5.C Upstream Water Temperature Methods and Results

5.C Upstream Water Temperature Methods and Results

5.C.1 Introduction

This appendix presents the methodology for the temperature models, HEC5Q and Reclamation Temperature Model, used to compute the upstream water temperatures on the Trinity, Sacramento, American, Feather, and Stanislaus Rivers for the California WaterFix Biological Assessment (CWF BA). The presentation of the modeling methodology includes a general description of the models, model inputs, selective withdrawal descriptions, if applicable, and limitations of each of the models. The appendix then presents the results of the HEC5Q and Reclamation Temperature Model outputs in various tabular and graphical formats.

5.C.2 HEC5Q

5.C.2.1 Overview of Reservoir and River Temperature Modeling using HEC5Q

HEC5Q is a modeling tool that simulates reservoir and river water temperatures based on input storage, flow, and meteorological data. The HEC5Q modeling tool consists of two model components, HEC5 and HEC5Q. HEC5 is the daily flow simulation component of the model, where daily storages and flows are simulated at specific nodes (HEC 1998). HEC5Q is the temperature simulation component of the model, where 6-hour input meteorological data (equilibrium temperatures, exchange rates, shortwave radiation, and wind speed) are applied to the simulated storages and flows from the HEC5 model to simulate water temperatures at specified locations (RMA 1998). HEC5Q is often used for long-term planning analyses. It has been applied to numerous rivers across the United States.For this Biological Assessment (BA) it was applied to the Trinity, Sacramento, American, and Stanislaus Rivers. For this application, monthly CalSim II outputs, with a period of record of October 1921 to September 2003[1], were downscaled to daily timeseries and then used to prescribe HEC5's storage and flow data for use in/by the HEC5Q model.

5.C.2.2 Trinity River-Sacramento River HEC5Q Model

5.C.2.2.1 Description of the Model

The Trinity-Sacramento River HEC5Q model simulates water temperatures for major reservoirs and sections of the Trinity River, Clear Creek, the Upper Sacramento River, Stony Creek, and the Sutter Bypass. Figure 5.C-1 shows a schematic of the Trinity-Sacramento River HEC5Q model and shows all of the reservoir and river control points where temperatures are simulated. The model uses inputs from CalSim II that have been temporally downscaled to daily timeseries and 6-hour meteorological data derived from observed data from the Gerber and Nicolaus CIMIS (California Irrigation Management Information System) stations adjusted for the projected climate at about year 2030 under Q5 climate scenario (for description of the Q5 climate scenario see Appendix 5A, Section 5.A.3, *Climate Change and Sea Level Rise*).

The Trinity-Sacramento River HEC5Q model was last fully calibrated in 2002, with a calibration period of 1998-2002 (RMA 2003). A limited validation was performed in 2015 to incorporate

[1] HEC5Q models in the current BA were simulated from January 1st 1921 to Sepetember 30th 2003

additional Gerber CIMIS data collected through 2012 as described in the Appendix 6B, Section C of the Reclamation's Coordinated Long-Term Operations of the Central Valley Project and State Water Project Environmental Impact Statement (2015 LTO EIS) (Reclamation 2015). For the 2015 validation of the Trinity-Sacramento River HEC5Q model equilibrium temperature scaling factors in the HEC5Q inputs were adjusted to match simulated water temperatures with the 2002 calibration results. The validation process used the same hydrology boundary conditions as the 2002 calibration along with the revised meteorology inputs from 2012 based on the additional Gerber CIMIS data.

5.C.2.2.2 Model Inputs

Model inputs to the Trinity-Sacramento River HEC5Q model include initial storage levels, reservoir and tributary inflows, reservoir outflows, diversions, and reservoir evaporation derived from CalSim II outputs. Table 5.C-1 lists the CalSim II outputs used in the derivation of inputs to the Trinity-Sacramento River HEC5Q model.

The daily downscaled CalSim II timeseries all assume a constant (uniform) daily flow over each month of the 82-year CalSim II simulation period. An exception to this is the inflow timeseries to Trinity and Shasta lakes, where monthly average inflows are downscaled to a daily timestep by fitting to a cubic-spline. This allows the simulation of a daily varying inflow into the reservoirs with a smooth transition between the individual months, while assuming the same monthly volume of inflow consistent with CalSim II.

As mentioned previously, 6-hour HEC5Q meteorological inputs to the model were derived from observed Gerber and Nicolaus CIMIS data and then were adjusted to reflect the projected climate change at about year 2030 under the Q5 climate scenario. Considering the uncertainties associated with climate change projections, it was assumed that the equilibrium temperature inputs derived from observed data would be modified by the projected change in daily average air temperature under the Q5 climate scenario to reflect the effect of the climate change.

HEC5Q estimates the 6-hour inflow water temperatures based on the specified seasonal water temperature values with diurnal variations superimposed as a function of inputted location-specific heat exchange parameters. The seasonal water temperature values are derived based on the observed flows and water temperatures for each inflow. HEC5Q superimposes diurnal variations on the specified seasonal temperature values using the heat exchange parameter inputs. The diurnal variations are superimposed by adjusting the equilibrium temperature to reflect the inflow location environment and scaling it based on the heat exchange rate scaling factor and the weighting factor for emphasis on the seasonal values specified (RMA 1998). In this fashion, any climate change effects accounted for in the equilibrium temperature are translated to the changes in inflow temperatures in HEC5Q. Therefore, for simulating water temperatures using HEC5Q under the scenarios with climate change, only the equilibrium temperatures were adjusted for the projected change in temperature, and these influence the inflow temperatures, however, the seasonal inflow temperatures and the location-specific heat exchange inputs for the inflows were not changed.

5.C.2.2.3 Simulation of Selective Withdrawal

The Trinity-Sacramento River HEC5Q model has the capability of simulating the selective withdrawal capabilities at Shasta Dam and Trinity Dam in order to meet specified tailwater temperature targets.

5.C.2.2.3.1 Shasta Selective Withdrawal

Shasta Dam has a temperature control device (TCD) that allows water to come from different elevations of the reservoir pool to produce a specified tailwater temperature target that is intended to meet a downstream temperature objective, particularly during the summer months. Annual schedules of monthly tailwater temperature targets are specified in the Trinity-Sacramento HEC5Q model based on End-of-April Storage in Shasta Lake, an indicator of the available cold water pool, for each year of the CalSim II simulation period. The annual schedules were developed for different tiers of end-of-April Shasta storage, with each tier corresponding to meeting temperature targets at a downstream compliance location. Table 5.C-2 shows the annual temperature target schedules for different Shasta Lake end-of-April storage tiers. As can be seen from the table, the schedules only vary for the Jun-Dec period. A description of the annual temperature target schedules development is provided in the Appendix 6B, Section C of the 2015 LTO EIS (Reclamation 2015). Using the tailwater target temperature schedule timeseries, the model determines which configuration of the TCD gates will produce a release temperature that best meets the monthly temperature target. See RMA 2003 for a complete description of the Shasta Dam TCD operating logic in the Trinity-Sacramento HEC5Q model.

5.C.2.2.3.2 Trinity Selective Withdrawal

Trinity Dam has no specific TCD but includes an auxiliary outlet that allows access to the reservoir pool that cannot be accessed by the power outlets. This auxiliary outlet is only used in actual operations under emergency situations to control temperatures in the Trinity River when exceeding specific targets in the summer/fall months. The HEC5Q model uses a tailwater temperature target of 49°F between August 15th and October 31st when temperature management is most important. If release temperatures from the power outlets exceed this temperature target during this period, the auxiliary outlet is operated to blend with the releases from the power outlets to achieve the temperature target. More detail is provided in the Appendix 6B, Section C of the 2015 LTO EIS (Reclamation 2015).

5.C.2.3 American River HEC5Q Model

5.C.2.3.1 Description of the Model

The American River HEC5Q model simulates water temperatures for the Lower American River (below Folsom Dam to the confluence of Sacramento River). Figure 5.C-2 shows a schematic of the American River HEC5Q model and shows all of the reservoir and river control points where temperatures are simulated. The model uses inputs from CalSim II that have been temporally downscaled to daily timeseries and 6-hour meteorological data derived from observed data from the Nicolaus CIMIS station, adjusted for the projected climate at about year 2030 under Q5 climate scenario. The American River model was last fully calibrated in 2013, using a calibration period of 2003-2011 (RMA and WCI 2013). A validation procedure was performed in 2015 to incorporate additional logic in the model for the Folsom Water Supply Temperature Control

Device (WS TCD), which is described in Appendix 6B, Section C of the 2015 LTO EIS (Reclamation 2015). For the 2015 validation equilibrium temperature scaling factors in the HEC5Q inputs were adjusted to match the simulated temperatures with 2013 calibration results. The 2015 validation process used the hydrology and meteorological boundary condition data from the 2013 calibration.

5.C.2.3.2 Model Inputs

Model inputs to the American River HEC5Q model include initial storage levels, reservoir and tributary inflows, reservoir outflows, diversions, and reservoir evaporation derived from CalSim II outputs. Table 5.C-3 lists the CalSim II outputs used in the derivation of inputs to the American River HEC5Q model.

The daily downscaled CalSim II timeseries all assume a constant (uniform) daily flow over each month of the 82-year CalSim II simulation period. As mentioned previously, 6-hour meteorological inputs to the model were derived from observed Nicolaus CIMIS data and then were adjusted to the Q5 climate scenario. The same note about the climate change adjustments to the meteorological inputs and inflow temperatures in the Trinity-Sacramento River model applies to the American River HEC5Q model.

5.C.2.3.3 Simulation of Selective Withdrawal

Folsom Dam has multiple TCDs. There is a main temperature control shutter device, which allows water to come from different elevations of the reservoir pool to go through the power outlets. There is a low-level outlet that allows access to the reservoir pool below the power outlets. These are operated in combination to meet a specified tailwater temperature target, particularly during the summer and fall months. The model also includes a WS TCD mentioned previously, which pulls water from specified levels and temperature ranges of the reservoir pool for the local water supply diversion from the Folsom Lake.

Annual schedules of monthly tailwater temperature targets for Folsom Dam are specified based on a combination of End-of-May Folsom Lake storage and June to September inflow volume to Folsom Lake, an indicator of the available cold water pool, for each year of the CalSim II simulation period. The annual schedules were developed for different tiers of volume of cold water pool (Folsom End-of-May storage plus June to September inflow), with each tier corresponding to a specific temperature target schedule for the year. A representative subset of the Automated Temperature Selection Procedure' (ATSP) temperature target schedules specified in the 2009 NMFS BiOp were used in the selection procedure for use in the HEC5Q model. Table 5.C-4 shows the annual temperature target schedules for the different Folsom End-of-May storage plus June to September inflow volume tiers. As can be seen from the table, the schedules only vary for the May-Nov period. A description of the annual temperature target schedules development is provided in Appendix 6B, Section C of the 2015 LTO EIS (Reclamation 2015). Based on the tailwater target temperature schedule timeseries, the model determines which configuration of the shutters and low-level outlet will produce a release temperature that best meets the monthly temperature target. The low-level outlet with a maximum release capacity of 700 cfs, is allowed to operate from September 15th to November 30th. The WS TCD included in the American River HEC5Q model is operated to withdraw stored water within the temperature range of 63ºF – 65ºF, and an elevation range of 320 ft to 460 ft. Appendix 6B, Section C of the 2015 LTO EIS (Reclamation 2015) provides a complete description of the Folsom Dam TCD operating logic in the American River HEC5Q model.

5.C.2.4 Stanislaus River-Lower San Joaquin River HEC5Q Model

5.C.2.4.1 Description of the Model

The Stanislaus River-Lower San Joaquin River HEC5Q model simulates water temperatures for the Stanislaus River (from the Middle Fork upstream of New Melones Reservoir to the confluence with San Joaquin River), and the San Joaquin River from the Stanislaus River confluence to Mossdale. Figure 5.C-3 shows a schematic of the Stanislaus River HEC5Q model and shows all of the reservoir and river control points where temperatures are simulated. The model uses inputs from CalSim II that have been temporally downscaled to daily timeseries and 6-hour meteorological data derived from observed data from the Modesto CIMIS station adjusted for the projected climate at about year 2030 under Q5 climate scenario. The Stanislaus River-Lower San Joaquin River model was last fully calibrated in 2013, with a calibration period of 1990-2010 (A.D. et al. 2007, A.D. et al. 2013).

5.C.2.4.2 Model Inputs

Model inputs to the Stanislaus River HEC5Q model include initial storage levels, reservoir and tributary inflows, reservoir outflows, diversions, and reservoir evaporation derived from CalSim II outputs. Table 5.C-5 lists the CalSim II outputs used in the derivation of inputs to the Stanislaus River HEC5Q model. The daily downscaled CalSim II timeseries all assume a constant (uniform) daily flow over each month of the 82-year CalSim II simulation period. One exception is the inflow to New Melones Reservoir. New Melones inflow from CalSim II is partitioned into four components, and used as inflow to Collierville Power House, Stanislaus Power House, Middle Fork Stanislaus and South Fork Stanislaus because of differing temperatures of each inflow source. In addition, the monthly CalSim II inflow is downscaled to a daily timestep by fitting to a cubic-spline. This allows the simulation of a daily varying inflow into the reservoir with a smooth transition between the individual months, while assuming same monthly volume of inflow consistent with CalSim II.

As mentioned previously, 6-hour meteorological inputs to the model were derived from observed Modesto CIMIS data and then were adjusted to the Q5 climate scenario. The same note about the climate change adjustments to the meteorological inputs and inflow temperatures in the Trinity-Sacramento River model applies to the Stanislaus River-Lower San Joaquin River HEC5Q model.

5.C.2.5 Model Limitations

There are several limitations to the HEC5Q models and the simulated water temperatures, both in their capability to simulate observed water temperatures and as applied in this BA. Calibration of the HEC5Q model was focused on simulating daily average observed temperatures, primarily in the warmer periods, and the model adequately represents the thermal responses to the hydrologic and meteorological changes. Even though the HEC5Q models simulate water temperatures on a sub-monthly timescale, given that they are driven by the monthly CalSim II results as inputs, the use of modeled temperatures should generally be limited to monthly average values, even though short term fluctuations that may be real and important to biological resources. If sub-monthly results are to be used, it is important to understand that the HEC5Q models adheres to the CalSim II monthly volumes of reservoir storages, releases and diversions. HEC5Q models do not alter operations (other than temperature control device gate settings) to meet a temperature objective downstream in the river, and there is no feedback to CalSim II to alter the storage or release volumes.

In a long-term planning application such as the current BA, a simplified procedure is used to specify the annual temperature target schedules in the models with selective withdrawal (e.g. Trinity-Sacramento and American River models) simulation capability. As noted above, annual temperature target schedules in the HEC5Q are set for the year based only on a cold water pool indicator (e.g. End-of-April storage in Shasta Lake), and the targets are not altered dynamically in a given year. Further, if the cold water pool estimate is even slightly above or below the threshold used for a tier, a different temperature schedule will be selected that can greatly affect the temperature results. Lastly, given that the inputs to the HEC5Q models are from CalSim II model, all the limitations of the CalSim II model should be considered when using the temperature results.

5.C.3 Reclamation Temperature Model

5.C.3.1 Overview of Reservoir and River Temperature Modeling using the Reclamation Temperature Model

Reclamation Temperature Model includes reservoir and stream temperature models, which simulate monthly reservoir and stream temperatures used for evaluating the effects of CVP/SWP project operations on mean monthly water temperatures in the basin (Reclamation 2008). The model simulates temperatures in seven major reservoirs (Trinity, Whiskeytown, Shasta, Oroville, Folsom, New Melones and Tulloch), four downstream regulating reservoirs (Lewiston, Keswick, Goodwin and Natoma), and five main river systems (Trinity, Sacramento, Feather, American and Stanislaus). Table 5.C-5 shows the Reclamation Temperature Model nodes.

For the current BA, the use of Reclamation Temperature Model was limited to simulating water temperatures in the Feather River system.

5.C.3.2 Model Inputs

Monthly flows, storages, and evaporation timeseries simulated by the CalSim II model for the 82 year period (WY 1922-2003), are used as inputs to the model. Monthly mean historical air temperatures for the 82-year period and other long-term average climate data for Trinity, Shasta, Whiskeytown, Redding, Red Bluff, Colusa, Marysville, Folsom, Sacramento, New Melones, and Stockton were obtained from National Weather Service records and used to develop mean monthly meteorological inputs for the four river systems. These meteorological inputs included air and equilibrium temperatures and heat exchange rates. The heat exchange rates and equilibrium temperatures were computed from the mean monthly air temperature data and long-term estimates of solar radiation, relative humidity, wind speed, cloud cover, solar reflectivity and river shading. Considering the uncertainties associated with climate change impacts, it was assumed that the equilibrium temperature and heat exchange rate inputs would be modified by the change in mean monthly air temperature projected at about year 2030 under Q5 climate scenario.

Reservoir inflow temperatures were derived from the available record of observed data and averaged by month. The mean monthly inflow temperatures are then repeated for each study year. The inflow temperatures were further modified based on the computed change in mean annual air temperature projected at about year 2030 under Q5 climate scenario.

5.C.3.3 Model Limitations

The Reclamation Temperature Model operates on a monthly time-step. Mean monthly flows and temperatures do not define daily variations that could occur in the rivers due to dynamic flow and climatic conditions. Similar to HEC5Q, Reclamation Temperature Model does not alter operations to meet a temperature requirement downstream in the river, and also there is no feedback to CalSim II to alter the operations. Lastly, given that the inputs to the Reclamation Temperature Model is from CalSim II model, all the limitations of the CalSim II model should be considered when using the temperature results.

5.C.4 Output Parameters

Output parameters of the HEC5Q include daily flow and temperature results at select locations in the model. HEC5Q also provides the temperature profile for selected reservoirs included in the model. Reclamation Temperature Model provides monthly average temperature results at select locations within the model.

5.C.5 Appropriate Use of Model Results

The physical models developed and applied in the BA are generalized and simplified representations of a complex water resources system. A brief description of appropriate use of the model results to compare two scenarios or to compare against threshold values or standards is presented below.

5.C.5.1 Absolute vs. Relative Use of the Model Results

The models are not predictive models of actual operations and resulting temperatures (in the way they are applied in this study), and therefore the results cannot be considered as absolute with and within a quantifiable confidence interval unless the hypothetical storages and assumed uniform release rates were to occur.

5.C.5.2 Appropriate Reporting Time-Step

Since the temperature models are driven by the long term hypothetical operations simulated in CalSim II on a monthly time step, typically the temperature results are presented on a monthly time step from both HEC5Q and the Reclamation Temperature Model. Monthly flow and temperature results are unlikely to address the daily variability in the river temperatures, but reflect changes in the monthly means. The daily variability, around a changed mean, could be added to the monthly temperature results by scaling the historical daily temperature patterns to reflect the monthly means. However, this approach of incorporating daily variability does not account for the uncertainty associated with the daily flow conditions which are not included in the boundary flows used by the temperature models. Thus, while the models generate daily results they need to be interpreted with the understanding that the monthly changes are the most appropriate use of the modeling results.

5.C.5.3 Statistical Comparisons are Preferred

Absolute differences computed at a point in time between model results from an alternative and a baseline to evaluate impacts is a tenuous use of model results (e.g. computing differences between the results from a baseline and an alternative for a particular day or month and year within the period of record of simulation). Likewise computing absolute differences between an alternative (or a baseline) and a specific threshold value (or a standard) is a tenuous use of model results. Statistics computed based on the absolute differences at a point in time (e.g. average of monthly differences) is a tenuous use of model results. Computing the absolute differences in this way disregards the real possibility that operators would react differently than the model to the conditions in individual scenarios and may distort the evaluation of impacts.

Reporting seasonal patterns from long-term averages and water year type averages will avoid the short term predictive unrealities alluded to above.. Statistics computed based on long-term and water year type averages are an appropriate use of model results for the same reason. Similarly, c. omputing differences between long-term or water year type averages of model results from two scenarios is appropriate. Care should be taken to use the appropriate water year type for presenting water year type average statistics of model results (e.g. D1641 Sacramento River 40-30-30 or San Joaquin River 60-20-20 based on climate modifications). For this study, water year types are based on the projected climate and hydrology at Year 2030 under Q5 climate scenario.

The most appropriate presentation of monthly and annual model results is in the form of probability distributions and comparisons of probability distributions (e.g. cumulative probabilities) for the reasons discussed above. If necessary, comparisons of model results against threshold or standard values should be limited to comparisons based on cumulative probability distributions.

5.C.6 Linkages to Other Models and Analyses

Various fisheries models utilize the outputs from the HEC5Q and Reclamation Temperature Model for their inputs. These include the SALMOD model, which incorporates the daily flow and temperature outputs from the HEC5Q model, the arguments above not withstanding, to calculate production and mortality of different species and life-stages of Chinook salmon in the upper Sacramento River. The Reclamation Egg Mortality Model uses daily temperature outputs from the appropriate HEC5Q model to calculate salmon early life stage losses on the Trinity, Sacramento, American, and Stanislaus Rivers, and monthly temperature output from Reclamation Temperature Model for Feather River. The flows and temperatures from the Trinity-Sacramento River HEC5Q model are used in the IOS and OBAN winter-run lifecycle models. The simulated temperatures are used in numerous other individual analyses to analyze the upstream effects on the listed species.

5.C.7 Upstream Water Temperature Modeling Results

This section provides monthly water temperature (HEC5Q and Reclamation Temperature Model) model simulation results for the No Action Alternative and the Proposed Action evaluated for the CWF BA.

This section also includes the estimated volume of cold water pool in Shasta Lake at different temperatures. Reservoir temperature profiles for each month of the period of record, were output from the Trinity-Sacramento HEC5Q model. These temperature profiles show temperatures at different elevations in the reservoir pool. The elevation that corresponded to certain temperatures was then selected and using the storage-elevation curve in the HEC5Q model, the elevation was converted to a volume. This calculation yielded the reservoir pool volume that had a temperature below the selected temperature.

Sections provided for each parameter include figures and tables in various formats to provide the reader with tools for multiple ways of analysis. Different types of presentations are explained below:

- Long Term Average Summary and Water Year Type Based Statistics Summary Tables: These tables provide parameter values for each 10% increment of exceedance probability (rows) for each month (columns) as well as long-term and water year type averages, using the Sacramento Valley 40-30-30 Index for the Trinity, Sacramento, Feather, and American Rivers and the San Joaquin Valley 60-20-20 Index for the Stanislaus River developed by the SWRCB for projected climate at Year 2030 (under Q5 scenario) for each month.

- Probability of Exceedance Plots: Probability of exceedance plots are provided for each month over the period of record as well as monthly plots by water year type. Probability of exceedance plots provide the frequency of occurrence of values of a parameter that exceed a reference value. For this appendix, the calculation of exceedance probability is done by ranking the data. For example, for Sacramento River below Keswick September temperature exceedance plot, monthly temperature values for September for each simulated year are sorted in ascending order. The smallest value would have a probability of exceedance of 100% since all other values would be greater than that value; and the largest value would have a probability of exceedance of 0%. All the values are plotted with probability of exceedance on the x-axis and the value of the parameter on the y-axis. Following the same example, if for one scenario, a Sacramento River below Keswick September temperature of 60°F corresponds to 10% probability; it implies that Sacramento River below Keswick September temperature is lower than 60°F in 90% of the years.

- Box and Whisker Plots: These plots show the monthly averaged water temperature results under the No Action Alternative and the Proposed Action for each month for each water year type. The plots display the distribution of data based on the following statistical summary.

    - 5th percentile that corresponds to 95% exceedance probability,

- first quartile (25th percentile that corresponds to 75% exceedance probability),
- median (50% exceedance probability),
- third quartile (75th percentile that corresponds to 25% exceedance probability),
- 95th percentile that corresponds to 5% exceedance probability, and
- mean

Monthly averaged temperature results for the following locations on the Trinity, Sacramento, Feather, American, and Stanislaus Rivers are presented in this appendix. For each of the location identified below a table comparing monthly temperature results, a monthly exceedance plot, and box-whisker plot by water year type are included.

5.C.7-1 Trinity River below Lewiston Dam

5.C.7-2 Clear Creek at Igo

5.C.7-3 Sacramento River below Keswick Dam

5.C.7-4 Sacramento River above Clear Creek Confluence

5.C.7-5 Sacramento River at Balls Ferry

5.C.7-6 Sacramento River at Jellys Ferry

5.C.7-7 Sacramento River at Bend Bridge

5.C.7-8 Sacramento River at Red Bluff Diversion Dam

5.C.7-9 Sacramento River at Hamilton City

5.C.7-10 Sacramento River at Knights Landing

5.C.7-11 Feather River Low Flow Channel near Fish Dam

5.C.7-12 Feather River Low Flow Channel at Robinson Riffle

5.C.7-13 Feather River High Flow Channel below Thermalito Afterbay

5.C.7-14 American River at Hazel Avenue

5.C.7-15 American River at Watt Avenue

5.C.7-16 American River at Sacramento River Confluence

5.C.7-17 Stanislaus River below Knights Ferry

5.C.7-18 Stanislaus River below Orange Blossom Bridge

5.C.7-19 Stanislaus River below Riverbank Bridge

5.C.7-20 Stanislaus River at San Joaquin River Confluence

Estimated cold water pool volumes for selected temperatures of 48°F, 50°F, 52°F, 54°F, 56°F and 58°F are reported for Shasta Lake, for the months of April to October in Figures 5.C.7-21-1 to 5.C.7-21-7, and Table 5.C.7-21-1.

5.C.8 References

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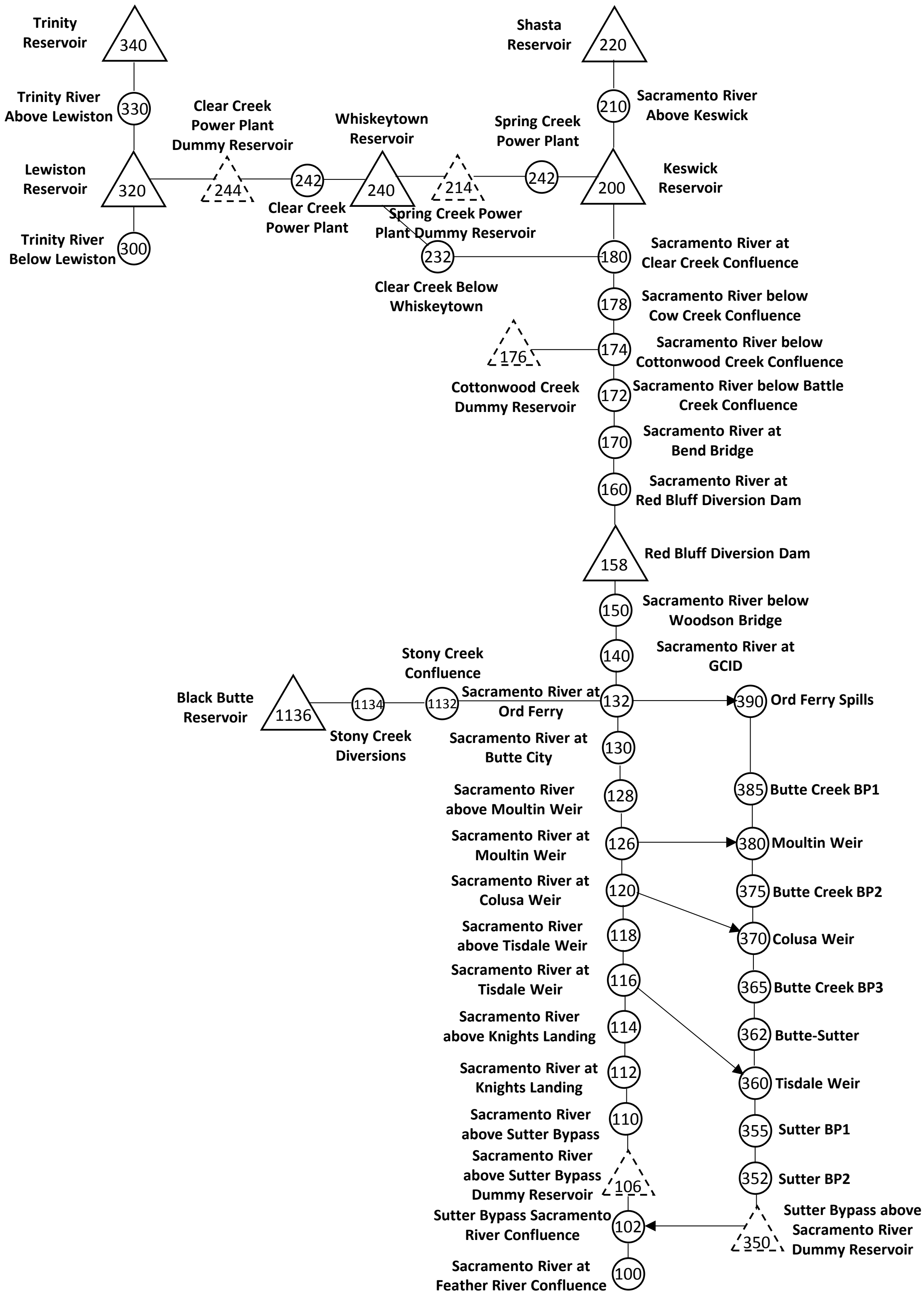


Figure 5.C-1: Schematic of Trinity-Sacramento River HEC5Q Model

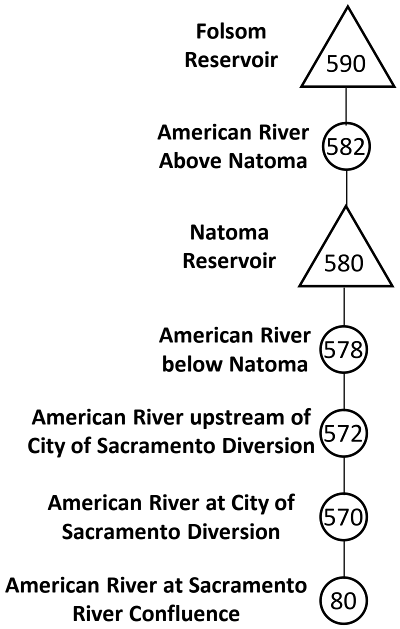


Figure 5.C-2: Schematic of American River HEC5Q Model

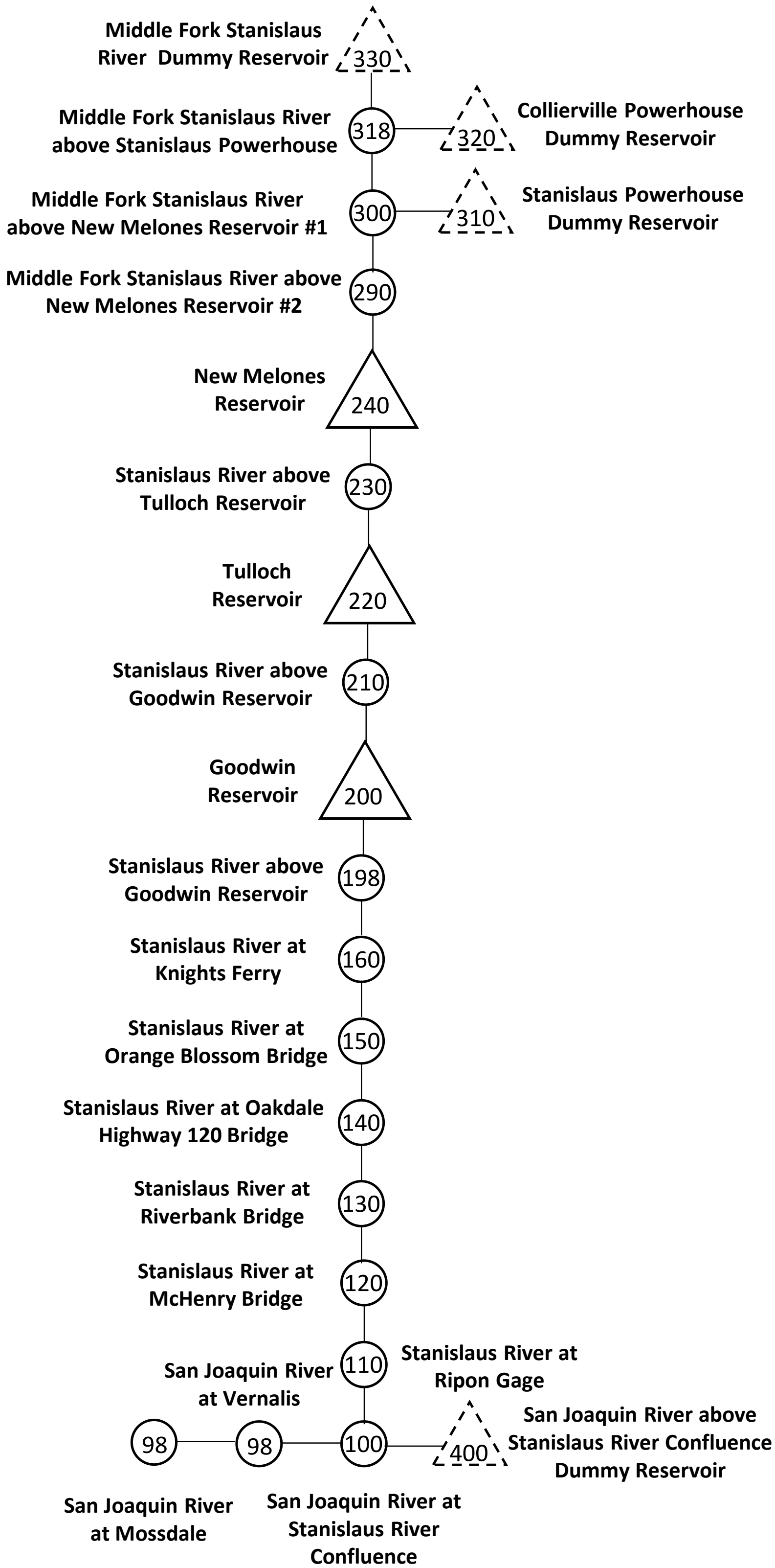


Figure 5.C-3: Schematic of Stanislaus River HEC5Q Model

Table 5.C-1: CalSim II inputs to the Trinity-Sacramento River HEC5Q Model

HEC5Q Control Point Number	HEC5Q Control Point Name	Input Types	CalSim II Node
340	Trinity Reservoir	Storage Inflow Outflow Evaporation	S1 I1 C1+F1 E1
330	Lewiston Reservoir	Inflow Diversion	I100 D100
240	Whiskeytown Reservoir	Storage Inflow Outflow Diversion Evaporation	S3 I3 C3+F3 D3 E3
220	Shasta Reservoir	Storage Inflow Outflow Evaporation	S4 I4 C4+F4 E4
200	Keswick Reservoir	Evaporation	E5
180	Sacramento River above Clear Creek Confluence	Diversion	C5-C104
178	Sacramento River below Cow Creek Confluence	Inflow	C10801
176	Sacramento River below Cottonwood Creek Confluence	Inflow	C10802
172	Sacramento River below Battle Creek Confluence	Inflow	C10803
170	Sacramento River at Bend Bridge	Inflow Diversion	I109+R109 D109
160	Sacramento River above Red Bluff Diversion Dam	Inflow Diversion	C11001+I112 D112
150	Sacramento River below Woodson Bridge	Inflow Diversion	C11305+C11301+R113+R114A+R114B+R114C D113A+D113B
140	Sacramento River at GCID	Diversion	D114

HEC5Q Control Point Number	HEC5Q Control Point Name	Input Types	CalSim II Node
1136	Black Butte Reservoir	Storage Inflow Outflow Diversion	S42 I42+C41 C42+F42 E42+D42
1134	Stony Creek Diversions	Diversion	C42-C142A
1132	Stony Creek Confluence	Inflow	C11501
132	Sacramento River at Ord Ferry	Diversion	D117
130	Sacramento River at Butte City	Inflow Diversion	I118 I118+C115-C118-D117
128	Sacramento River above Moultin Weir	Inflow Diversion	I123+c17603 C118+I123+C17603-C124
126	Sacramento River at Moultin Weir	Diversion	D124
120	Sacramento River at Colusa Weir	Diversion	D125
116	Sacramento River at Tisdale Weir	Diversion	D126
114	Sacramento River above Knights Landing	Diversion	C126-C129
112	Sacramento River at Knights Landing	Diversion	C129-C134
365	Butte Creek BP3	Diversion	C136B-R137-R135A-R135B-C217A

Table 5.C-2: Final Temperature Targeting Schedules for Shasta Dam

Compliance Location	End-of-April Shasta Storage (TAF)	Shasta Release Temperature Targets (^{0}F)											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
None	<2000	60.8	60.8	60.8	53.6	53.6	52.6	52.6	51.8	50.8	54.6	56.0	56.2
Clear Creek	<3600	60.8	60.8	60.8	53.6	53.6	52.6	52.6	51.8	50.8	54.6	56.0	56.2
Balls Ferry	<4000	60.8	60.8	60.8	53.6	53.6	51.2	51.5	50.4	49.3	54.1	56.3	56.9
Jellys Ferry	<4425	60.8	60.8	60.8	53.6	53.6	49.6	50.1	48.7	47.7	53.6	56.7	57.6
Bend Bridge	<9999	60.8	60.8	60.8	53.6	53.6	48.5	49.0	47.4	46.6	53.4	56.9	58.1

Table 5.C-3: CalSim II inputs to the American River HEC5Q Model

HEC5Q Control Point Number	HEC5Q Control Point Name	Input Types	CalSim II Node
590	Folsom Reservoir	Storage Inflow Outflow Diversion	S8 C300+I8 C8+F8 E8+D8
580	Natoma Reservoir	Storage Diversion	S9 D9+E9-I9
572	American River above City of Sacramento Diversion	Diversion	GS66-I302
570	American River at City of Sacramento Diversion	Diversion	D302

Table 5.C-4: Final Temperature Targeting Schedules for Folsom Dam

Schedule Number	Folsom End-of-May Storage plus Jun-Sep Inflow (TAF)	Folsom Dam Release Temperature Target (^{0}F)											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
22	<=600	52.0	52.0	52.0	59.0	66.8	66.0	66.0	63.0	67.5	68.0	60.5	56.0
21	700	52.0	52.0	52.0	59.0	65.9	65.2	66.2	63.3	66.7	68.1	60.6	56.0
20	750	52.0	52.0	52.0	59.0	66.3	65.6	65.6	62.9	67.0	67.3	59.7	56.0
19	850	52.0	52.0	52.0	59.0	65.6	65.0	66.0	63.5	66.3	67.5	59.8	56.0
18	900	52.0	52.0	52.0	59.0	65.8	65.2	65.2	62.8	66.4	66.6	58.8	56.0
17	950	52.0	52.0	52.0	59.0	65.0	64.4	65.4	63.1	65.6	66.7	58.9	56.0
16	1050	52.0	52.0	52.0	59.0	65.2	64.6	64.6	62.4	65.7	65.8	57.9	56.0
15	1100	52.0	52.0	52.0	59.0	64.3	63.8	64.8	62.7	64.9	65.9	58.0	56.0
14	1200	52.0	52.0	52.0	59.0	64.5	64.0	64.0	62.0	65.0	63.0	58.0	56.0
13	1250	52.0	52.0	52.0	59.0	63.7	63.2	64.2	62.3	64.2	63.1	58.1	56.0
12	1350	52.0	52.0	52.0	59.0	63.7	63.2	63.2	61.3	64.2	63.1	58.1	56.0
11	1400	52.0	52.0	52.0	59.0	62.9	62.4	63.4	61.6	63.3	63.2	58.1	56.0
10	1500	52.0	52.0	52.0	59.0	62.9	62.4	62.4	60.6	63.3	63.2	58.1	56.0
9	1550	52.0	52.0	52.0	59.0	61.9	61.4	62.4	60.6	62.3	63.2	58.1	56.0
8	1650	52.0	52.0	52.0	59.0	62.0	61.6	61.6	59.9	62.5	58.3	57.2	56.0
7	1700	52.0	52.0	52.0	59.0	61.0	60.6	61.6	59.9	61.5	58.3	57.2	56.0
6	1800	52.0	52.0	52.0	59.0	61.0	60.6	60.6	58.9	61.5	58.3	57.2	56.0
5	1850	52.0	52.0	52.0	59.0	60.0	59.6	60.6	58.9	60.5	58.3	57.2	56.0
4	1950	52.0	52.0	52.0	59.0	60.0	59.6	59.6	57.9	60.5	58.3	56.2	56.0
3	2000	52.0	52.0	52.0	59.0	59.0	58.6	59.6	57.9	59.5	57.3	56.2	56.0
2	2100	52.0	52.0	52.0	59.0	59.0	58.6	58.6	56.9	59.5	56.3	55.2	56.0
1	2150	52.0	52.0	52.0	59.0	58.0	57.6	58.6	56.9	58.5	55.3	55.2	56.0

Table 5.C-5: CalSim II inputs to the Stanislaus-Lower San Joaquin River HEC5Q Model

HEC5Q Control Point Number	HEC5Q Control Point Name	Input Types	CalSim II Node
240	New Melones Reservoir	Storage Inflow Outflow Evaporation	S10 I10 C10+F10 E10
220	Tulloch Reservoir	Storage Inflow Diversion	S76 I76 E76
200	Goodwin Reservoir	Inflow Diversion	I520 C76-C520
160	Stanislaus River at Knights Ferry	Diversion	C520-C528
150	Stanislaus River at Orange Blossom Bridge	Diversion	C520-C528
140	Stanislaus River at Oakdale Highway 120 Bridge	Diversion	C520-C528
130	Stanislaus River at Riverbank Bridge	Diversion	C520-C528
120	Stanislaus River at McHenry Bridge	Diversion	C520-C528
110	Stanislaus River at Ripon Gage	Diversion	C520-C528
400	San Joaquin River above Stanislaus River Confluence Dummy Reservoir	Diversion	C620+C545+C528-C644
98	San Joaquin River at Vernalis	Diversion	C620+C545+C528-C644

Table 5.C-6: Output Locations for the Reclamation Temperature Model

River or Creek System	Location
Trinity River	Trinity Dam
	Lewiston Dam
	Douglas City
	North Fork
Clear Creek	Whiskeytown Dam
	Above Igo
	Below Igo
	Mouth
American River	Folsom Dam
	Nimbus Dam
	Sunrise Bridge
	Cordova Park
	Arden Rapids
	Watt Avenue Bridge
	American River Filtration Plant
	H Street
	16th Street
	Mouth
Sacramento River	Shasta Dam
	Keswick Lake above Spring Creek Tunnel
	Spring Creek Tunnel
	Keswick Dam
	Balls Ferry
	Jellys Ferry
	Bend Bridge
	Red Bluff
	Vina
	Butte City
	Wilkins Slough
	Colusa Basin Drain
	Feather River
	American River

River or Creek System	Location
	Freeport
Stanislaus River	New Melones Dam
	Tulloch Dam
	Goodwin Dam
	Knights Ferry
	Orange Blossom
	Oakdale
	Riverbank
	McHenry Bridge
	Ripon
	Mouth

