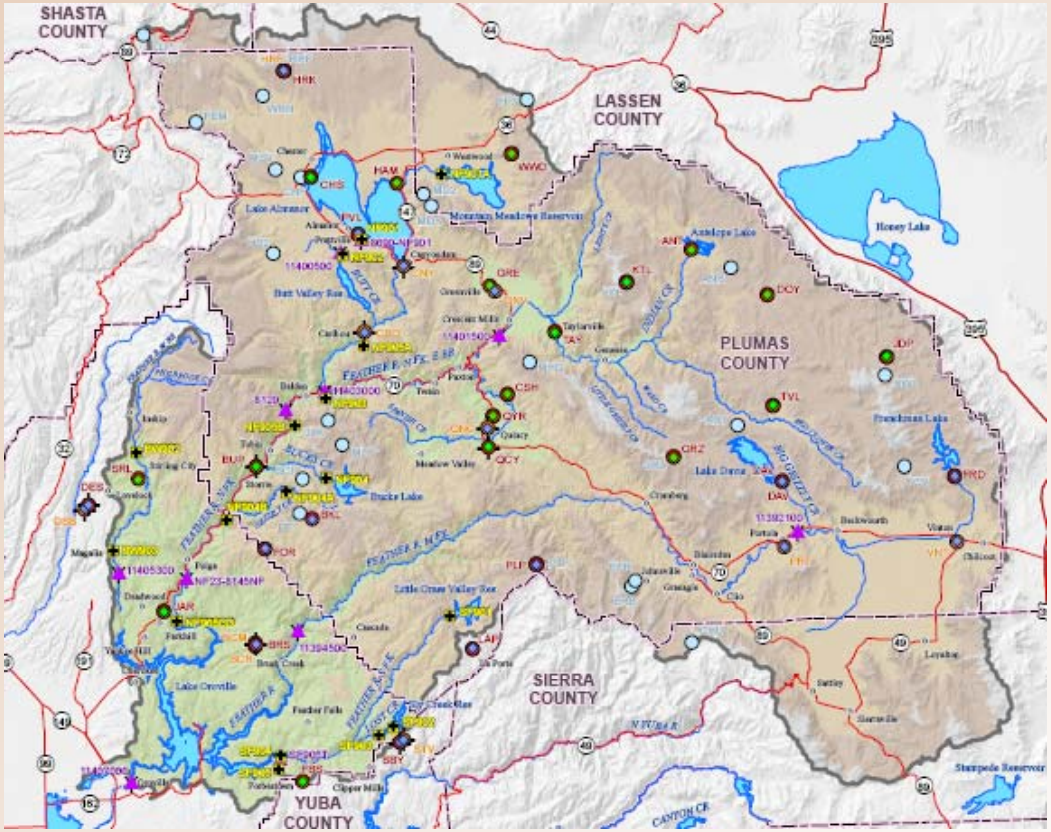
PRMS Feather River Model Developments Status 10/14/10



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What's been done with the model?

- 20 day Snowmelt Forecast Procedure has been developed similar to NOAA/CNRFC.
- The 2010 20 day CNRFC Forecasts have been compared to Feather PRISM 20 day forecasts
- 2010 AJ Forecasts with Feather PRMS
- Lake Davis & Frenchman Lake Model developments

20 Day Snowmelt Forecast Procedure

- 5 days of forecasted data to determine expected RO
  - NOAA temperature forecasts (QTF)
  - CNRFC 6 day sub-basin precipitation forecasts (QPF)
  - 50% forecast developed with this simulation
- 15 day ESP forecast to determine expected RO
  - 90%, 50%, 10% Exceedence Forecasts developed with this simulation.

