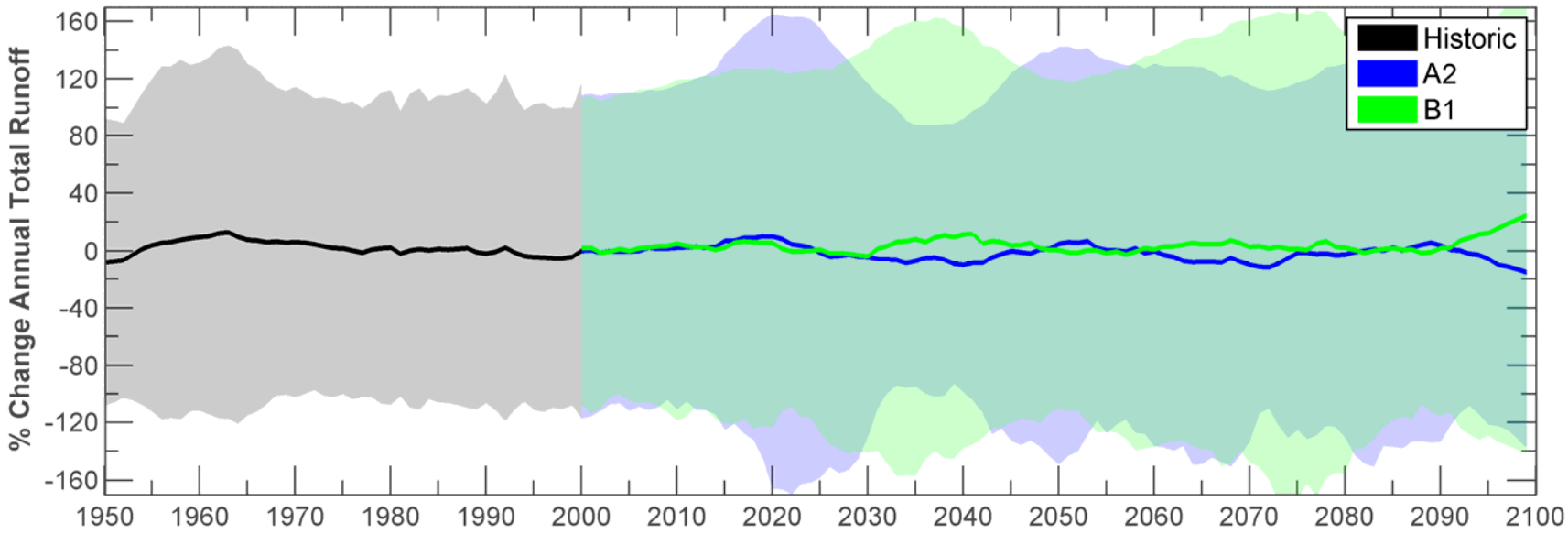
98th Percentile Precipitation: Average Values and Relative Change for Scenario B1, Dry Model



SOURCE: WCRP CMIP3 downscaled data

Figure 13

Change in Extreme Precipitation Over Time for Multiple GCMs - District 1 Average

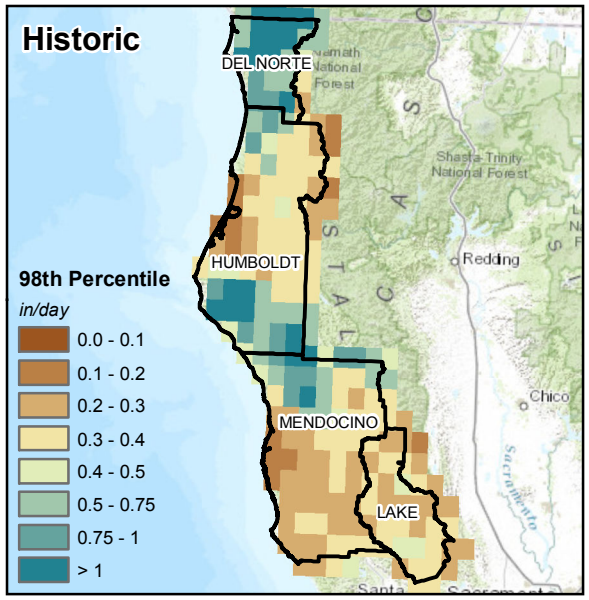


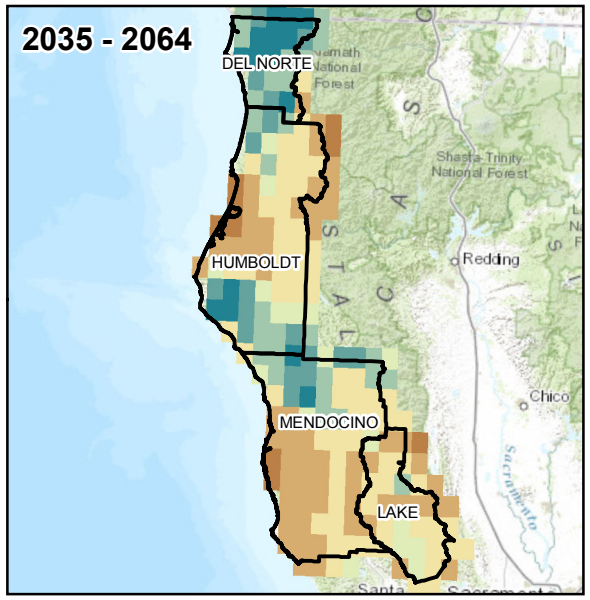
SOURCE: CMIP3

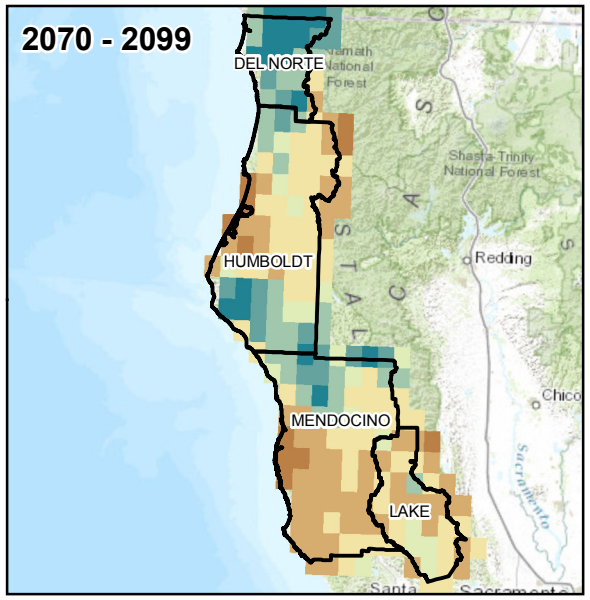
NOTES: 10-year moving average; spatially averaged over District 1;
solid lines are ensemble average;
shading represents range of individual GCMs

Figure 14

Percent Change in Total Annual Runoff from Historic Average for A2 and B1 Emissions Scenarios







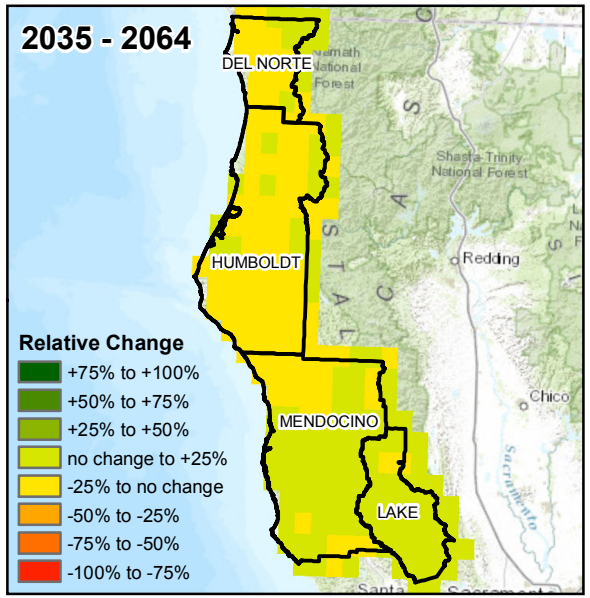
Climate scenario:
A2 (high medium-high emissions)