Table 5.C.7-1. Trinity River below Lewiston Dam, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	55.6	55.6	0.0	0%	53.9	53.1	-0.8	-1%	51.7	51.9	0.1	0%	49.7	49.6	-0.1	0%	50.4	50.5	0.1	0%	52.6	52.4	-0.2	0%
20%	54.8	54.7	-0.1	0%	52.7	52.6	-0.1	0%	50.9	50.7	-0.2	0%	49.2	49.2	-0.1	0%	49.6	49.8	0.2	0%	51.8	51.8	0.0	0%
30%	54.2	53.7	-0.5	-1%	51.7	51.8	0.1	0%	50.4	50.3	-0.1	0%	48.9	48.4	-0.5	-1%	49.0	49.0	0.0	0%	50.7	51.1	0.3	1%
40%	53.0	52.7	-0.3	-1%	51.2	51.4	0.2	0%	49.8	49.8	0.0	0%	48.1	48.1	-0.1	0%	48.3	48.2	-0.1	0%	50.1	50.0	0.0	0%
50%	51.7	51.9	0.2	0%	50.7	50.9	0.3	1%	49.3	49.1	-0.2	0%	47.7	47.7	0.0	0%	47.4	47.4	0.0	0%	49.6	49.6	0.0	0%
60%	50.8	50.7	-0.1	0%	50.3	50.6	0.3	1%	48.9	48.4	-0.5	-1%	47.5	47.2	-0.2	-1%	46.9	46.8	-0.1	0%	49.1	49.1	0.0	0%
70%	50.3	50.2	-0.1	0%	49.7	49.7	0.1	0%	48.0	47.7	-0.3	-1%	46.3	46.2	-0.1	0%	46.2	46.2	-0.1	0%	48.7	48.4	-0.2	0%
80%	49.8	49.9	0.0	0%	49.3	49.5	0.3	1%	46.9	46.5	-0.4	-1%	45.0	44.9	0.0	0%	45.5	45.3	-0.2	0%	47.7	47.6	-0.2	0%
90%	49.3	49.1	-0.2	0%	48.8	48.7	-0.1	0%	45.8	45.7	-0.1	0%	44.2	44.1	-0.1	0%	44.5	44.5	0.0	0%	46.2	46.3	0.0	0%
Long Term Full Simulation Period[b]	52.1	51.7	-0.4	-1%	50.5	50.6	0.2	0%	49.0	48.9	-0.2	0%	47.5	47.3	-0.2	0%	47.6	47.5	-0.1	0%	49.5	49.5	0.0	0%
Water Year Types[c]																								
Wet (32%)	49.9	50.0	0.0	0%	49.9	50.0	0.1	0%	48.9	48.5	-0.4	-1%	47.8	47.4	-0.4	-1%	46.3	46.2	-0.1	0%	47.8	47.6	-0.1	0%
Above Normal (16%)	50.9	50.9	0.0	0%	49.7	50.0	0.2	0%	49.0	48.7	-0.3	-1%	48.2	47.8	-0.4	-1%	46.4	46.6	0.1	0%	49.1	49.1	0.0	0%
Below Normal (13%)	52.9	52.7	-0.2	0%	50.8	51.0	0.3	1%	48.7	48.7	0.0	0%	47.3	47.2	0.0	0%	47.8	47.4	-0.3	-1%	49.6	49.8	0.2	0%
Dry (24%)	54.2	54.1	-0.1	0%	52.3	52.0	-0.3	-1%	48.7	48.5	-0.2	0%	46.5	46.5	0.0	0%	48.8	49.0	0.2	0%	50.7	50.9	0.2	0%
Critical (15%)	53.7	51.5	-2.2	-4%	49.0	50.0	1.0	2%	50.4	50.5	0.1	0%	47.9	48.0	0.1	0%	49.4	49.2	-0.3	-1%	51.5	51.2	-0.3	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	52.5	52.5	0.0	0%	51.0	50.9	-0.1	0%	55.3	55.2	-0.1	0%	53.9	53.8	-0.1	0%	55.0	54.8	-0.2	0%	56.3	55.4	-0.9	-2%
20%	52.2	52.2	0.0	0%	49.7	49.7	0.0	0%	52.3	52.4	0.2	0%	52.7	52.5	-0.2	0%	53.4	53.2	-0.3	0%	53.9	53.6	-0.3	-1%
30%	52.0	51.9	0.0	0%	48.2	48.0	-0.2	0%	51.5	51.8	0.2	0%	52.1	52.0	-0.1	0%	52.5	52.4	-0.1	0%	53.0	52.9	-0.1	0%
40%	51.5	51.4	-0.1	0%	47.0	47.1	0.0	0%	50.7	50.9	0.2	0%	51.8	51.8	0.0	0%	51.8	51.8	0.0	0%	52.2	52.2	0.0	0%
50%	51.1	51.1	0.0	0%	46.3	46.3	0.0	0%	50.1	50.1	0.0	0%	51.5	51.3	-0.2	0%	51.4	51.3	-0.1	0%	51.4	51.5	0.0	0%
60%	50.5	50.5	0.0	0%	45.9	45.8	-0.1	0%	49.3	49.3	0.0	0%	51.0	51.0	0.0	0%	51.0	51.0	0.0	0%	50.7	50.7	0.0	0%
70%	49.8	49.8	0.0	0%	45.3	45.3	0.1	0%	48.4	48.4	0.0	0%	50.7	50.4	-0.3	-1%	50.8	50.6	-0.2	0%	50.2	50.1	-0.1	0%
80%	48.9	49.1	0.2	0%	44.9	45.0	0.1	0%	47.3	47.3	0.0	0%	50.2	49.8	-0.4	-1%	50.2	50.4	0.1	0%	49.5	49.5	0.0	0%
90%	47.8	47.8	0.0	0%	44.5	44.5	0.0	0%	45.5	45.6	0.0	0%	49.5	49.3	-0.2	0%	49.8	49.8	0.0	0%	49.2	49.3	0.1	0%
Long Term Full Simulation Period[b]	50.6	50.6	0.0	0%	47.1	47.1	0.0	0%	50.2	50.2	0.0	0%	51.7	51.5	-0.2	0%	52.0	52.0	0.0	0%	51.9	51.9	-0.1	0%
Water Year Types[c]																								
Wet (32%)	49.1	49.2	0.1	0%	45.8	45.8	0.0	0%	47.7	47.8	0.0	0%	50.7	50.7	-0.1	0%	50.8	50.8	0.0	0%	49.9	49.9	0.0	0%
Above Normal (16%)	50.0	50.3	0.3	1%	45.2	45.2	0.1	0%	47.9	47.8	0.0	0%	50.7	50.5	-0.2	0%	50.4	50.3	0.0	0%	50.7	50.3	-0.4	-1%
Below Normal (13%)	51.7	51.5	-0.2	0%	47.0	47.0	0.0	0%	50.3	50.4	0.1	0%	51.5	51.3	-0.2	0%	51.8	51.9	0.1	0%	52.7	52.6	-0.1	0%
Dry (24%)	51.7	51.6	-0.1	0%	48.0	48.0	0.0	0%	51.6	51.7	0.2	0%	51.8	51.7	-0.1	0%	52.5	52.4	-0.1	0%	53.1	53.1	0.0	0%
Critical (15%)	51.8	51.7	-0.1	0%	50.5	50.4	-0.1	0%	55.5	55.3	-0.2	0%	55.2	54.5	-0.6	-1%	55.5	56.0	0.5	1%	55.1	54.9	-0.1	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-1. Monthly Temperature Ranges for Trinity River below Lewiston Dam, All Years

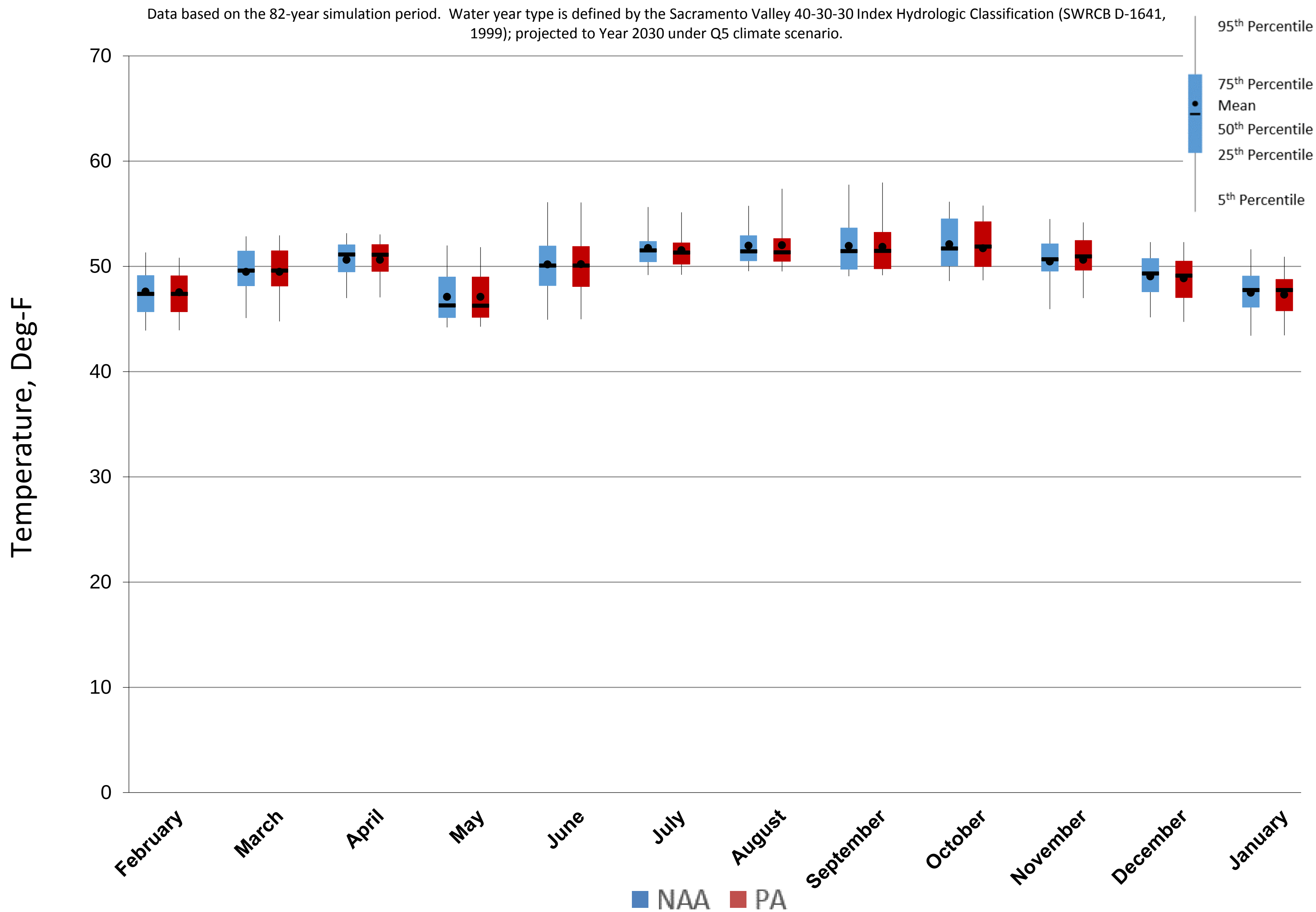


Figure 5.C.7-1-2. Monthly Temperature Ranges for Trinity River below Lewiston Dam, Wet Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 26 wet years.

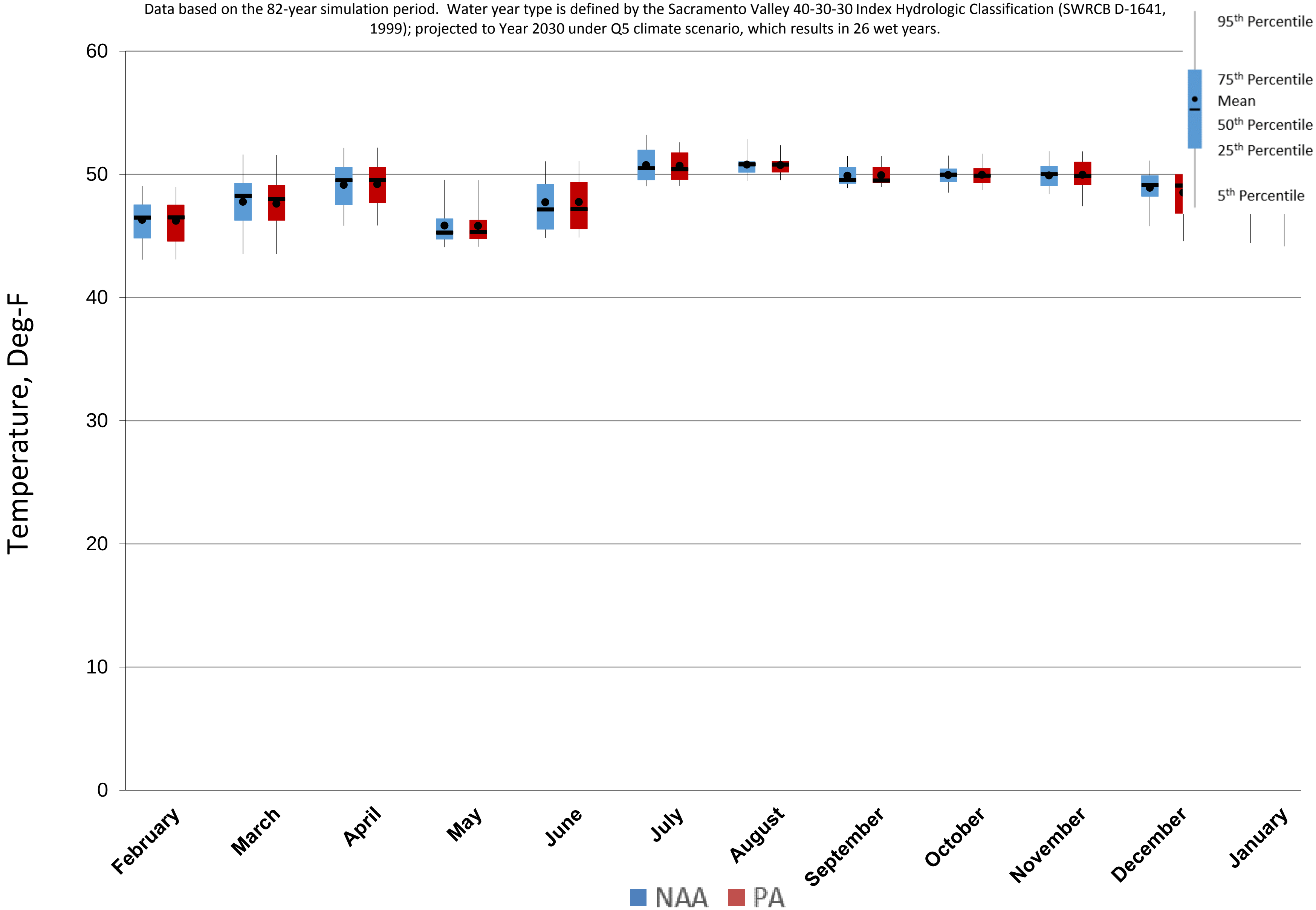


Figure 5.C.7-1-3. Monthly Temperature Ranges for Trinity River below Lewiston Dam, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

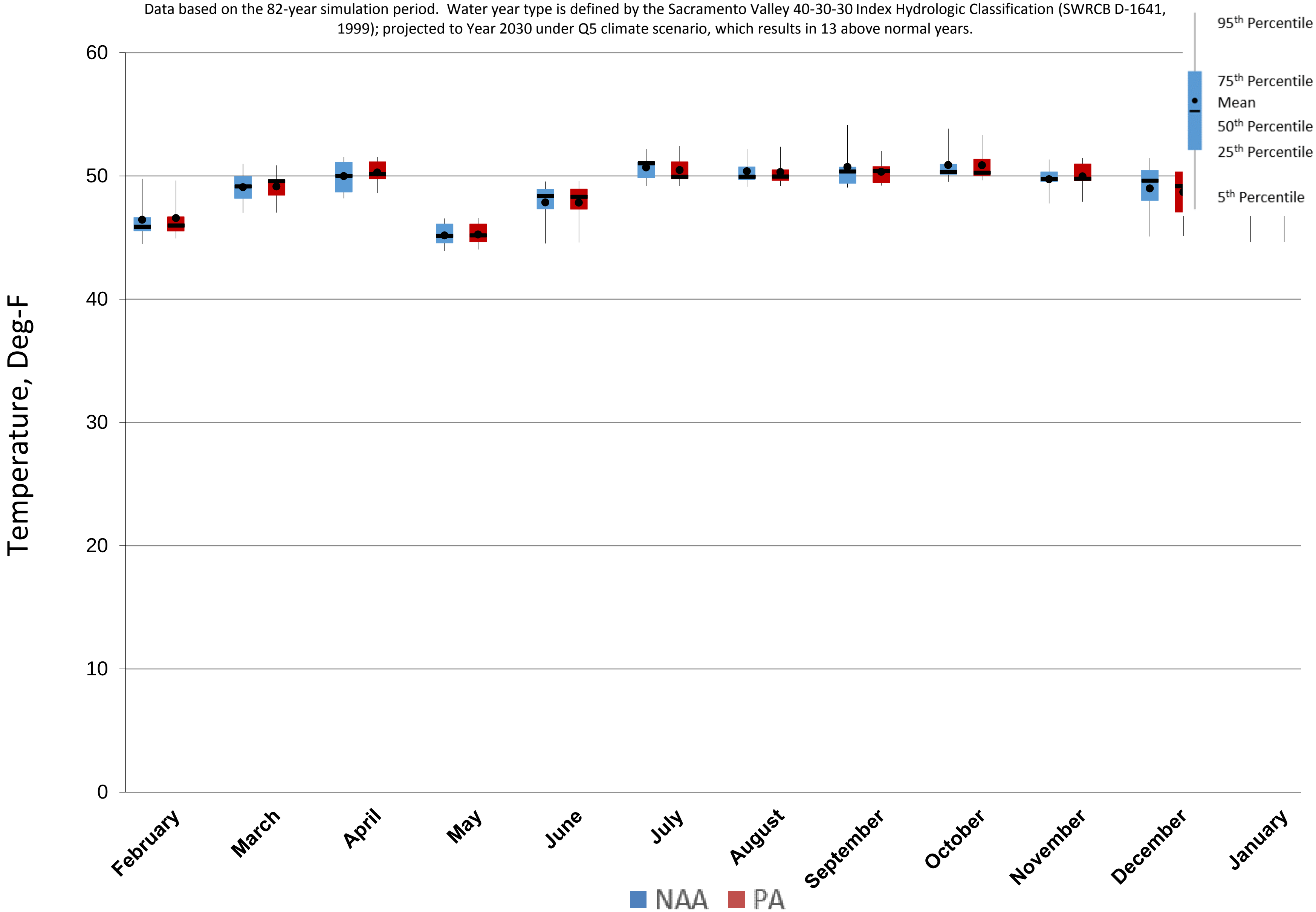


Figure 5.C.7-1-4. Monthly Temperature Ranges for Trinity River below Lewiston Dam, Below Normal Years

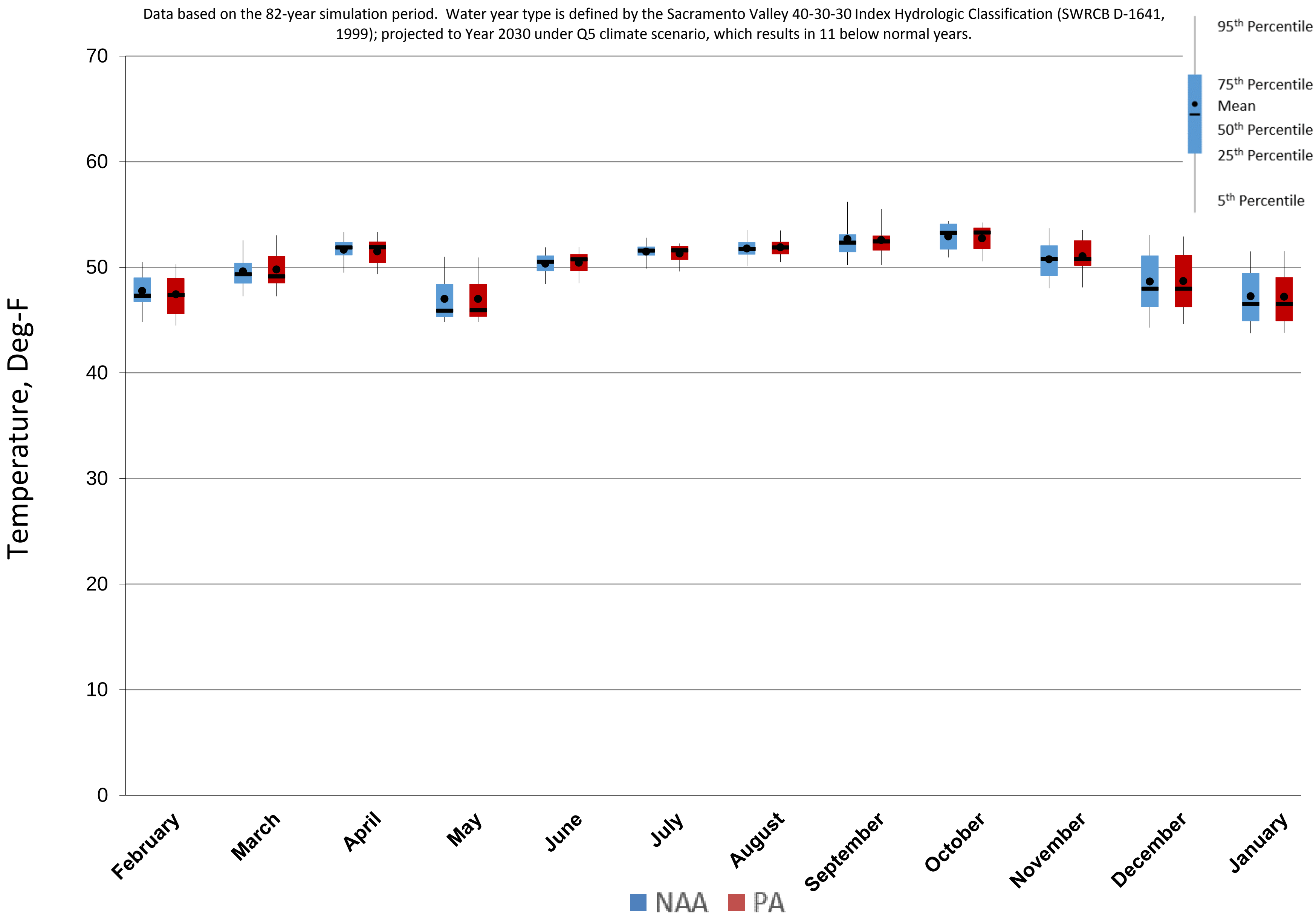


Figure 5.C.7-1-5. Monthly Temperature Ranges for Trinity River below Lewiston Dam, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.

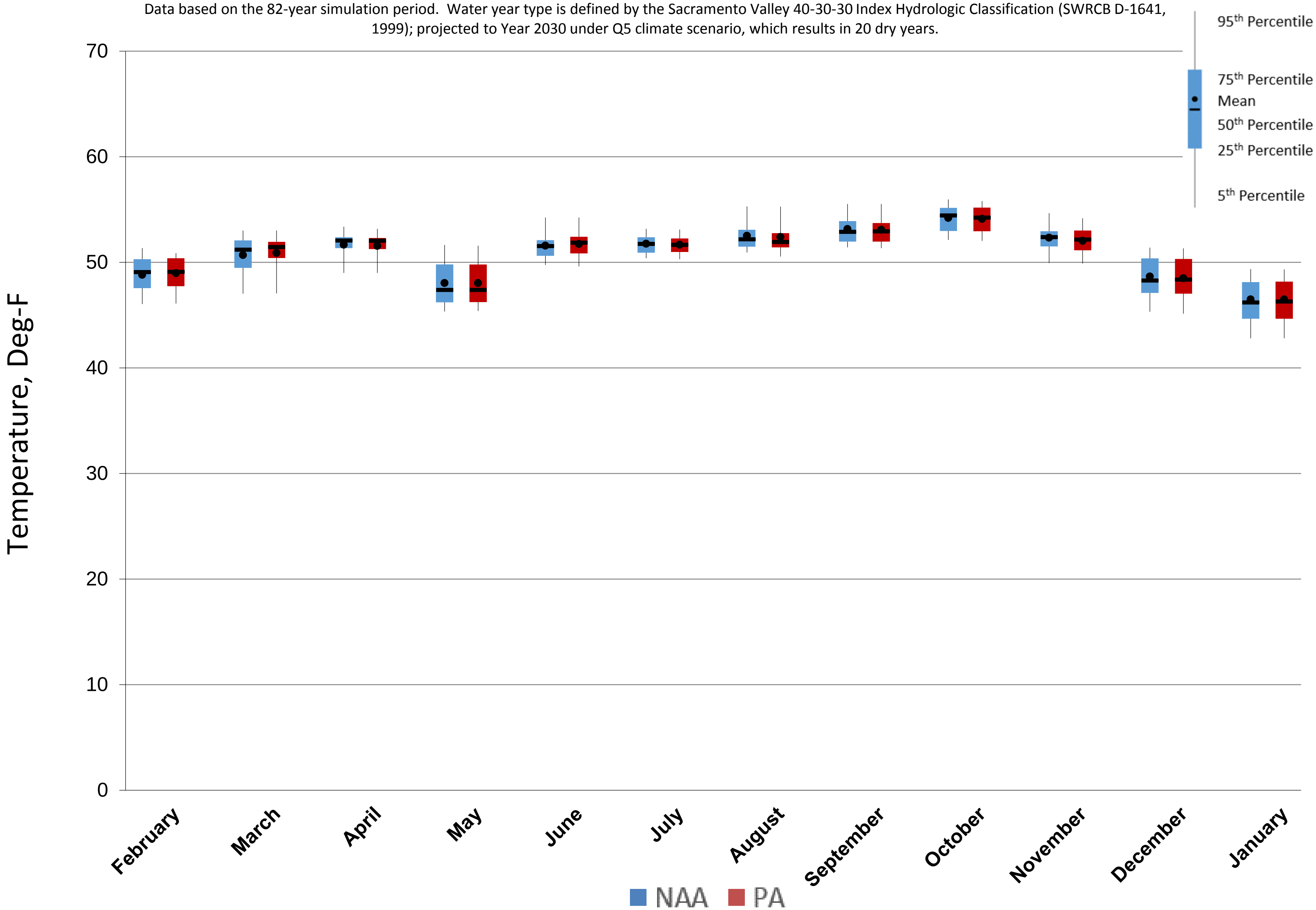


Figure 5.C.7-1-6. Monthly Temperature Ranges for Trinity River below Lewiston Dam, Critical Years

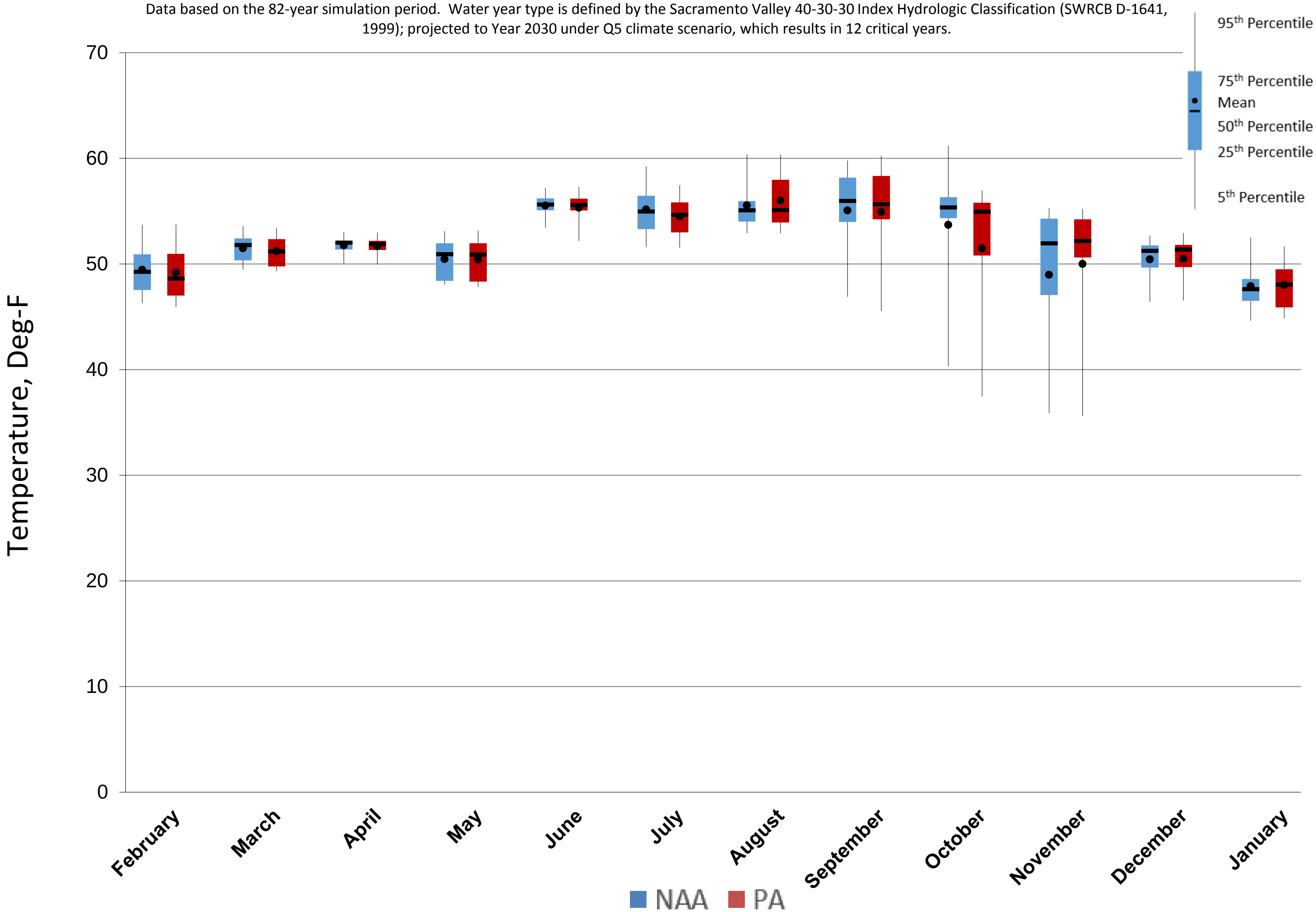
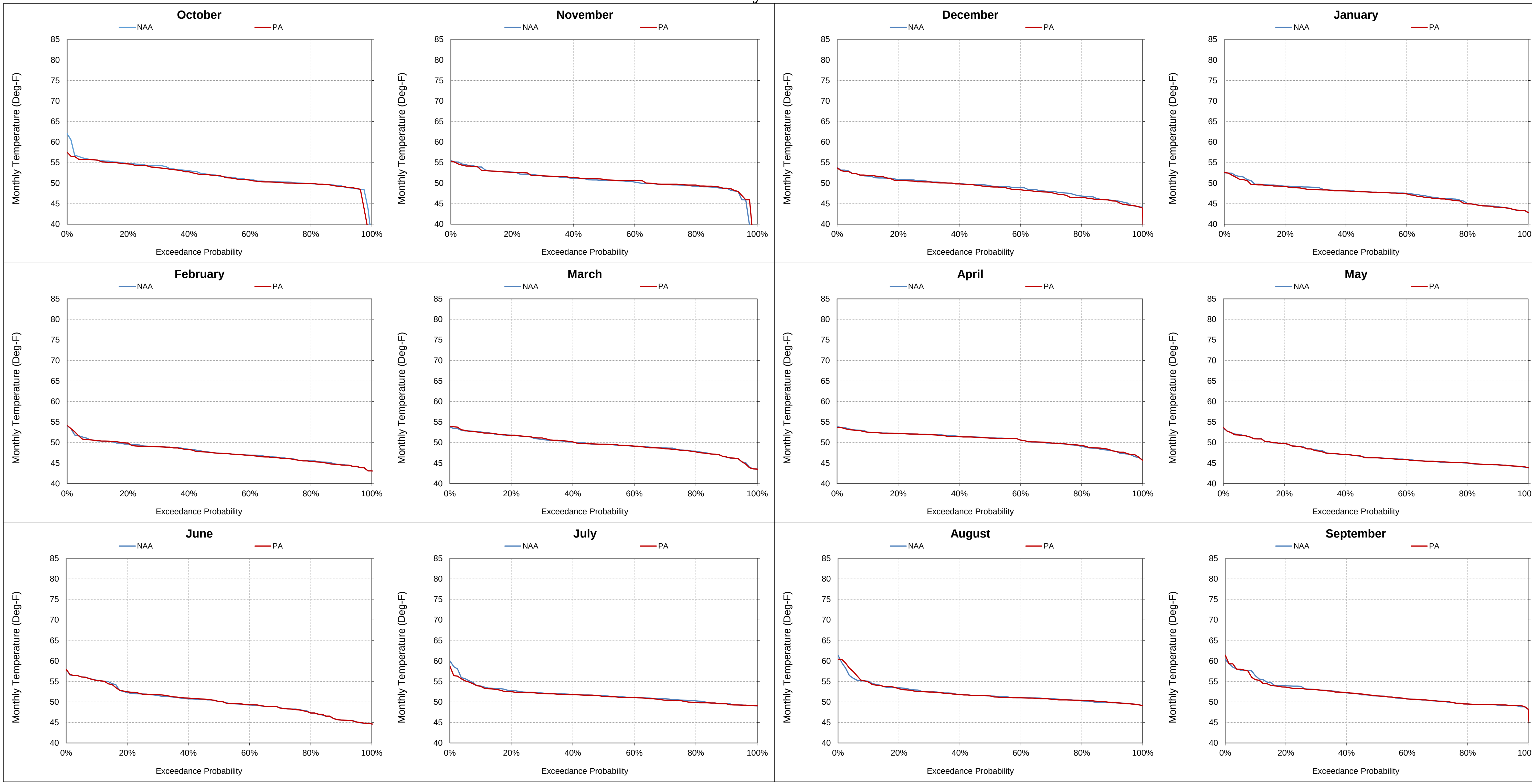
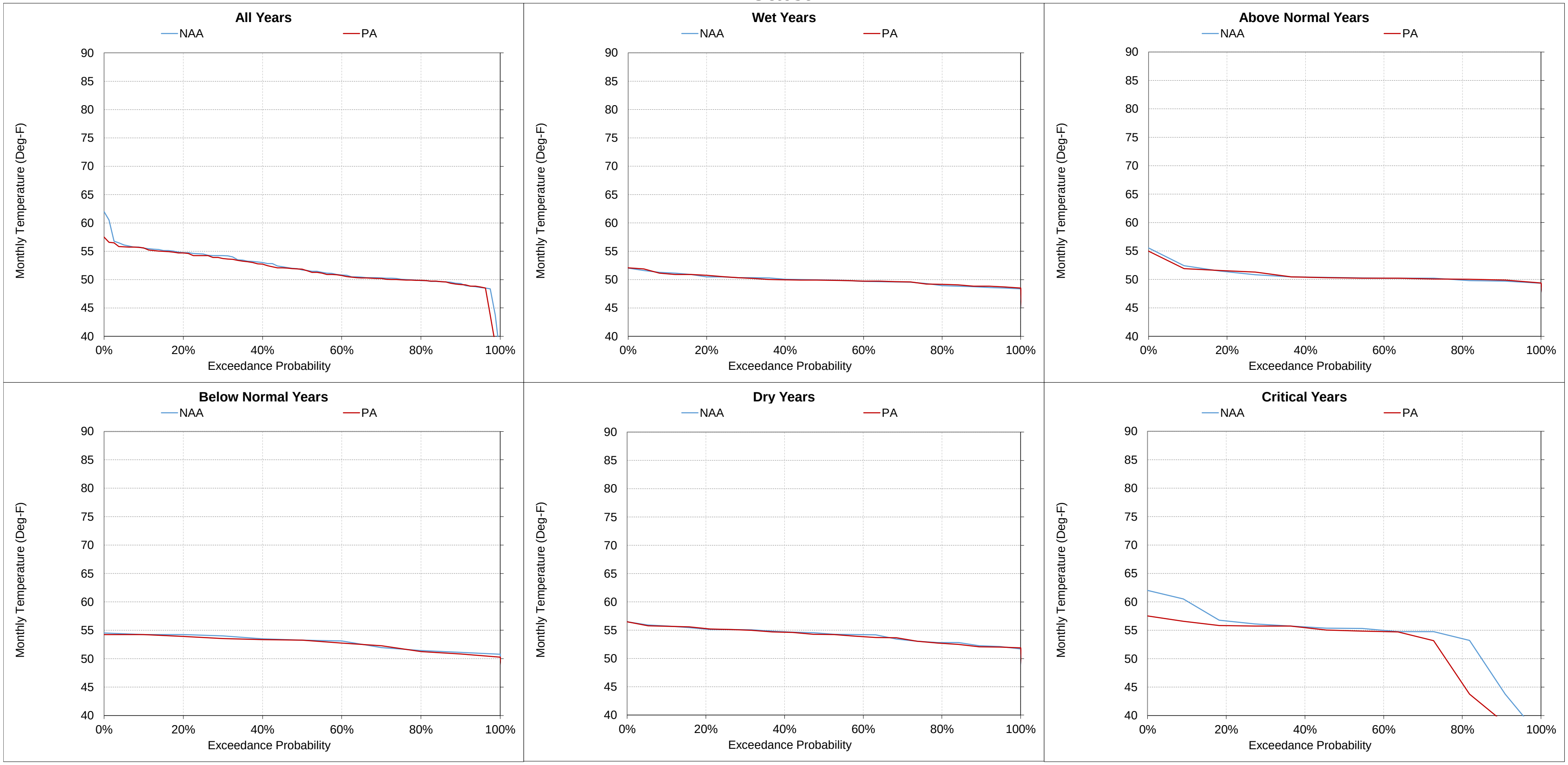


Figure 5.C.7-1-7. Trinity River below Lewiston Dam, Monthly Temperature Probability of Exceedance



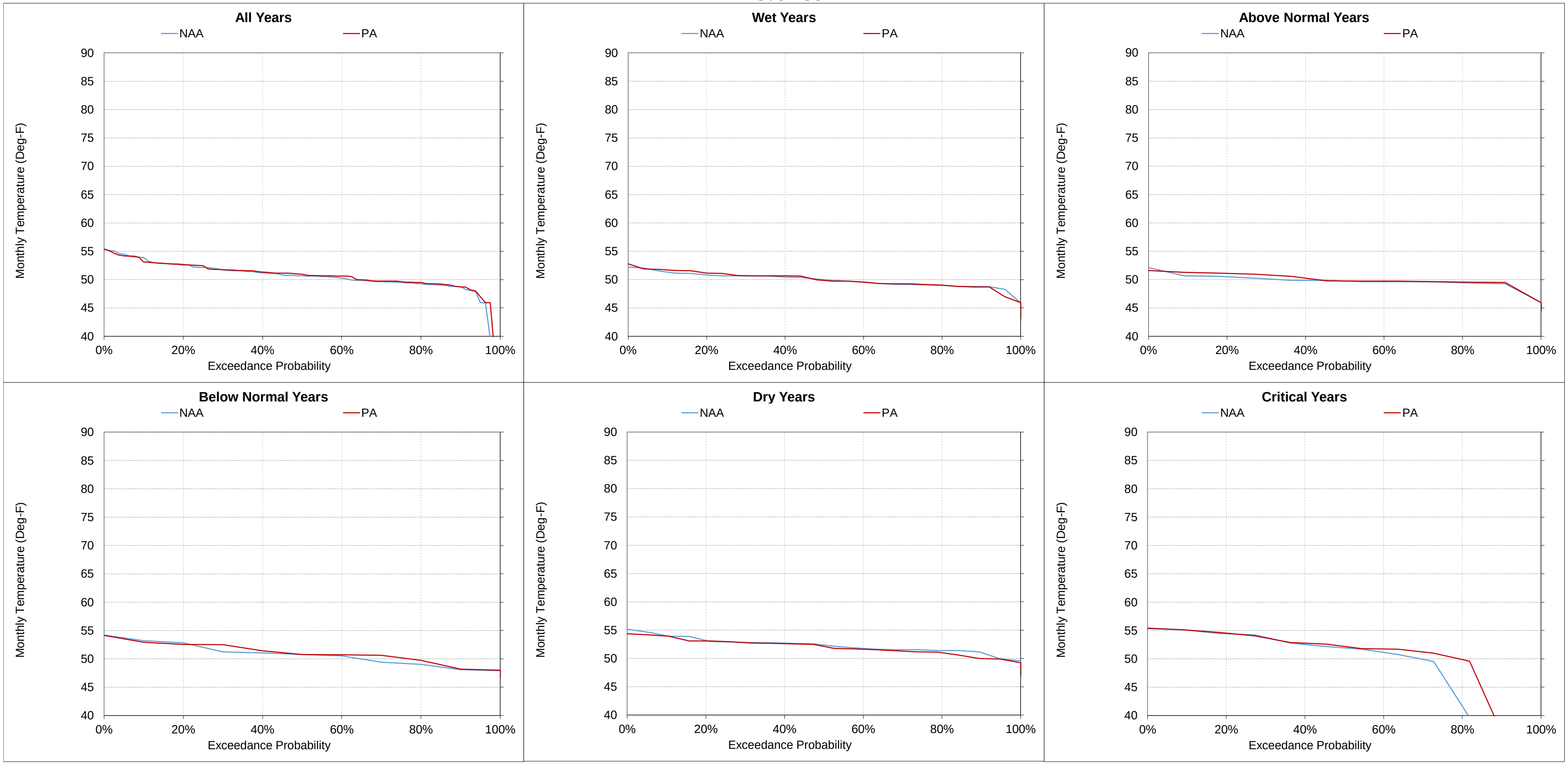
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-8. Trinity River below Lewiston Dam, Monthly Temperature
October



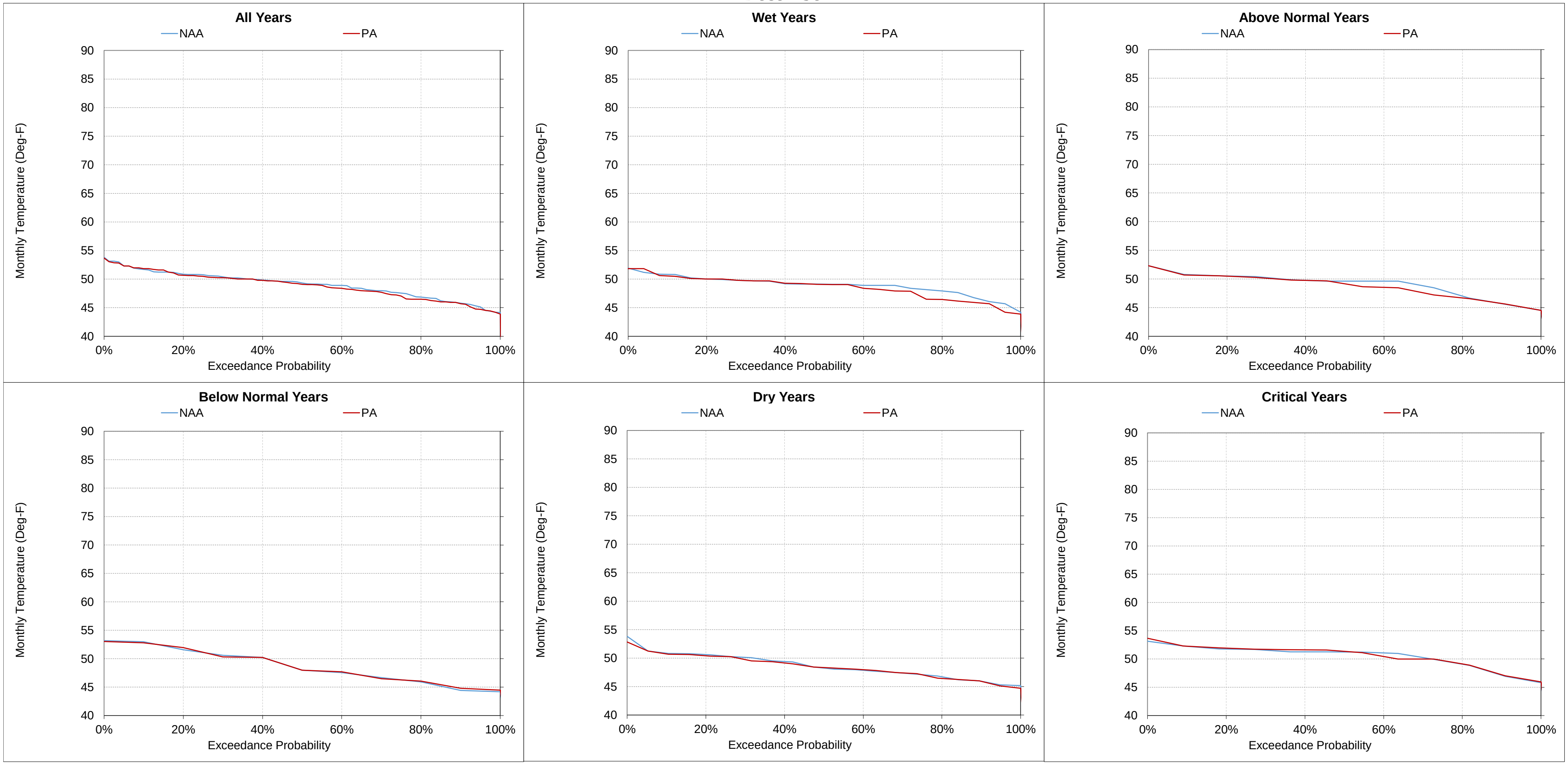
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-9. Trinity River below Lewiston Dam, Monthly Temperature
November