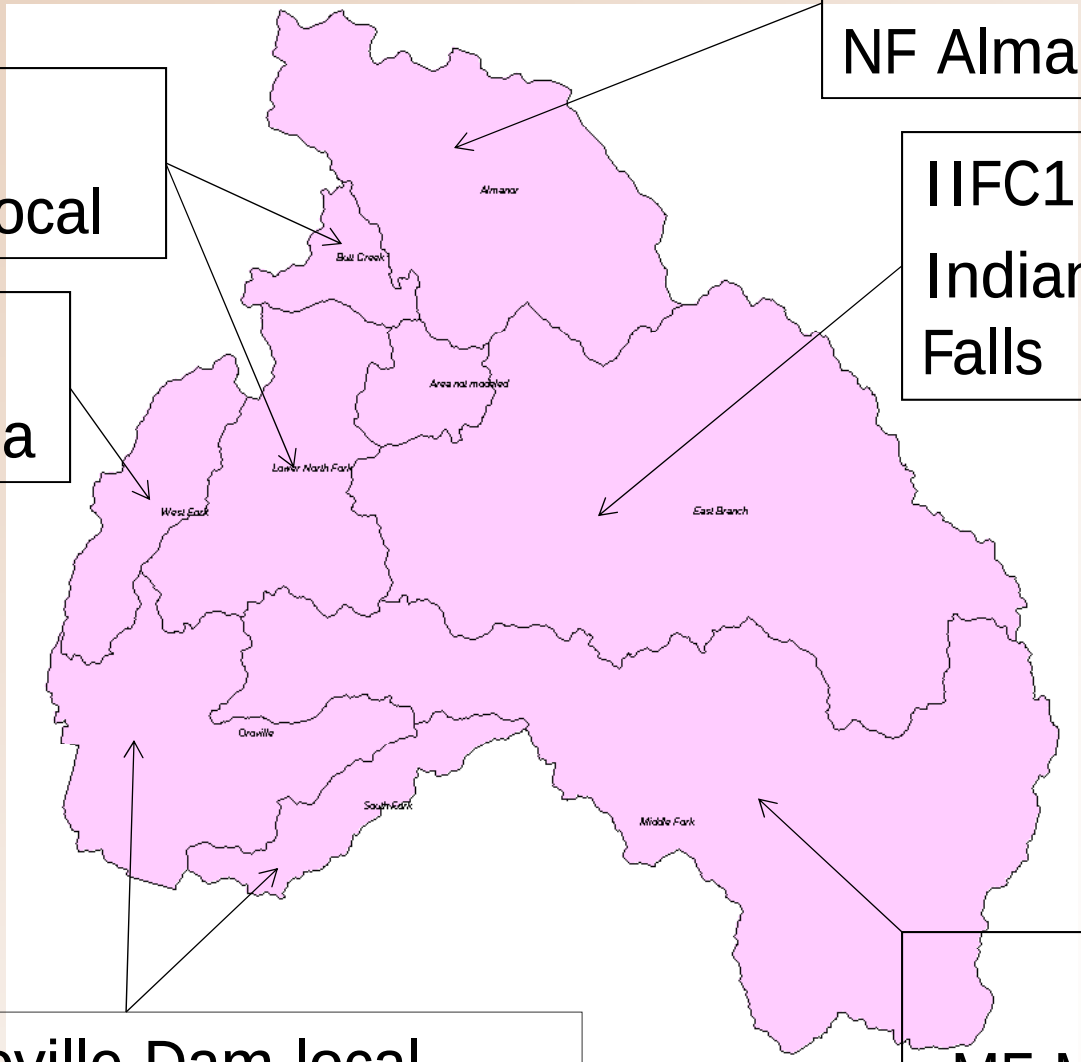
Forecasted Precipitation Data applied to basins