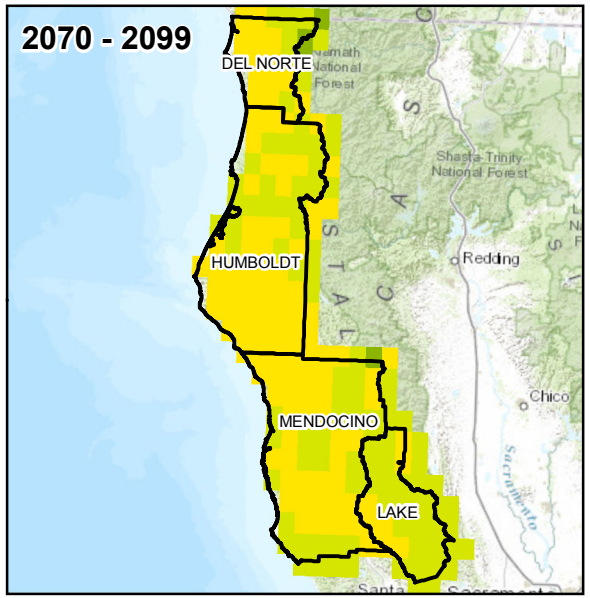
Climate model(s):
Average of all GCMs

N

0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for each global climate model (GCM). The top panel presents the 98th percentile runoff averaged for all GCMs. The bottom panel shows the percent change relative to the historic time period.



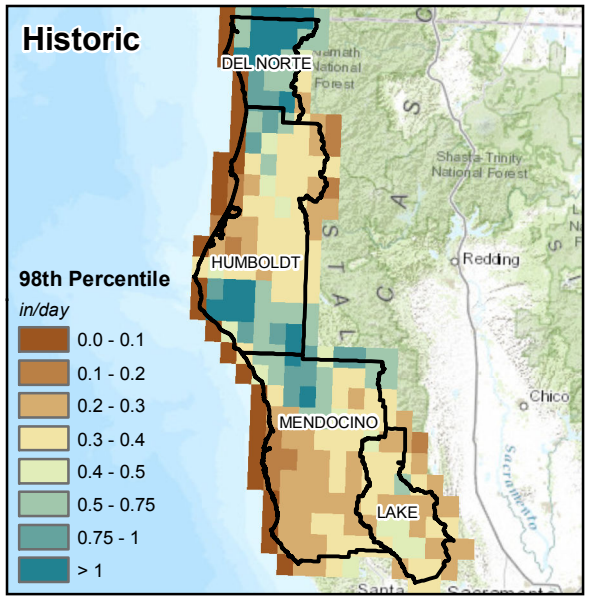


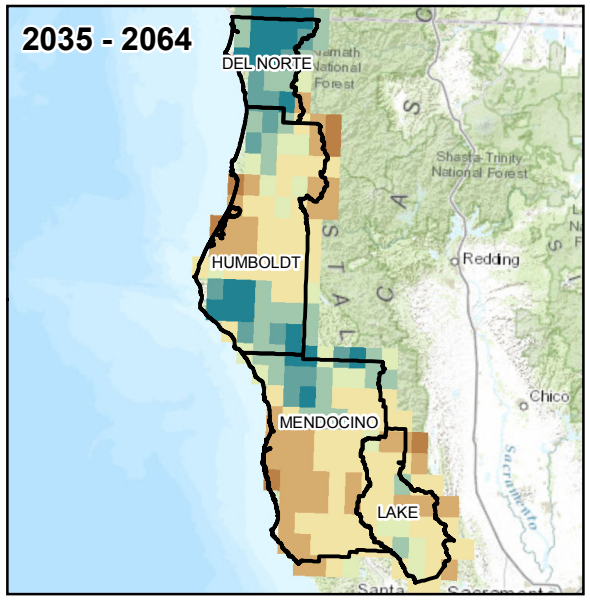
S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

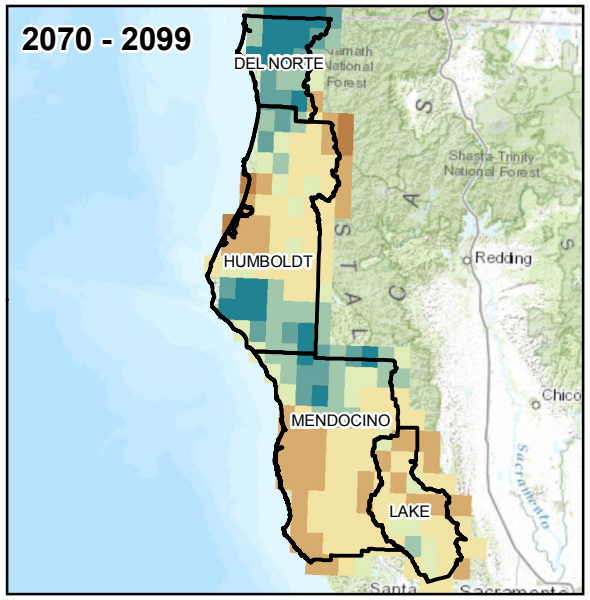
SOURCE: Cal Adapt, 2014

Figure 15

98th Percentile Runoff: Average Values and Relative Change for Scenario A2, All Models





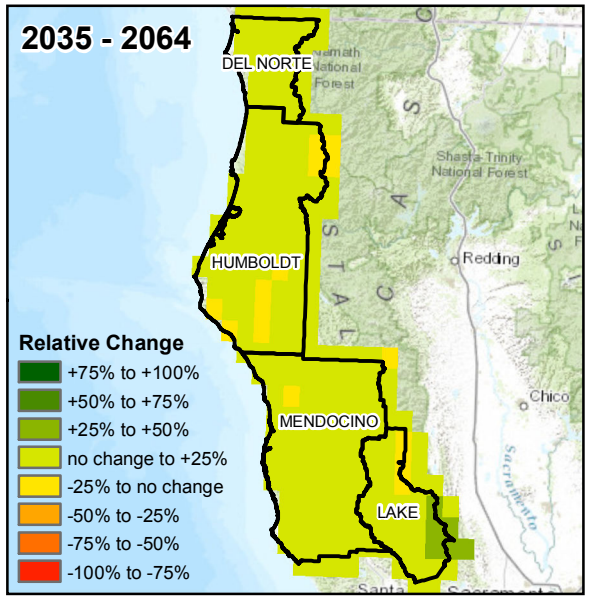


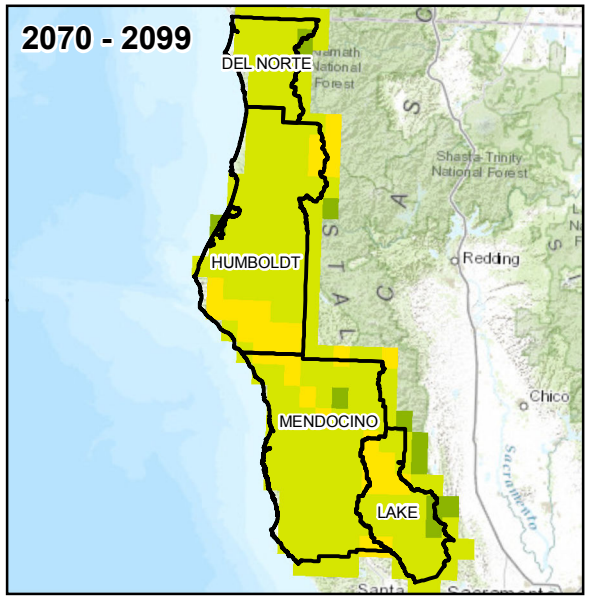
Climate scenario:
B1 (low emissions)

Climate model(s):
Average of all GCMs

N
0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for each global climate model (GCM). The top panel presents the 98th percentile runoff averaged for all GCMs. The bottom panel shows the percent change relative to the historic time period.