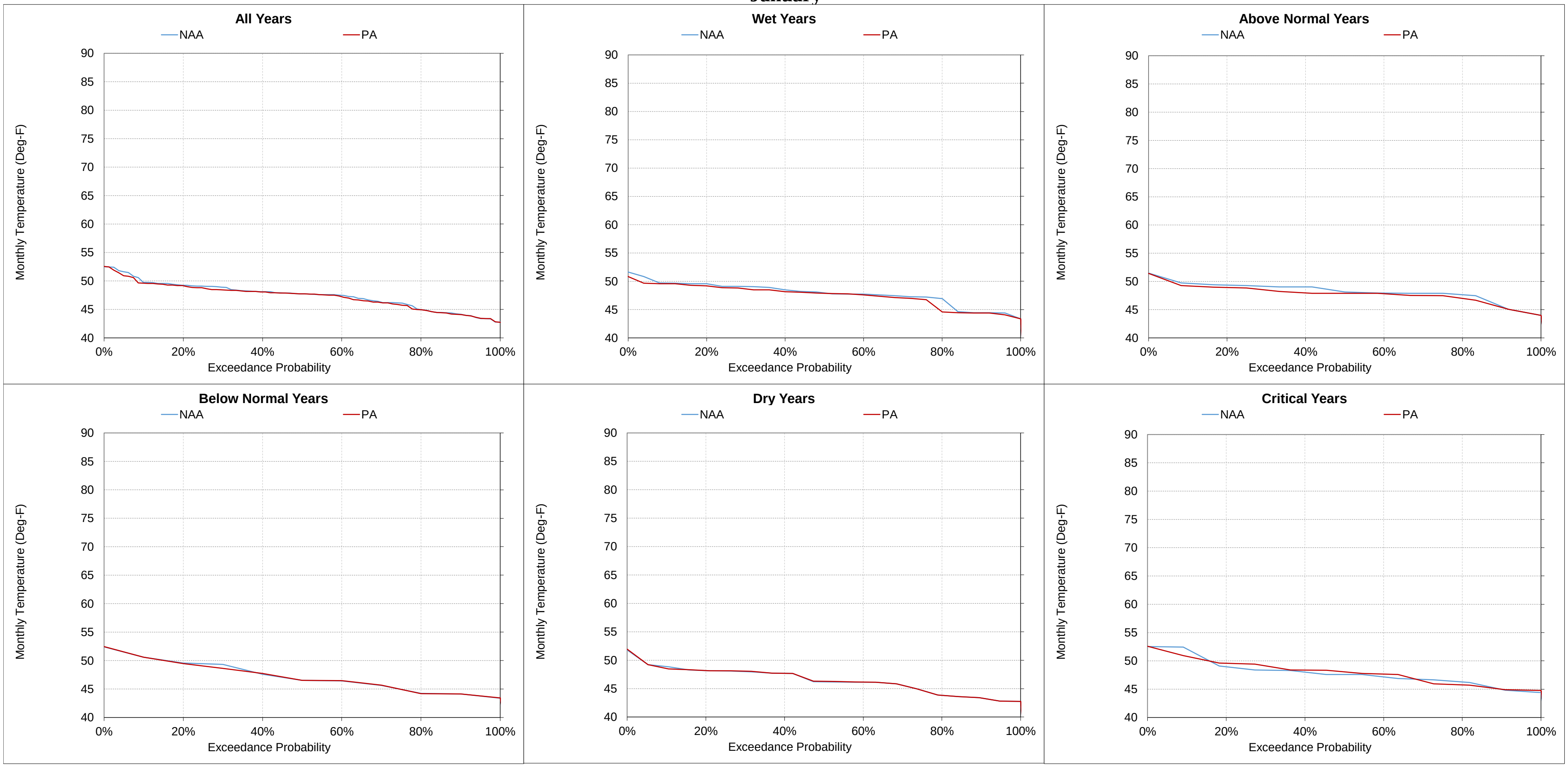
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-10. Trinity River below Lewiston Dam, Monthly Temperature December



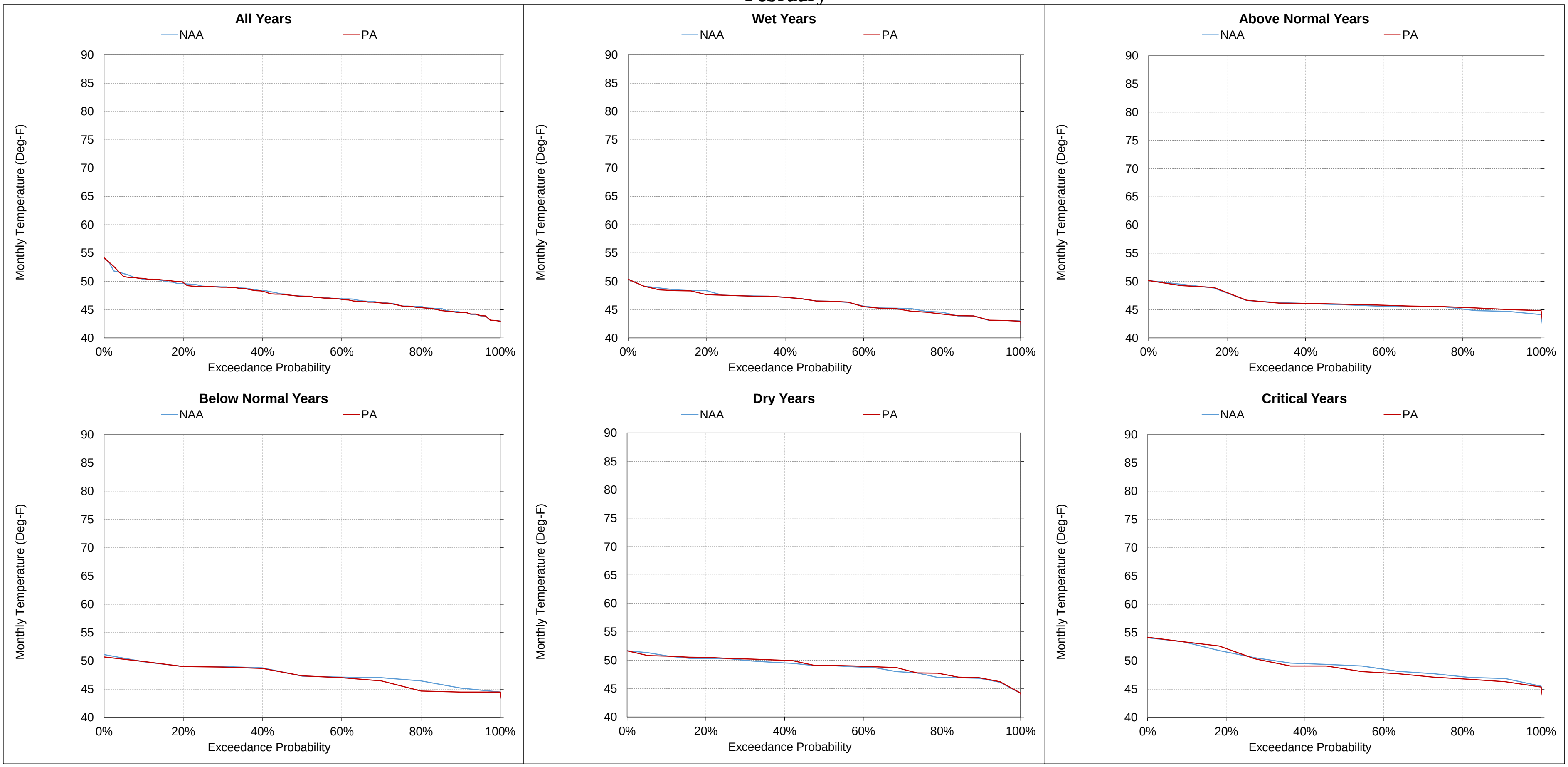
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-11. Trinity River below Lewiston Dam, Monthly Temperature
January



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-12. Trinity River below Lewiston Dam, Monthly Temperature February



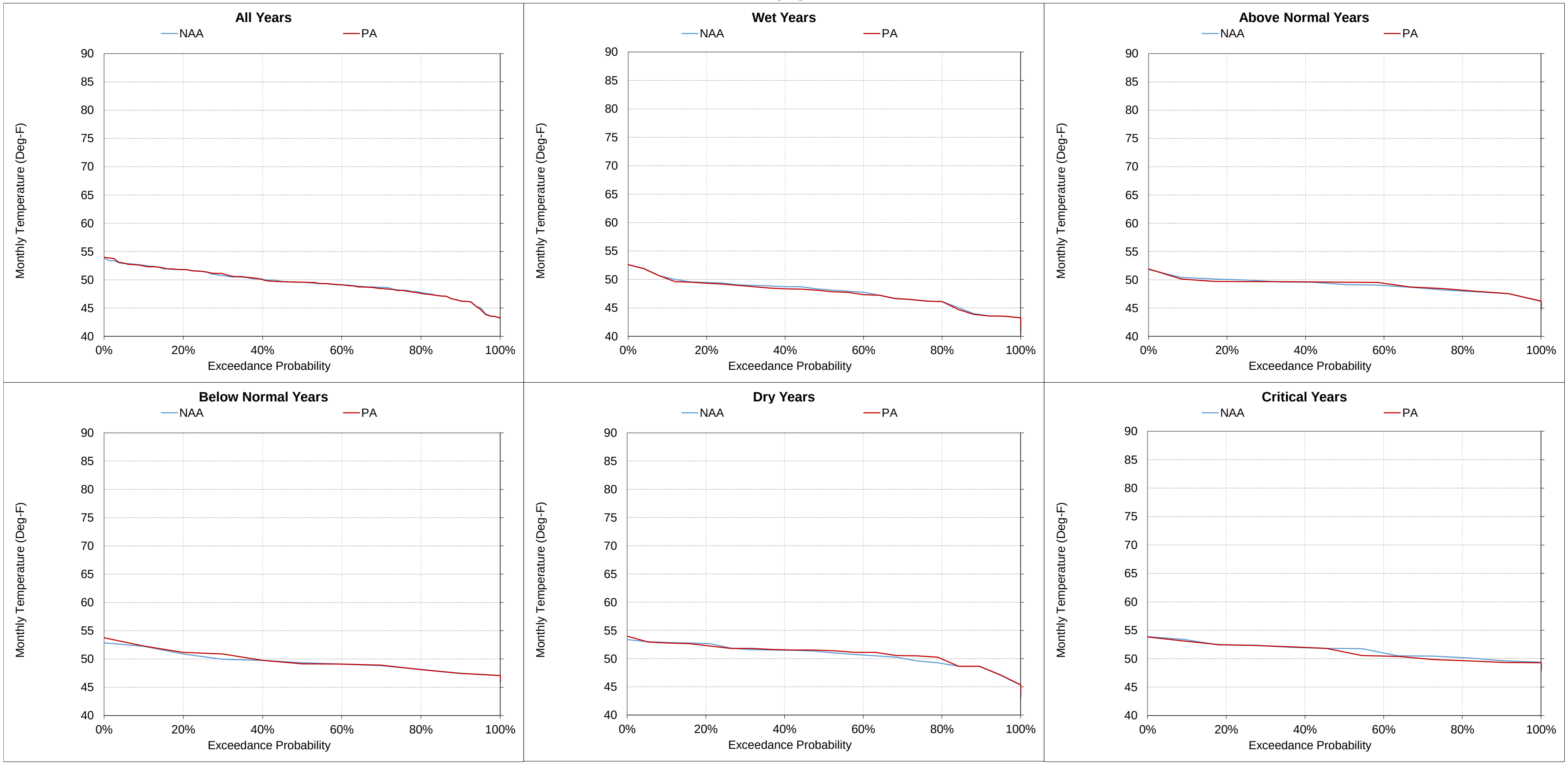
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

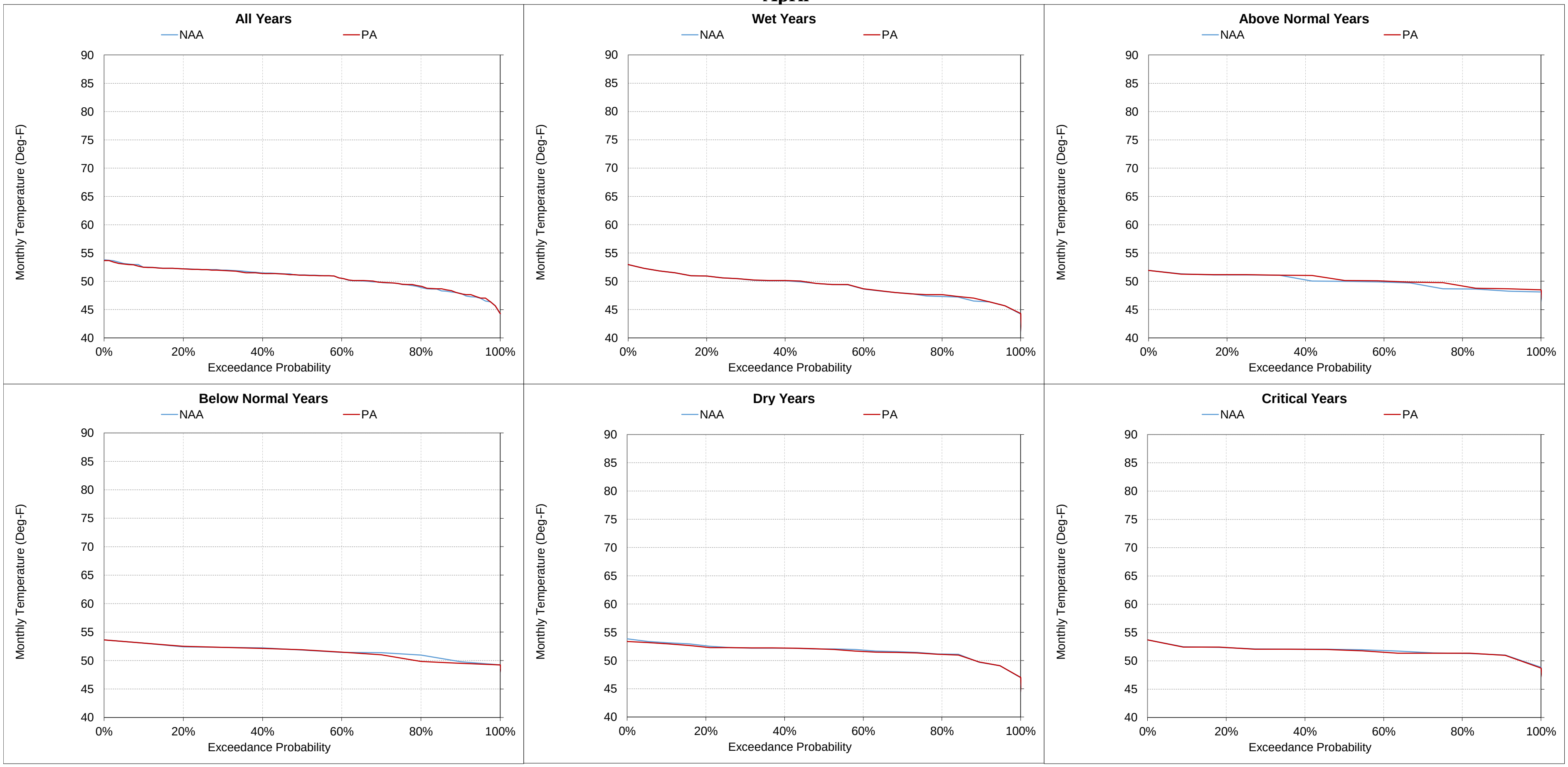
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-13. Trinity River below Lewiston Dam, Monthly Temperature
March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-14. Trinity River below Lewiston Dam, Monthly Temperature April



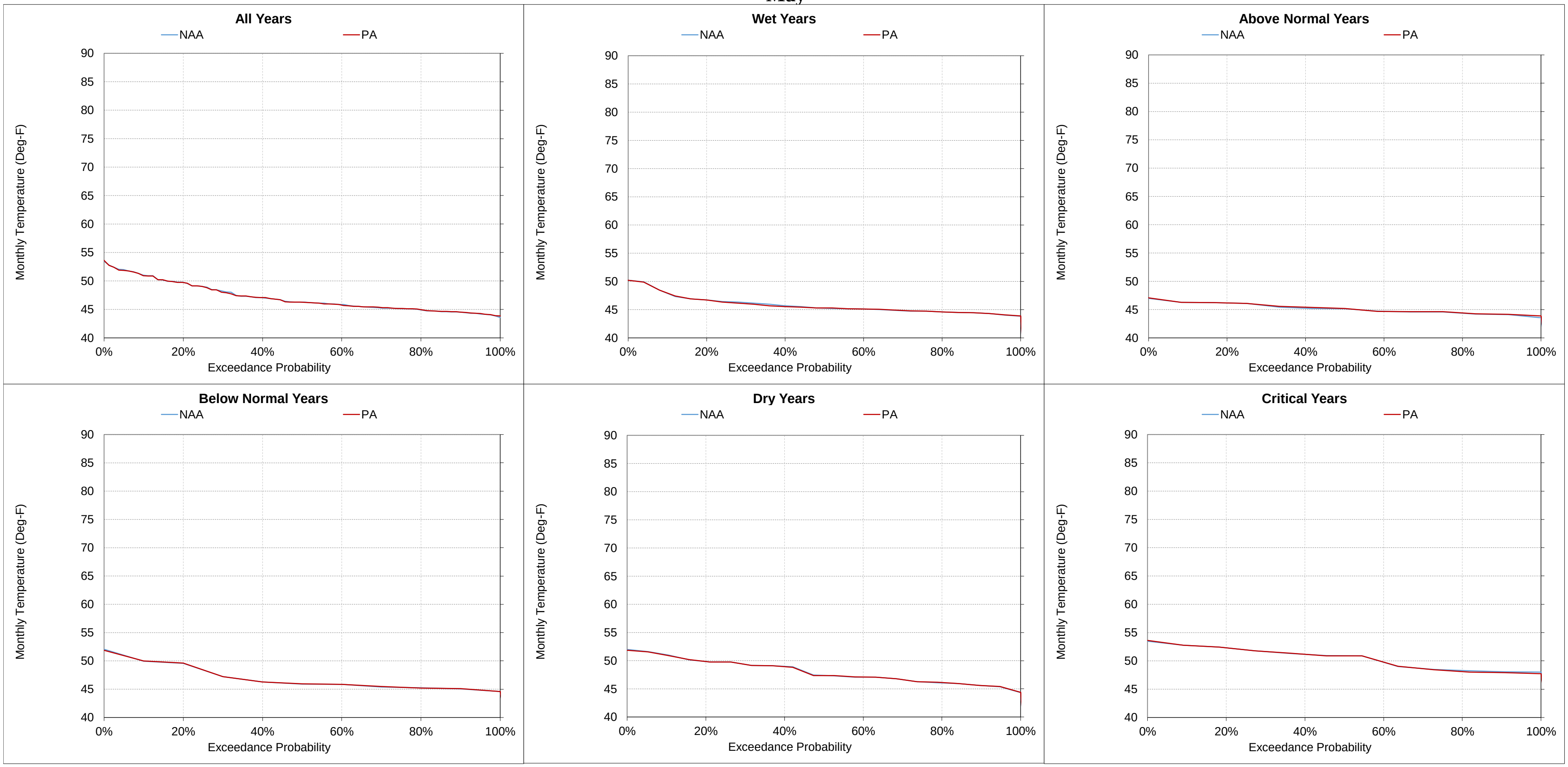
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

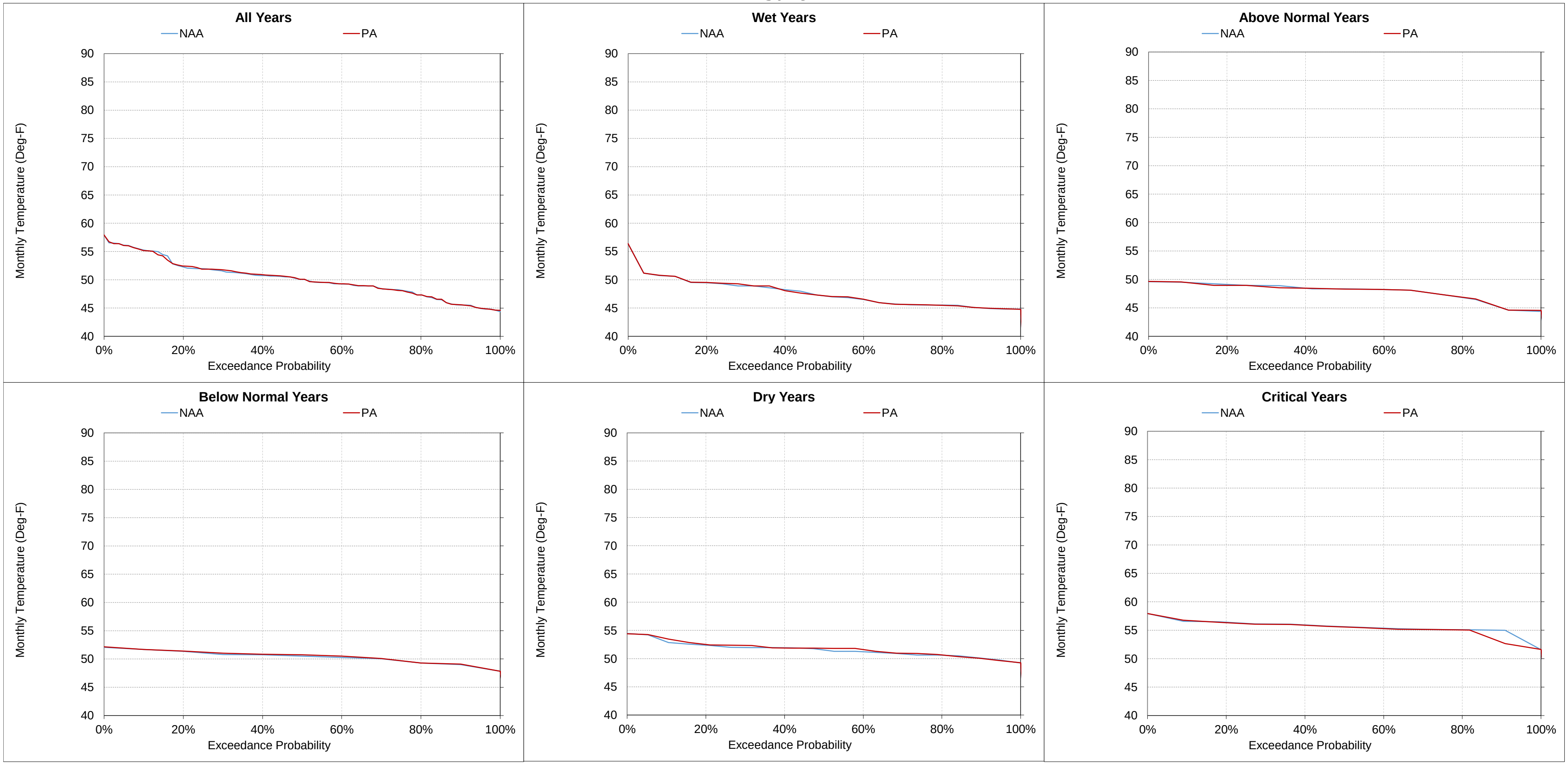
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-15. Trinity River below Lewiston Dam, Monthly Temperature May



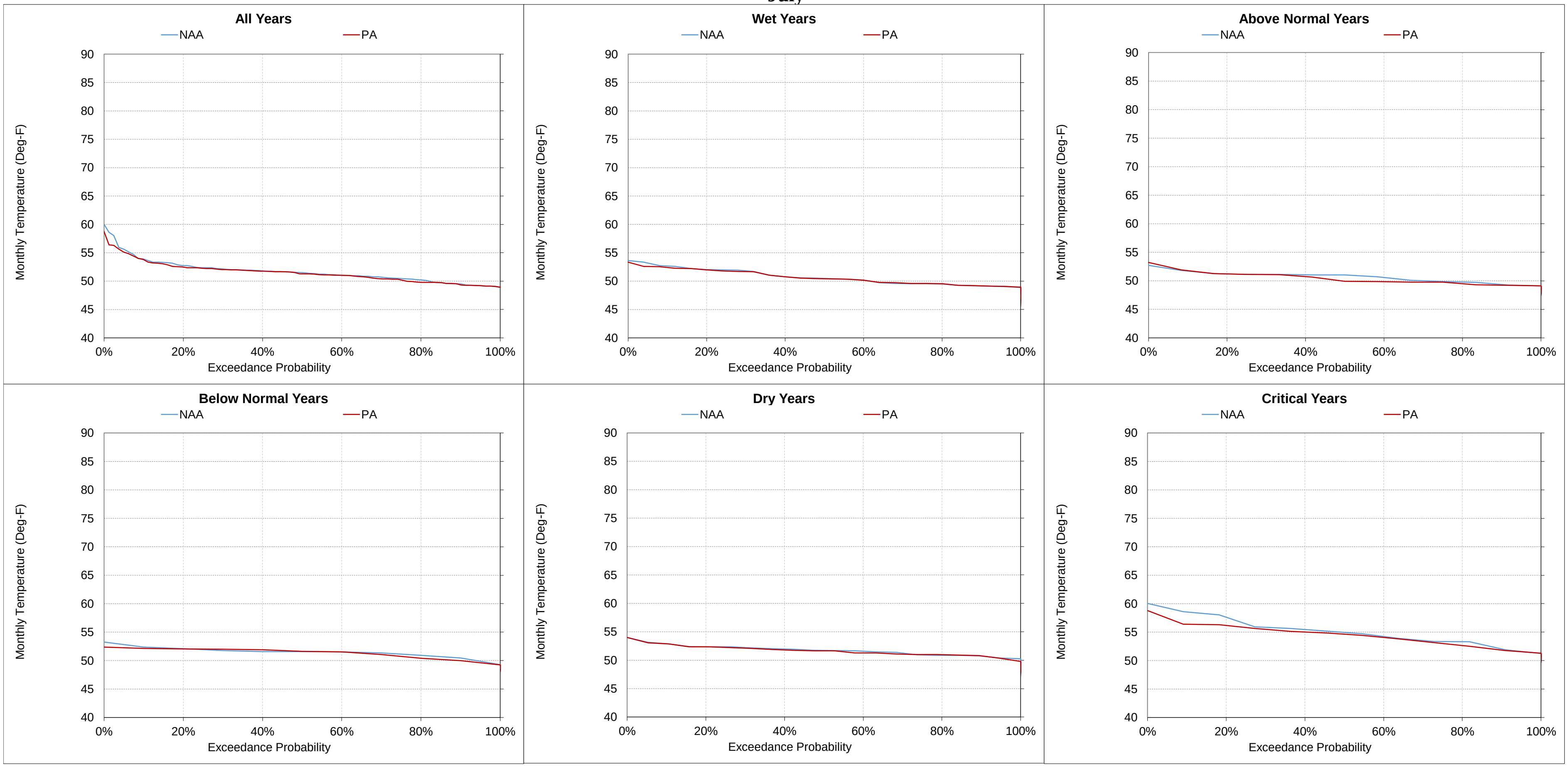
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-16. Trinity River below Lewiston Dam, Monthly Temperature
June



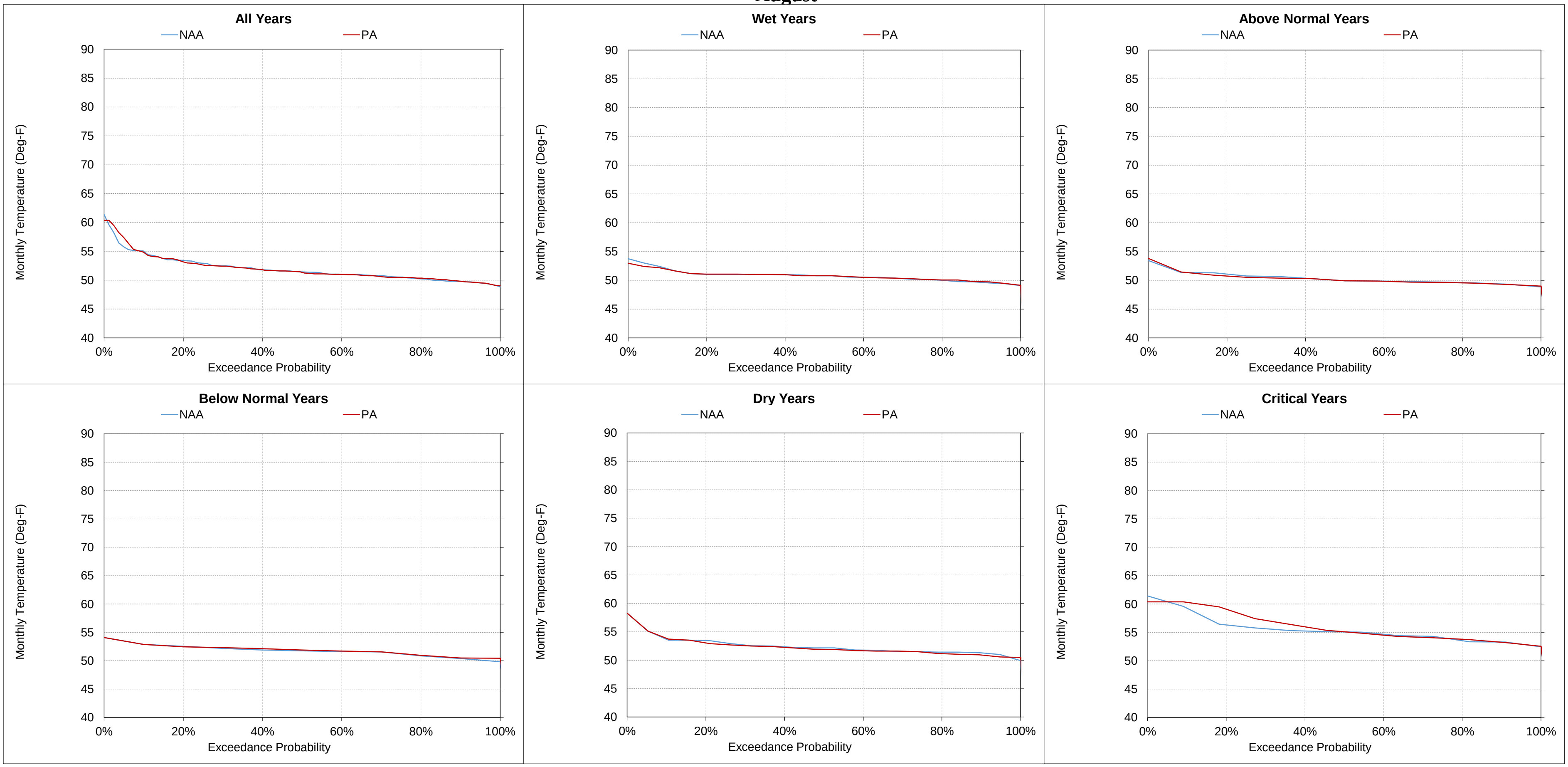
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-17. Trinity River below Lewiston Dam, Monthly Temperature July



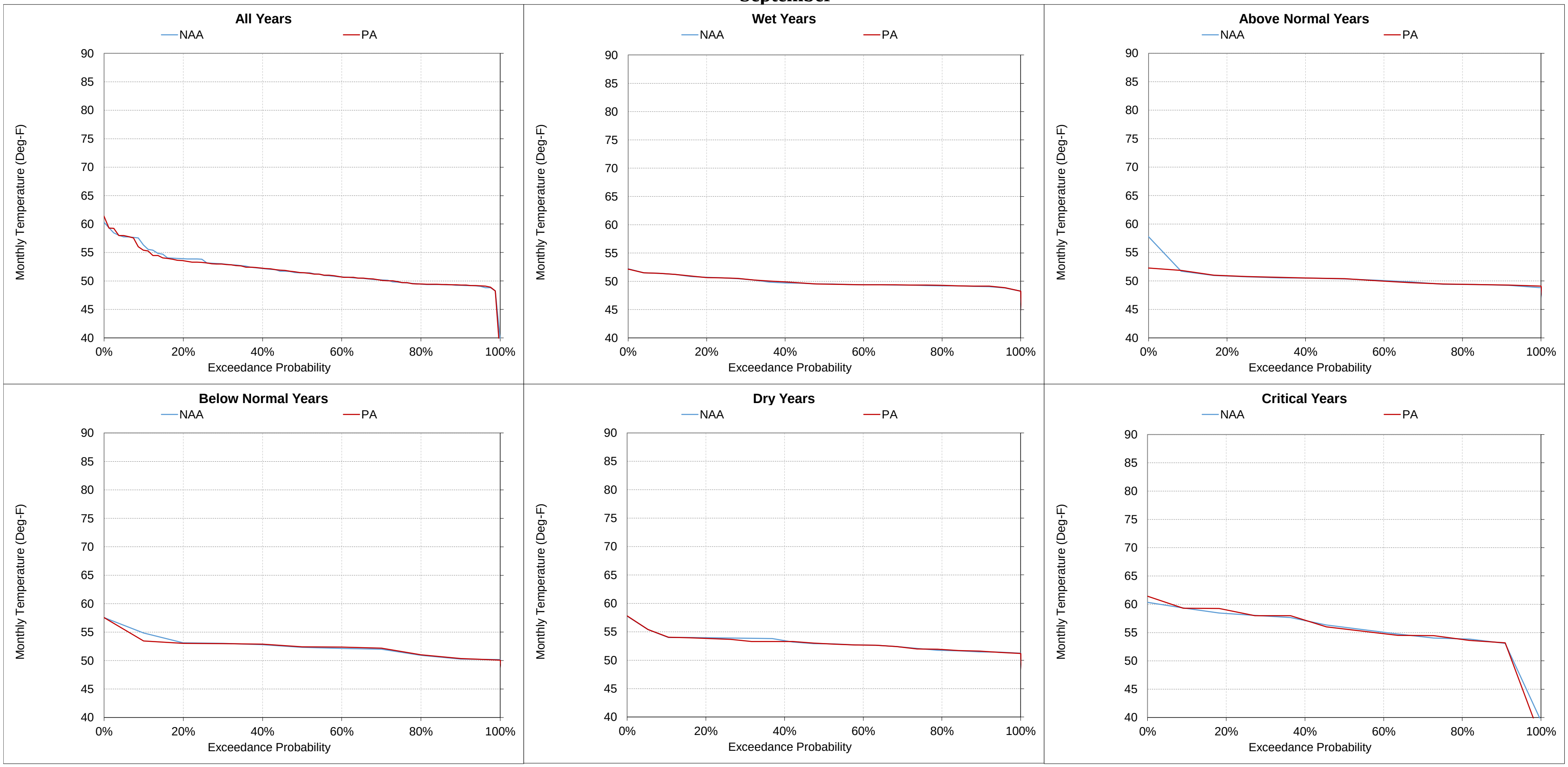
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-18. Trinity River below Lewiston Dam, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-1-19. Trinity River below Lewiston Dam, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-2. Clear Creek at Igo, Monthly Temperature

Statistic	October				November				December				January				February				March			
	Monthly Temperature (Deg-F)																							
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	56.1	56.1	0.0	0%	52.7	52.7	0.0	0%	49.0	49.0	0.0	0%	46.2	46.2	0.0	0%	46.1	46.1	0.0	0%	47.4	47.4	0.0	0%
20%	54.9	54.8	-0.1	0%	52.1	52.1	0.0	0%	48.0	48.1	0.1	0%	45.6	45.6	0.0	0%	45.6	45.6	0.0	0%	47.0	47.0	0.1	0%
30%	54.3	54.2	-0.1	0%	51.4	51.5	0.1	0%	47.5	47.5	0.0	0%	45.3	45.2	0.0	0%	45.3	45.3	0.0	0%	46.6	46.5	-0.1	0%
40%	53.4	53.8	0.4	1%	51.0	51.1	0.1	0%	47.0	46.9	0.0	0%	45.0	45.0	0.1	0%	45.1	45.0	0.0	0%	46.3	46.2	-0.1	0%
50%	53.1	52.9	-0.2	0%	50.5	50.6	0.1	0%	46.6	46.6	0.0	0%	44.6	44.6	0.0	0%	44.7	44.7	0.0	0%	46.0	45.9	-0.1	0%
60%	52.5	52.5	0.0	0%	50.4	50.3	-0.1	0%	46.3	46.3	0.0	0%	44.4	44.4	0.0	0%	44.6	44.5	0.0	0%	45.9	45.8	0.0	0%
70%	51.7	51.7	-0.1	0%	50.1	50.1	0.0	0%	46.1	46.1	0.0	0%	44.1	44.1	0.0	0%	44.4	44.3	-0.1	0%	45.6	45.6	0.0	0%
80%	51.3	51.3	0.0	0%	49.7	49.8	0.1	0%	46.0	46.0	0.0	0%	43.9	43.9	0.0	0%	44.2	44.1	0.0	0%	45.3	45.4	0.0	0%
90%	50.9	51.0	0.1	0%	49.6	49.6	0.0	0%	45.8	45.8	0.0	0%	43.6	43.6	0.0	0%	43.8	43.9	0.2	0%	44.8	44.8	0.0	0%
Long Term Full Simulation Period[b]	53.3	53.3	0.0	0%	50.9	51.0	0.0	0%	47.0	47.0	0.0	0%	44.8	44.8	0.0	0%	44.9	44.9	0.0	0%	46.1	46.1	0.0	0%
Water Year Types[c]																								
Wet (32%)	51.4	51.5	0.0	0%	50.1	50.1	0.1	0%	46.6	46.6	0.0	0%	44.8	44.8	0.0	0%	44.6	44.5	0.0	0%	45.6	45.6	0.0	0%
Above Normal (16%)	52.0	52.0	0.0	0%	50.1	50.1	0.0	0%	46.4	46.4	0.0	0%	44.6	44.6	0.0	0%	44.6	44.6	0.0	0%	45.6	45.6	0.0	0%
Below Normal (13%)	53.5	53.5	0.0	0%	51.2	51.2	0.0	0%	46.9	46.9	0.0	0%	44.9	44.9	0.0	0%	44.7	44.6	0.0	0%	46.1	46.0	-0.1	0%
Dry (24%)	54.2	54.1	0.0	0%	51.3	51.3	0.0	0%	47.4	47.4	0.0	0%	44.5	44.5	0.0	0%	45.1	45.1	0.0	0%	46.4	46.4	0.0	0%
Critical (15%)	57.0	57.0	0.0	0%	52.7	52.8	0.1	0%	47.7	47.7	0.0	0%	45.5	45.5	0.0	0%	46.0	46.0	0.0	0%	47.3	47.3	0.0	0%

Statistic	April				May				June				July				August				September			
	Monthly Temperature (Deg-F)																							
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	49.1	49.1	0.0	0%	50.3	50.3	0.0	0%	53.3	53.3	0.0	0%	56.5	56.6	0.1	0%	56.9	57.3	0.3	1%	56.4	56.4	0.0	0%
20%	48.7	48.7	0.0	0%	49.9	49.9	0.0	0%	52.6	52.5	-0.1	0%	55.9	55.9	0.0	0%	56.5	56.7	0.2	0%	55.3	55.1	-0.2	0%
30%	48.2	48.2	0.0	0%	49.5	49.4	0.0	0%	51.9	51.8	-0.1	0%	55.5	55.4	-0.1	0%	56.0	56.0	0.0	0%	54.8	54.7	-0.1	0%
40%	48.0	47.9	-0.1	0%	49.2	49.2	0.0	0%	51.6	51.6	0.0	0%	55.2	55.2	0.0	0%	55.7	55.7	0.0	0%	54.2	54.3	0.0	0%
50%	47.6	47.6	0.0	0%	49.0	49.0	-0.1	0%	51.4	51.4	0.0	0%	55.0	55.0	0.0	0%	55.3	55.3	0.0	0%	53.8	53.8	0.0	0%
60%	47.4	47.4	0.0	0%	48.8	48.8	0.0	0%	51.1	51.1	0.0	0%	54.6	54.8	0.1	0%	55.2	55.2	0.0	0%	53.3	53.4	0.0	0%
70%	47.2	47.2	-0.1	0%	48.5	48.5	0.0	0%	50.8	50.8	0.0	0%	54.5	54.6	0.0	0%	54.9	55.1	0.2	0%	53.0	53.0	0.0	0%
80%	46.9	46.9	0.0	0%	48.2	48.3	0.1	0%	50.4	50.4	0.0	0%	54.4	54.4	0.0	0%	54.6	54.7	0.1	0%	52.4	52.4	0.1	0%
90%	46.5	46.5	0.0	0%	47.6	47.5	-0.1	0%	49.8	49.8	0.0	0%	54.1	54.1	-0.1	0%	54.3	54.4	0.1	0%	52.2	52.2	0.1	0%
Long Term Full Simulation Period[b]	47.8	47.7	0.0	0%	49.0	49.0	0.0	0%	51.5	51.5	0.0	0%	55.1	55.1	0.0	0%	55.5	55.6	0.1	0%	54.1	54.1	0.0	0%
Water Year Types[c]																								
Wet (32%)	47.3	47.2	0.0	0%	48.8	48.8	0.0	0%	51.0	51.1	0.0	0%	54.9	54.9	0.0	0%	55.1	55.2	0.1	0%	52.8	52.8	0.0	0%
Above Normal (16%)	47.3	47.2	0.0	0%	48.7	48.6	-0.1	0%	51.0	50.9	-0.1	0%	54.8	54.8	0.0	0%	54.9	54.9	0.0	0%	52.9	52.8	-0.1	0%
Below Normal (13%)	47.9	47.8	-0.1	0%	48.7	48.7	0.0	0%	51.0	51.1	0.0	0%	55.1	55.1	0.0	0%	55.3	55.4	0.1	0%	53.9	54.0	0.1	0%
Dry (24%)	48.0	48.0	0.0	0%	49.1	49.0	0.0	0%	51.5	51.4	0.0	0%	55.3	55.3	0.0	0%	56.1	56.1	0.0	0%	54.6	54.6	-0.1	0%
Critical (15%)	49.0	49.0	0.0	0%	50.1	50.1	0.0	0%	53.4	53.4	0.0	0%	55.4	55.5	0.1	0%	56.4	56.9	0.5	1%	57.4	57.8	0.4	1%

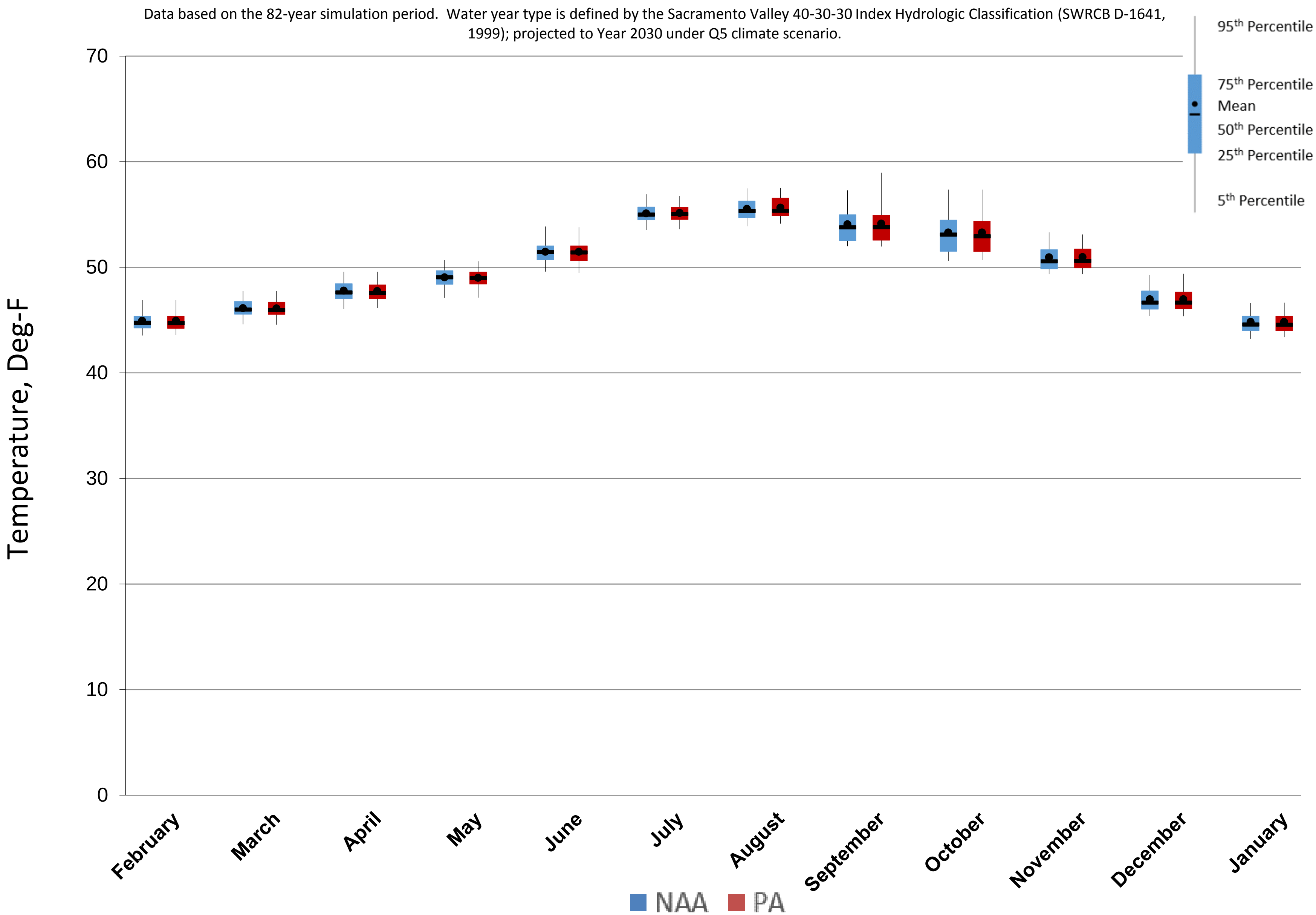
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-1. Monthly Temperature Ranges for Clear Creek at Igo, All Years