PLLC1
NF Almanor

PLGC1
Pulga local

IIFC1
Indian Creek-Indian Falls

WBGC1
WB Magalia



ORDC1 Oroville Dam local

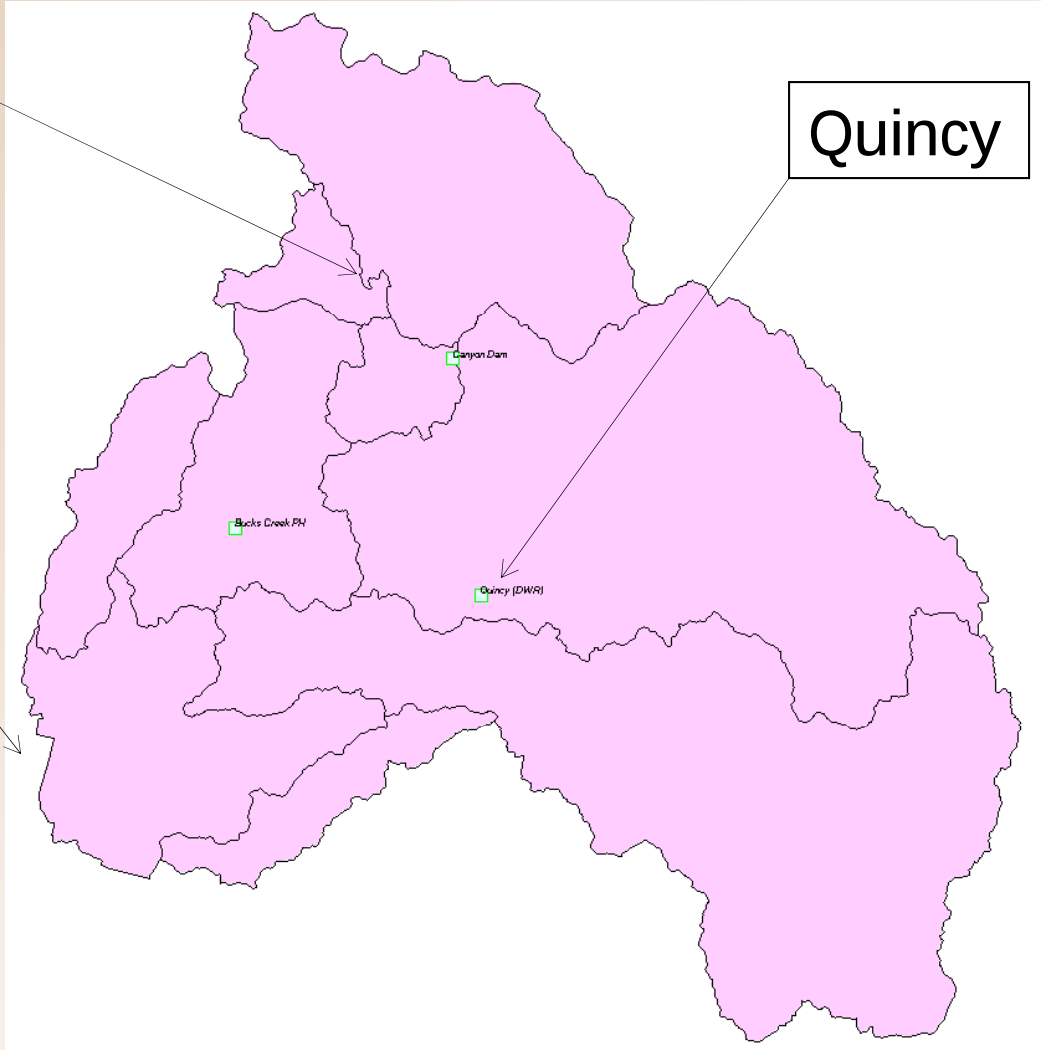
MRMC1L
MF Merrimac local

Forecasted Temperature Data