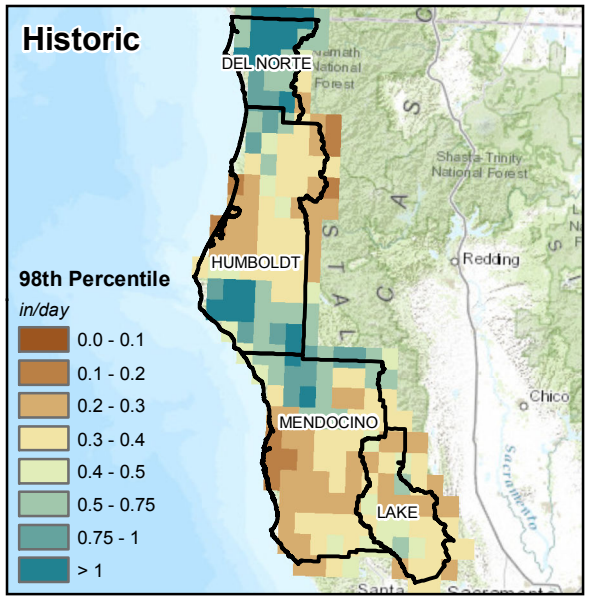


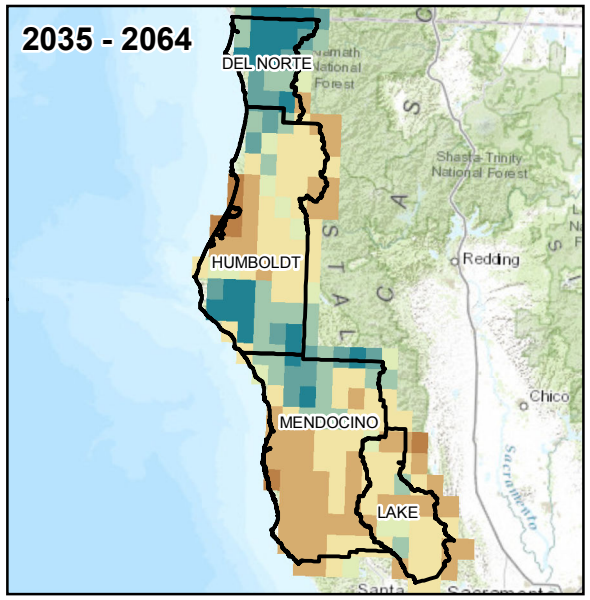
S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

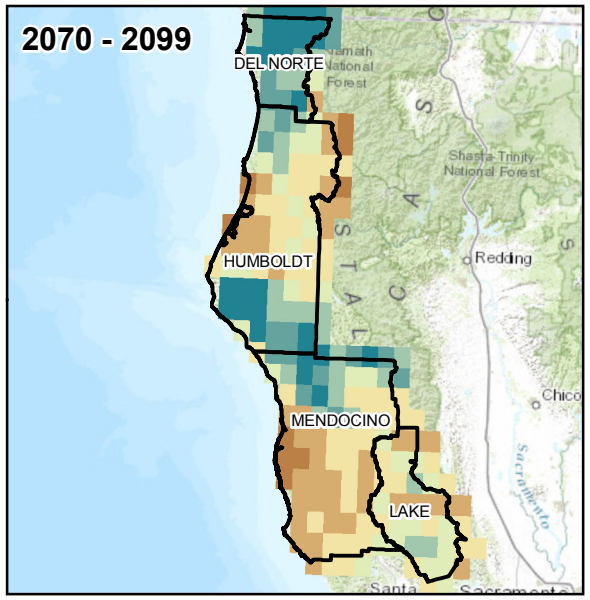
SOURCE: Cal Adapt, 2014

Figure 16

98th Percentile Runoff: Average Values and Relative Change for Scenario B1, All Models







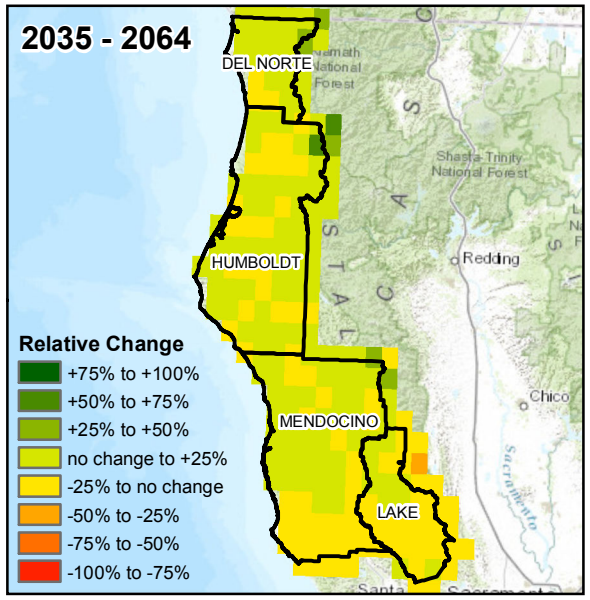
Climate scenario:
A2 (high medium-high emissions)

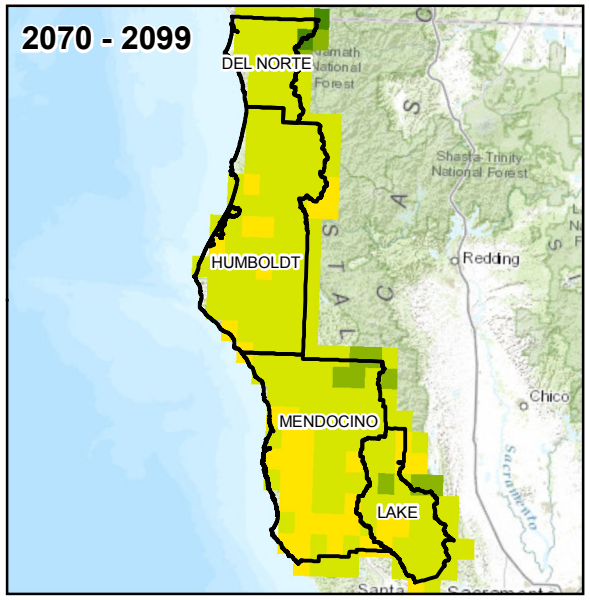
Climate model(s):
Wet GCM (PCM)

N

0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a wet global climate model (GCM). The top panel presents the 98th percentile runoff for the wet GCM. The bottom panel shows the percent change relative to the historic time period.



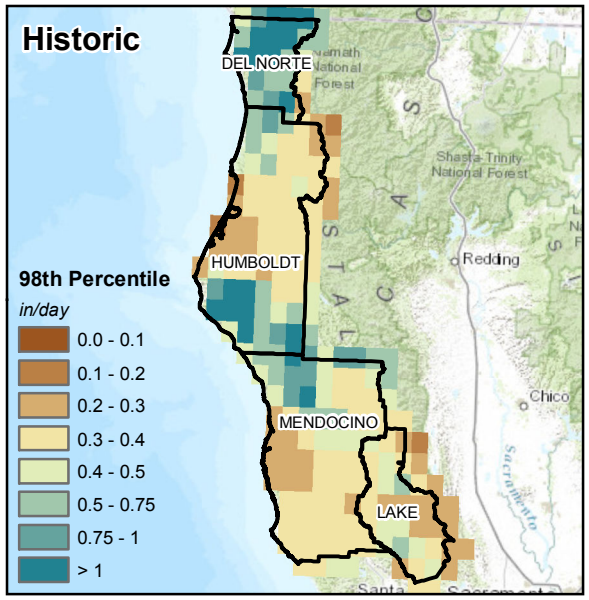


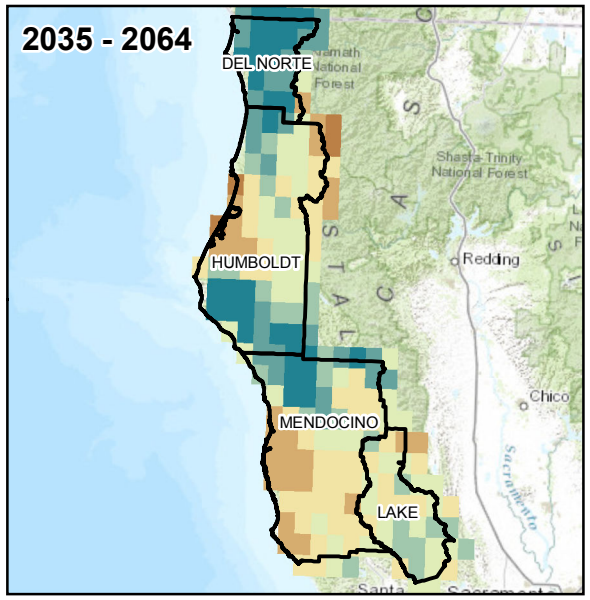
S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