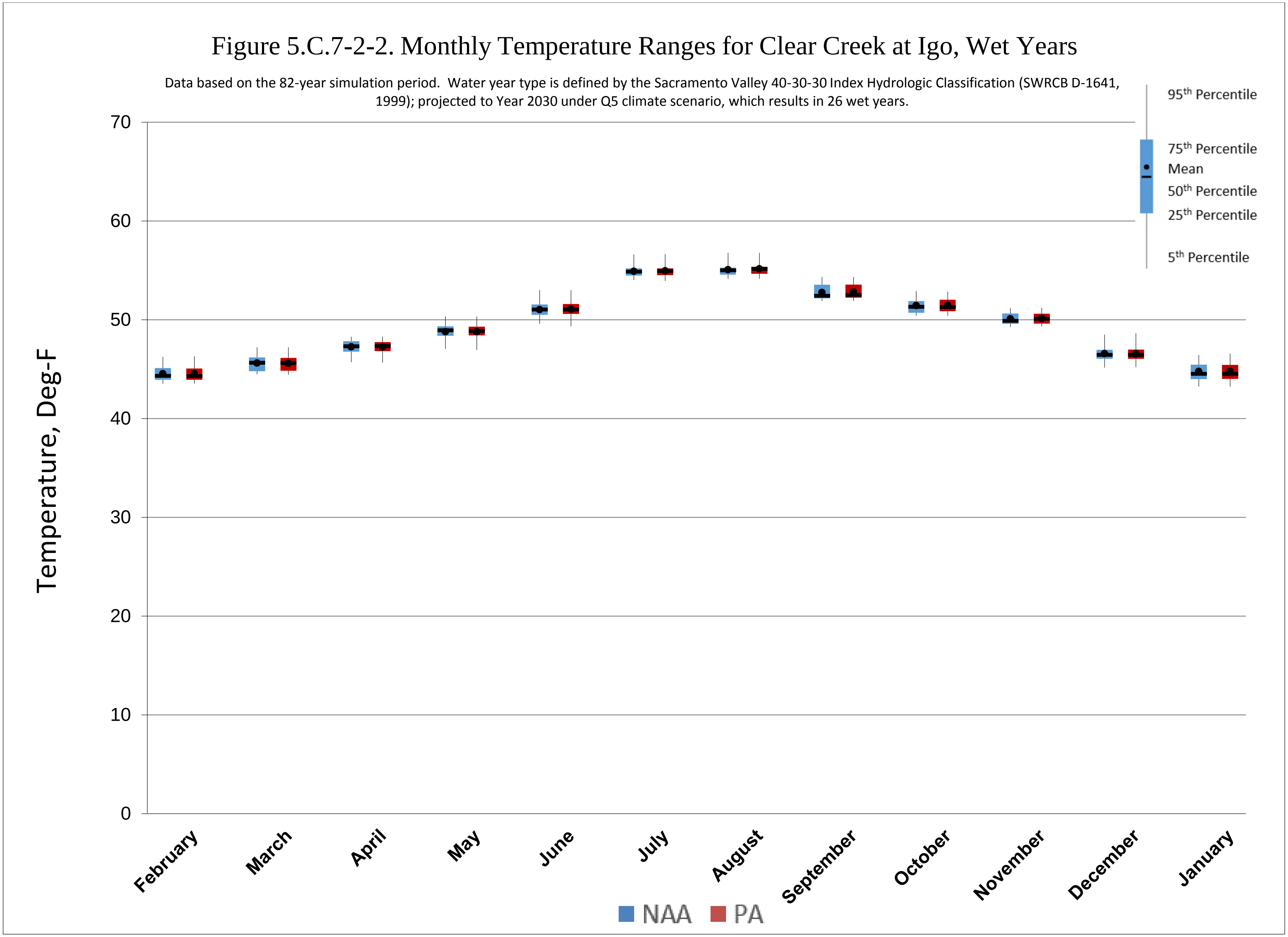


Figure 5.C.7-2-2. Monthly Temperature Ranges for Clear Creek at Igo, Wet Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 26 wet years.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

Figure 5.C.7-2-3. Monthly Temperature Ranges for Clear Creek at Igo, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

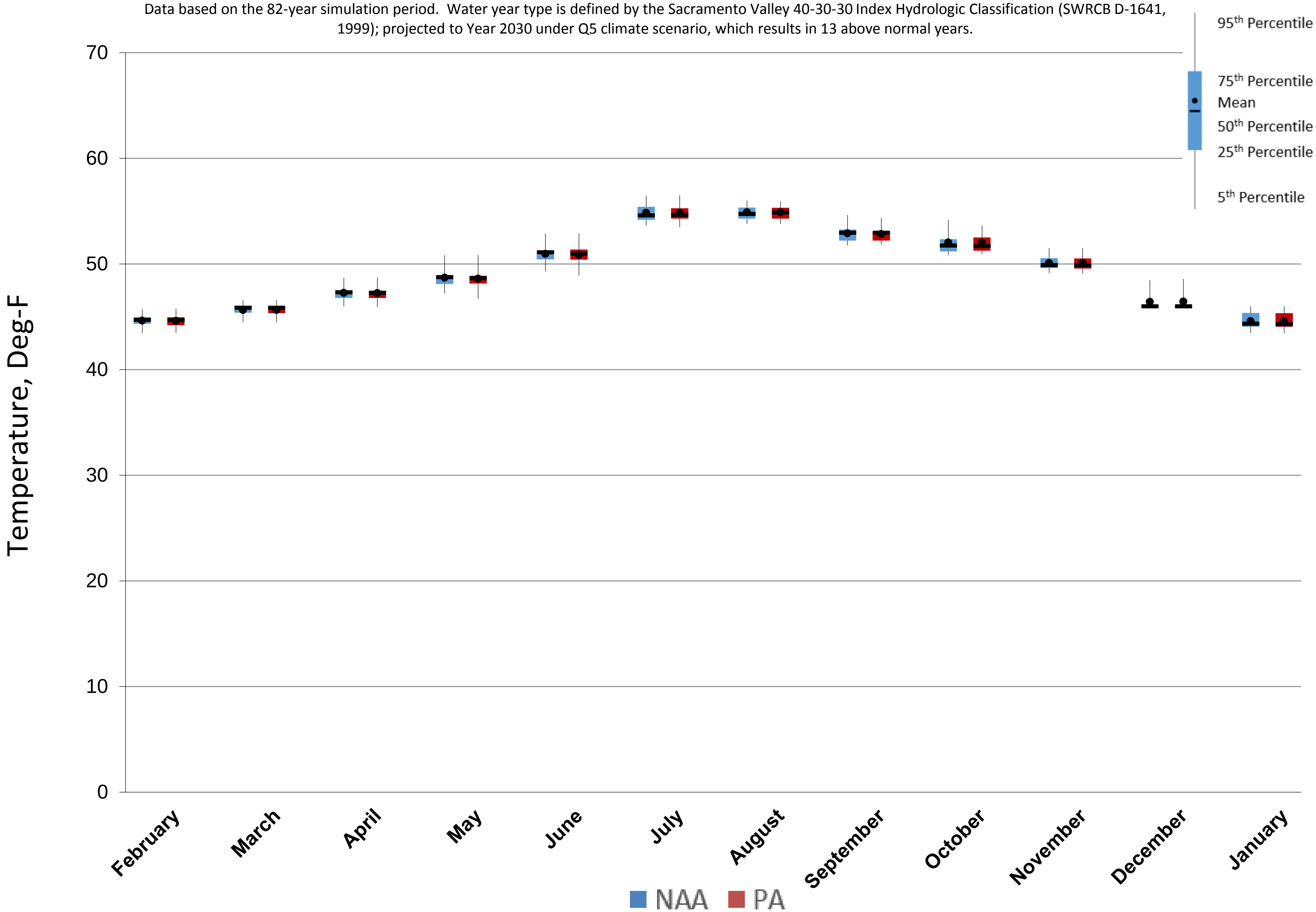


Figure 5.C.7-2-4. Monthly Temperature Ranges for Clear Creek at Igo, Below Normal Years

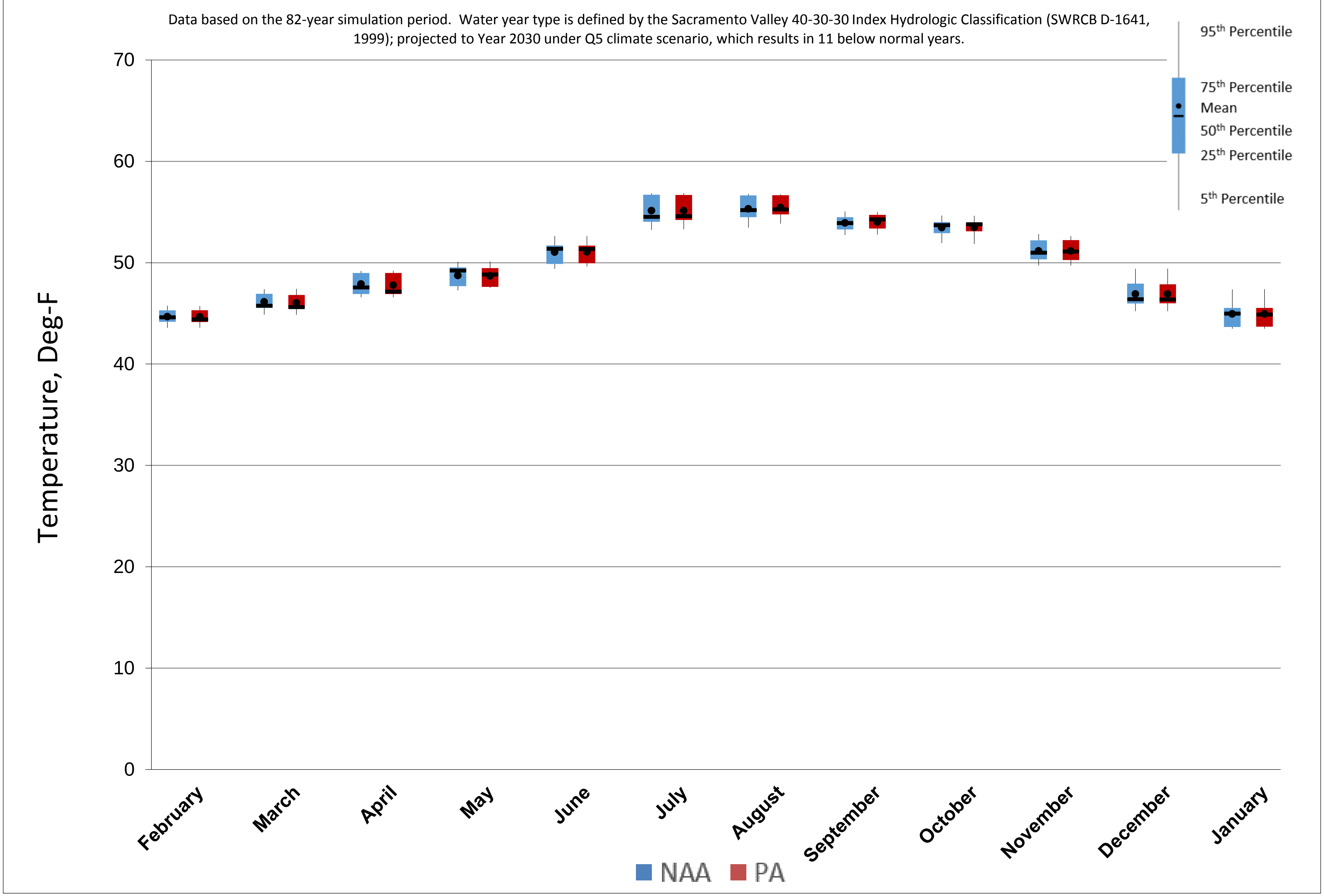


Figure 5.C.7-2-5. Monthly Temperature Ranges for Clear Creek at Igo, Dry Years

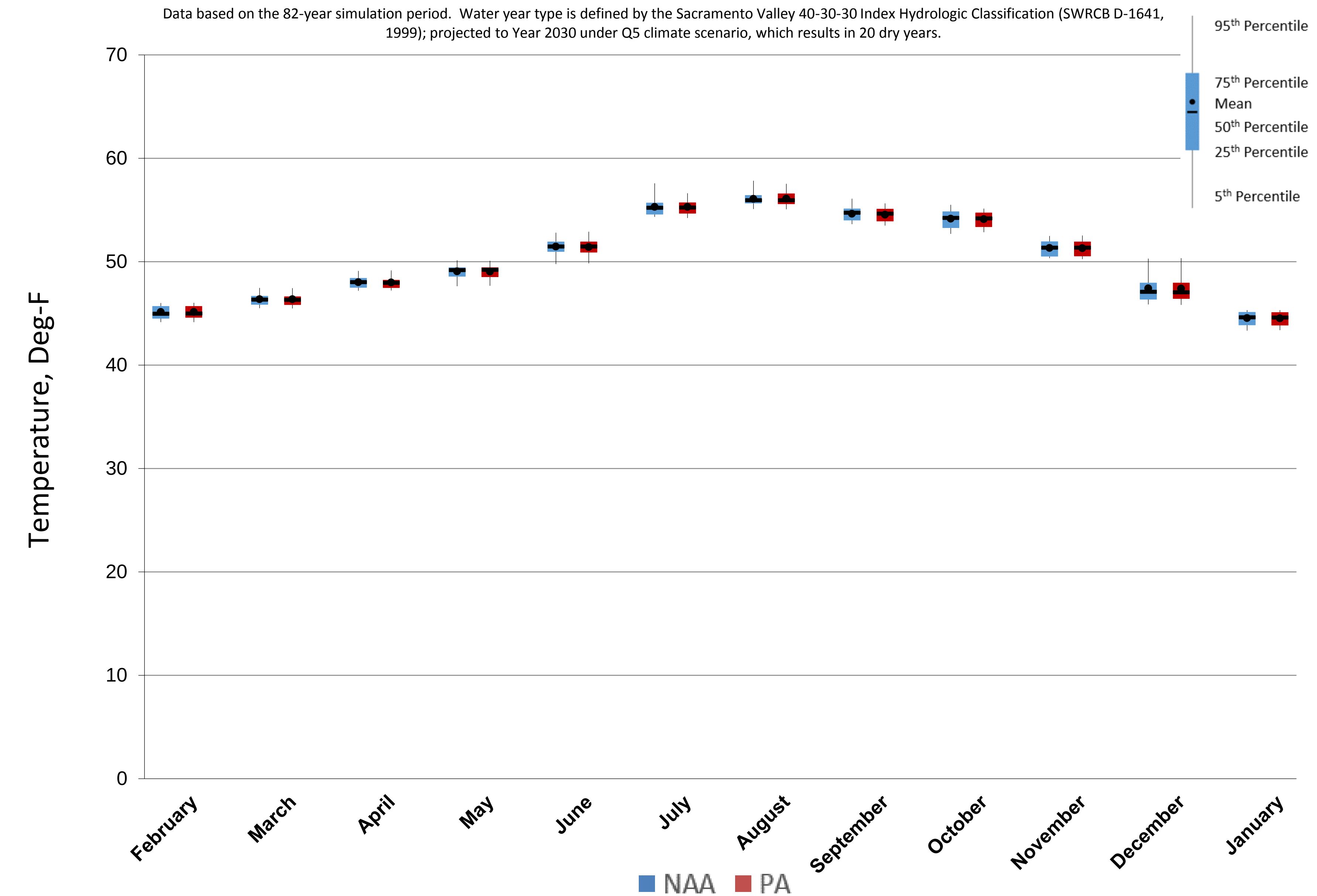


Figure 5.C.7-2-6. Monthly Temperature Ranges for Clear Creek at Igo, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

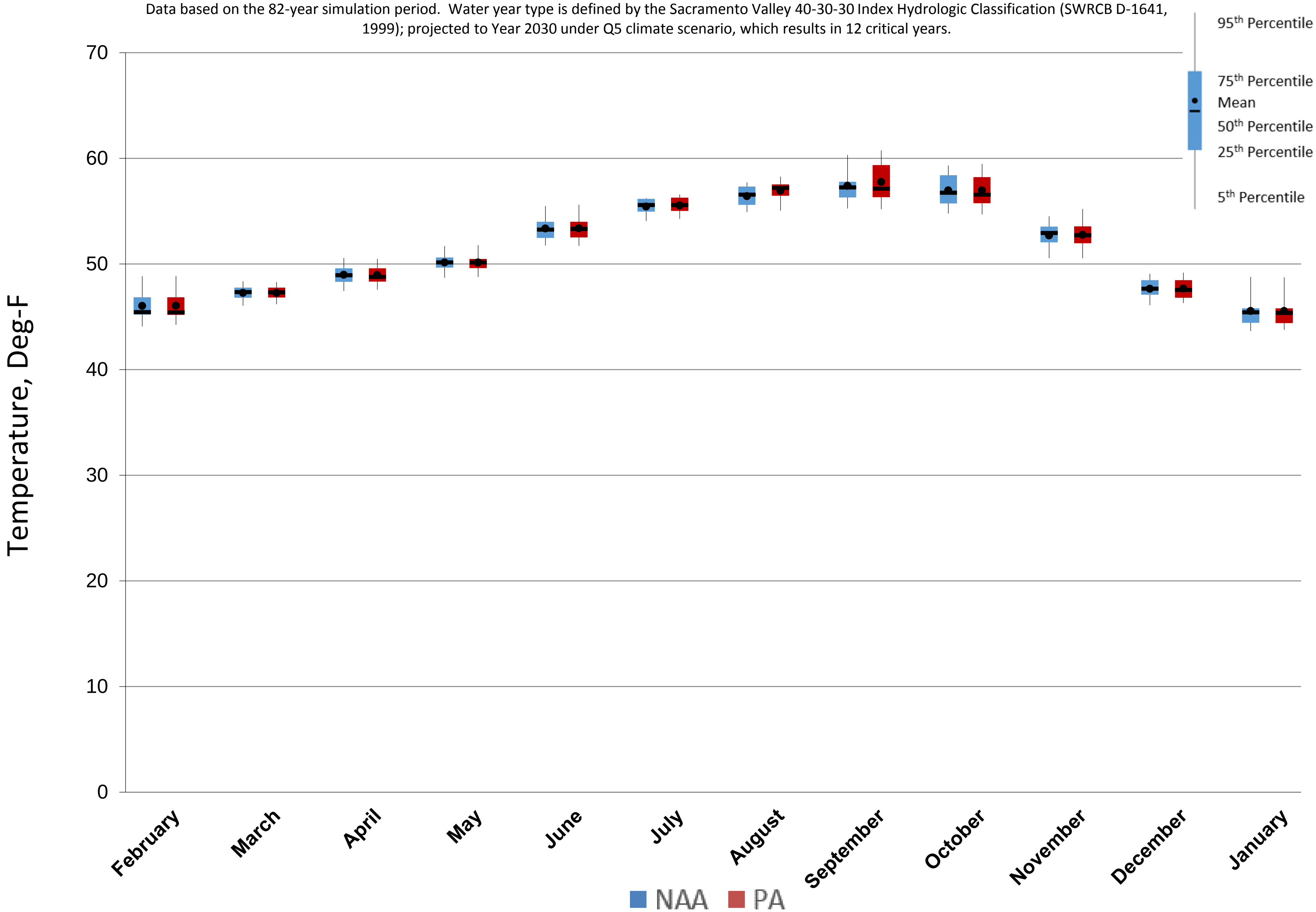
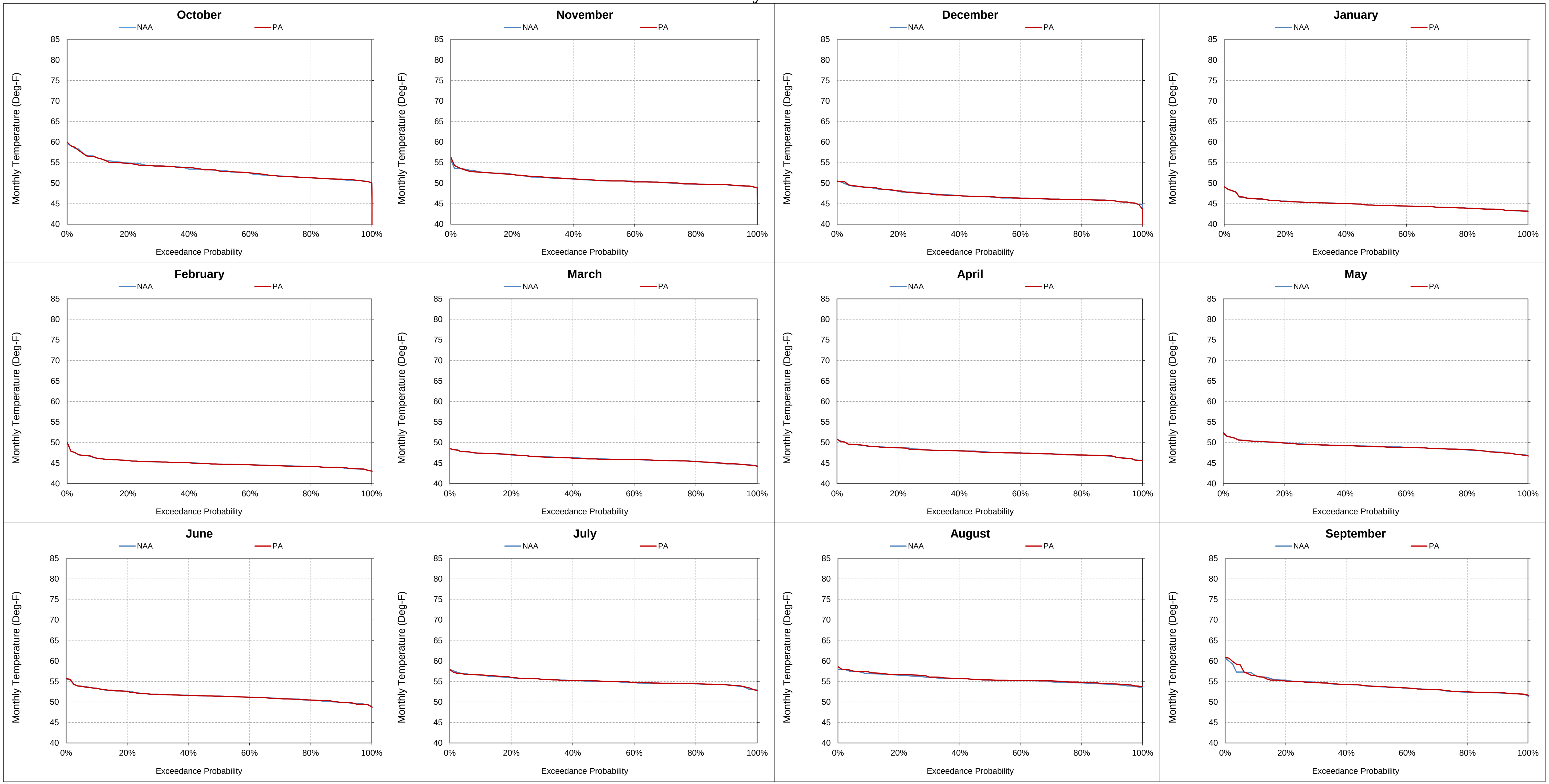
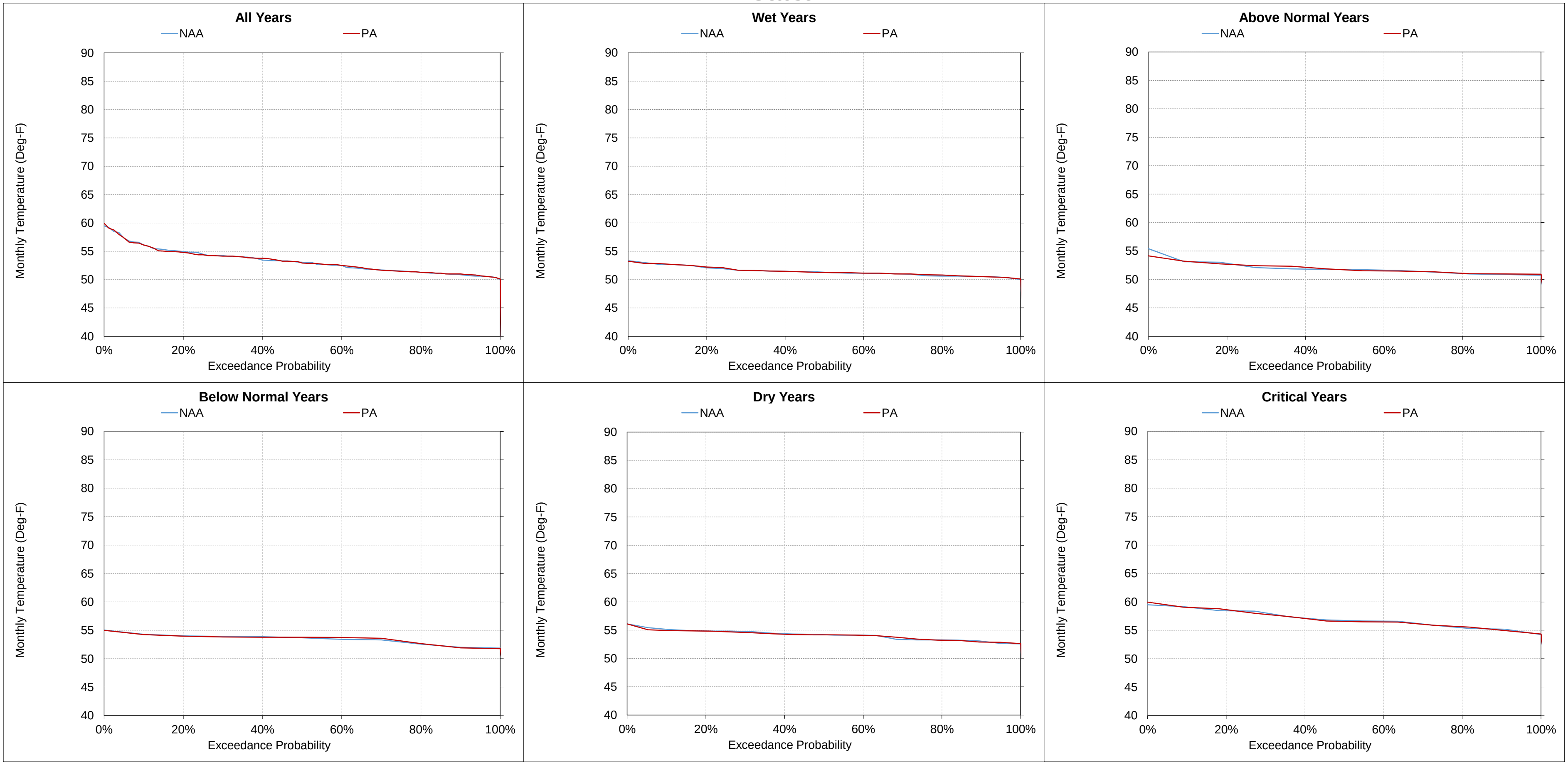


Figure 5.C.7-2-7. Clear Creek at Igo, Monthly Temperature Probability of Exceedance



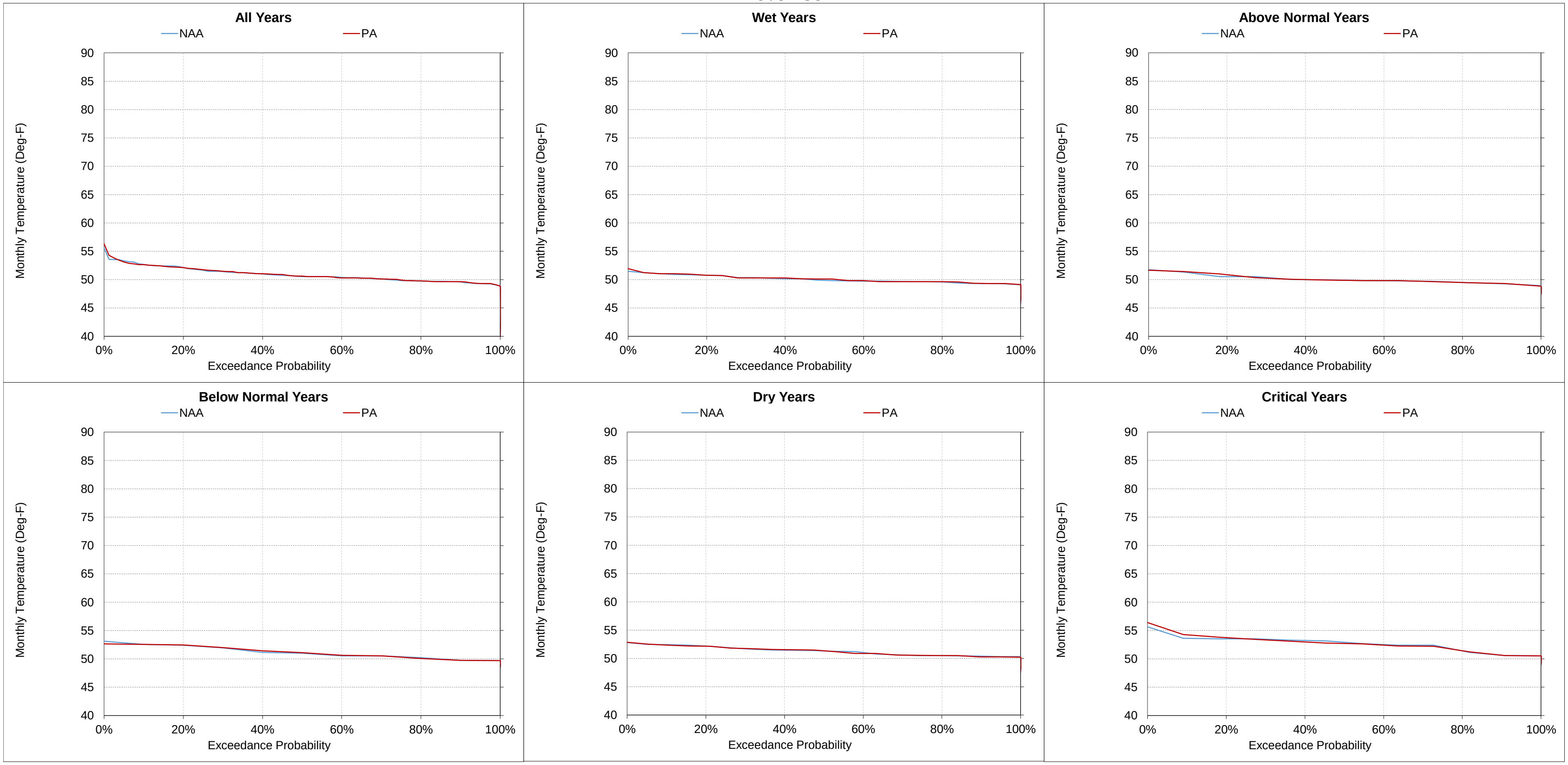
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-8. Clear Creek at Igo, Monthly Temperature
October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-9. Clear Creek at Igo, Monthly Temperature November



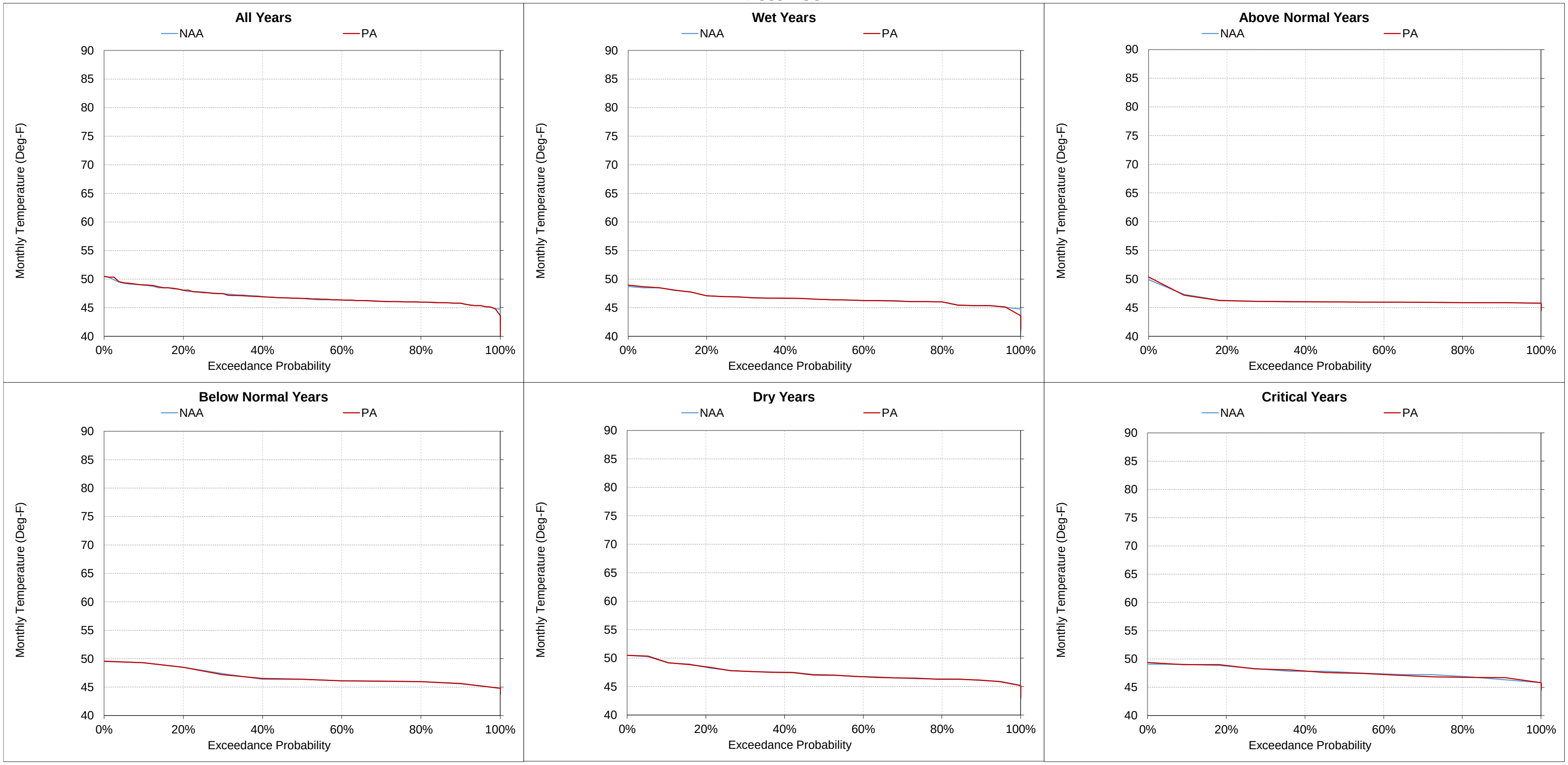
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-10. Clear Creek at Igo, Monthly Temperature December



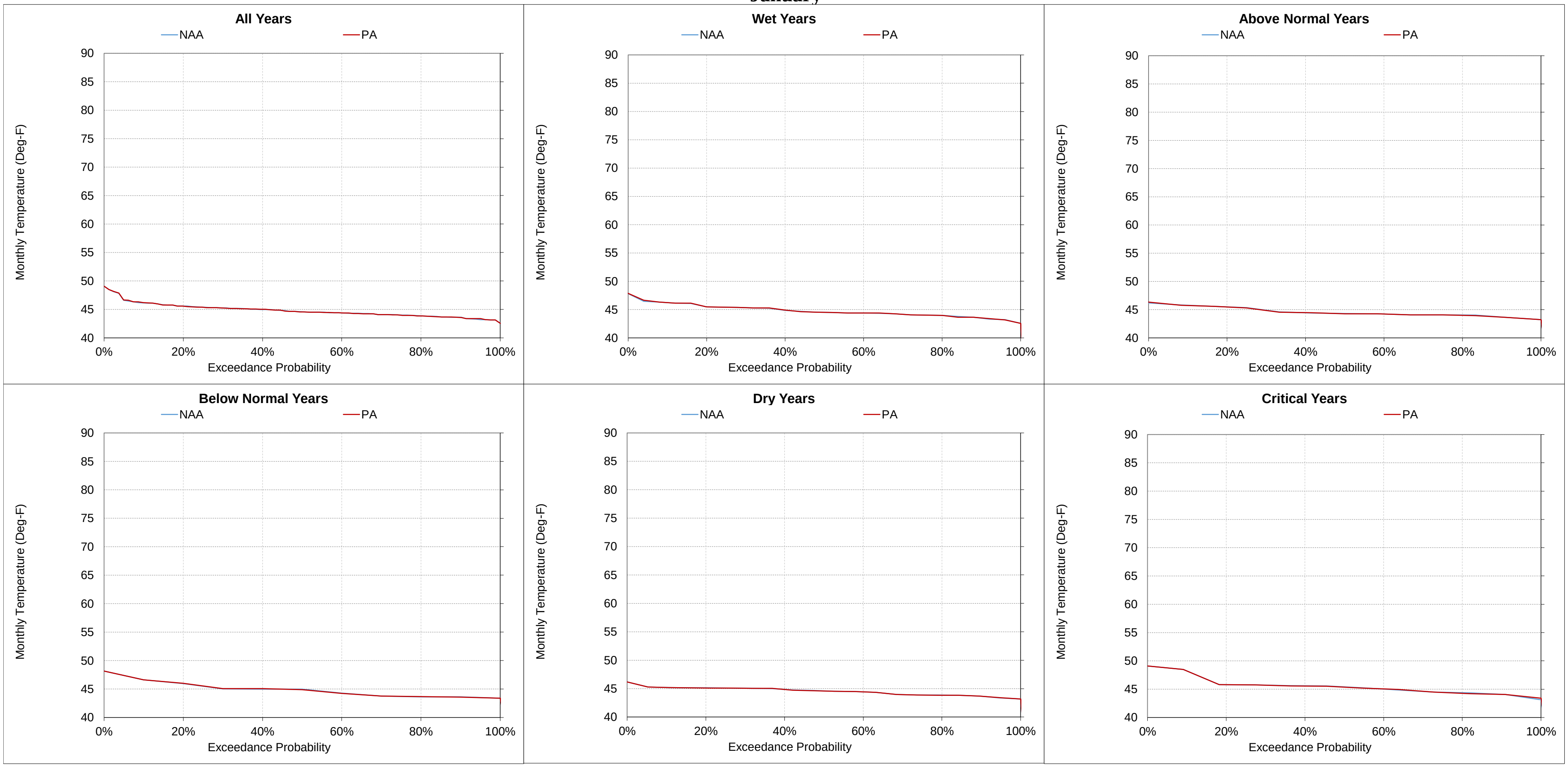
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

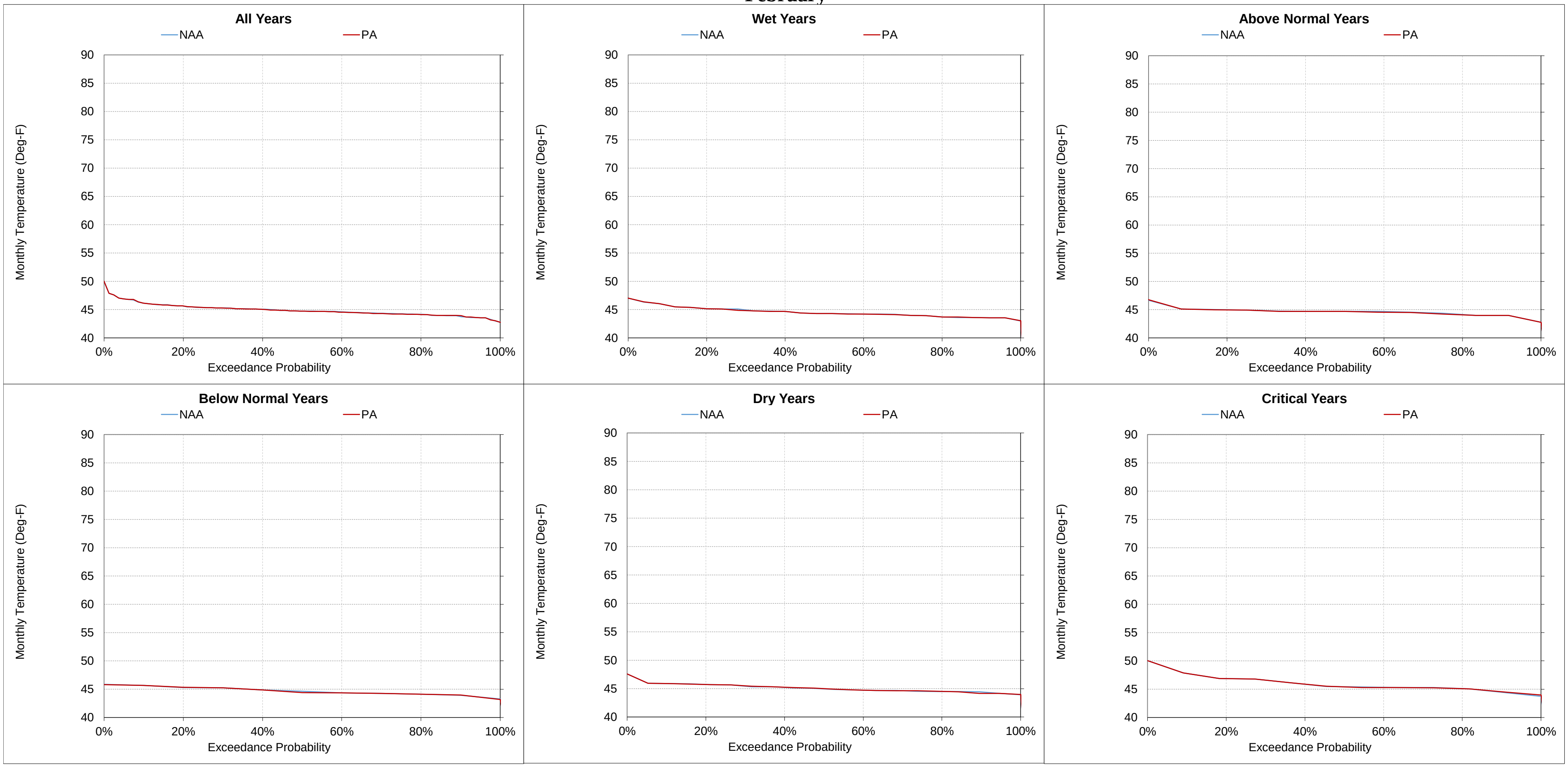
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-11. Clear Creek at Igo, Monthly Temperature
January