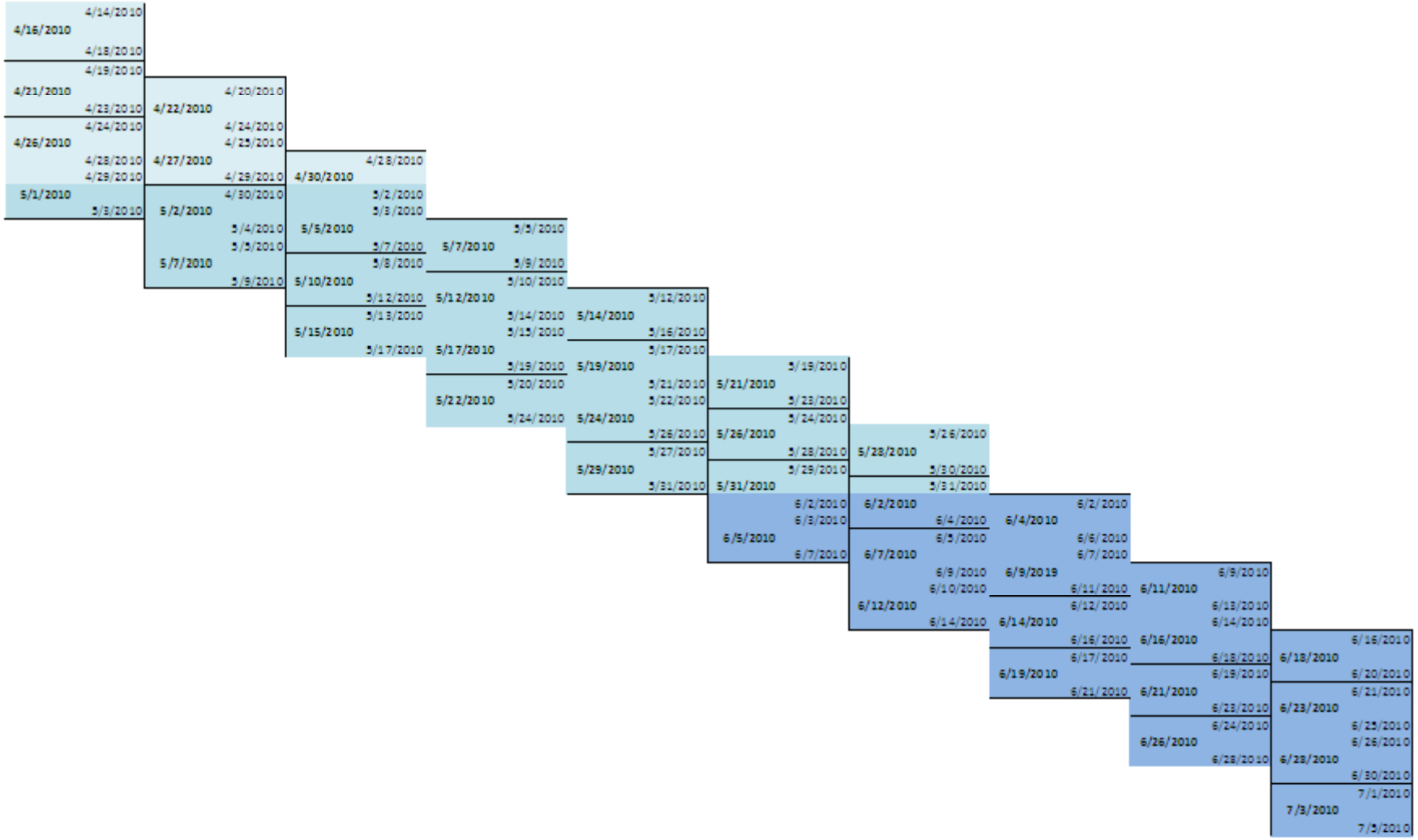
Chester

Quincy

Paradise

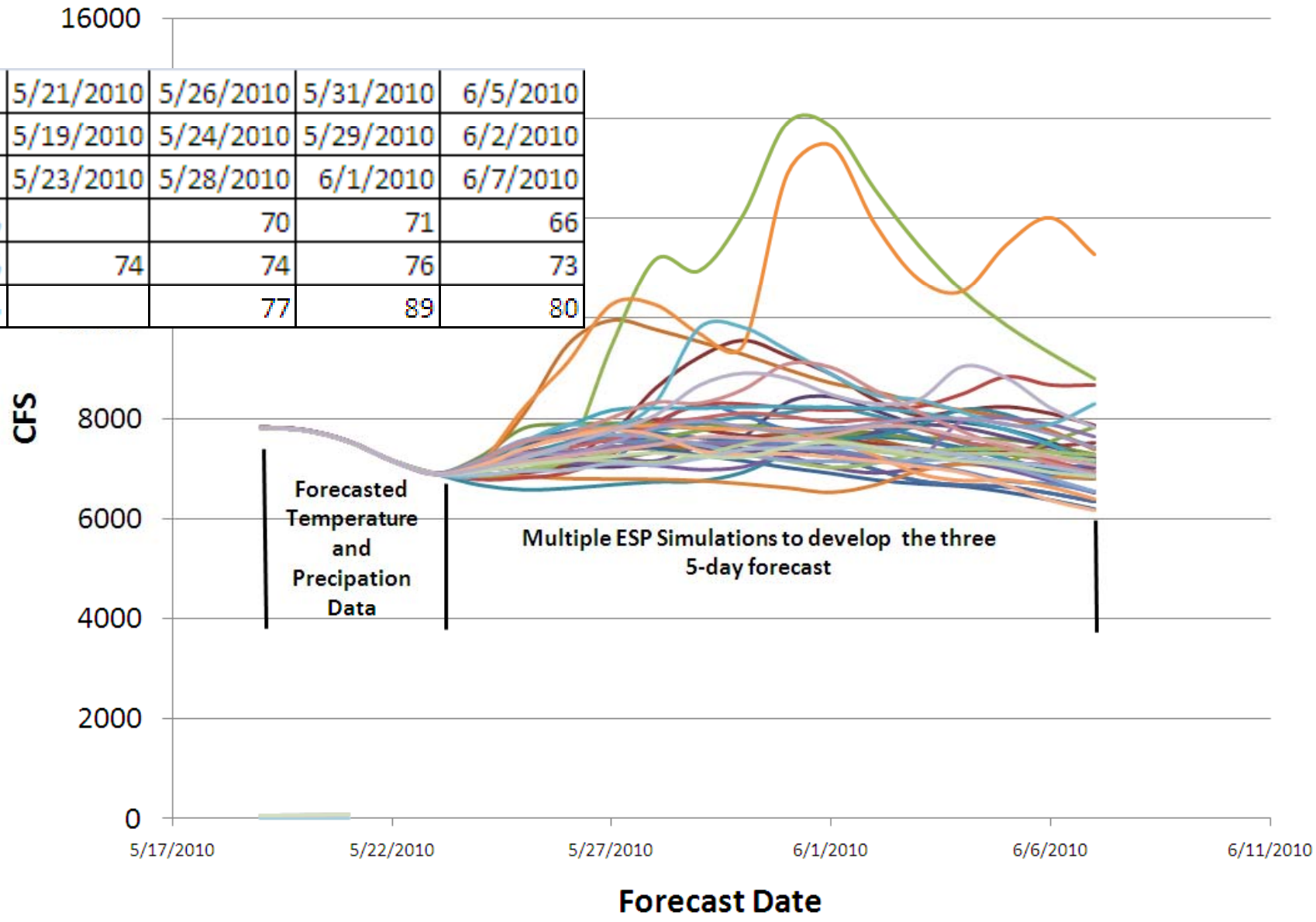


CNRFC 2010 20 day Snowmelt Forecasts
10 Weeks of Forecast

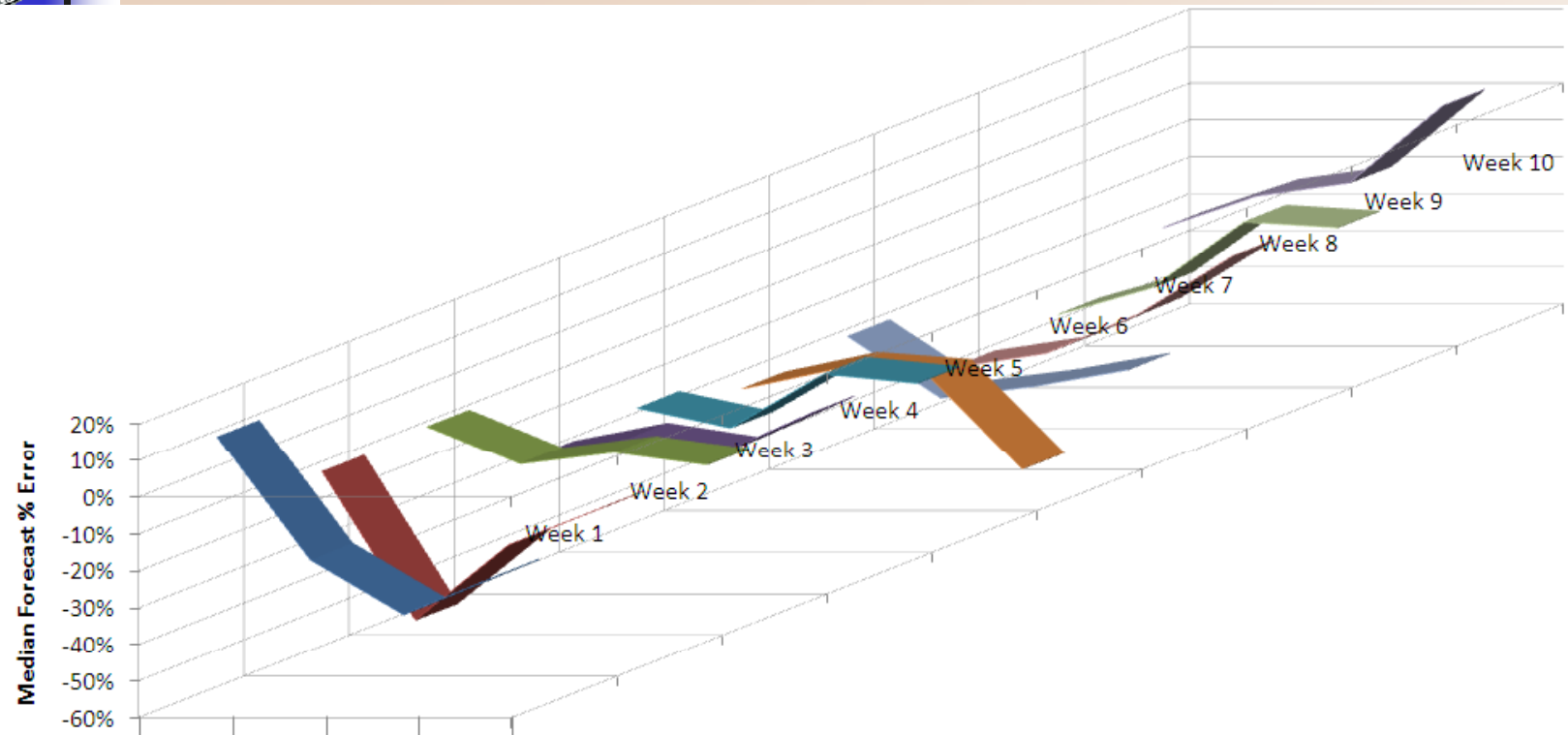


5/19/10-6/7/10 Feather PRMS 20 Day Snowmelt Forecast

F Date	5/21/2010	5/26/2010	5/31/2010	6/5/2010
From	5/19/2010	5/24/2010	5/29/2010	6/2/2010
To	5/23/2010	5/28/2010	6/1/2010	6/7/2010
90%		70	71	66
50%	74	74	76	73
10%		77	89	80