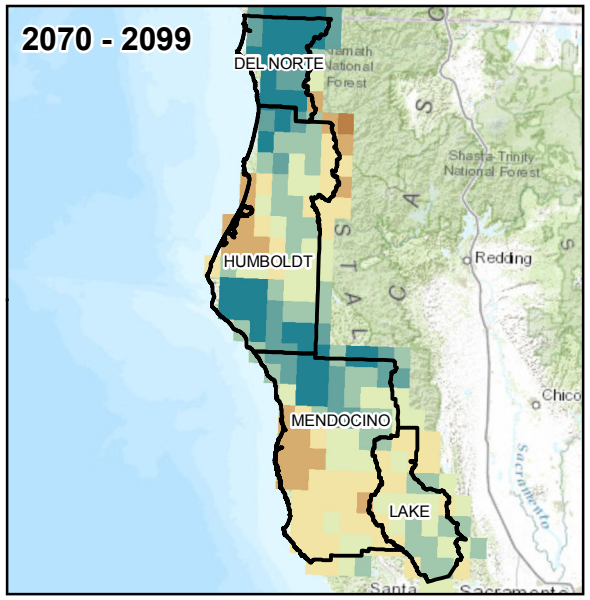
SOURCE: Cal Adapt, 2014

Figure 17

98th Percentile Runoff: Average Values and Relative Change for Scenario A2, Wet Model







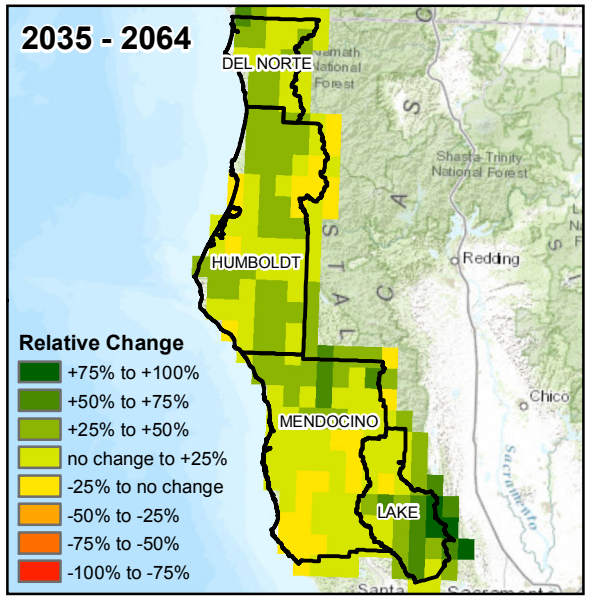
Climate scenario:
B1 (low emissions)

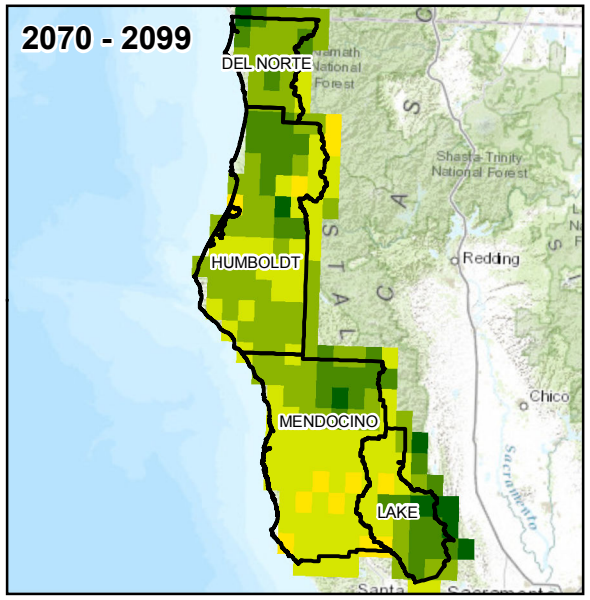
Climate model(s):
Wet GCM (PCM)

N

0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a wet global climate model (GCM). The top panel presents the 98th percentile runoff for the wet GCM. The bottom panel shows the percent change relative to the historic time period.



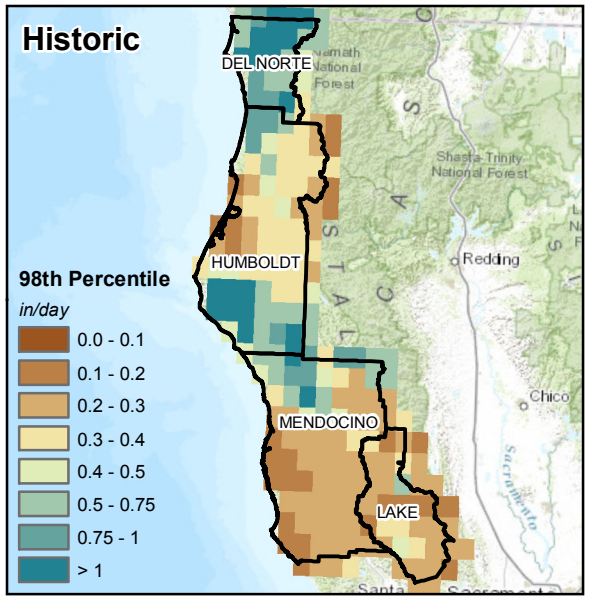


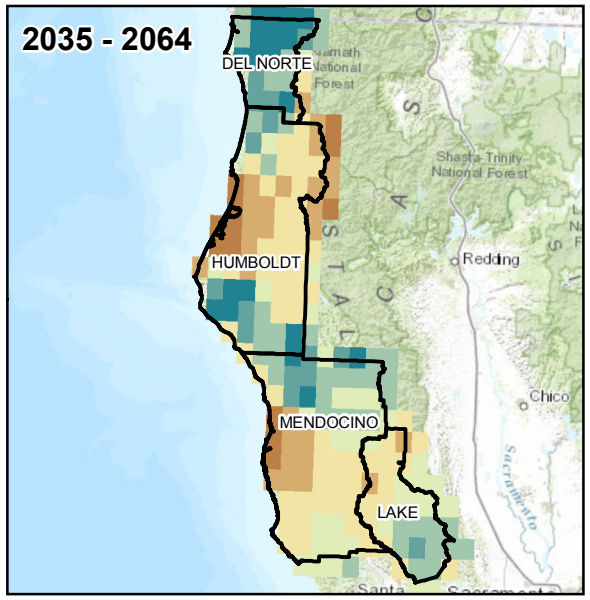
S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