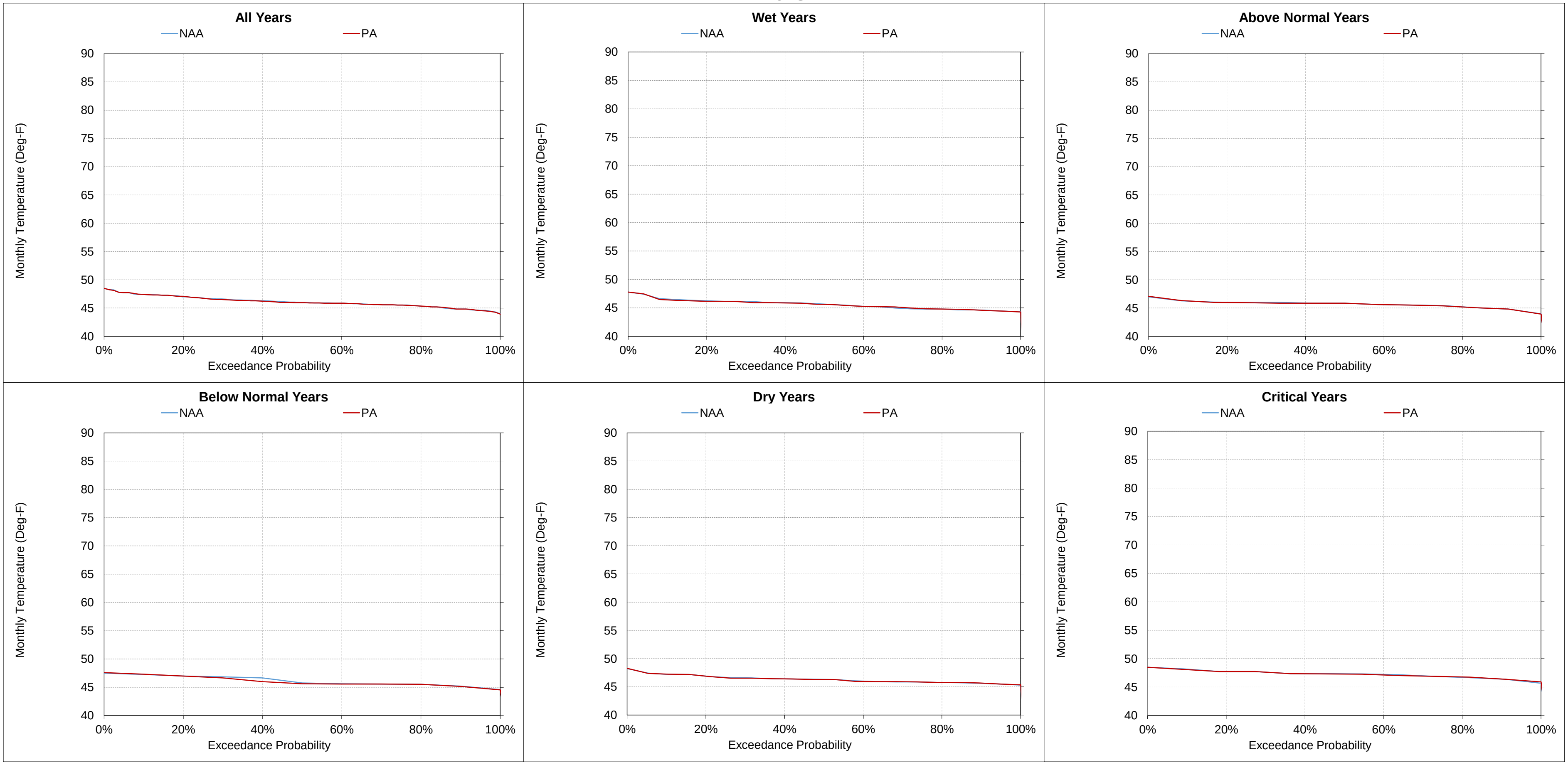
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-12. Clear Creek at Igo, Monthly Temperature February



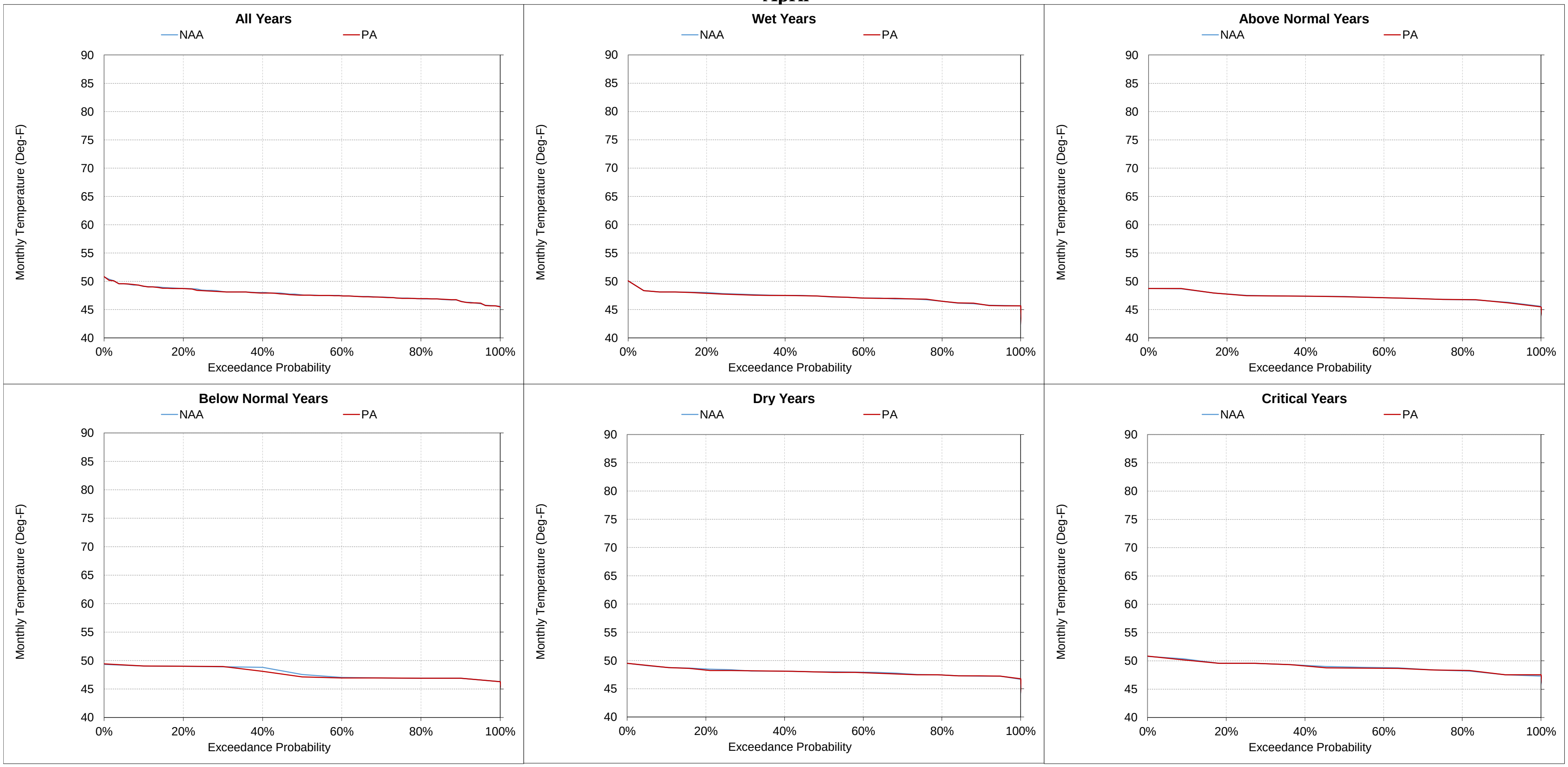
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-13. Clear Creek at Igo, Monthly Temperature March



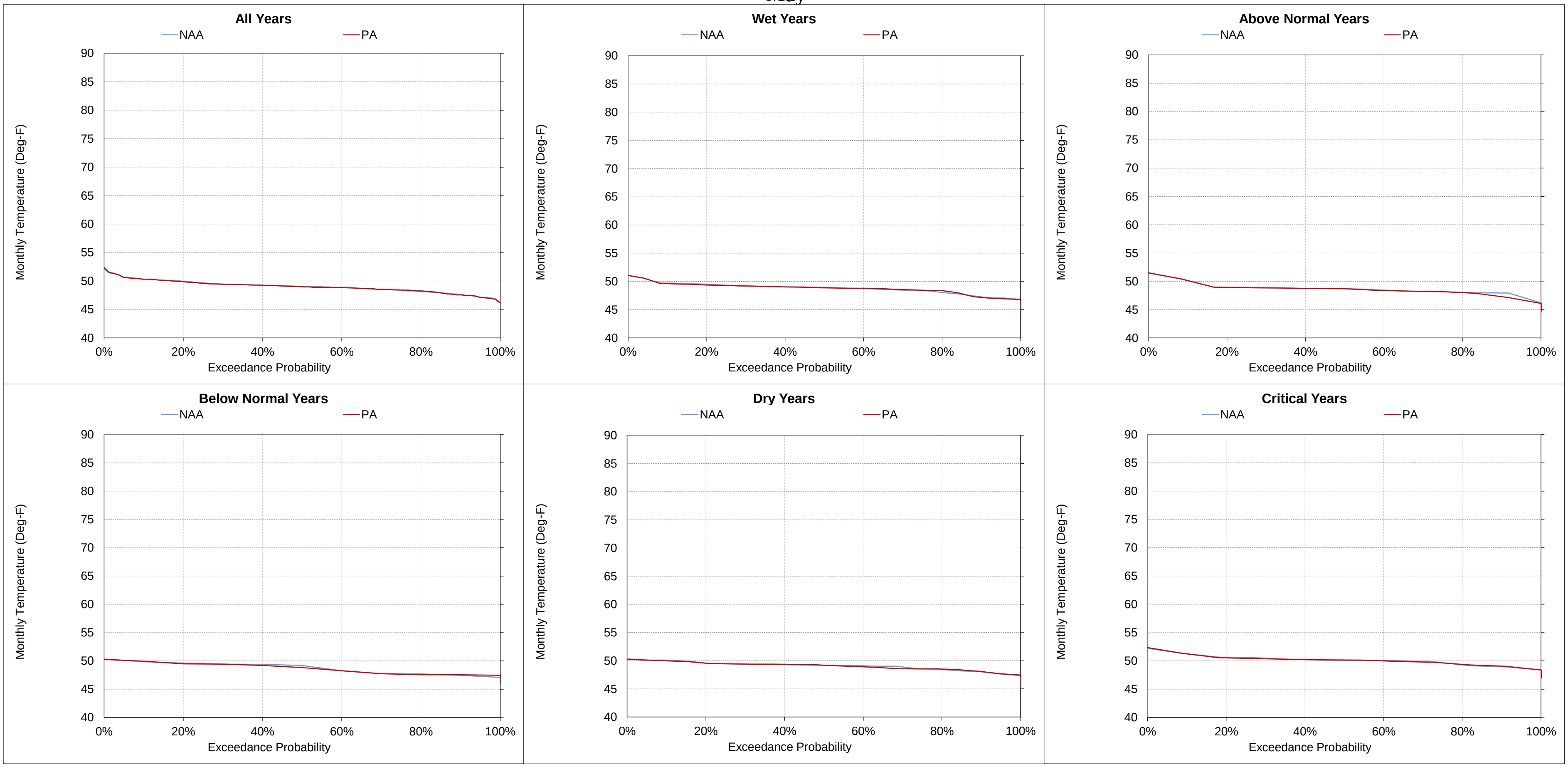
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-14. Clear Creek at Igo, Monthly Temperature
April



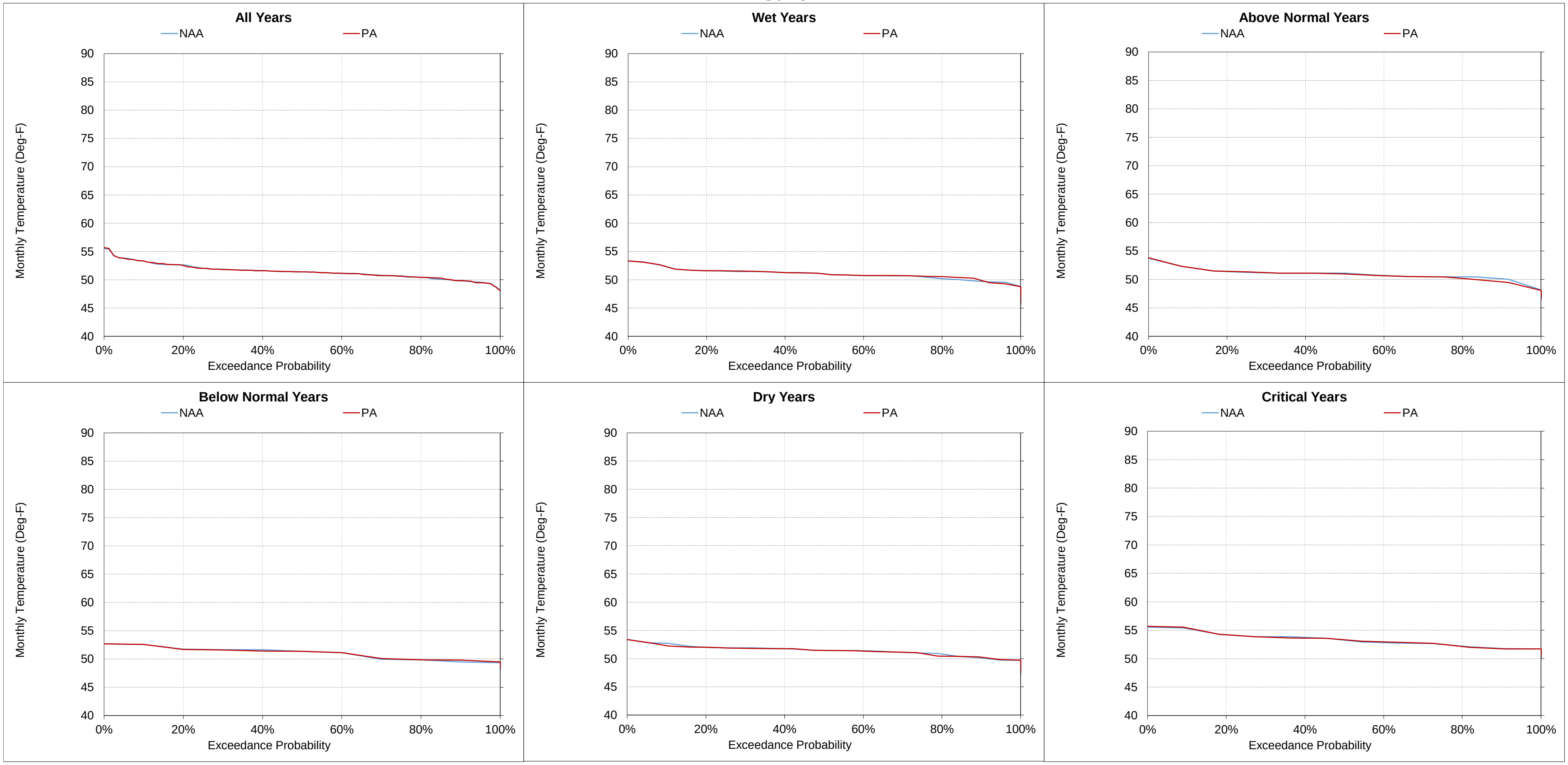
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-15. Clear Creek at Igo, Monthly Temperature
May



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-16. Clear Creek at Igo, Monthly Temperature June



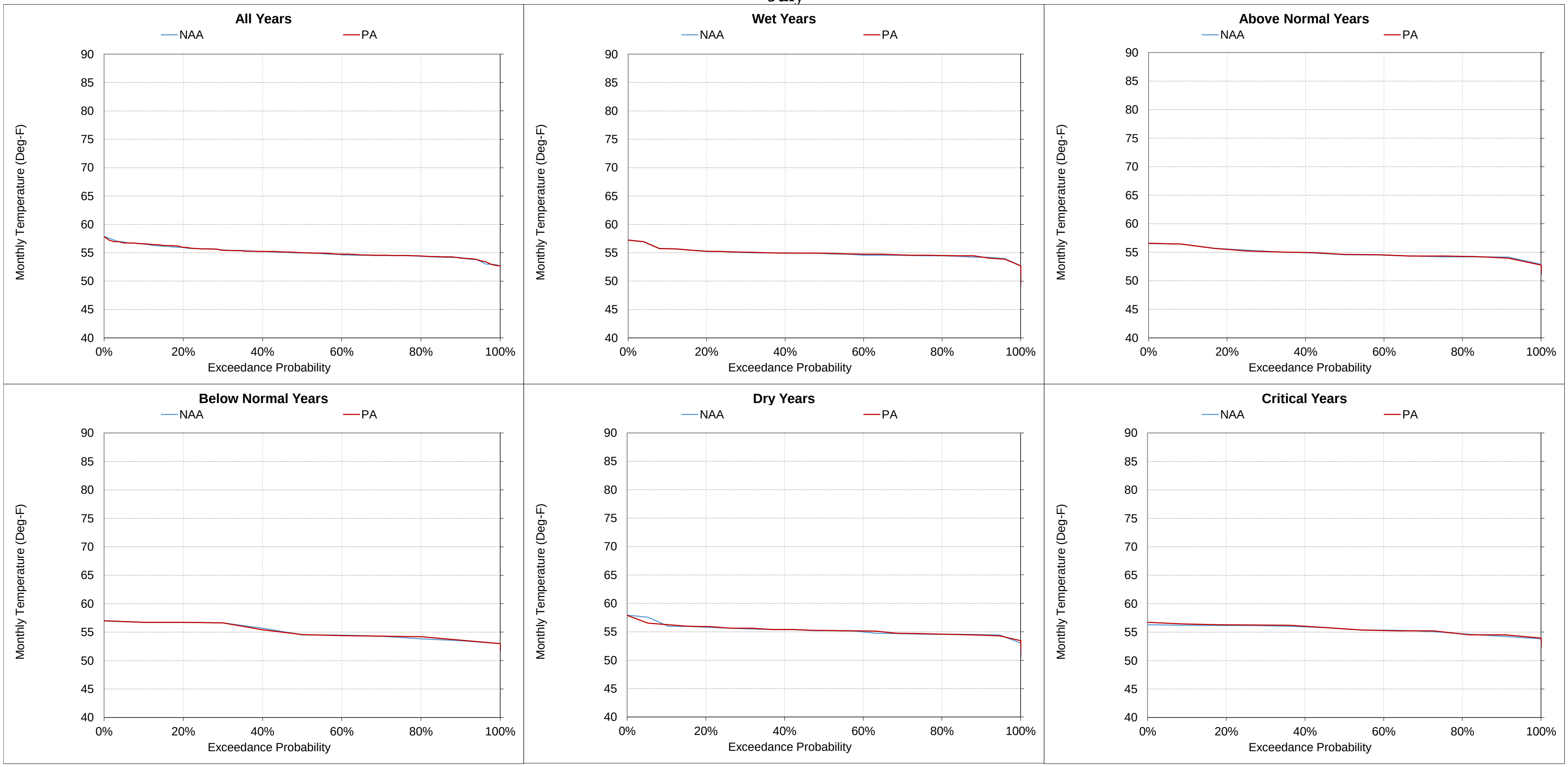
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

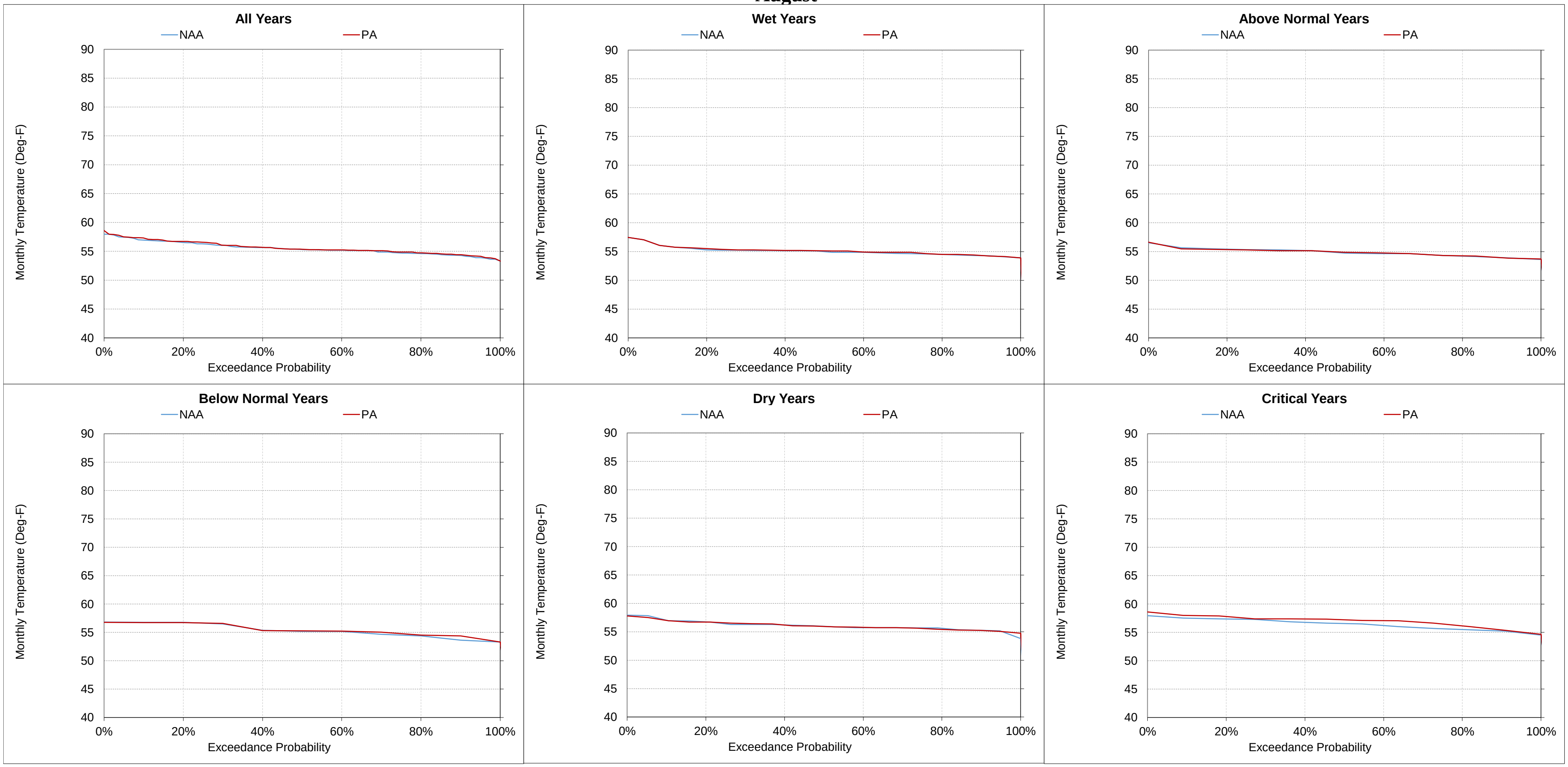
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-17. Clear Creek at Igo, Monthly Temperature
July



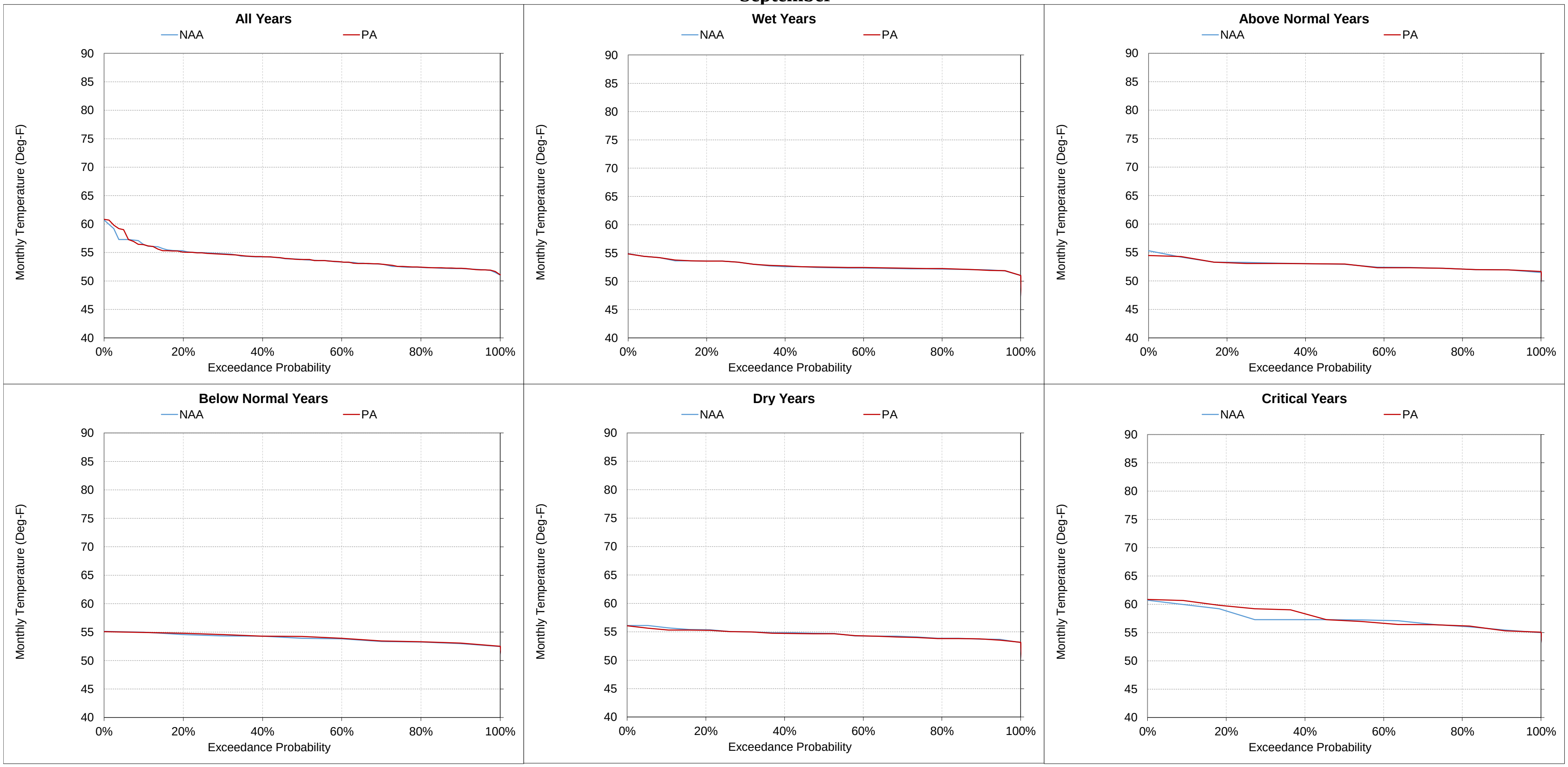
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-18. Clear Creek at Igo, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-2-19. Clear Creek at Igo, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-3. Sacramento River below Keswick Dam, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.4	58.5	-1.9	-3%	56.5	56.2	-0.3	-1%	53.2	53.1	-0.1	0%	50.1	50.0	0.0	0%	48.1	48.2	0.1	0%	48.9	48.7	-0.1	0%
20%	55.7	55.4	-0.3	-1%	56.0	55.9	0.0	0%	52.5	52.4	-0.1	0%	49.1	49.1	0.1	0%	47.6	47.6	0.0	0%	48.4	48.3	-0.1	0%
30%	55.2	55.1	-0.1	0%	55.8	55.7	-0.1	0%	52.1	52.2	0.0	0%	48.6	48.6	0.0	0%	47.3	47.4	0.1	0%	48.0	48.0	0.0	0%
40%	54.8	54.8	0.1	0%	55.5	55.4	-0.1	0%	51.8	51.6	-0.2	0%	48.0	48.1	0.1	0%	47.0	47.1	0.0	0%	47.7	47.7	0.0	0%
50%	54.5	54.5	0.0	0%	55.3	55.2	-0.1	0%	51.2	51.1	0.0	0%	47.7	47.7	0.0	0%	46.7	46.7	0.0	0%	46.8	46.8	0.0	0%
60%	54.3	54.3	0.0	0%	54.9	54.8	-0.1	0%	50.8	50.9	0.1	0%	47.3	47.3	0.0	0%	46.0	46.0	0.0	0%	46.6	46.6	0.0	0%
70%	54.2	54.0	-0.1	0%	54.7	54.5	-0.2	0%	50.6	50.6	0.0	0%	47.0	47.0	0.1	0%	45.6	45.7	0.1	0%	46.1	46.2	0.1	0%
80%	53.9	53.9	0.0	0%	54.2	54.0	-0.2	0%	50.2	50.2	0.0	0%	46.6	46.7	0.1	0%	45.3	45.4	0.0	0%	45.7	45.8	0.1	0%
90%	53.7	53.8	0.1	0%	53.7	53.7	0.1	0%	49.3	49.3	0.0	0%	45.5	45.5	0.0	0%	44.5	44.5	0.0	0%	45.4	45.3	-0.1	0%
Long Term Full Simulation Period[b]	55.4	55.3	-0.1	0%	55.2	55.1	-0.1	0%	51.4	51.3	0.0	0%	47.8	47.8	0.0	0%	46.4	46.5	0.0	0%	47.1	47.1	0.0	0%
Water Year Types[c]																								
Wet (32%)	54.3	54.3	0.0	0%	55.3	55.1	-0.1	0%	51.9	51.9	0.0	0%	48.3	48.3	0.1	0%	45.8	45.9	0.0	0%	46.2	46.2	0.0	0%
Above Normal (16%)	54.0	54.0	-0.1	0%	54.8	54.5	-0.3	-1%	51.2	51.1	-0.1	0%	48.6	48.6	0.0	0%	45.8	45.8	0.1	0%	46.5	46.5	0.0	0%
Below Normal (13%)	54.5	54.4	-0.1	0%	54.6	54.5	-0.1	0%	51.4	51.3	-0.1	0%	47.9	48.0	0.0	0%	46.8	46.9	0.1	0%	47.8	47.7	-0.1	0%
Dry (24%)	54.8	54.9	0.1	0%	54.7	54.8	0.1	0%	50.9	50.9	0.0	0%	47.3	47.3	0.0	0%	47.2	47.2	0.0	0%	47.8	47.8	0.0	0%
Critical (15%)	61.0	60.6	-0.4	-1%	56.6	56.6	0.0	0%	51.0	51.1	0.1	0%	46.3	46.4	0.1	0%	46.7	46.8	0.1	0%	47.9	47.9	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	49.5	49.6	0.1	0%	50.7	50.7	0.0	0%	52.5	52.4	-0.1	0%	53.7	53.8	0.0	0%	54.9	54.8	-0.1	0%	58.0	55.9	-2.1	-4%
20%	49.1	49.2	0.1	0%	50.2	50.2	0.0	0%	50.9	50.9	0.0	0%	52.8	52.7	-0.1	0%	54.2	53.8	-0.3	-1%	54.7	54.9	0.2	0%
30%	48.8	48.8	0.0	0%	49.8	49.8	0.0	0%	50.5	50.4	-0.1	0%	52.1	52.1	0.0	0%	53.3	53.4	0.1	0%	54.1	54.2	0.1	0%
40%	48.5	48.6	0.1	0%	49.3	49.3	0.0	0%	49.9	50.0	0.1	0%	51.3	51.2	-0.1	0%	52.8	52.8	0.0	0%	53.1	53.4	0.3	1%
50%	48.1	48.1	0.0	0%	49.1	49.2	0.1	0%	49.7	49.7	0.0	0%	50.9	51.0	0.1	0%	52.2	52.2	0.1	0%	52.7	52.9	0.2	0%
60%	47.8	47.8	0.0	0%	48.8	48.9	0.0	0%	49.4	49.4	0.0	0%	50.6	50.7	0.1	0%	51.9	51.9	0.0	0%	52.0	52.1	0.1	0%
70%	47.4	47.4	0.0	0%	48.5	48.5	0.0	0%	49.2	49.1	0.0	0%	50.2	50.3	0.1	0%	51.7	51.7	0.0	0%	51.5	51.6	0.1	0%
80%	47.0	47.0	0.0	0%	48.2	48.2	0.0	0%	48.9	48.8	0.0	0%	49.8	49.9	0.1	0%	51.3	51.4	0.0	0%	51.0	51.2	0.3	1%
90%	46.4	46.4	0.1	0%	47.6	47.6	-0.1	0%	48.4	48.3	-0.1	0%	49.5	49.5	0.1	0%	50.9	51.1	0.1	0%	50.8	50.8	0.1	0%
Long Term Full Simulation Period[b]	48.1	48.1	0.0	0%	49.2	49.3	0.1	0%	50.0	50.0	0.0	0%	51.3	51.4	0.1	0%	53.0	53.0	0.0	0%	53.7	53.8	0.1	0%
Water Year Types[c]																								
Wet (32%)	47.5	47.6	0.0	0%	48.7	48.7	0.0	0%	49.4	49.5	0.0	0%	50.6	50.6	0.0	0%	51.7	51.7	0.0	0%	51.2	51.3	0.1	0%
Above Normal (16%)	47.6	47.6	0.0	0%	48.6	48.7	0.0	0%	49.1	49.0	0.0	0%	49.9	50.1	0.1	0%	51.4	51.5	0.1	0%	51.4	51.7	0.2	0%
Below Normal (13%)	48.4	48.5	0.1	0%	49.2	49.5	0.3	1%	49.7	49.7	-0.1	0%	51.0	51.1	0.1	0%	52.3	52.5	0.1	0%	53.3	53.6	0.2	0%
Dry (24%)	48.6	48.6	0.0	0%	49.3	49.3	0.0	0%	49.9	49.9	-0.1	0%	51.5	51.6	0.1	0%	53.3	53.3	-0.1	0%	54.0	54.1	0.1	0%
Critical (15%)	48.8	48.8	0.0	0%	50.9	50.8	-0.1	0%	52.6	52.5	0.0	0%	54.5	54.5	0.0	0%	57.7	57.5	-0.2	0%	61.5	61.3	-0.2	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-1. Monthly Temperature Ranges for Sacramento River below Keswick Dam, All Years

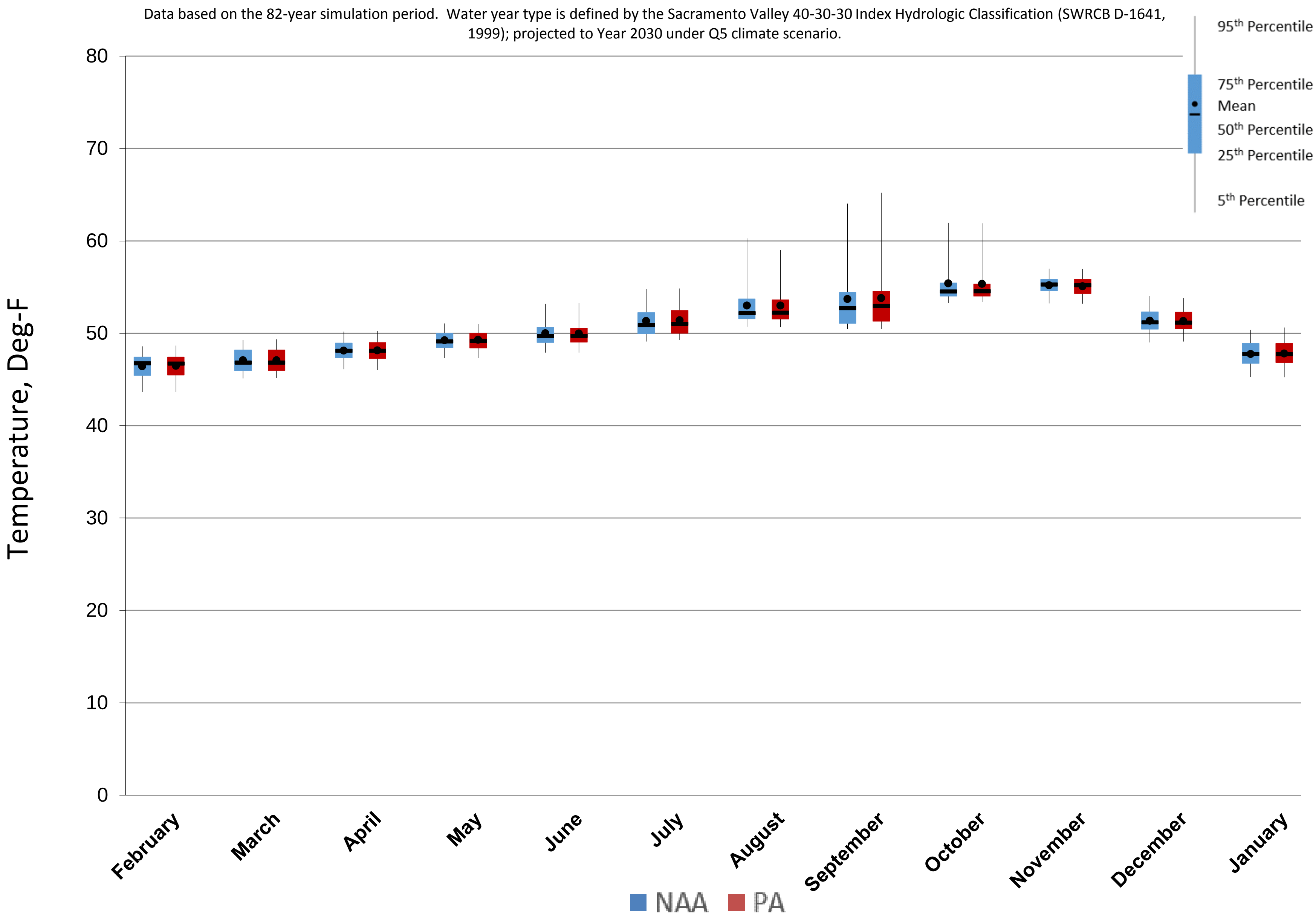


Figure 5.C.7-3-2. Monthly Temperature Ranges for Sacramento River below Keswick Dam, Wet Years

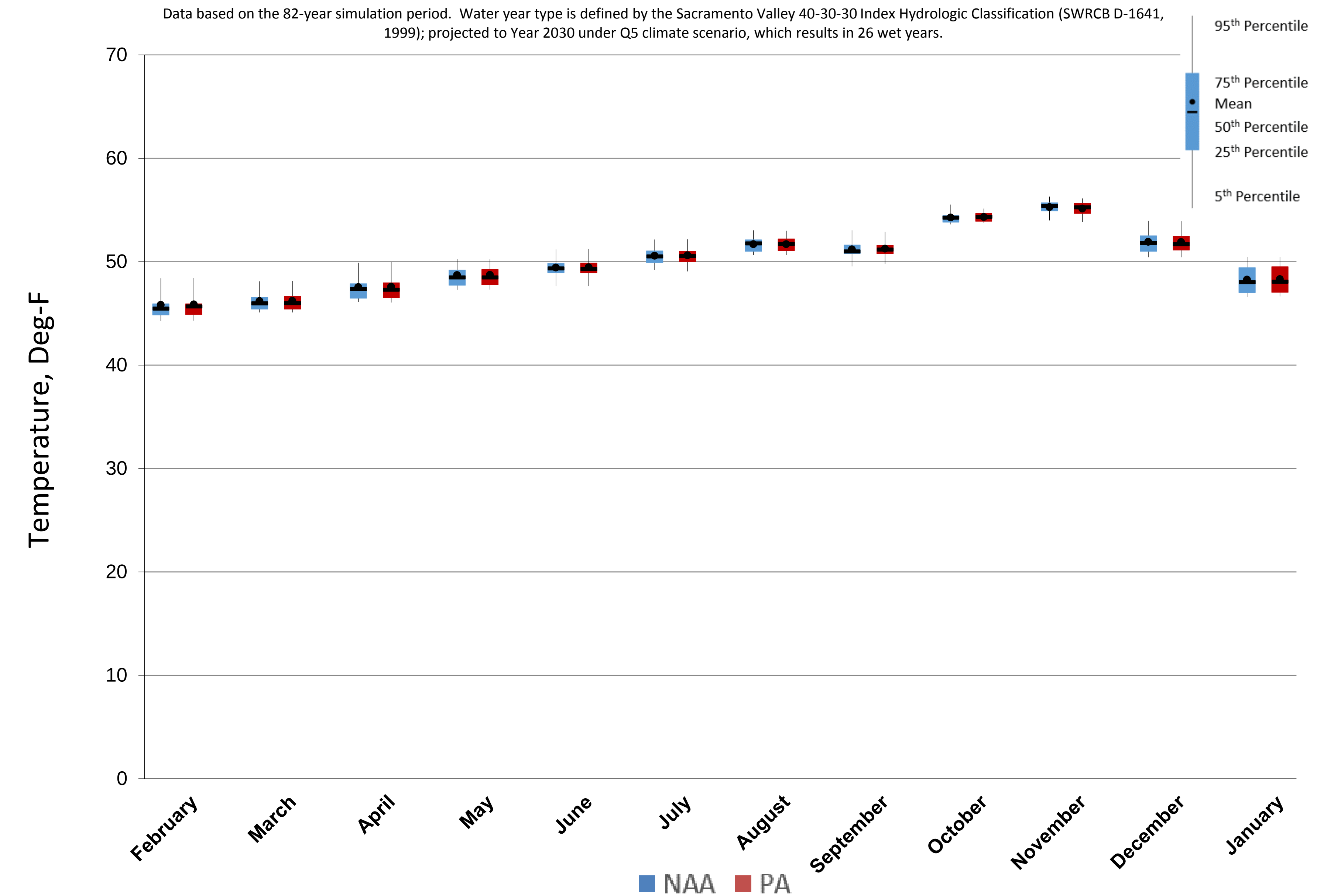


Figure 5.C.7-3-3. Monthly Temperature Ranges for Sacramento River below Keswick Dam, Above Normal Years

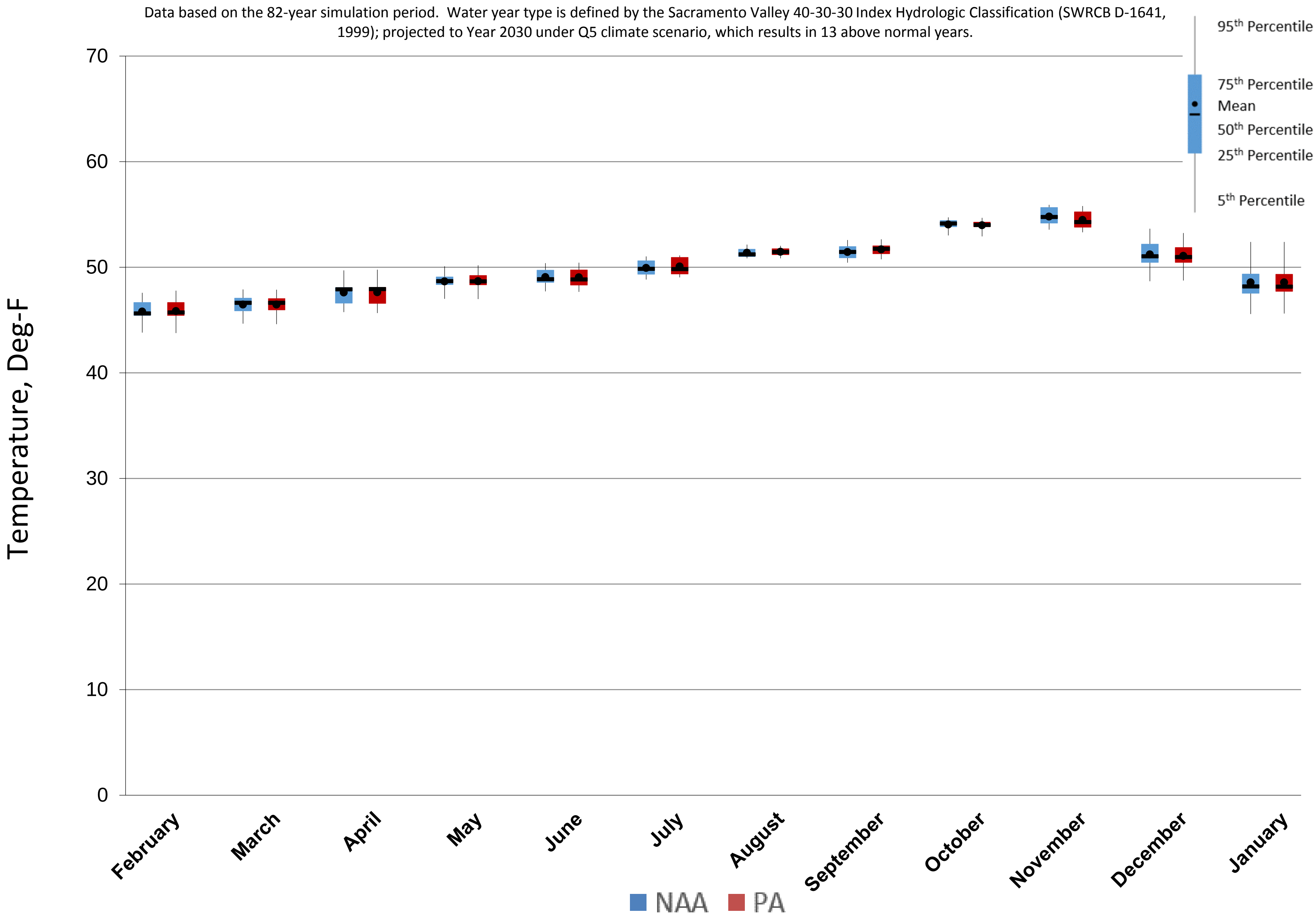


Figure 5.C.7-3-4. Monthly Temperature Ranges for Sacramento River below Keswick Dam, Below Normal Years