5/19/10-6/7 PRMS 20 Day Snowmelt Forecast



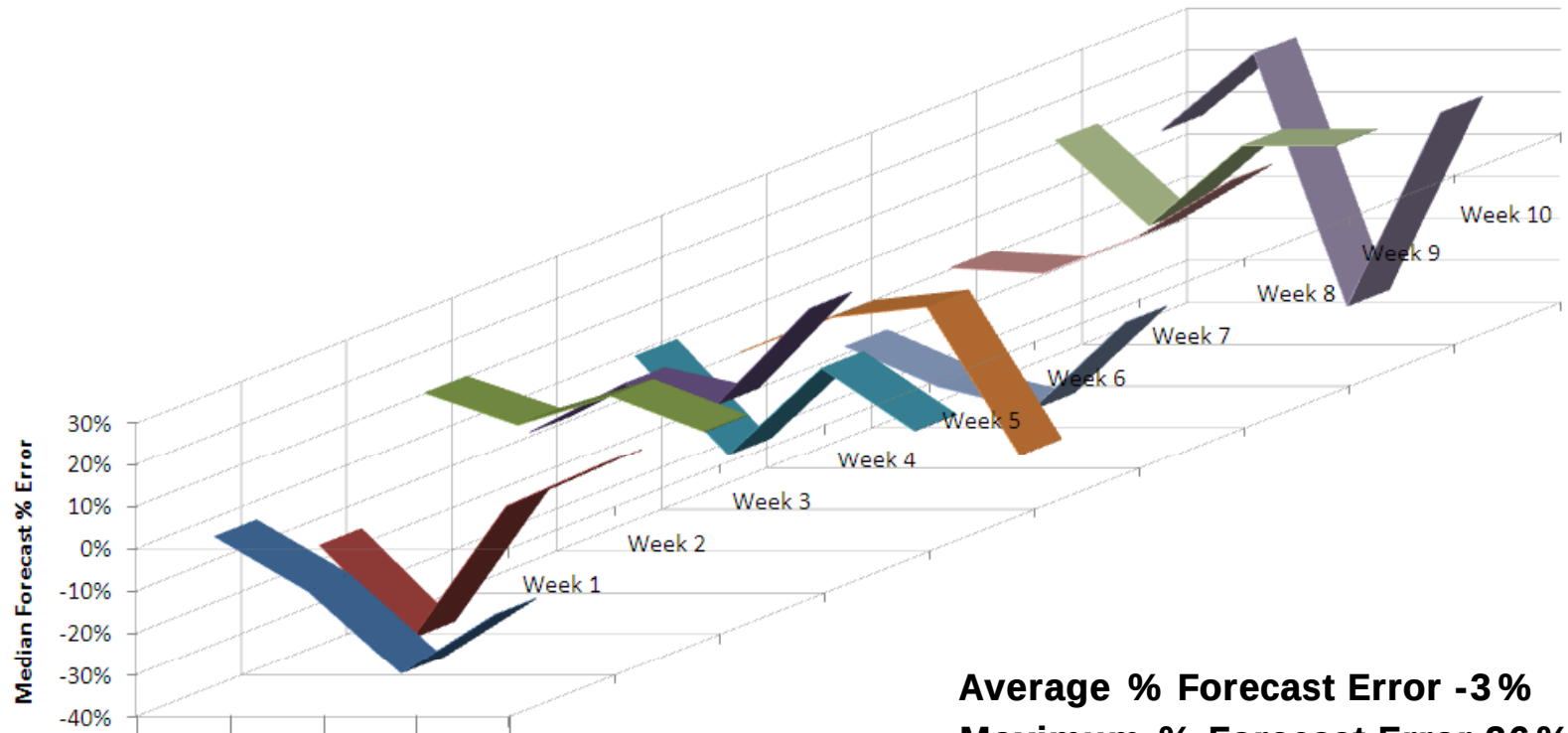
	1	2	3	4
Week 1	13%	-20%	-35%	-25%
Week 2	-8%	-48%	-28%	-18%
Week 3	-7%	-17%	-14%	-17%
Week 4	-26%	-21%	-25%	-14%
Week 5	-24%	-29%	-15%	-17%
Week 6	-30%	-25%	-27%	-52%
Week 7	-27%	-44%	-41%	-36%
Week 8	-47%	-43%	-32%	-17%
Week 9	-44%	-37%	-19%	-20%
Week 10	-31%	-23%	-19%	2%

Snowmelt Forecast Week

Average % Forecast Error -25%
Maximum % Forecast Error 13%
Minimum % Forecast Error -52%