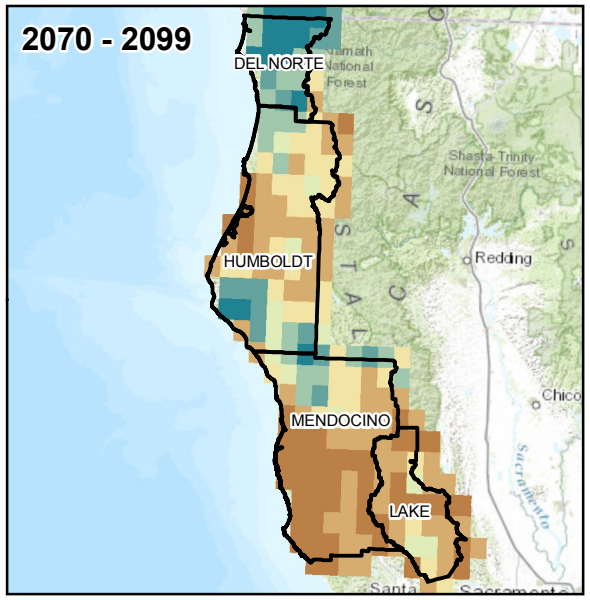
SOURCE: Cal Adapt, 2014

Figure 18

98th Percentile Runoff: Average Values and Relative Change for Scenario B1, Wet Model







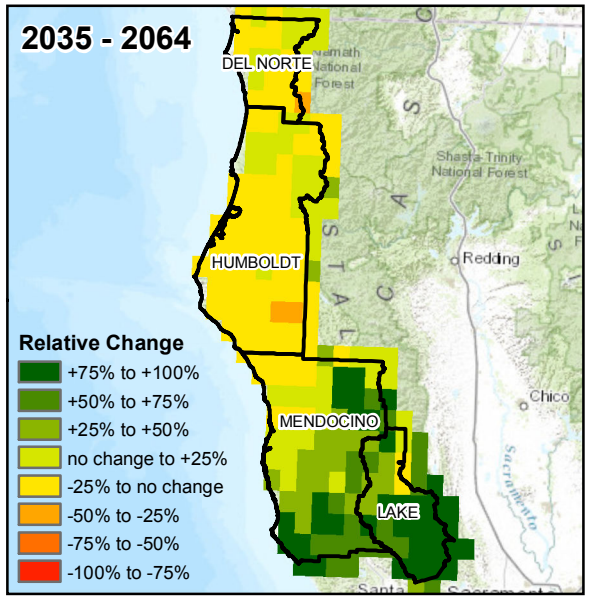
Climate scenario:
A2 (high medium-high emissions)

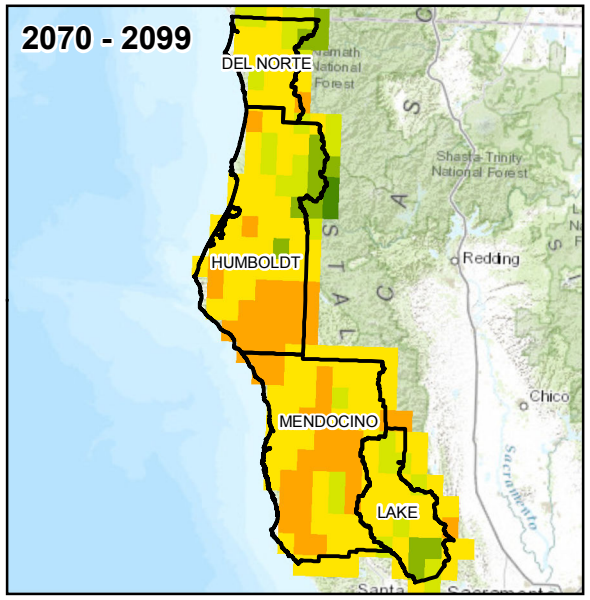
Climate model(s):
Dry GCM (GFDL)

N

0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a dry global climate model (GCM). The top panel presents the 98th percentile runoff for the dry GCM. The bottom panel shows the percent change relative to the historic time period.



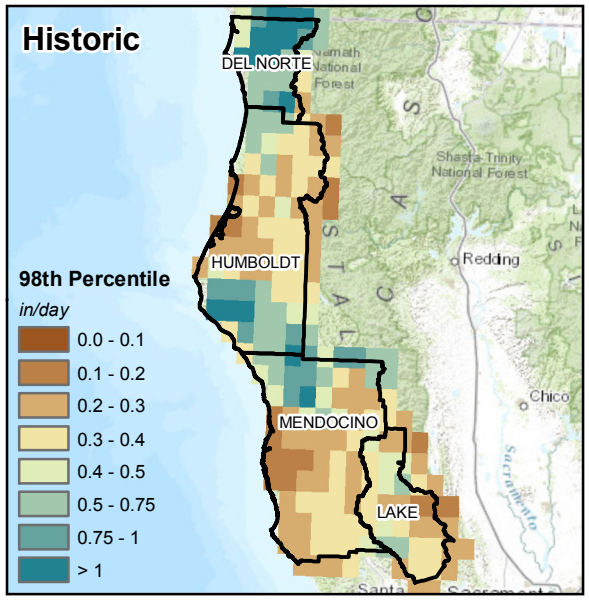


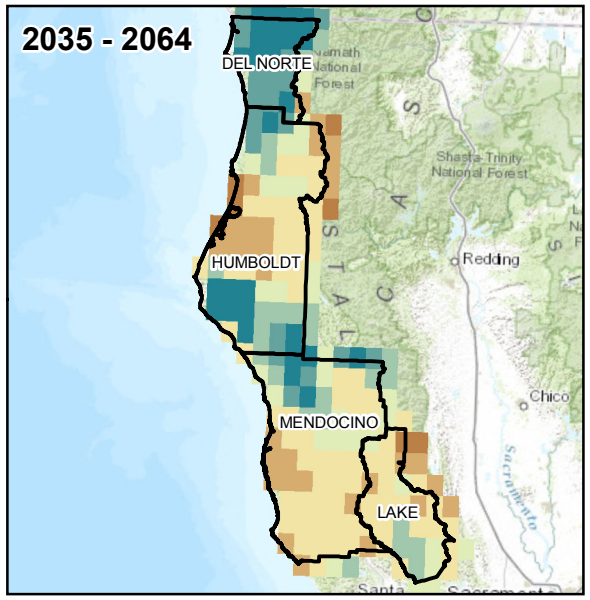
S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

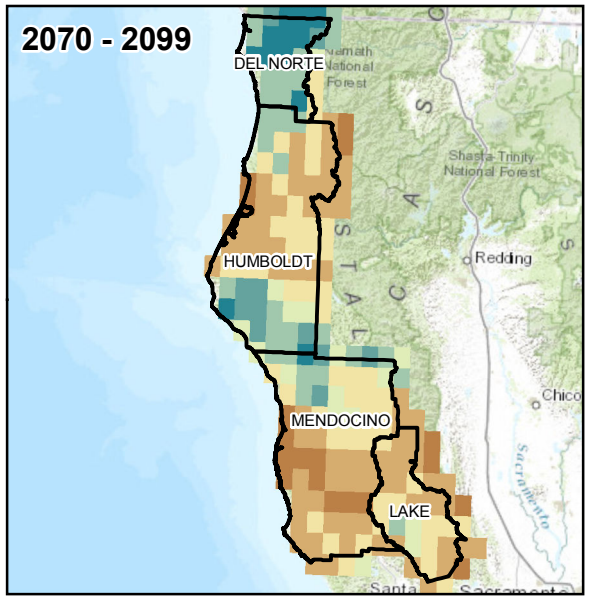
SOURCE: Cal Adapt, 2014

Figure 19

98th Percentile Runoff: Average Values and Relative Change for Scenario A2, Dry Model







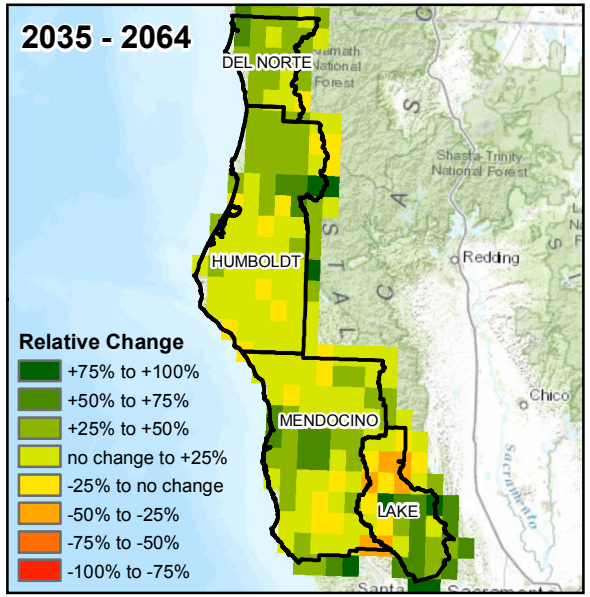
Climate scenario:
B1 (low emissions)