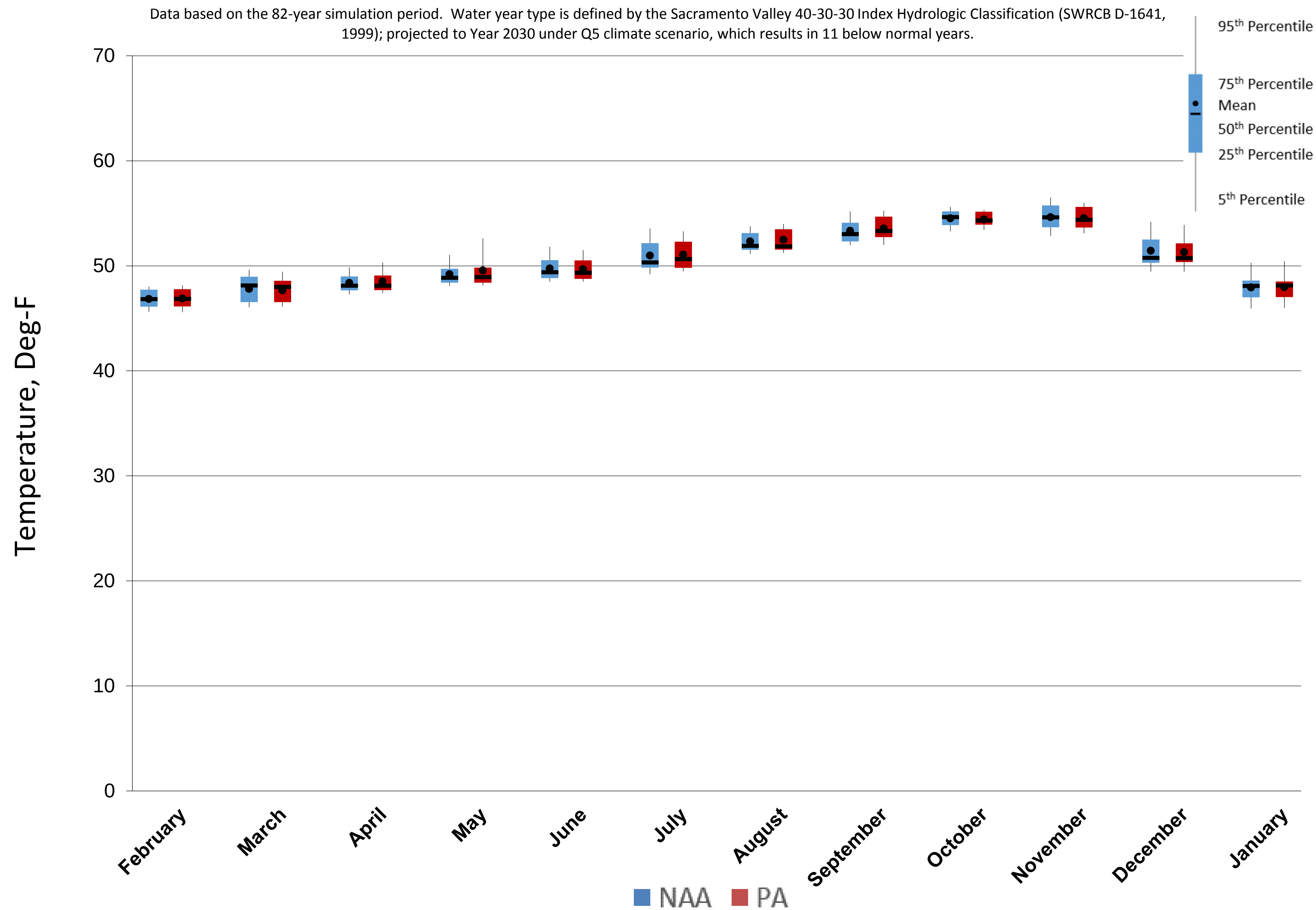


Figure 5.C.7-3-5. Monthly Temperature Ranges for Sacramento River below Keswick Dam, Dry Years

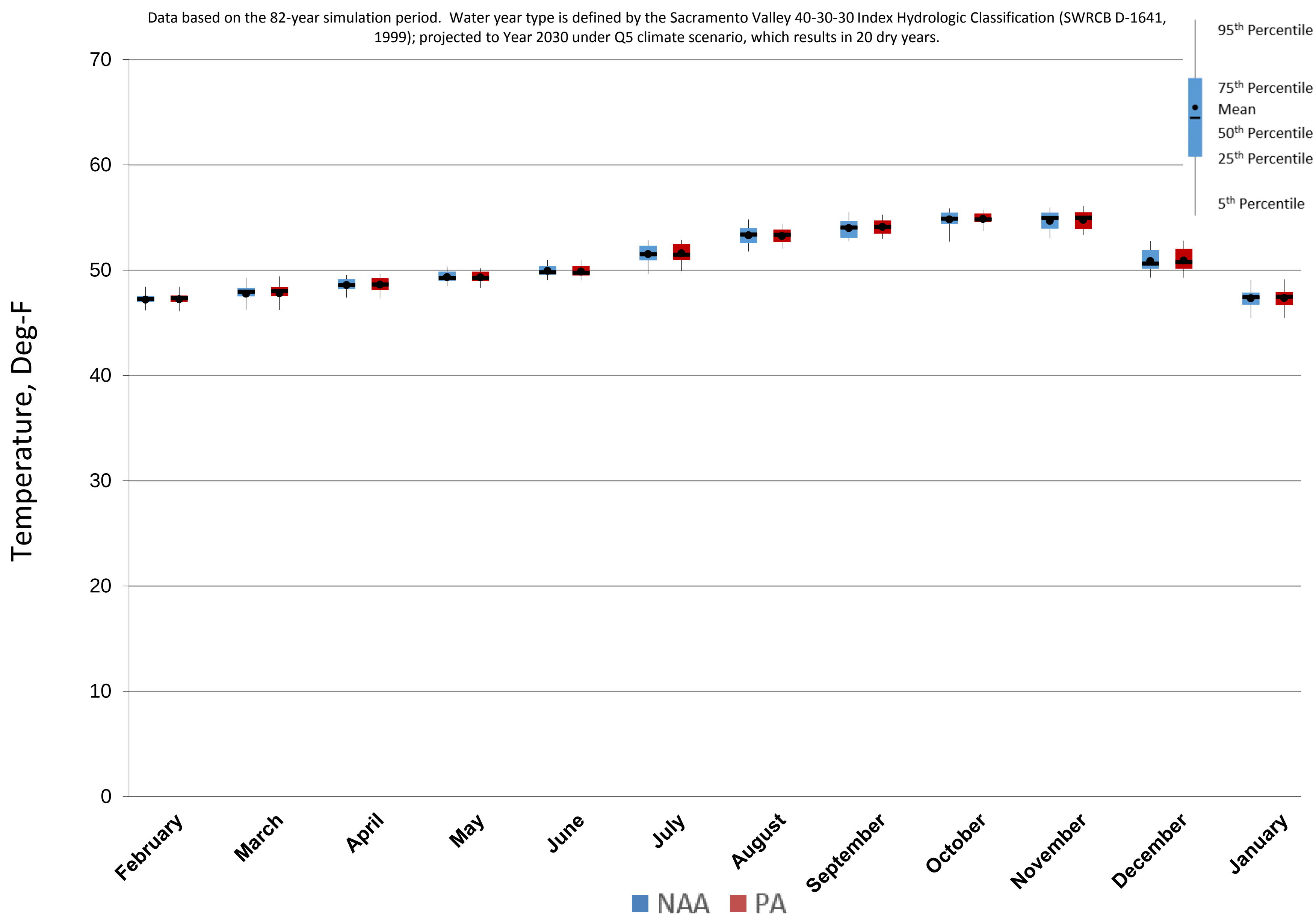


Figure 5.C.7-3-6. Monthly Temperature Ranges for Sacramento River below Keswick Dam, Critical Years

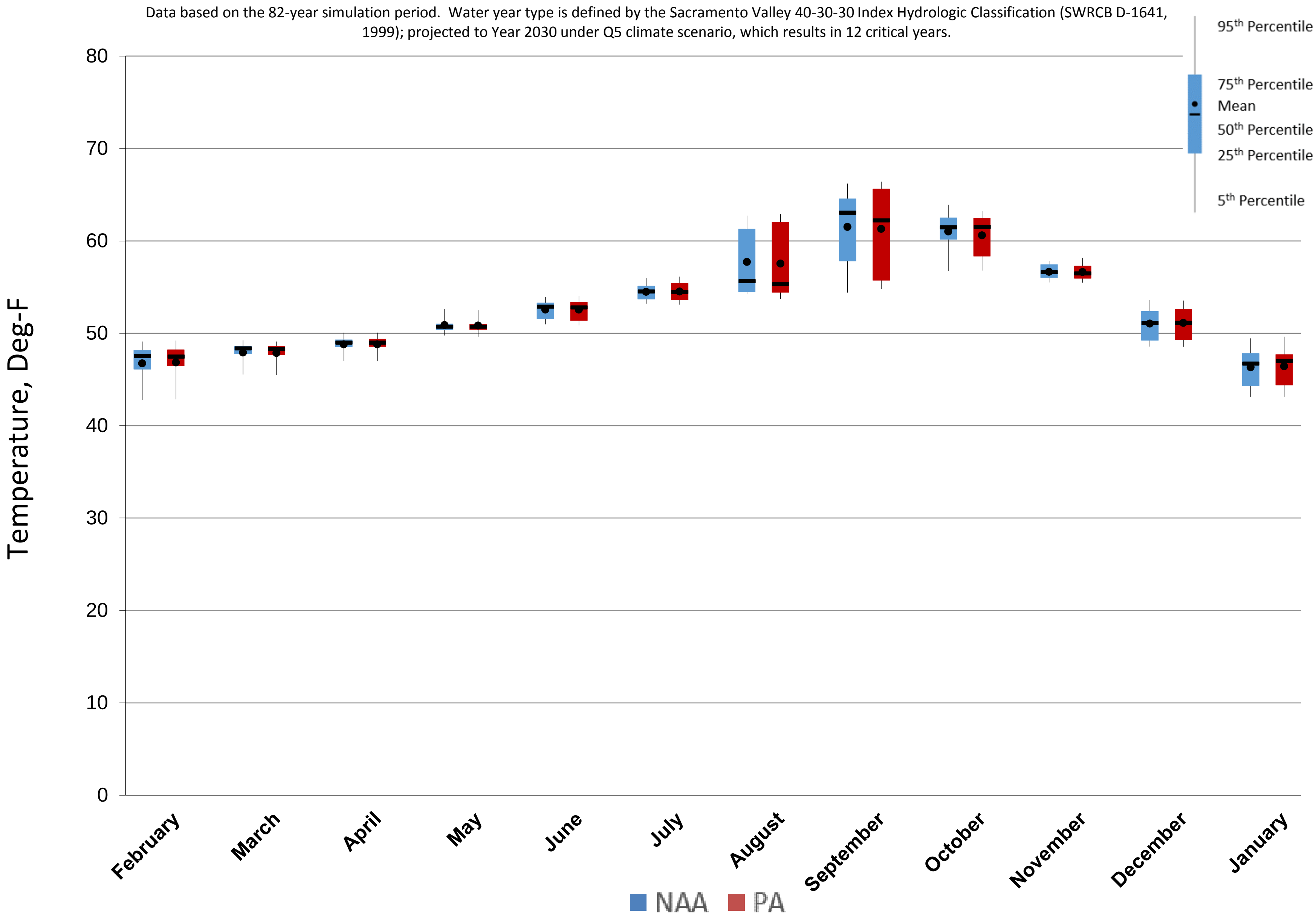
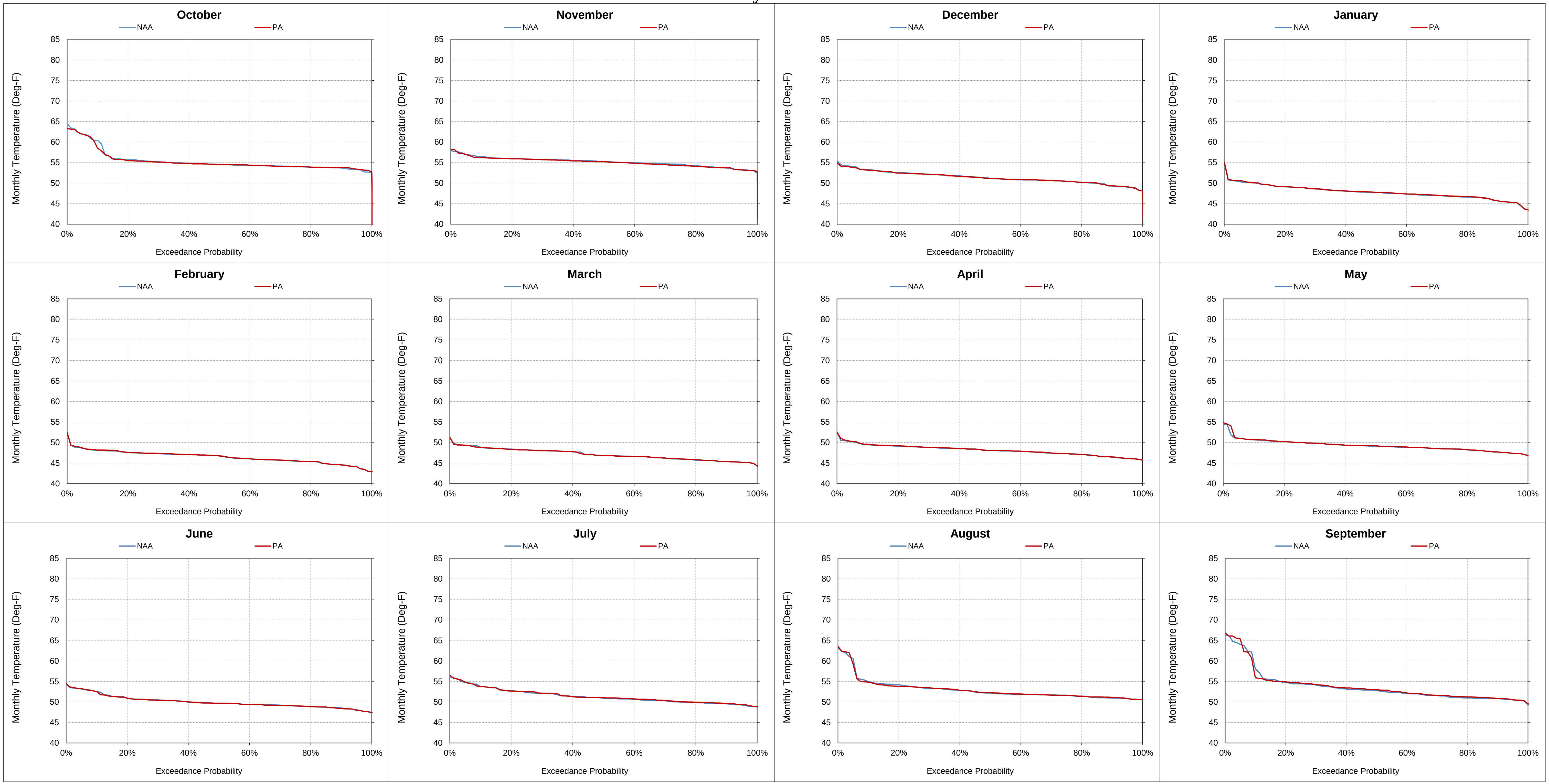
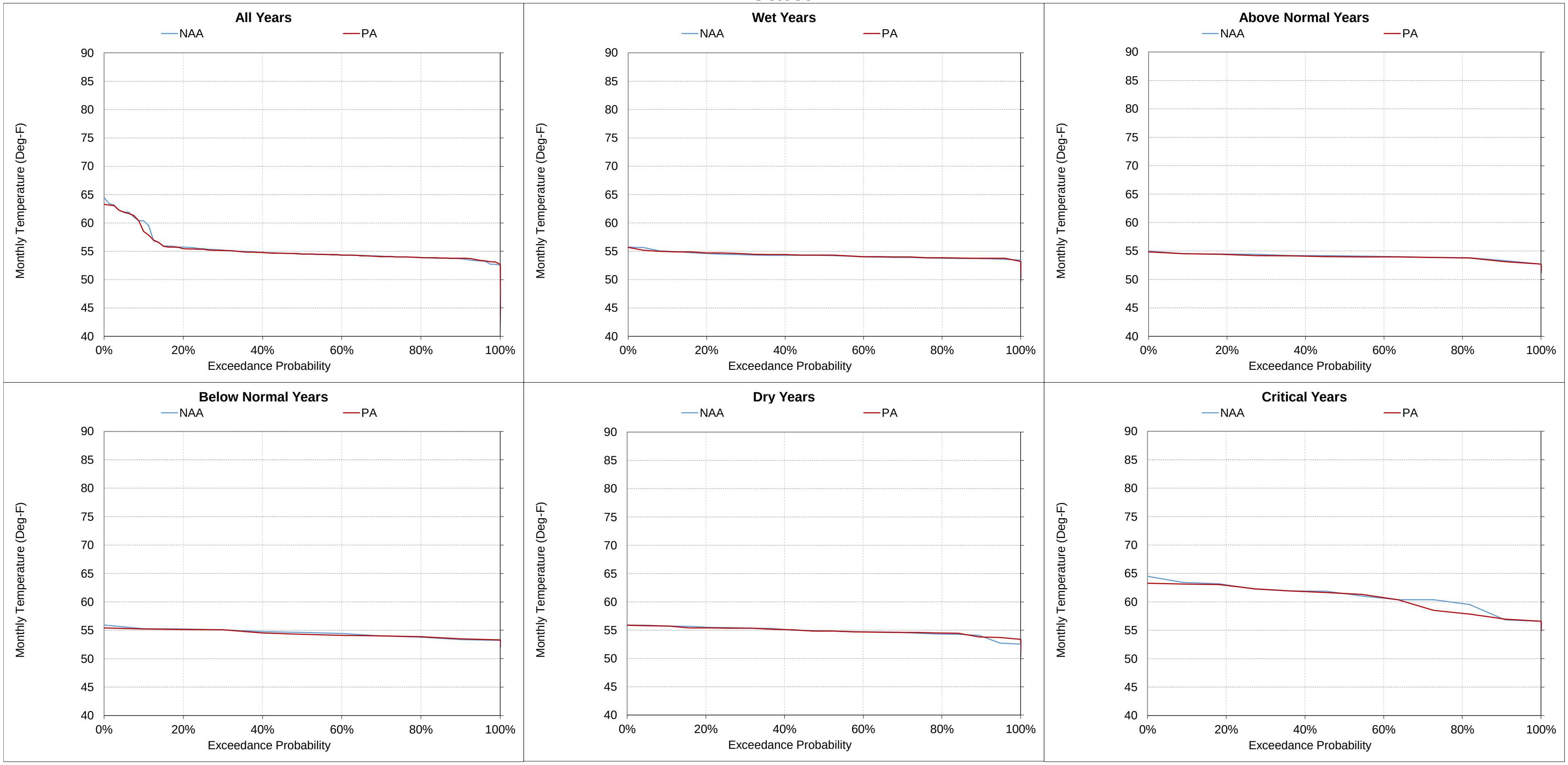


Figure 5.C.7-3-7. Sacramento River below Keswick Dam, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-8. Sacramento River below Keswick Dam, Monthly Temperature October



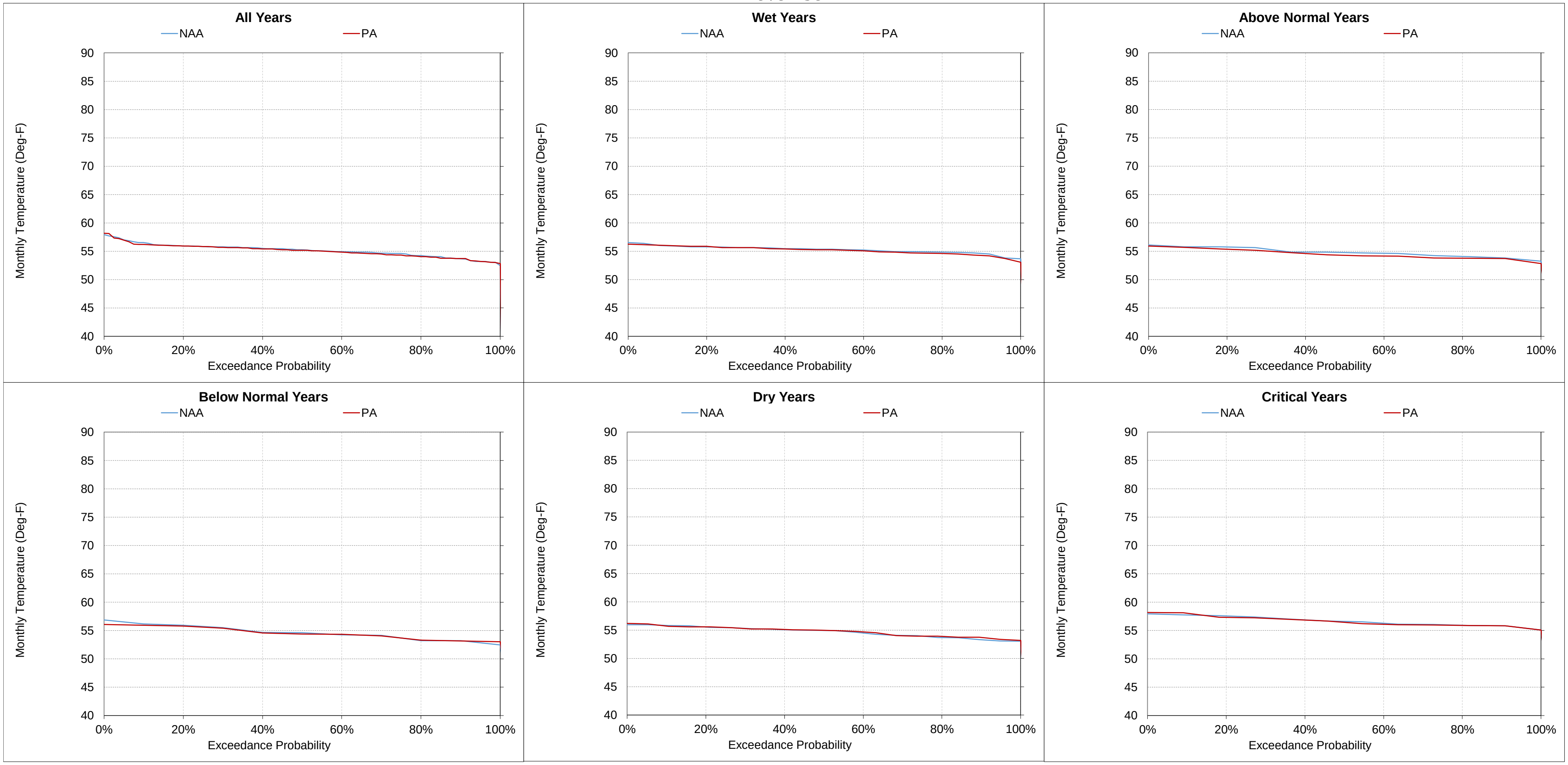
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

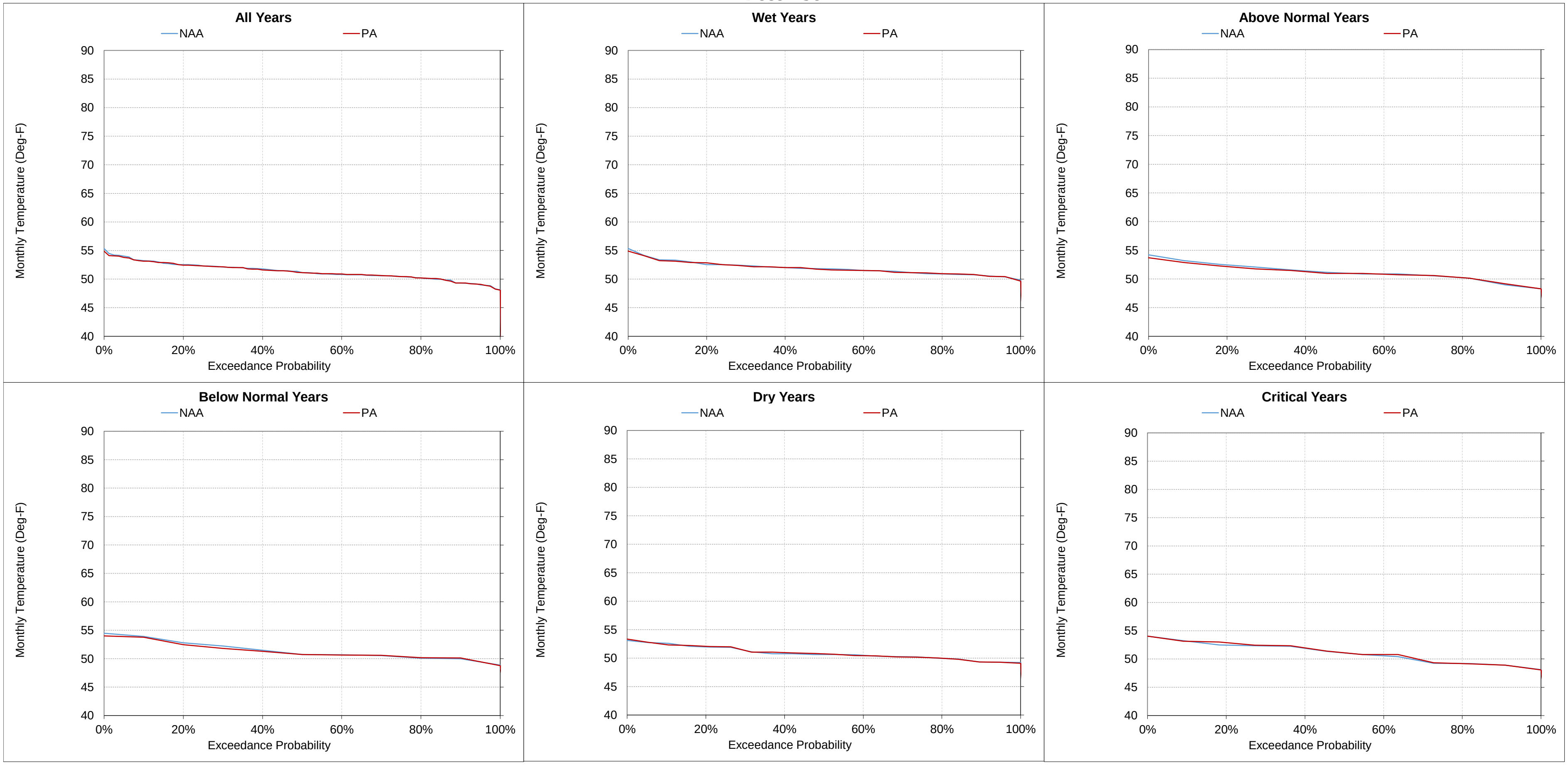
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-9. Sacramento River below Keswick Dam, Monthly Temperature November



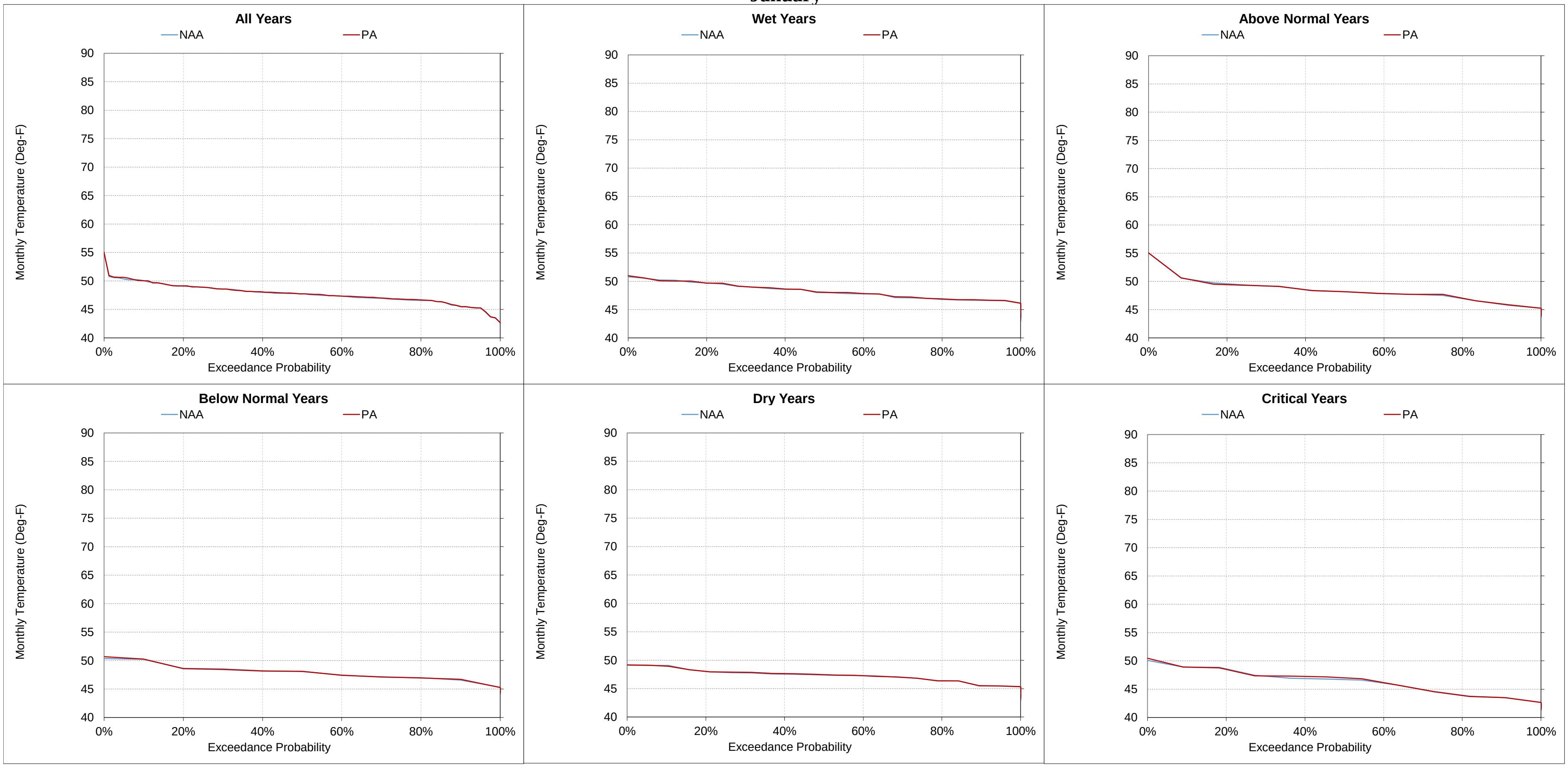
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-10. Sacramento River below Keswick Dam, Monthly Temperature
December



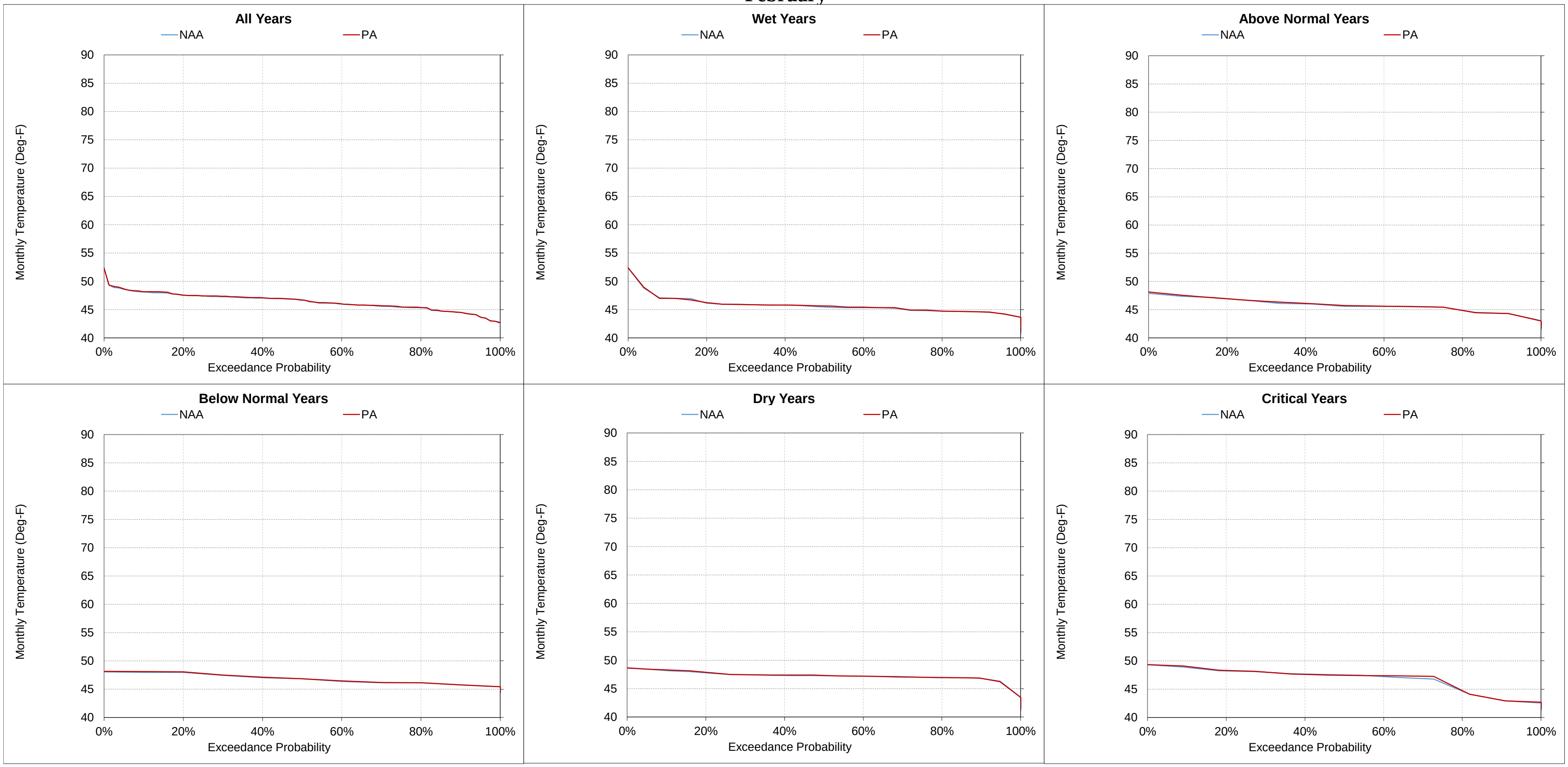
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-11. Sacramento River below Keswick Dam, Monthly Temperature January



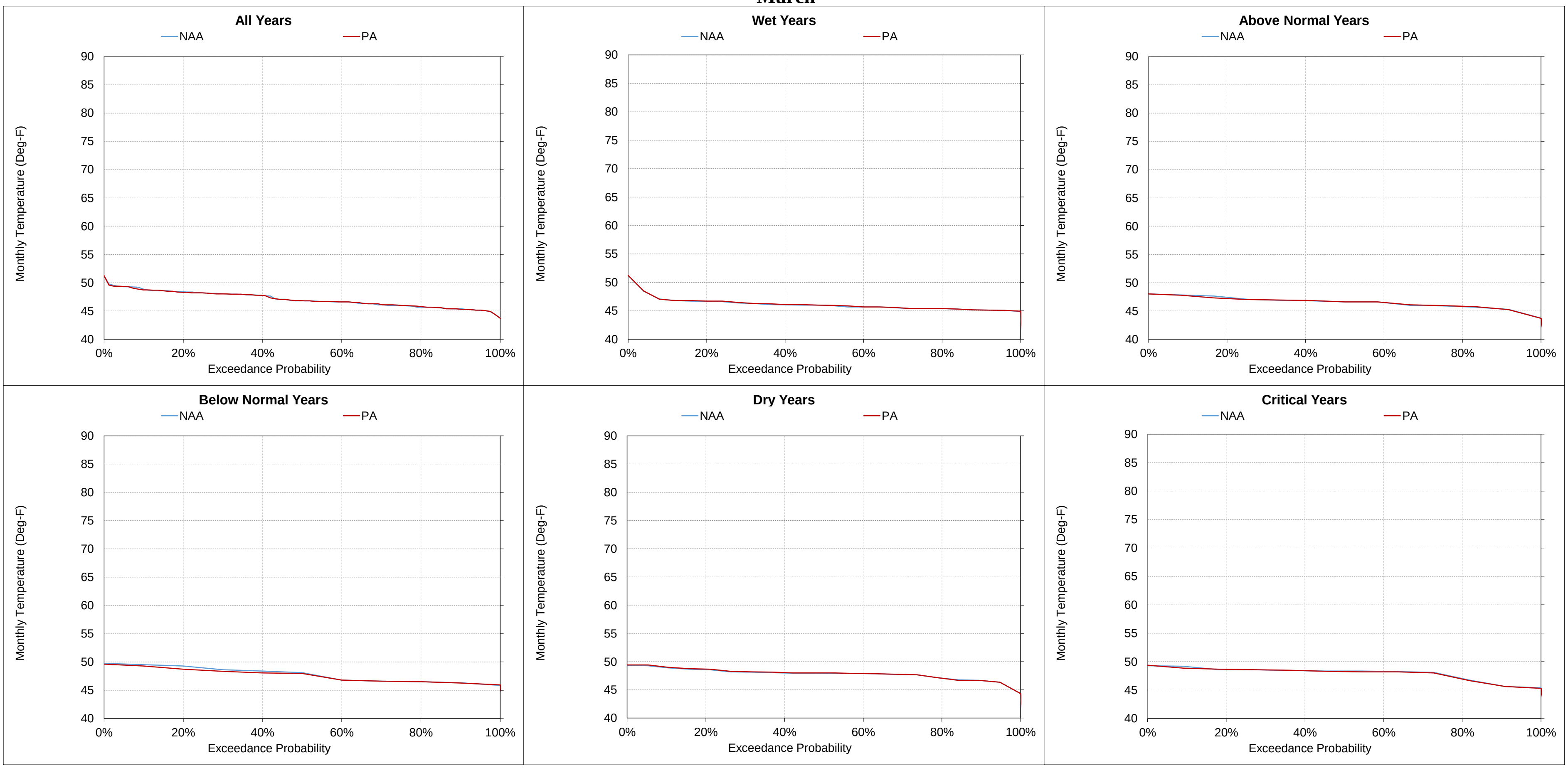
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-12. Sacramento River below Keswick Dam, Monthly Temperature February



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-13. Sacramento River below Keswick Dam, Monthly Temperature March



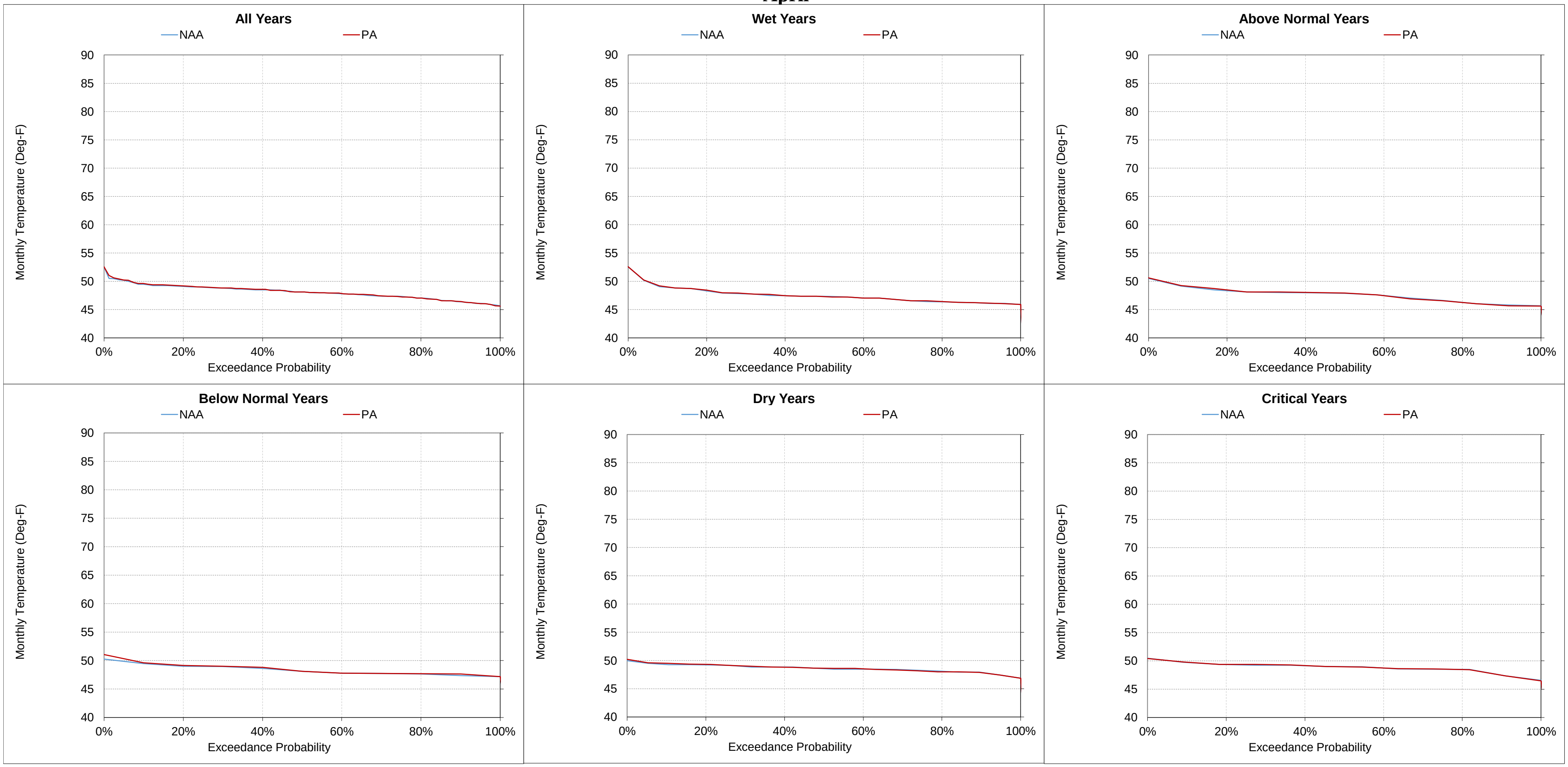
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

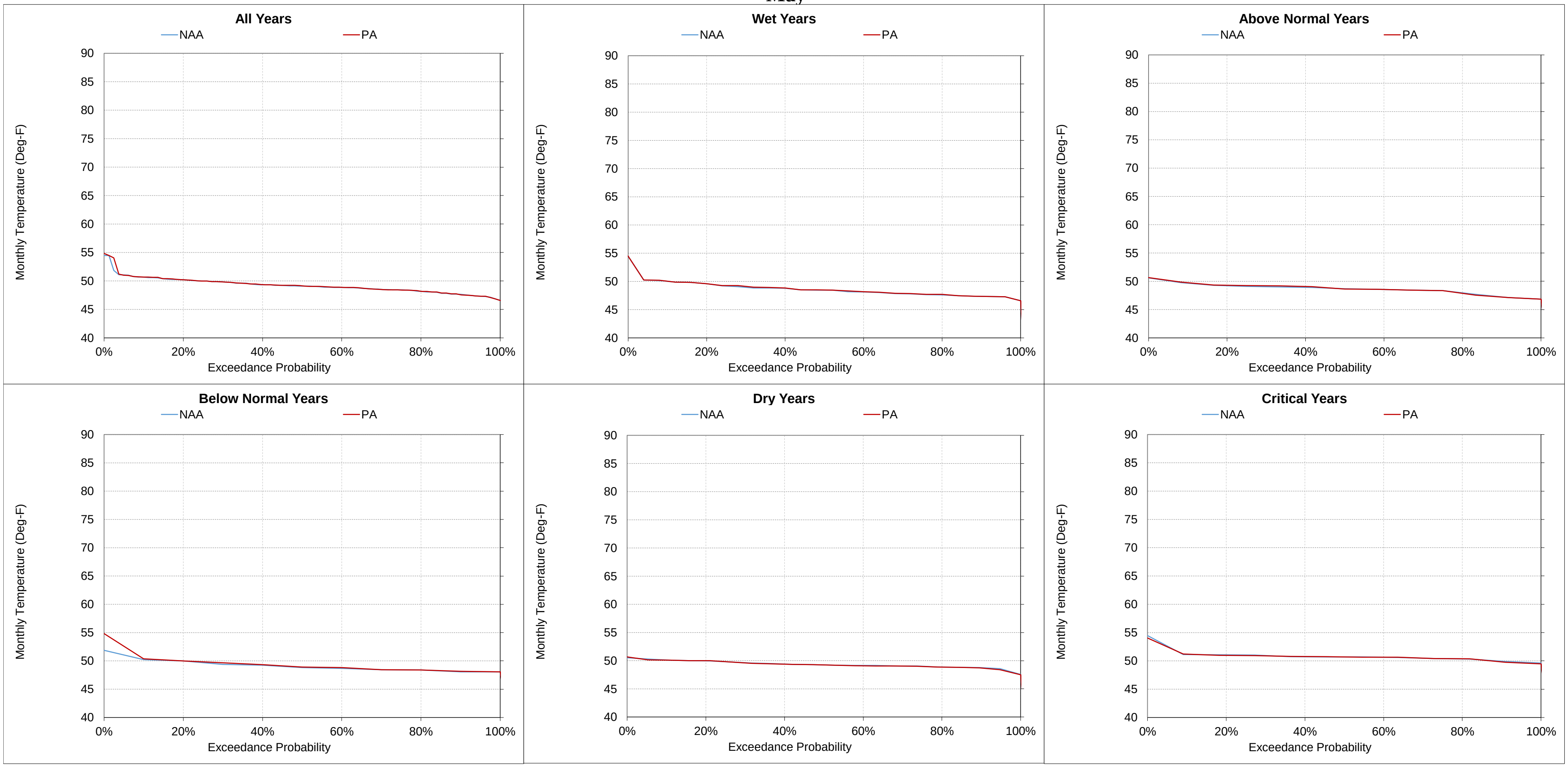
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-14. Sacramento River below Keswick Dam, Monthly Temperature
April