Plot Area

CNRFC 20 Day Snowmelt Median Forecast Error

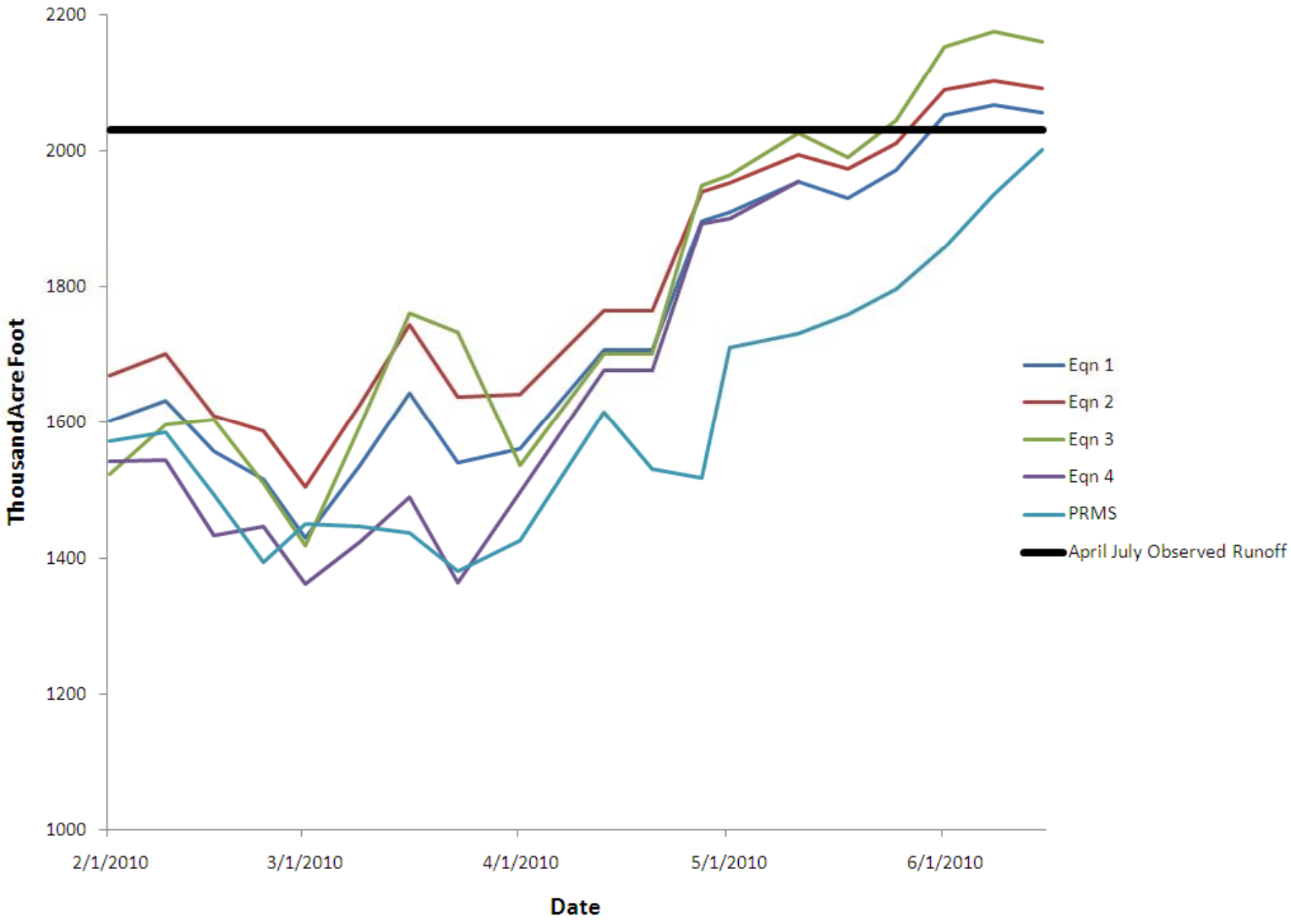


	1	2	3	4
Week 1	0%	-13%	-33%	-19%
Week 2	-12%	-34%	-3%	7%
Week 3	15%	7%	14%	5%
Week 4	-5%	7%	2%	25%
Week 5	4%	-20%	1%	-14%
Week 6	-5%	3%	5%	-30%
Week 7	-14%	-23%	-29%	-8%
Week 8	-5%	-6%	2%	16%
Week 9	15%	-5%	14%	14%
Week 10	8%	26%	-34%	12%

Snowmelt Forecast Week

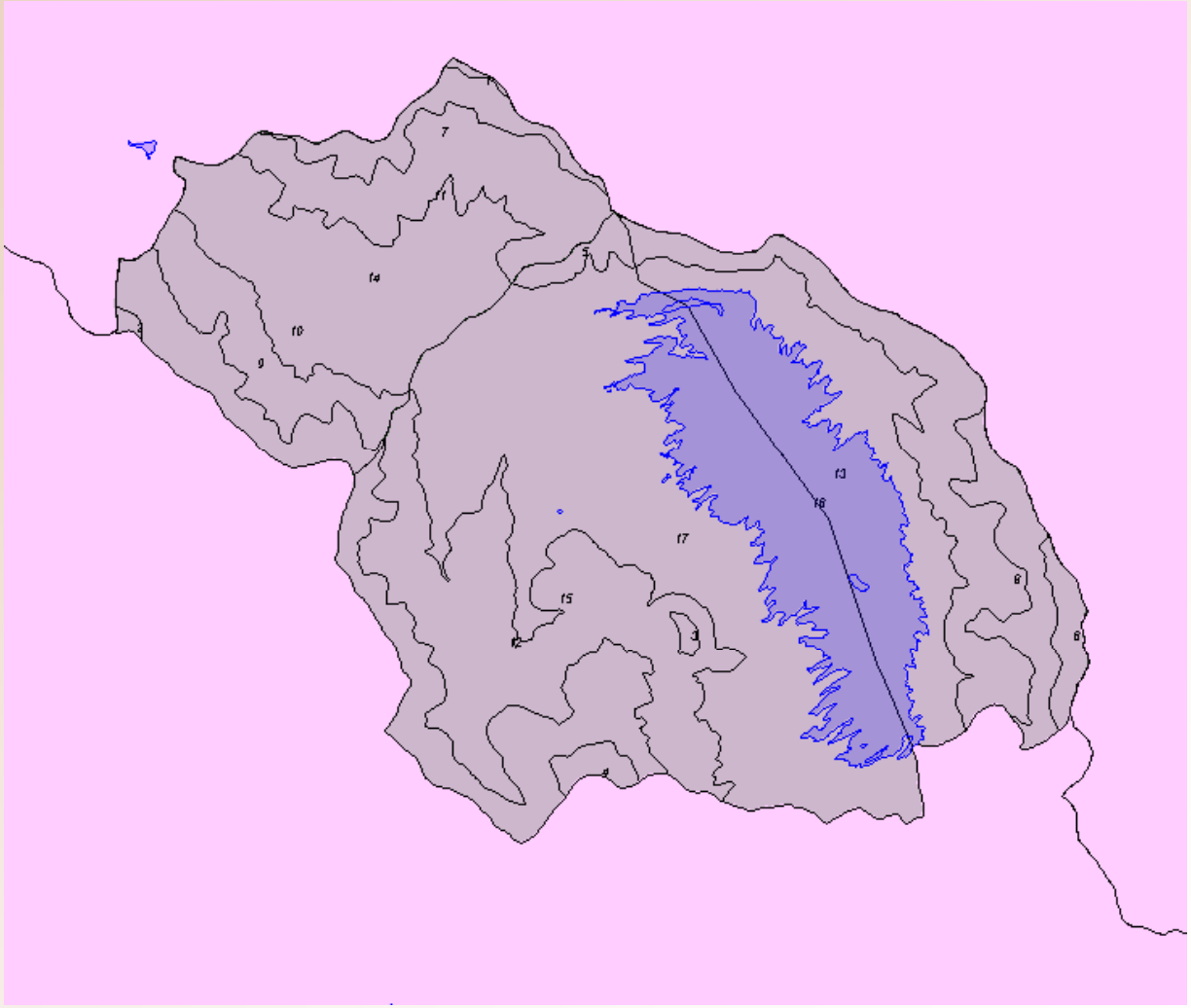
Average % Forecast Error -3%
Maximum % Forecast Error 26%
Minimum % Forecast Error -34%