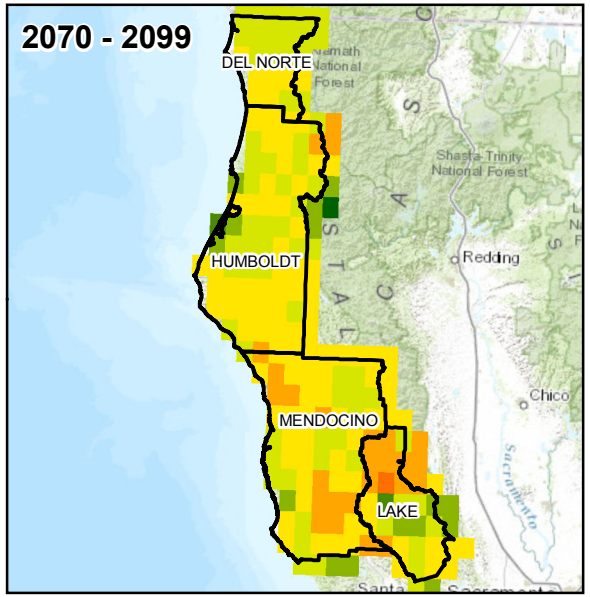
Climate model(s):
Dry GCM (GFDL)

N

0 25 50
Miles

Description:
The 98th percentile runoff was estimated for a historic period (1970 - 1999 or "Historic") and two future periods (2035 - 2064 and 2070 - 2099) for a dry global climate model (GCM). The top panel presents the 98th percentile runoff for the dry GCM. The bottom panel shows the percent change relative to the historic time period.



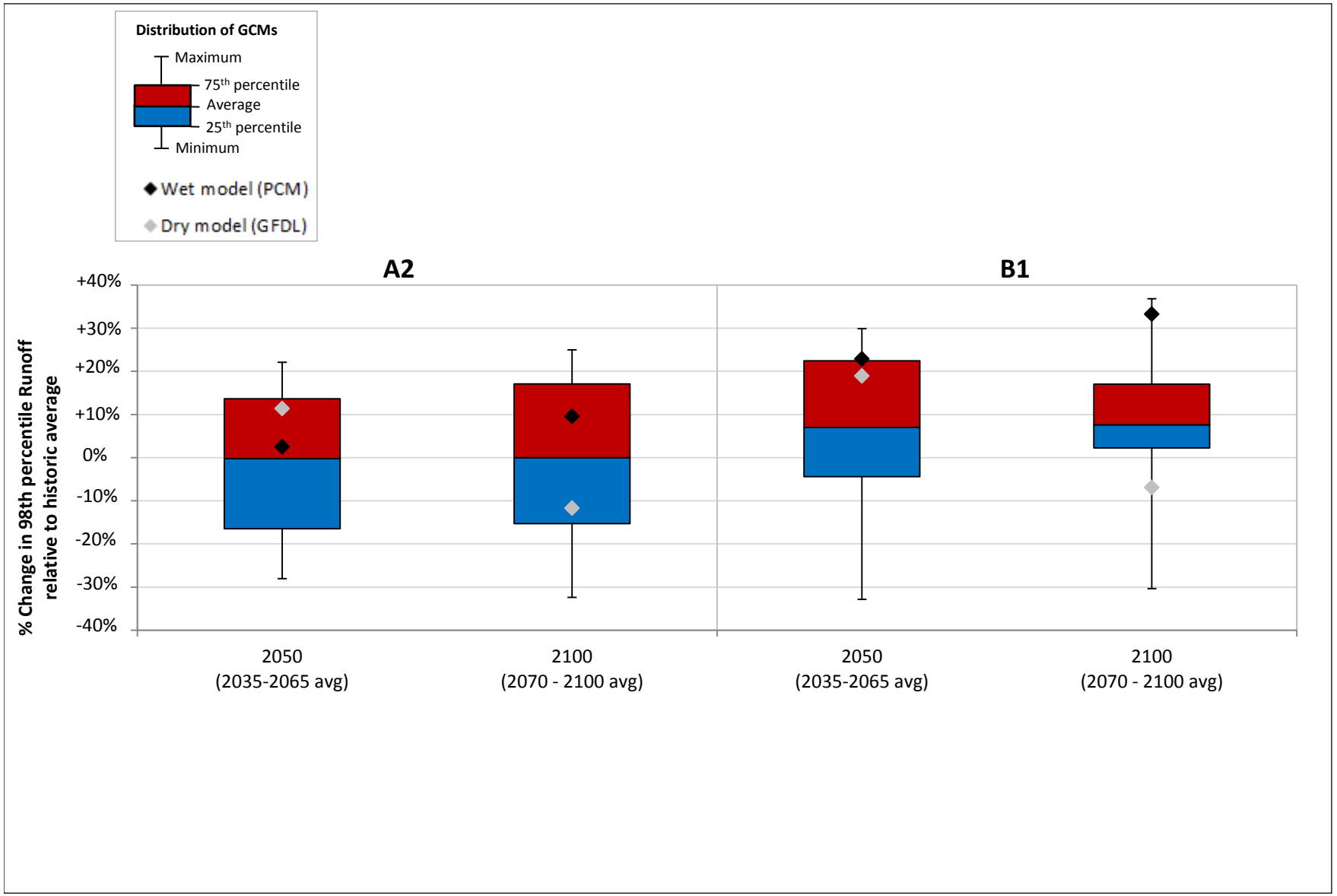


S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Runoff_98Percentile_16Jun2014.mxd

SOURCE: Cal Adapt, 2014

Figure 20

98th Percentile Runoff: Average Values and Relative Change for Scenario B1, Dry Model



SOURCE: WCRP CMIP3 downscaled data

Figure 21

Change in Extreme Runoff Over Time for Multiple GCMs - District 1 Average

Climate scenario:
top panel: A2 (high medium-high emissions)
bottom panel: B1 (low emissions)

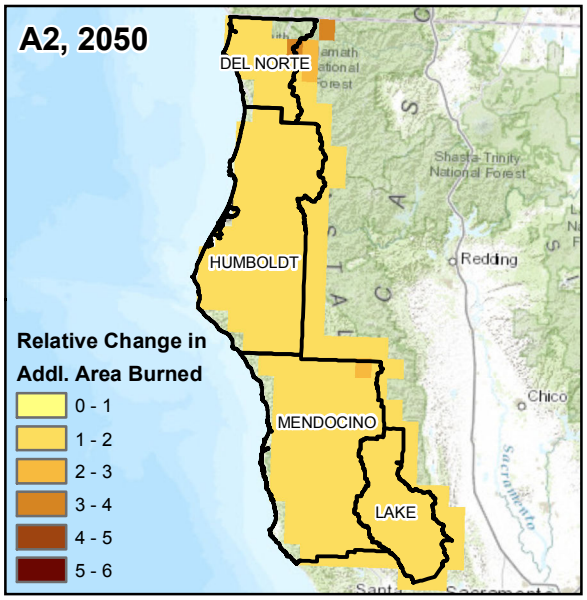
Climate model(s):
Average of three models

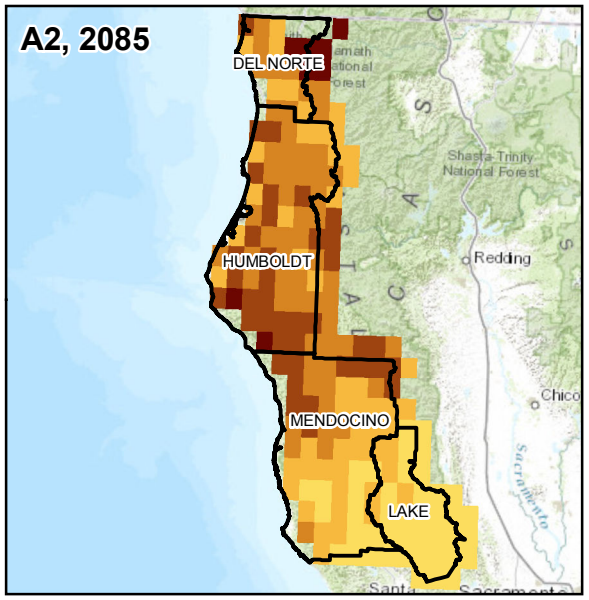
Description:
These maps show the relative change in burned area compared to existing fire risk, based on the average of three global climate model (GCM) projections.