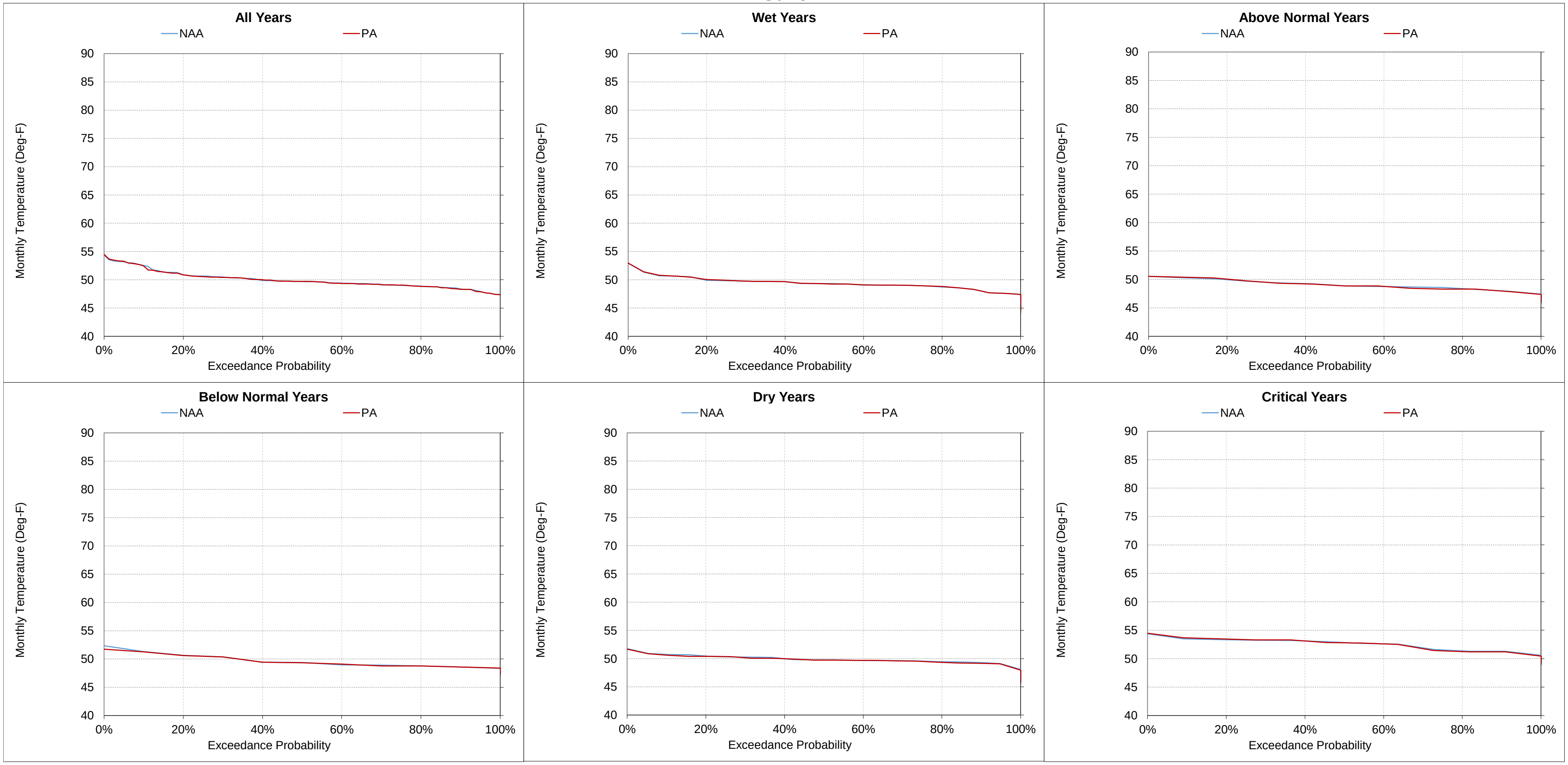
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-15. Sacramento River below Keswick Dam, Monthly Temperature
May



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-16. Sacramento River below Keswick Dam, Monthly Temperature June



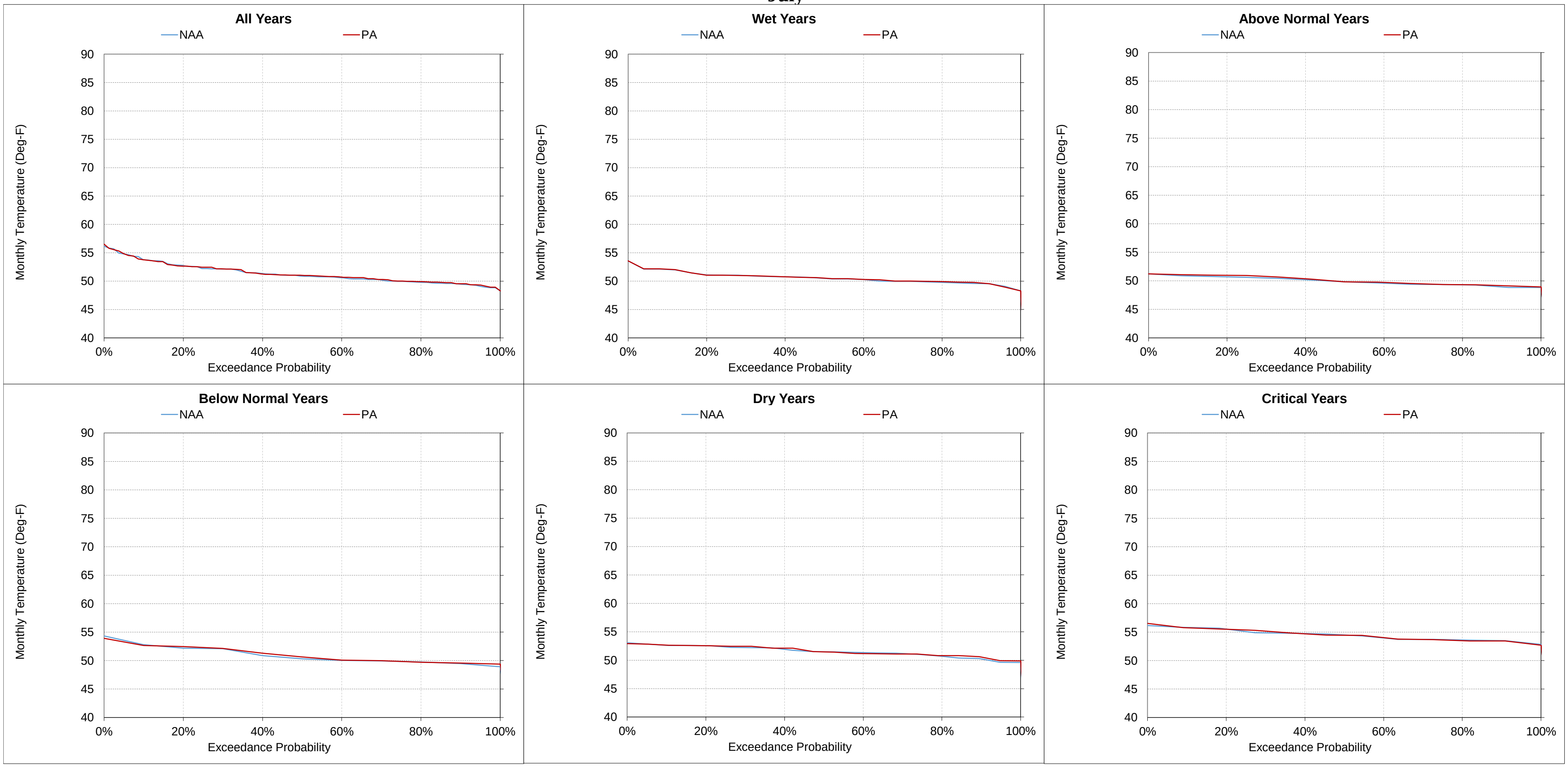
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-17. Sacramento River below Keswick Dam, Monthly Temperature July



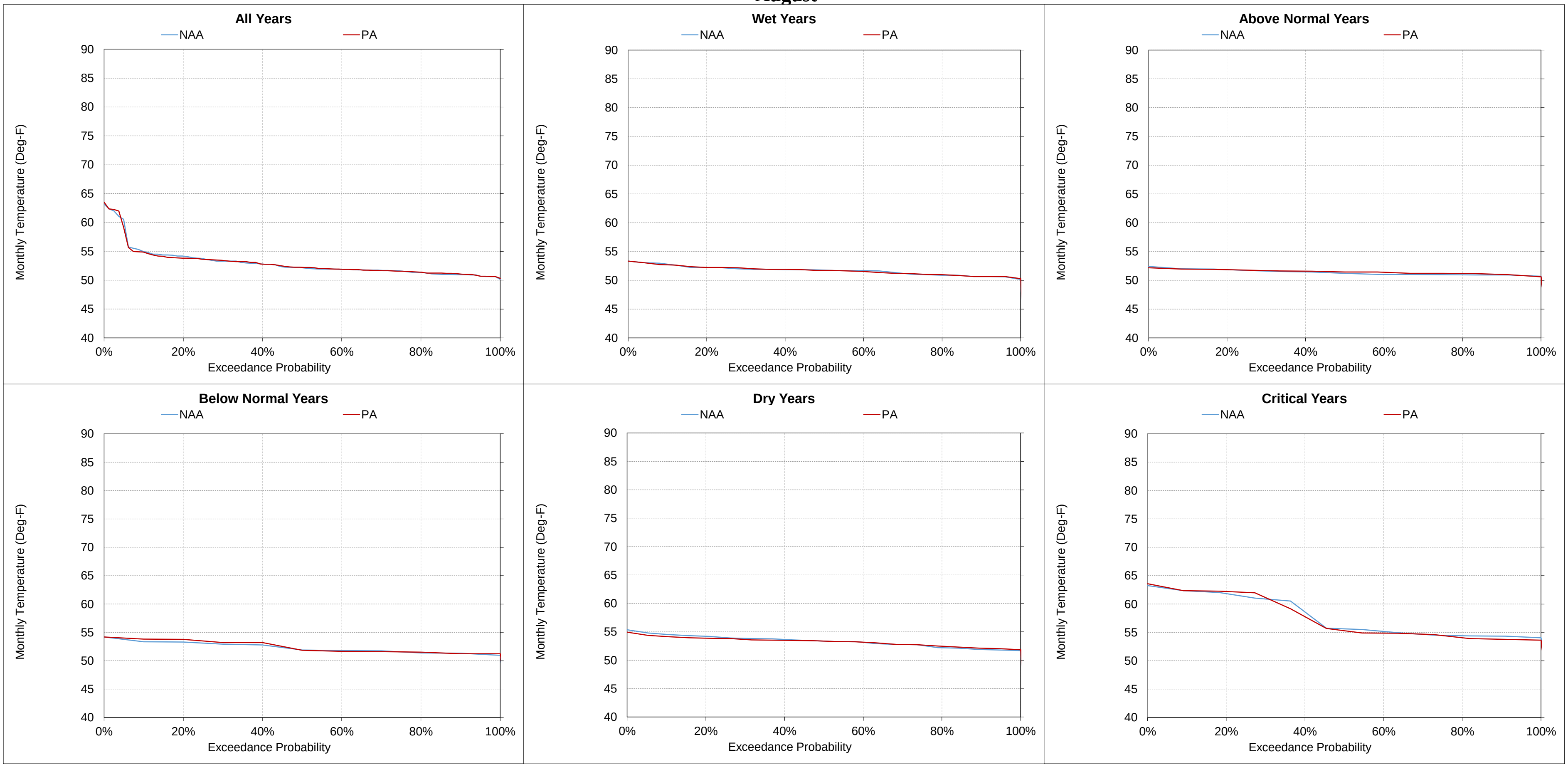
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-18. Sacramento River below Keswick Dam, Monthly Temperature August



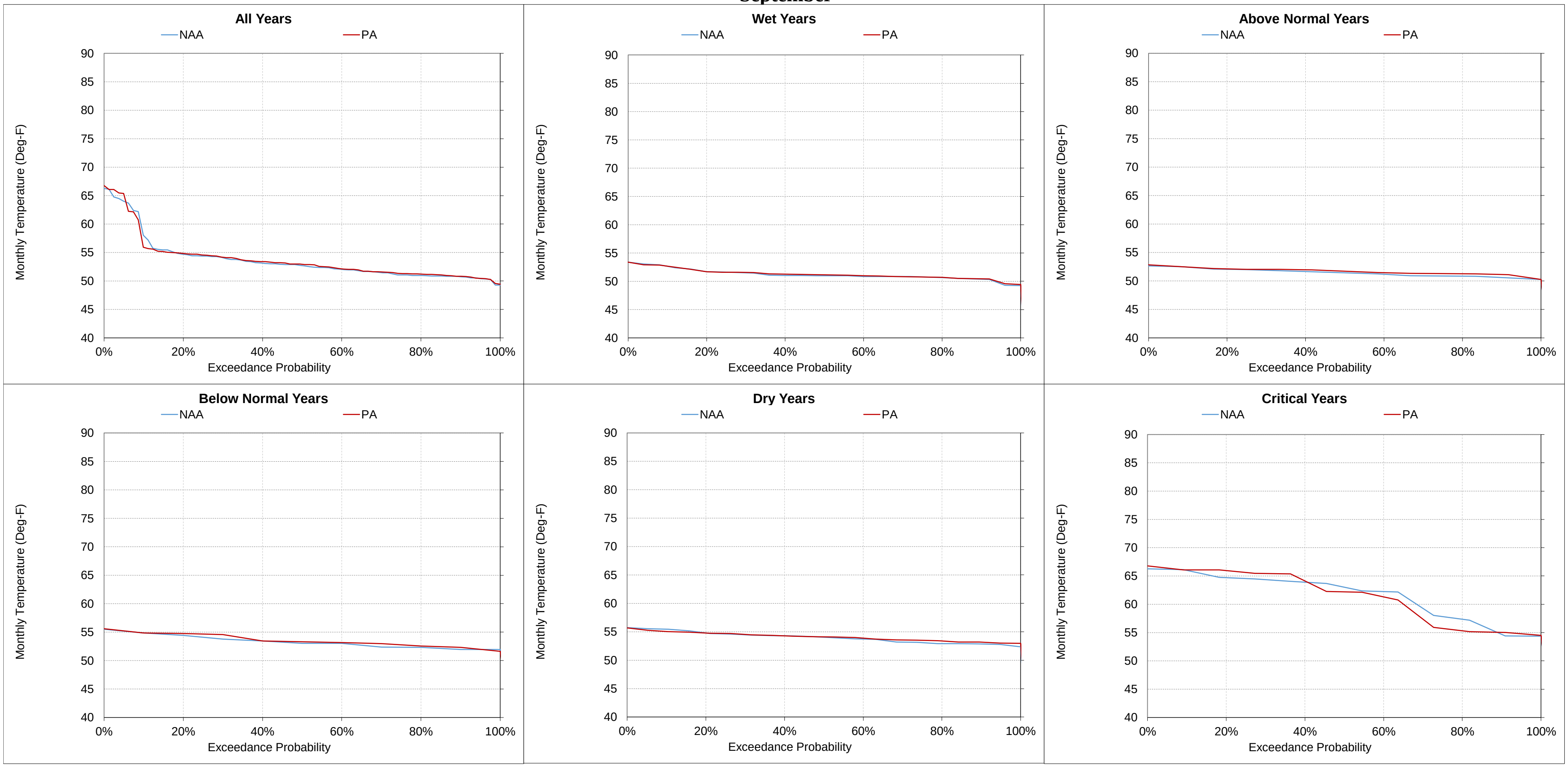
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-3-19. Sacramento River below Keswick Dam, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-4. Sacramento River above Clear Creek Confluence, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.6	58.9	-1.7	-3%	56.5	56.2	-0.2	0%	53.0	53.0	0.0	0%	50.1	50.1	0.0	0%	48.6	48.7	0.1	0%	49.7	49.7	0.0	0%
20%	56.2	55.9	-0.3	-1%	56.0	55.9	-0.1	0%	52.4	52.4	0.0	0%	49.1	49.1	0.0	0%	48.1	48.1	0.1	0%	49.3	49.3	0.0	0%
30%	55.6	55.5	-0.1	0%	55.7	55.7	0.0	0%	52.0	52.0	0.0	0%	48.7	48.7	0.0	0%	47.8	47.9	0.1	0%	49.1	49.0	-0.1	0%
40%	55.2	55.2	0.0	0%	55.6	55.3	-0.2	0%	51.6	51.5	-0.1	0%	48.0	48.1	0.0	0%	47.5	47.5	0.0	0%	48.7	48.5	-0.2	0%
50%	55.0	55.0	0.0	0%	55.2	55.1	-0.1	0%	51.1	51.1	0.0	0%	47.8	47.8	0.0	0%	47.1	47.1	0.0	0%	47.6	47.5	0.0	0%
60%	54.7	54.8	0.1	0%	54.9	54.8	-0.1	0%	50.8	50.8	0.0	0%	47.4	47.4	0.0	0%	46.3	46.3	0.0	0%	47.2	47.3	0.0	0%
70%	54.5	54.4	-0.1	0%	54.7	54.5	-0.3	0%	50.5	50.6	0.0	0%	47.0	47.1	0.1	0%	45.7	45.9	0.2	0%	46.9	46.9	0.1	0%
80%	54.2	54.3	0.0	0%	54.2	54.1	-0.1	0%	50.2	50.2	0.0	0%	46.6	46.7	0.1	0%	45.4	45.4	0.0	0%	46.2	46.2	0.1	0%
90%	54.0	54.2	0.2	0%	53.7	53.8	0.0	0%	49.3	49.3	0.0	0%	45.5	45.6	0.0	0%	44.8	44.8	0.0	0%	45.8	45.9	0.0	0%
Long Term Full Simulation Period[b]	55.8	55.7	-0.1	0%	55.2	55.1	-0.1	0%	51.3	51.2	0.0	0%	47.8	47.9	0.0	0%	46.8	46.9	0.0	0%	47.8	47.8	0.0	0%
Water Year Types[c]																								
Wet (32%)	54.6	54.7	0.1	0%	55.3	55.2	-0.1	0%	51.8	51.8	0.0	0%	48.3	48.4	0.0	0%	46.1	46.1	0.0	0%	46.6	46.7	0.0	0%
Above Normal (16%)	54.5	54.4	-0.1	0%	54.8	54.5	-0.3	-1%	51.1	51.0	-0.1	0%	48.5	48.5	0.0	0%	46.1	46.1	0.1	0%	47.2	47.1	0.0	0%
Below Normal (13%)	55.0	54.8	-0.2	0%	54.7	54.6	-0.1	0%	51.3	51.2	-0.1	0%	48.0	48.0	0.0	0%	47.2	47.3	0.0	0%	48.7	48.5	-0.2	0%
Dry (24%)	55.3	55.3	0.0	0%	54.7	54.8	0.1	0%	50.8	50.8	0.0	0%	47.4	47.4	0.0	0%	47.7	47.7	0.0	0%	48.7	48.8	0.0	0%
Critical (15%)	61.3	60.9	-0.4	-1%	56.6	56.6	0.0	0%	51.0	51.0	0.1	0%	46.5	46.6	0.1	0%	47.3	47.5	0.1	0%	49.0	48.9	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	51.1	51.1	0.0	0%	52.1	52.1	0.0	0%	53.7	53.6	-0.1	0%	54.7	54.7	0.0	0%	55.9	55.7	-0.3	0%	59.1	57.3	-1.9	-3%
20%	50.2	50.2	0.0	0%	51.6	51.5	-0.2	0%	51.9	52.0	0.1	0%	53.6	53.6	0.0	0%	55.0	54.7	-0.3	-1%	56.0	56.1	0.0	0%
30%	49.9	49.9	0.0	0%	51.0	50.9	0.0	0%	51.5	51.5	0.0	0%	53.1	53.1	0.1	0%	54.4	54.4	0.1	0%	55.3	55.5	0.2	0%
40%	49.5	49.6	0.1	0%	50.7	50.6	-0.1	0%	51.0	51.0	-0.1	0%	52.3	52.2	-0.1	0%	53.8	53.8	0.1	0%	54.2	54.6	0.3	1%
50%	49.3	49.2	0.0	0%	50.3	50.3	0.1	0%	50.7	50.7	0.0	0%	51.8	51.9	0.0	0%	53.0	53.1	0.1	0%	53.8	54.0	0.2	0%
60%	48.8	48.8	-0.1	0%	50.0	50.1	0.0	0%	50.5	50.4	-0.1	0%	51.6	51.7	0.2	0%	52.8	52.9	0.1	0%	52.8	53.0	0.2	0%
70%	48.4	48.5	0.1	0%	49.8	49.8	0.0	0%	50.3	50.2	-0.1	0%	51.1	51.2	0.1	0%	52.7	52.7	0.0	0%	52.2	52.3	0.1	0%
80%	47.9	47.9	0.0	0%	49.3	49.3	0.0	0%	49.9	49.9	0.0	0%	50.7	50.8	0.1	0%	52.3	52.4	0.1	0%	51.5	51.9	0.3	1%
90%	47.1	47.1	0.0	0%	48.7	48.7	0.0	0%	49.6	49.4	-0.2	0%	50.4	50.6	0.2	0%	51.9	52.0	0.2	0%	51.4	51.4	0.1	0%
Long Term Full Simulation Period[b]	49.1	49.2	0.0	0%	50.4	50.5	0.0	0%	51.1	51.0	-0.1	0%	52.3	52.3	0.1	0%	54.0	54.0	0.0	0%	54.6	54.8	0.1	0%
Water Year Types[c]																								
Wet (32%)	48.4	48.4	0.0	0%	49.8	49.8	0.0	0%	50.6	50.6	0.0	0%	51.5	51.6	0.0	0%	52.7	52.7	0.0	0%	51.8	51.9	0.1	0%
Above Normal (16%)	48.6	48.6	0.0	0%	49.9	49.9	0.0	0%	50.1	50.1	-0.1	0%	50.8	50.9	0.1	0%	52.3	52.4	0.1	0%	52.2	52.5	0.3	1%
Below Normal (13%)	49.4	49.6	0.2	0%	50.4	50.7	0.3	1%	50.8	50.7	-0.1	0%	51.8	51.9	0.1	0%	53.2	53.4	0.2	0%	54.5	54.8	0.3	1%
Dry (24%)	49.8	49.8	0.0	0%	50.6	50.5	-0.1	0%	51.0	50.9	-0.1	0%	52.5	52.5	0.1	0%	54.4	54.2	-0.1	0%	55.3	55.4	0.2	0%
Critical (15%)	49.8	49.8	0.0	0%	52.1	52.0	-0.1	0%	53.6	53.6	-0.1	0%	55.4	55.5	0.1	0%	58.6	58.5	-0.2	0%	62.4	62.3	-0.1	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-1. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, All Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.

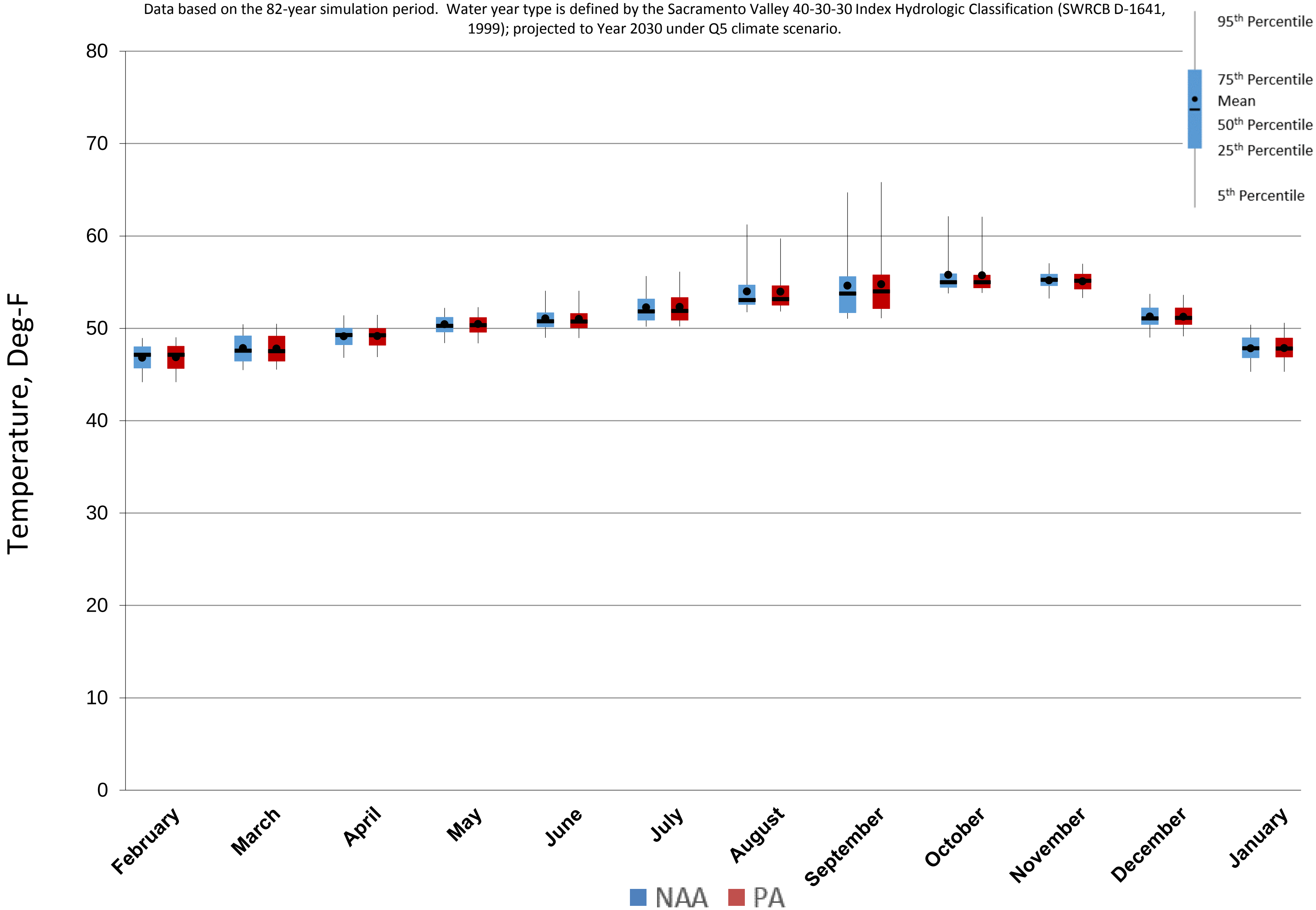


Figure 5.C.7-4-2. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, Wet Years

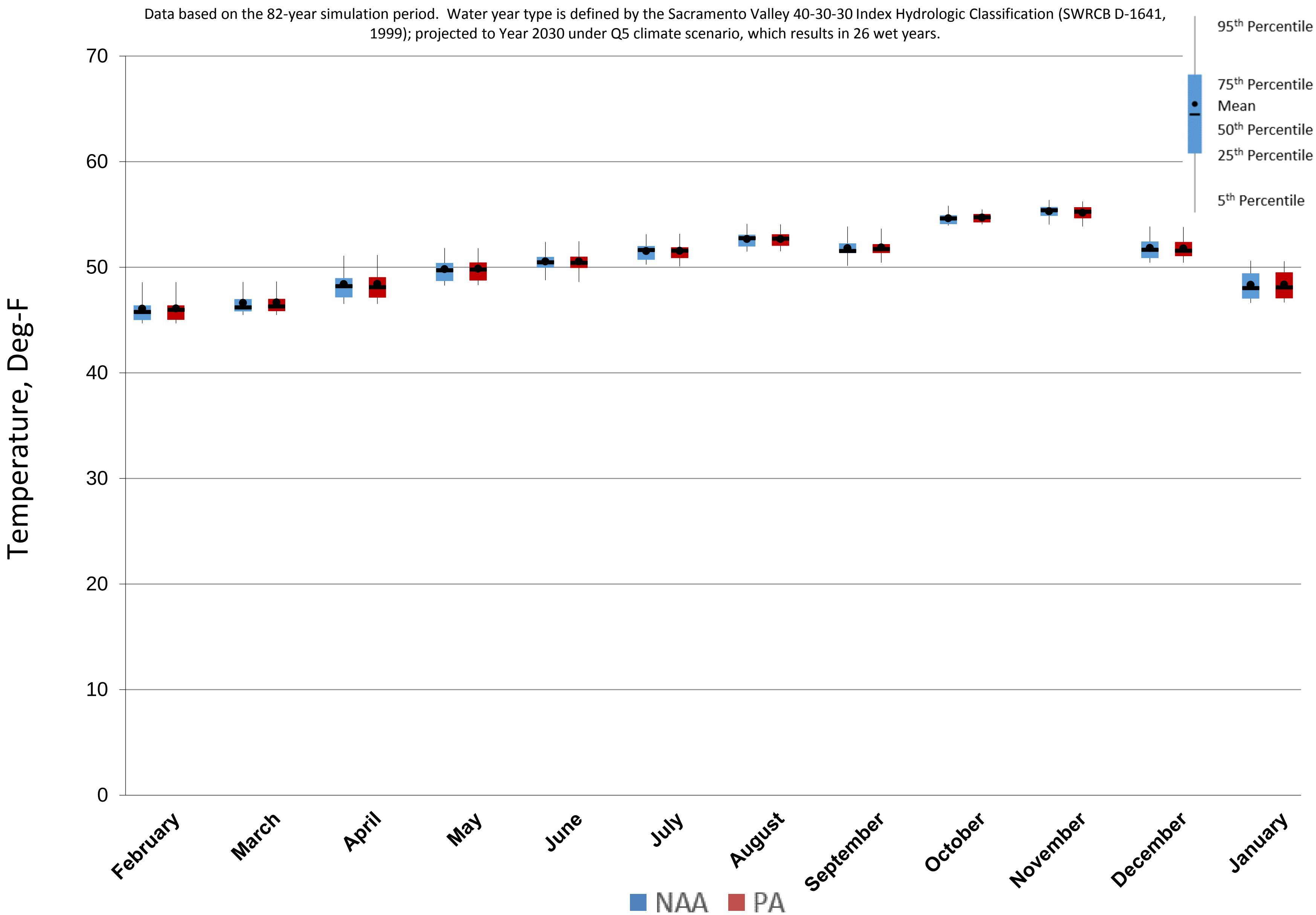


Figure 5.C.7-4-3. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

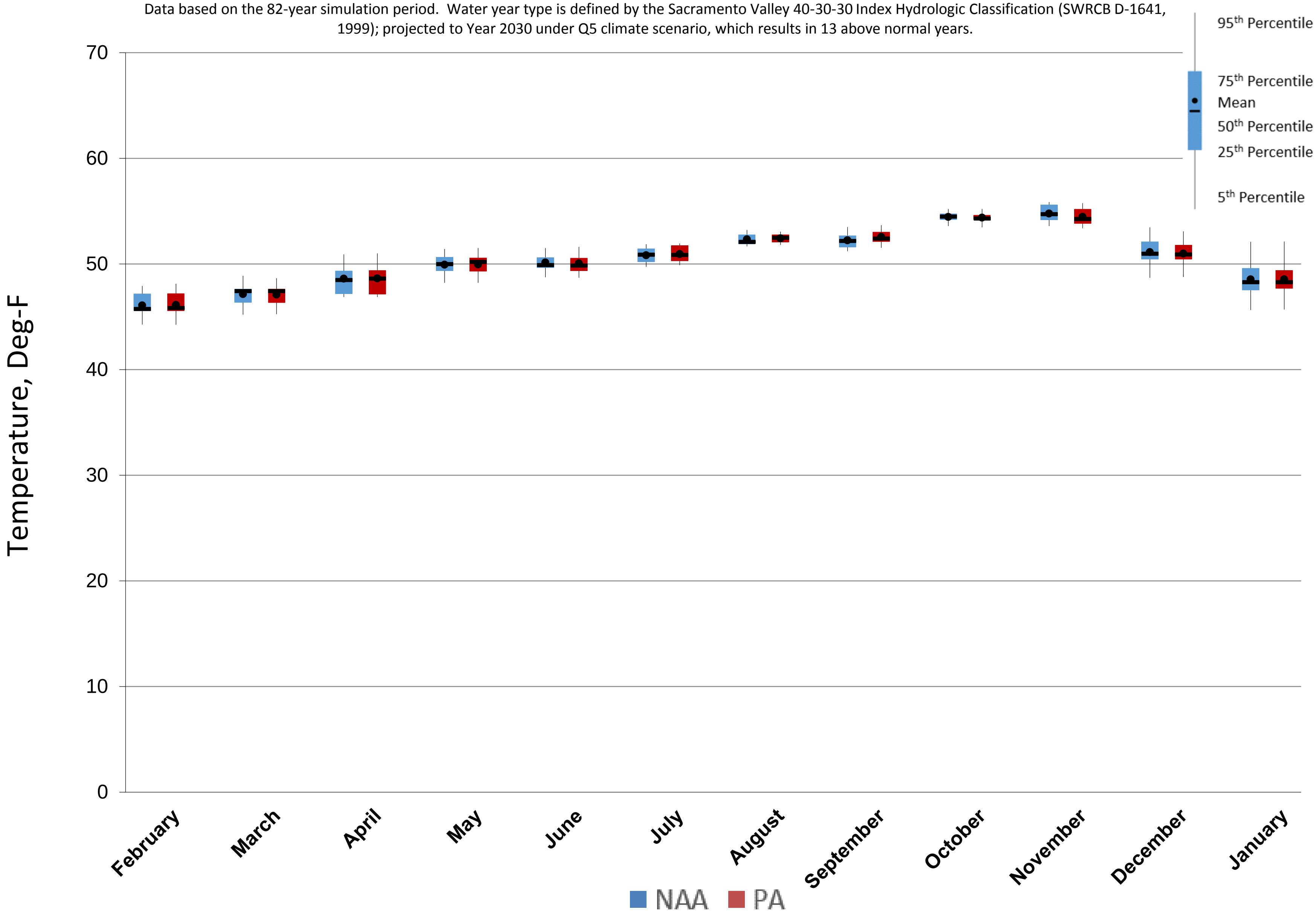


Figure 5.C.7-4-4. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 11 below normal years.

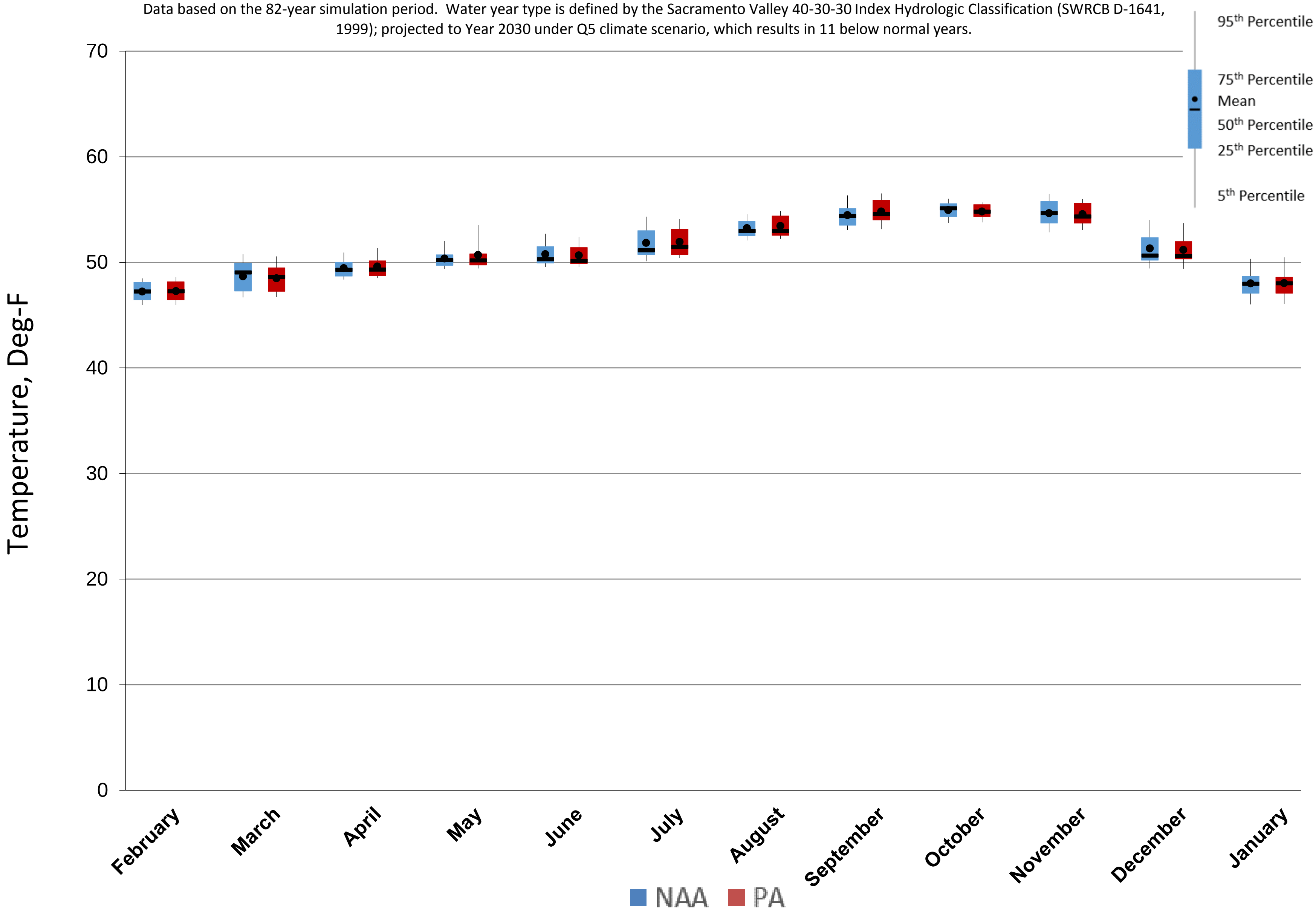


Figure 5.C.7-4-5. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.