PRMS 2010 AJ Forecasts compared with B120 Models

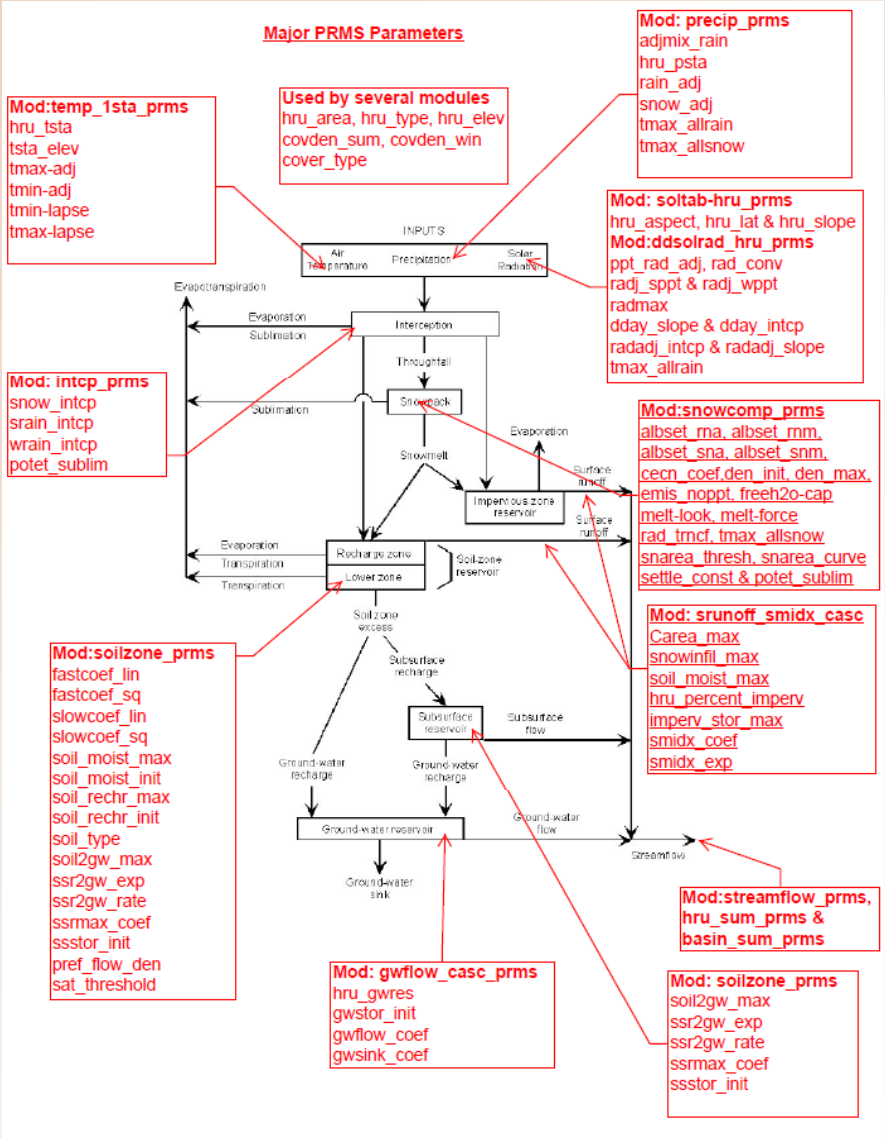


Lake Davis Forecast Model Development

Lake Davis -17 HRU



Lake Davis Calibration



Questions?