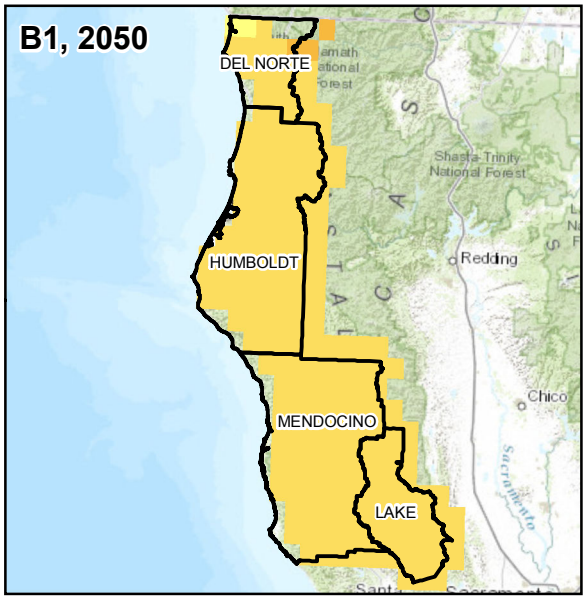
N

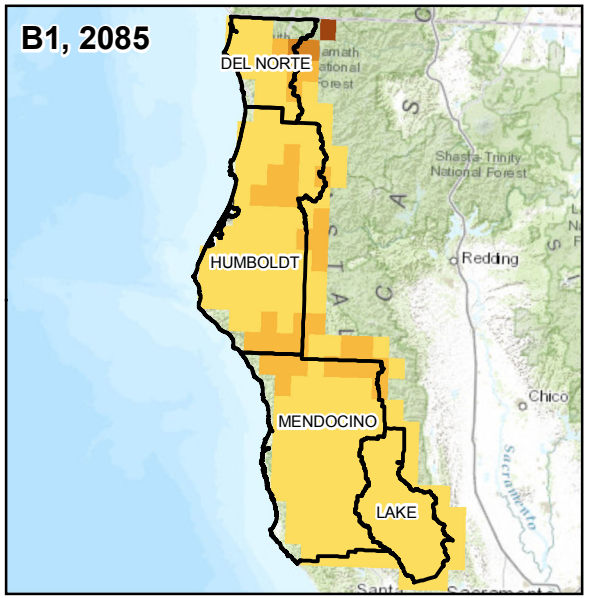
0 25 50 Miles

Note:
Fire risk data was downloaded from the CalAdapt website (http://cal-adapt.org/fire/). Only relative change (i.e. 3-fold increase in burned area) was available for download. These results were modeled solely on climate projections and do not take landscape and fuel sorces into account.





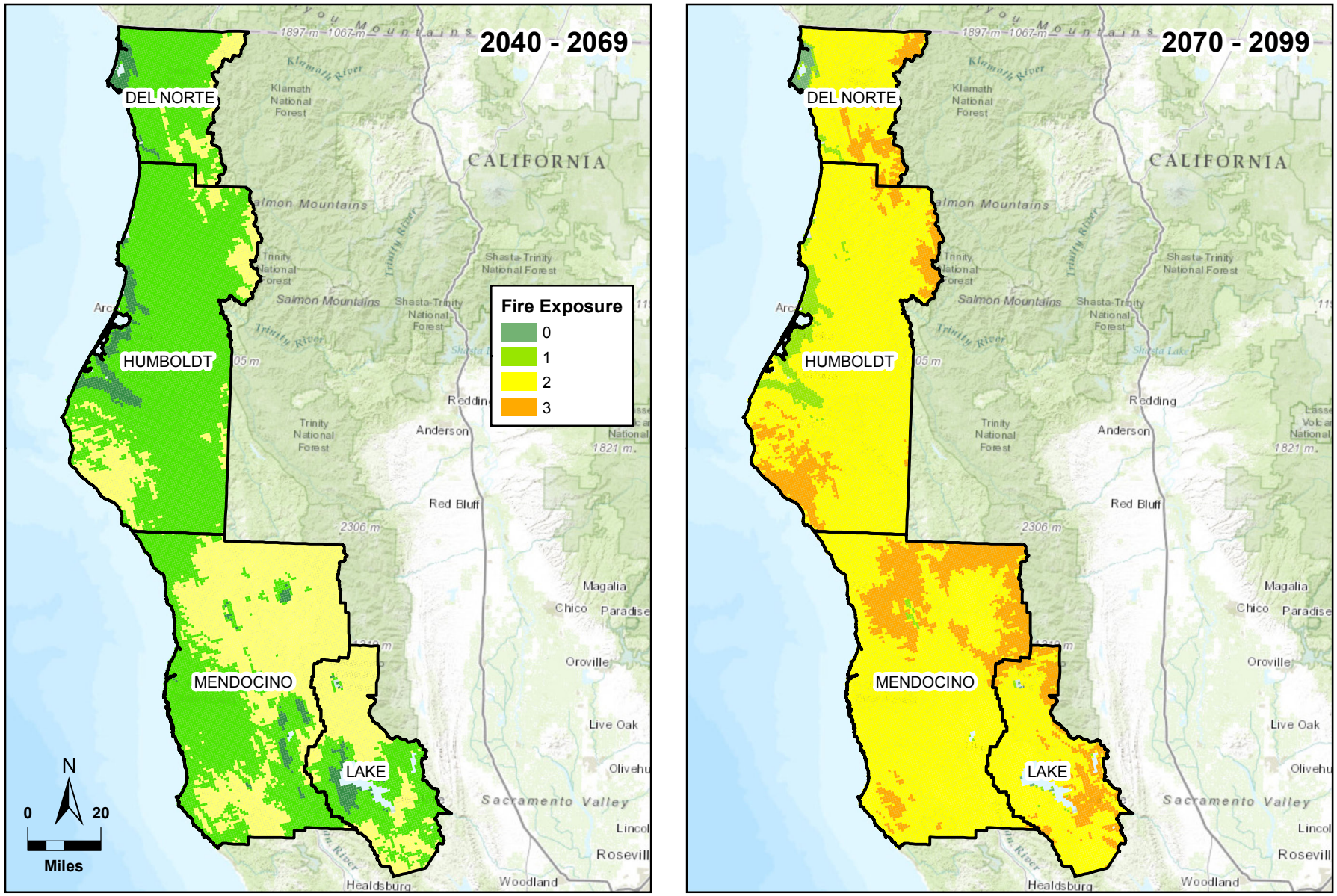




S:\GIS\130588_HCAOG-ClimateChange\MXDs\Figures\Fire Risk_16Jun2014.mxd

SOURCE: Cal Adapt, 2014

Figure 22
Fire Risk: Increase in Area Burned

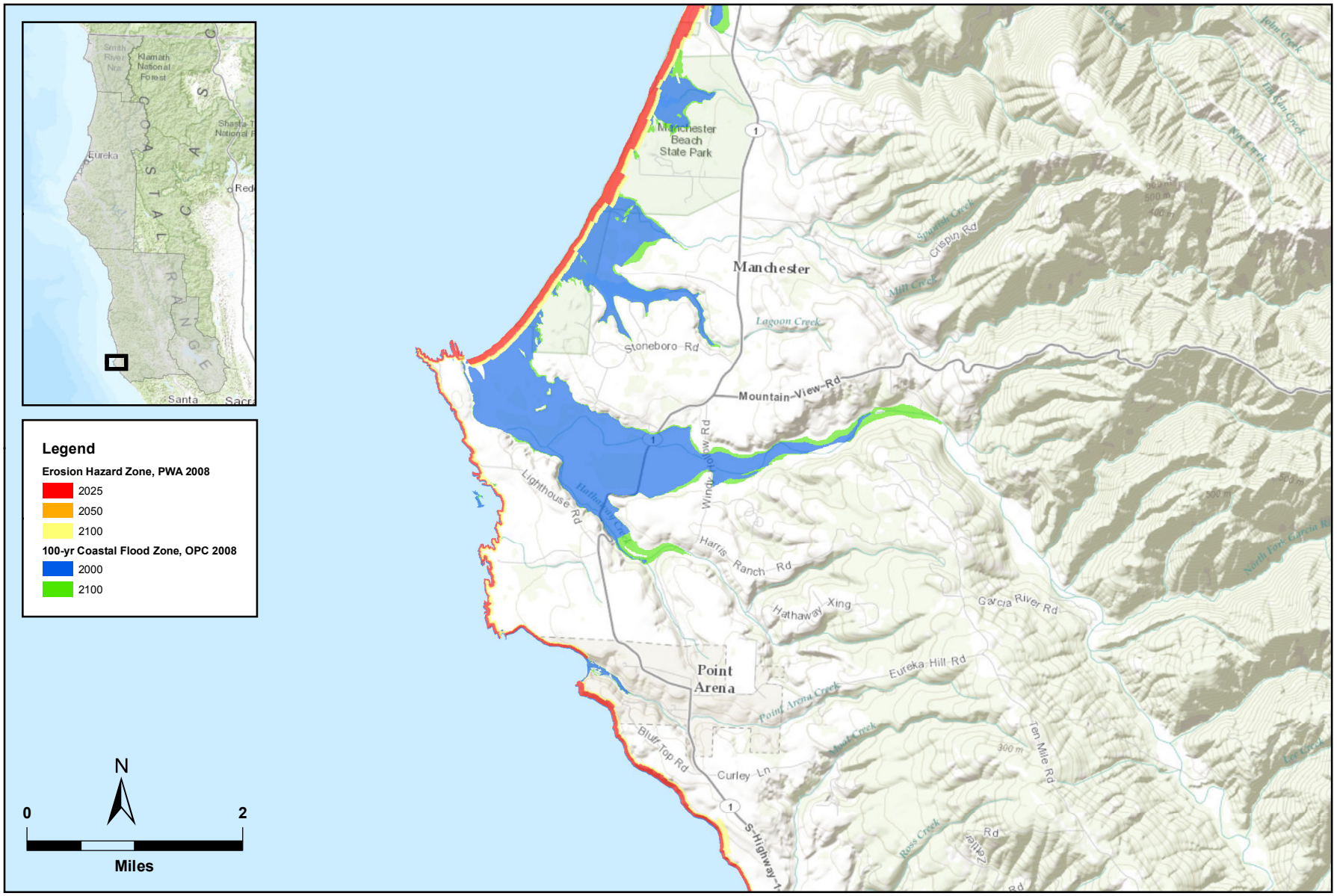


G:\130588_HCAOG-ClimateChange\MXDs\Figures\Fire Exposure_23May2014.mxd

SOURCE: DWR 2014

Figure 23

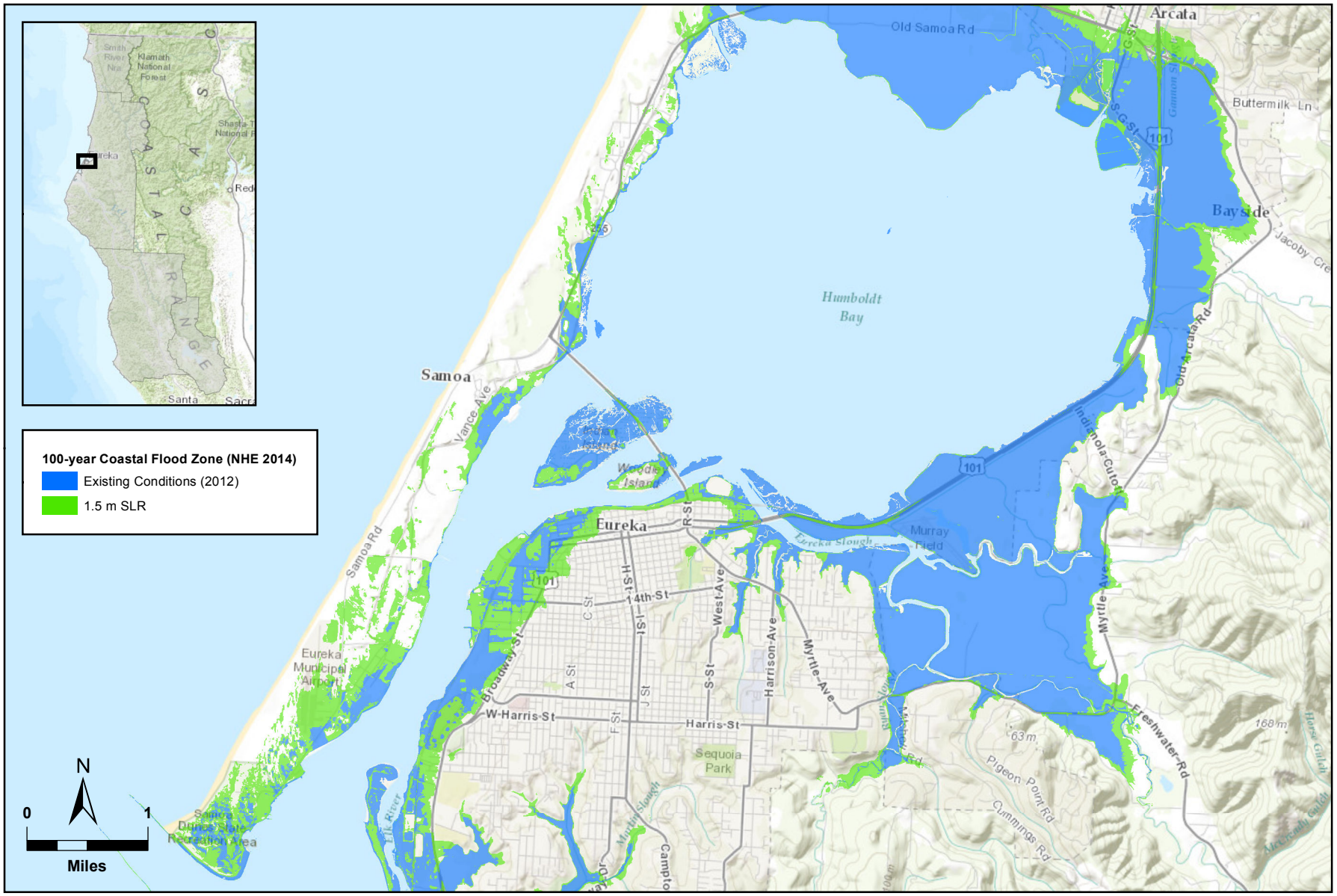
Fire Exposure Level (DWR 2014)



SOURCE: PWA 2008 and Pacific Institute 2009

Figure 24

Example of Coastal Hazard Zones at Point Arena



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SOURCE: NHE 2014. Flood zones also available for 0.5m, 1.0m, 1.5m, and 2.0m of sea level rise for MHHW, the 10-yr storm, and the 100-yr storm

Figure 25

Example of Coastal Flood Zones in Humboldt Bay (NHE 2014)