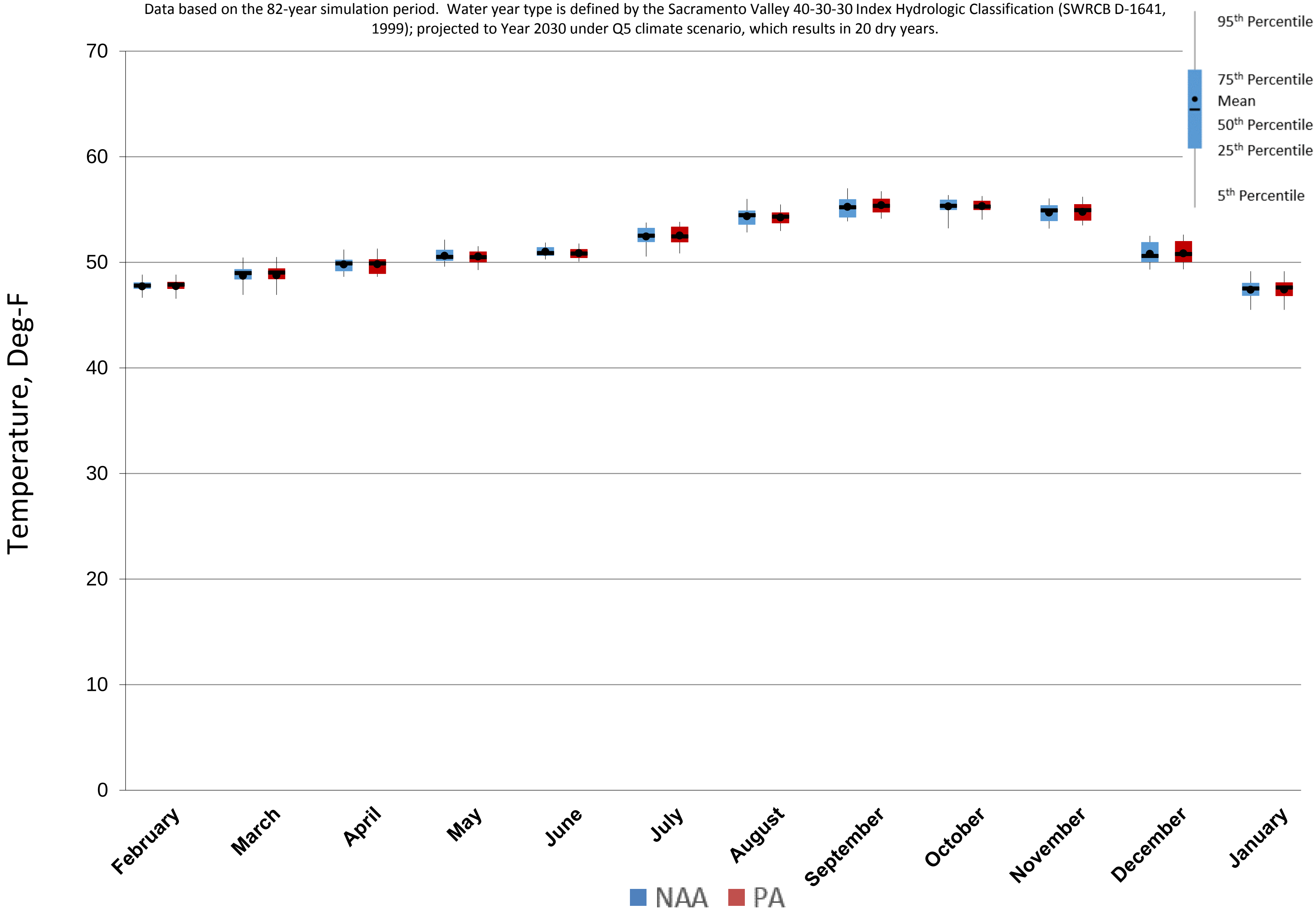


Figure 5.C.7-4-6. Monthly Temperature Ranges for Sacramento River above Clear Creek Confluence, Critical Years

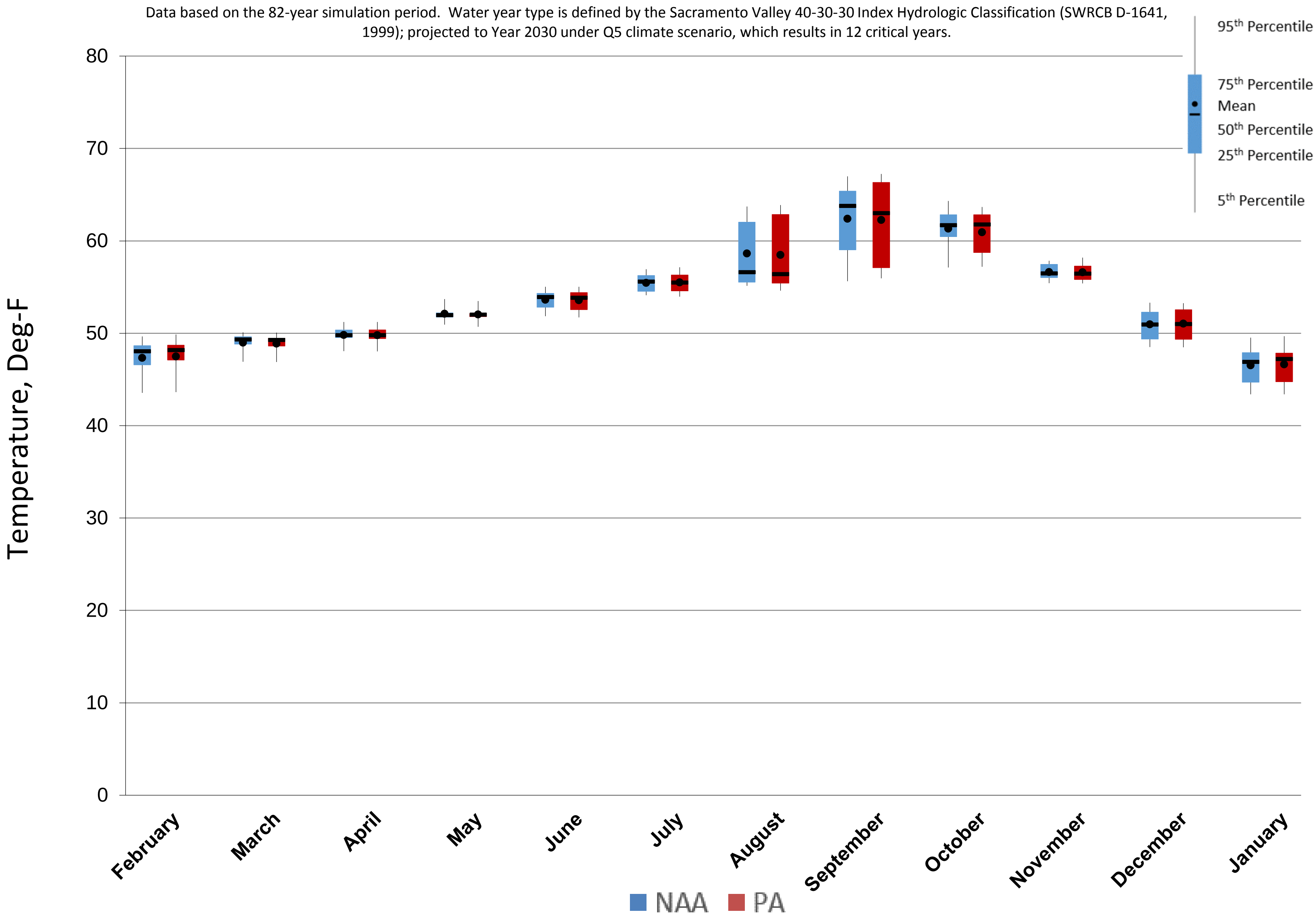
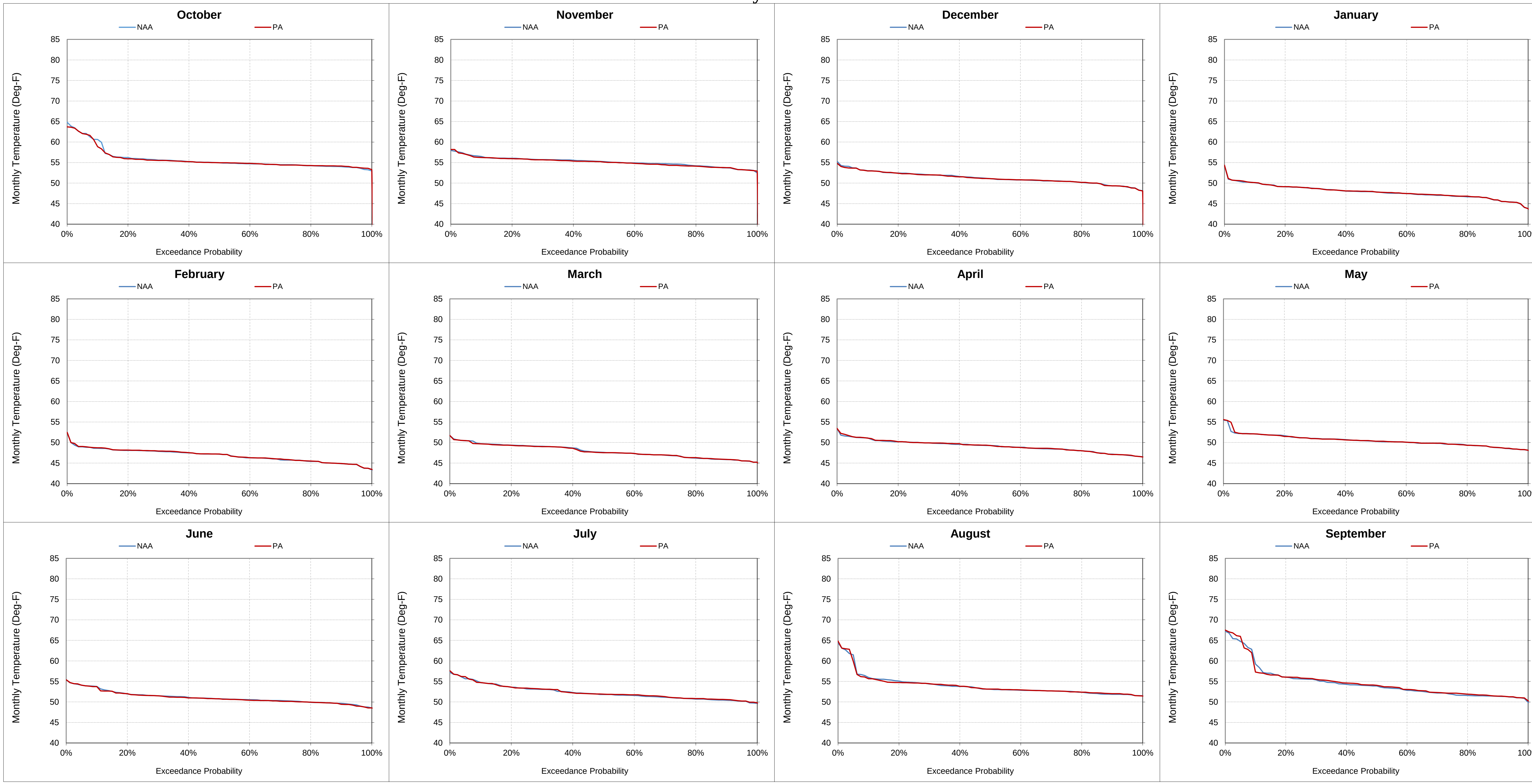
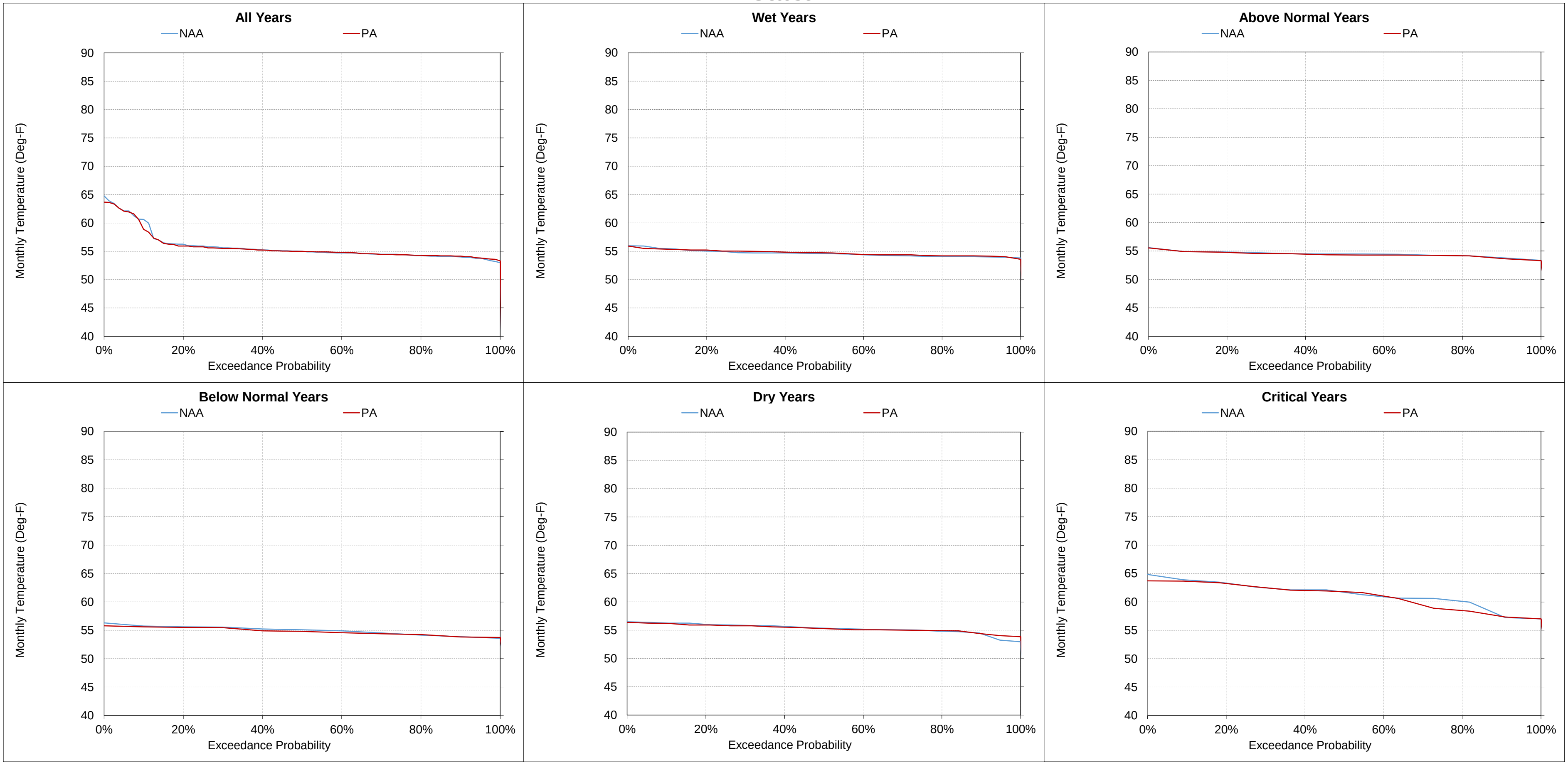


Figure 5.C.7-4-7. Sacramento River above Clear Creek Confluence, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-8. Sacramento River above Clear Creek Confluence, Monthly Temperature October



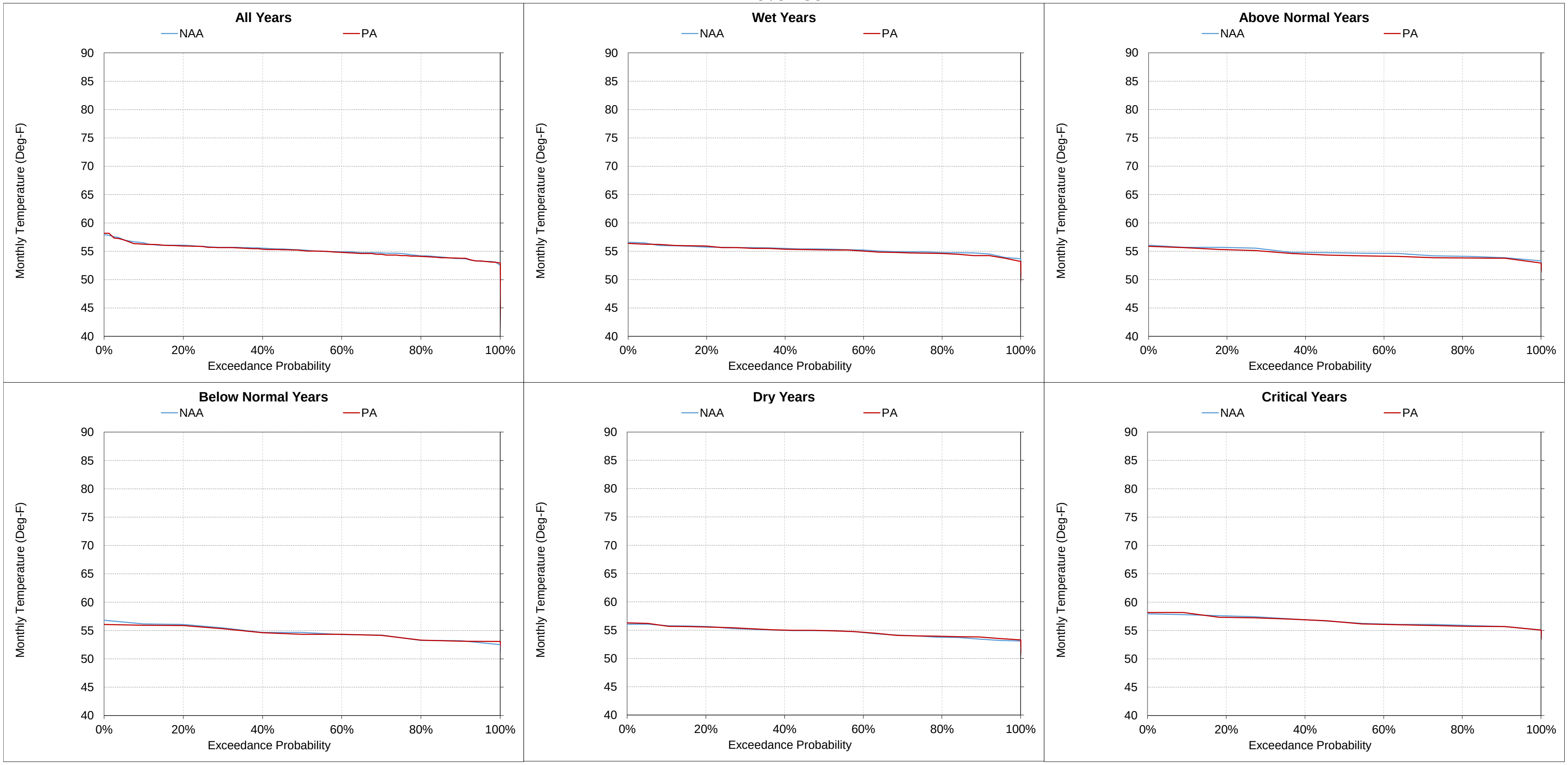
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

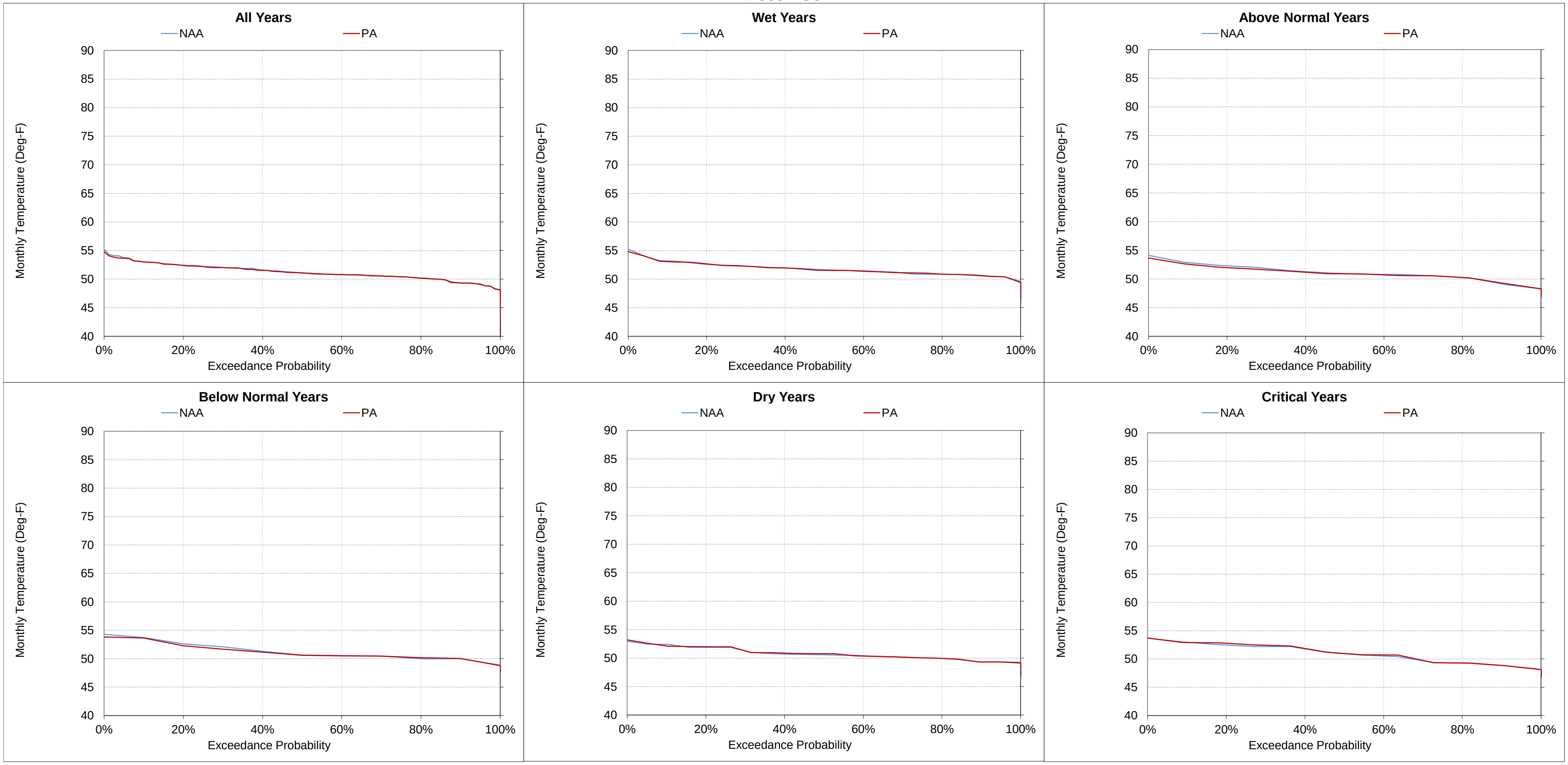
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-9. Sacramento River above Clear Creek Confluence, Monthly Temperature November



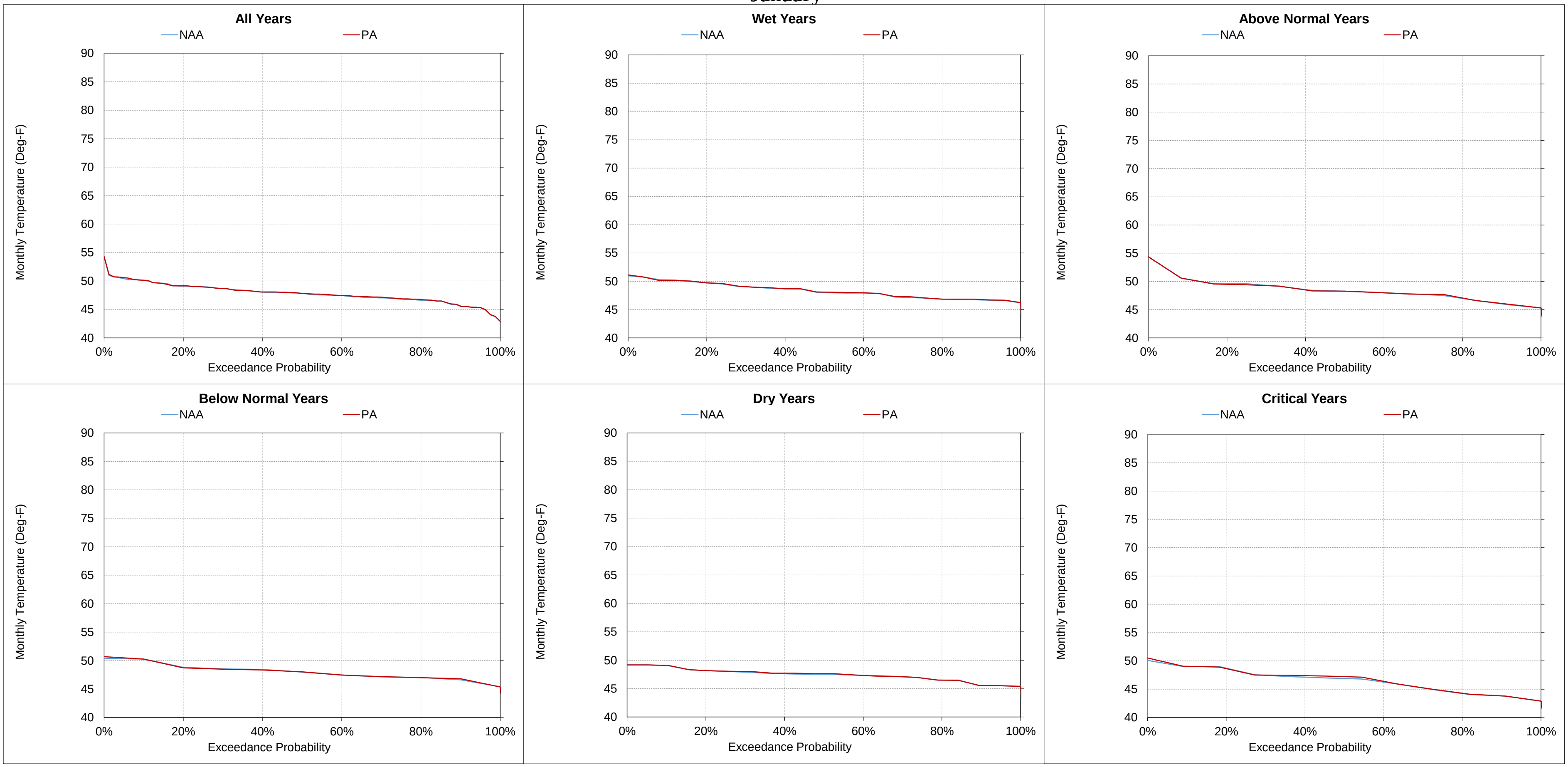
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-10. Sacramento River above Clear Creek Confluence, Monthly Temperature December



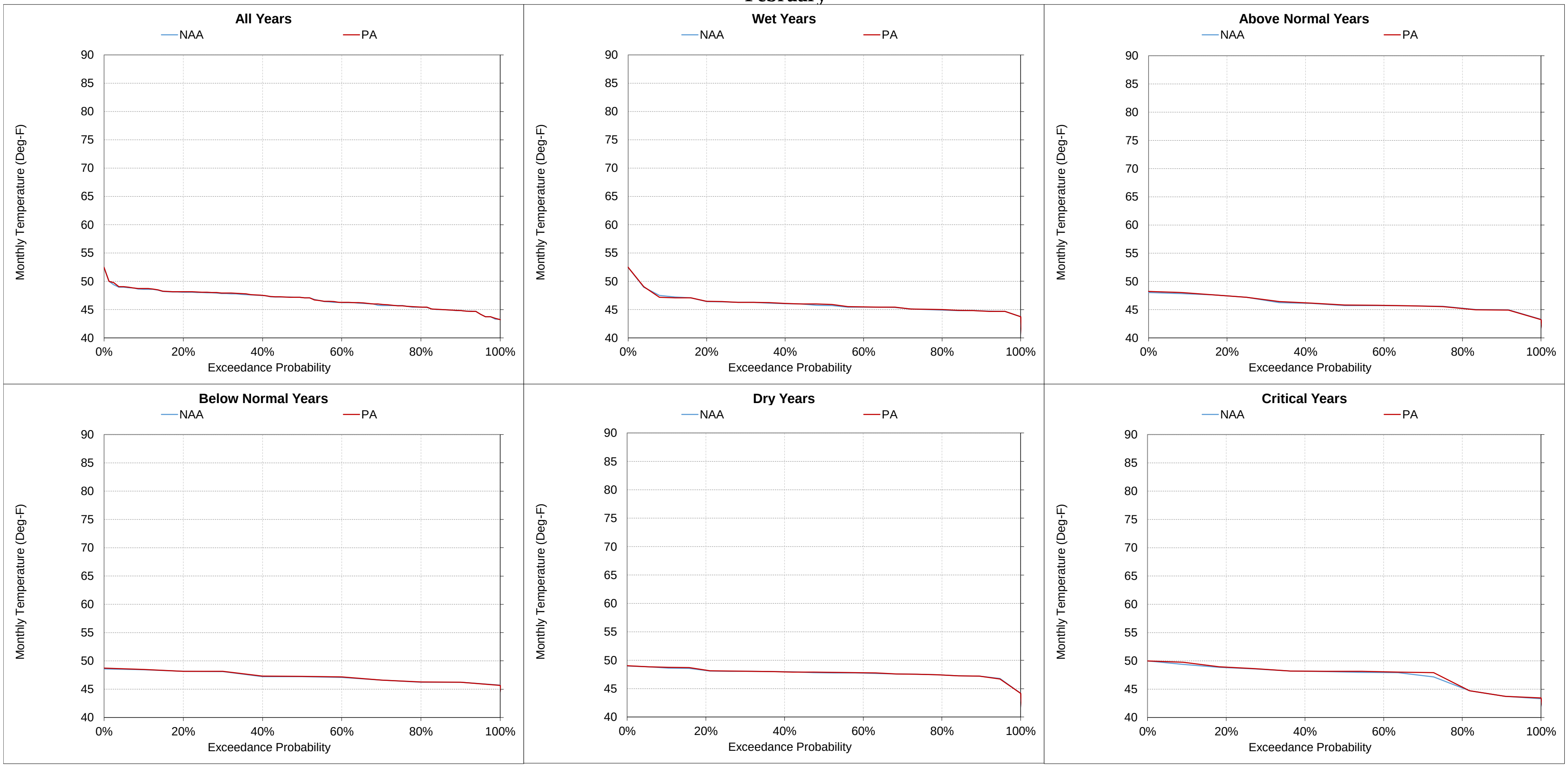
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-11. Sacramento River above Clear Creek Confluence, Monthly Temperature
January



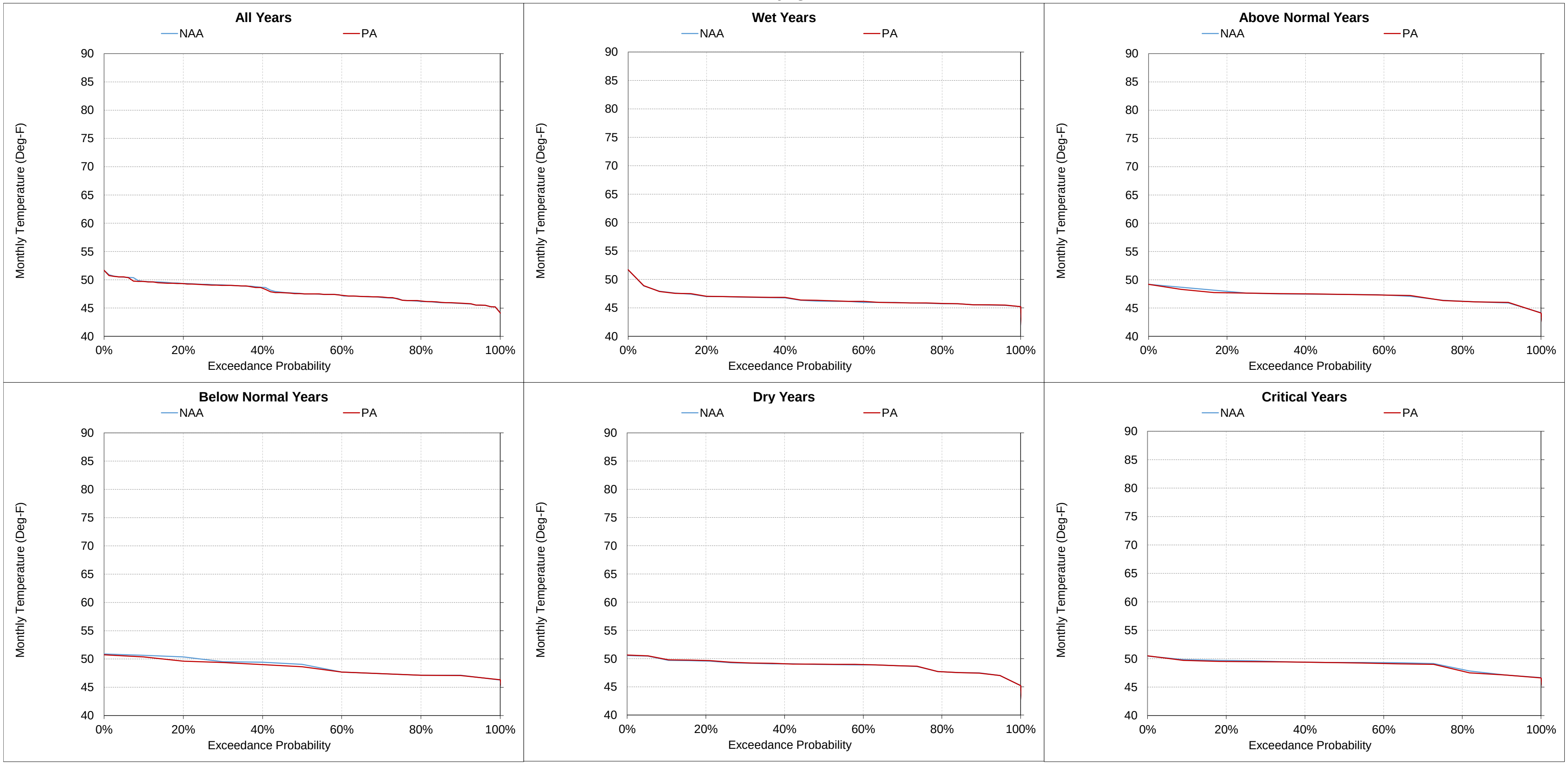
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-12. Sacramento River above Clear Creek Confluence, Monthly Temperature
February



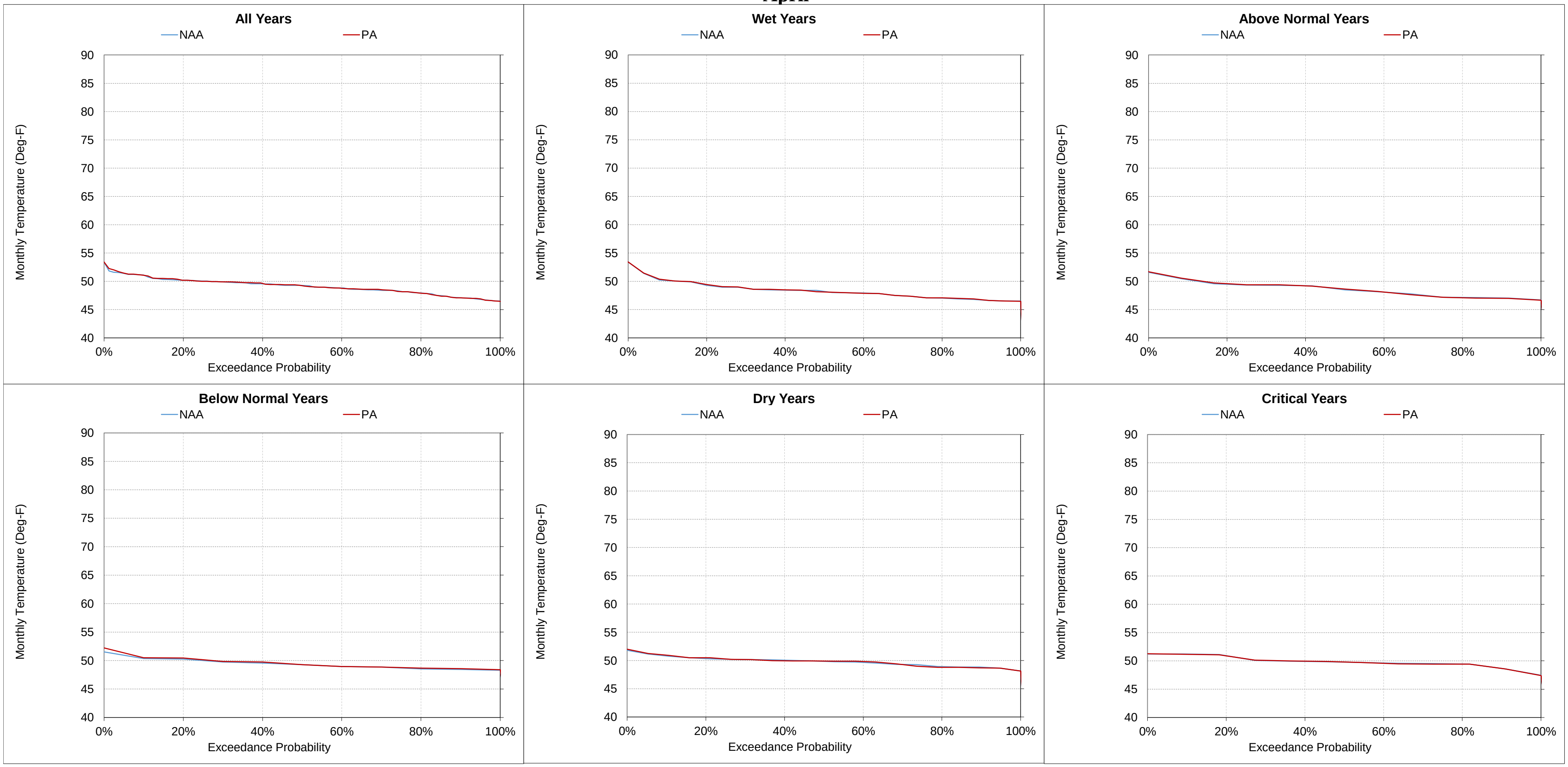
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-13. Sacramento River above Clear Creek Confluence, Monthly Temperature March



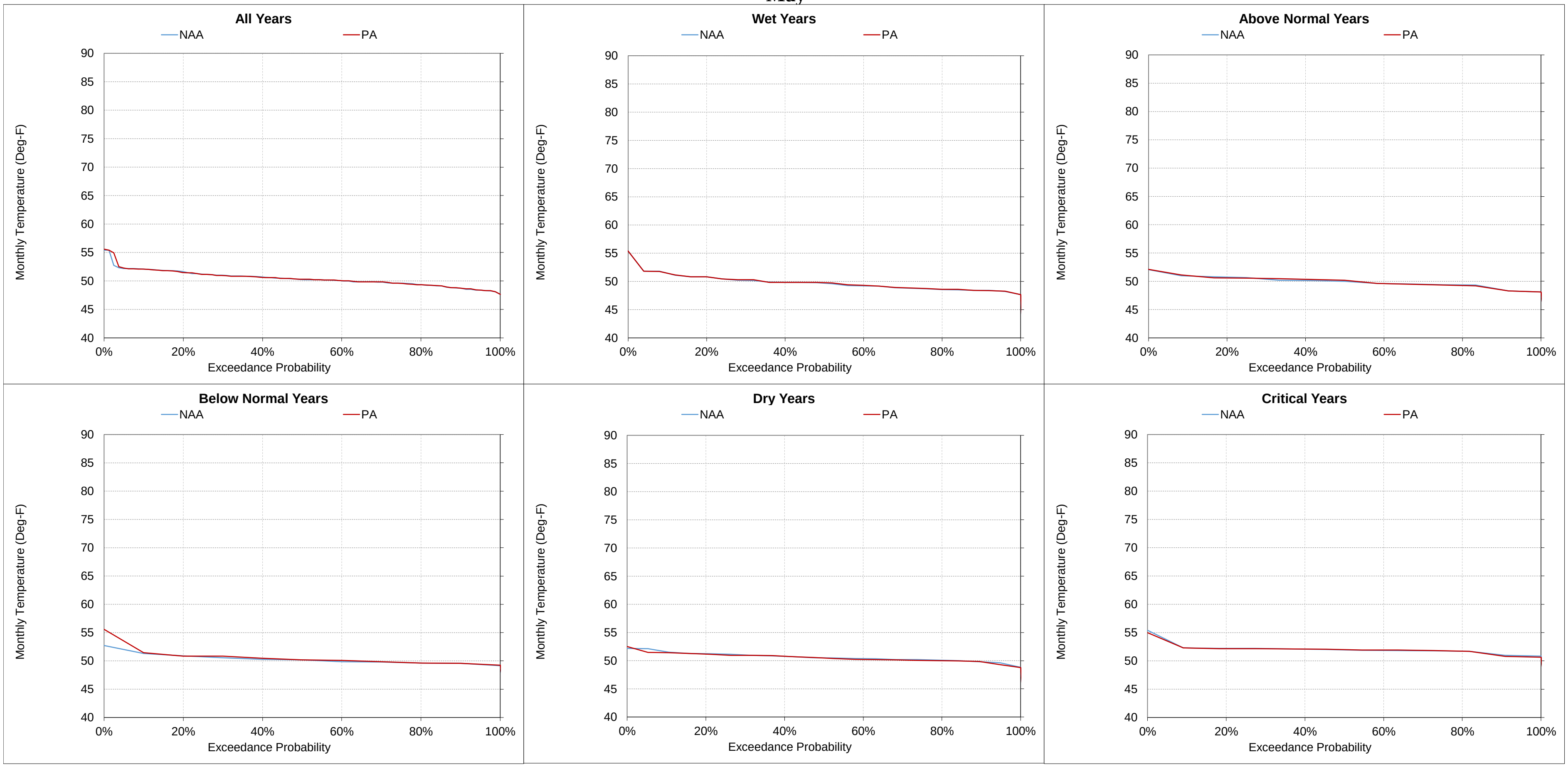
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-14. Sacramento River above Clear Creek Confluence, Monthly Temperature April



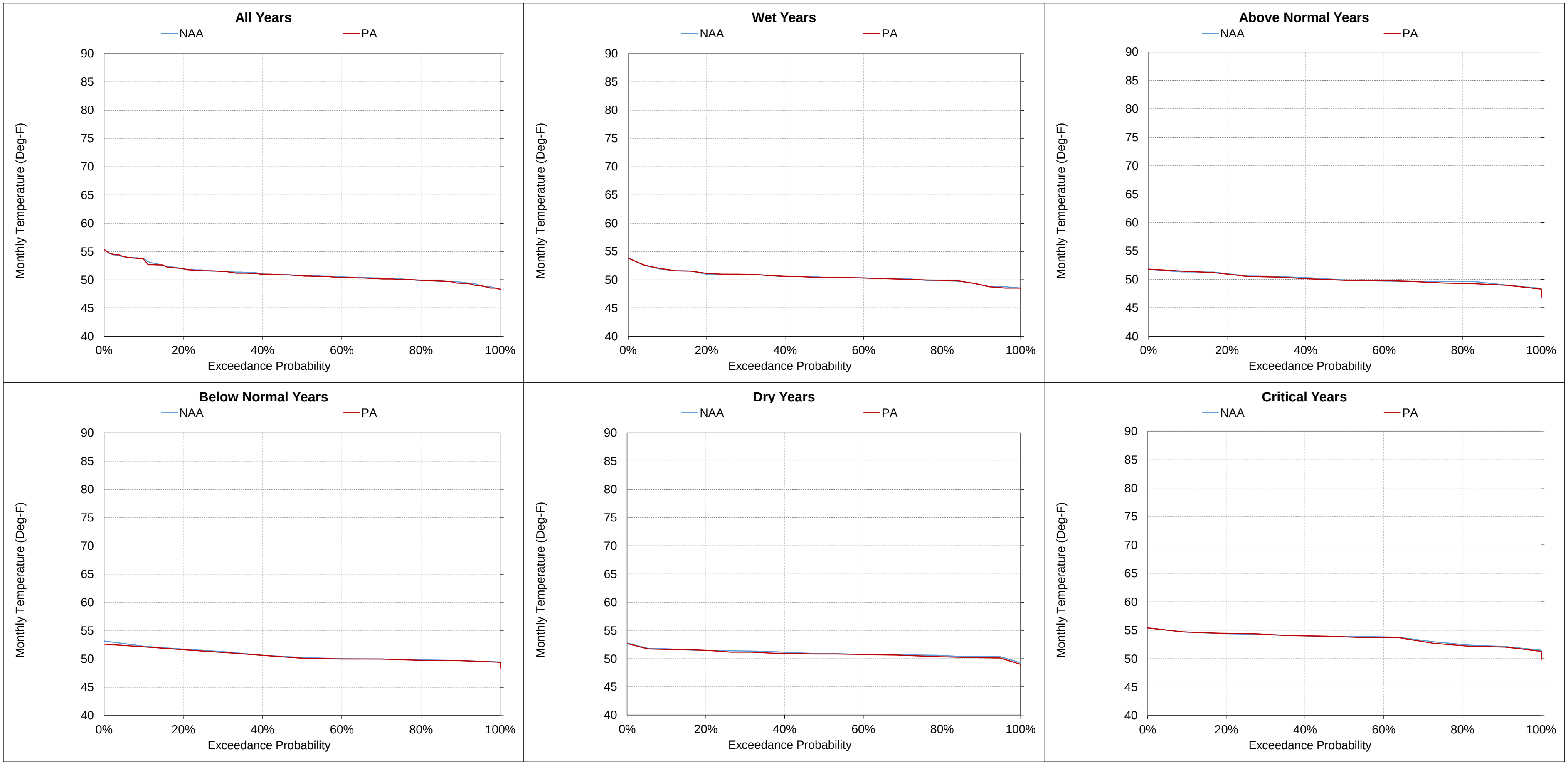
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-15. Sacramento River above Clear Creek Confluence, Monthly Temperature
May



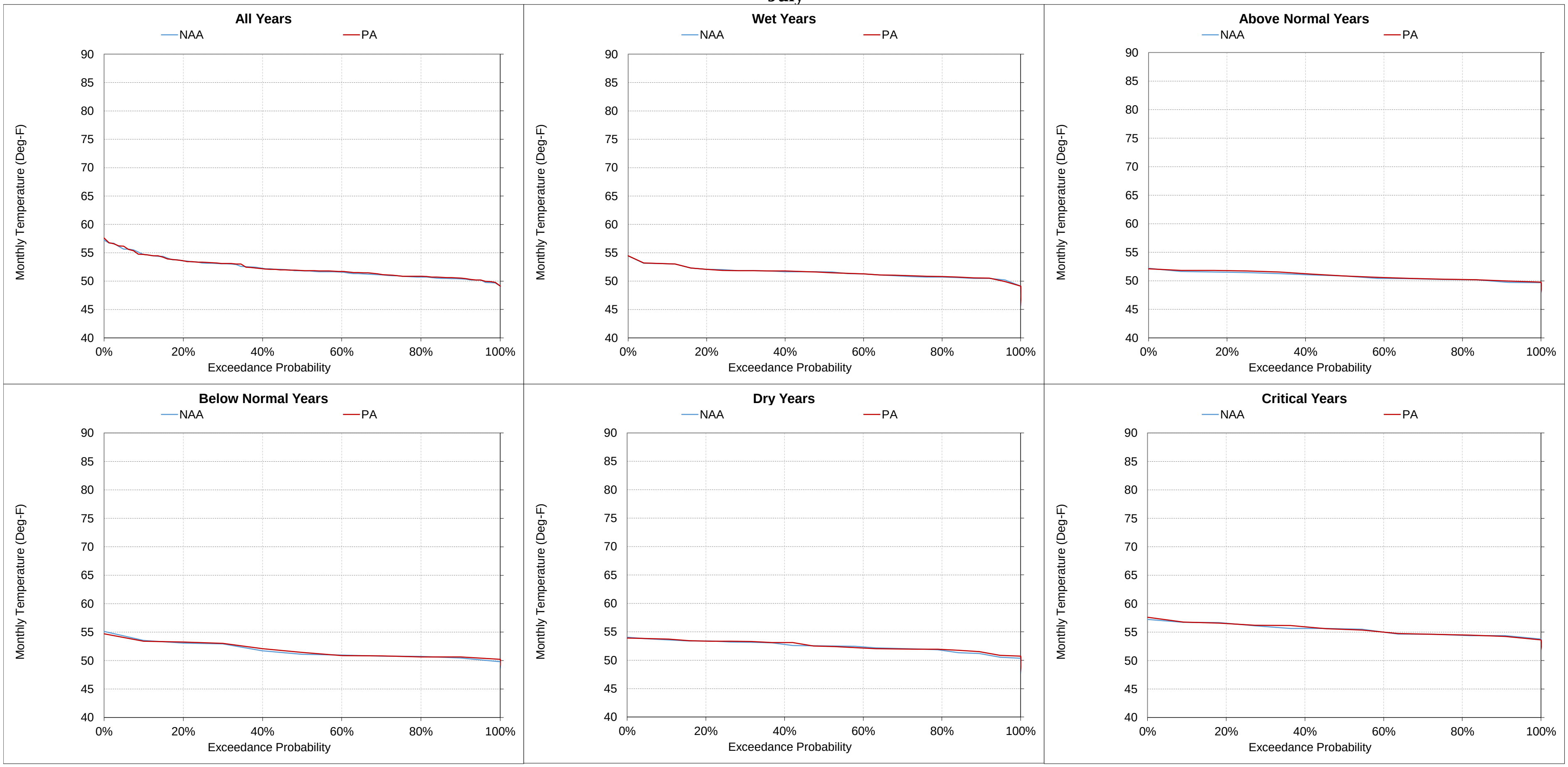
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-16. Sacramento River above Clear Creek Confluence, Monthly Temperature June



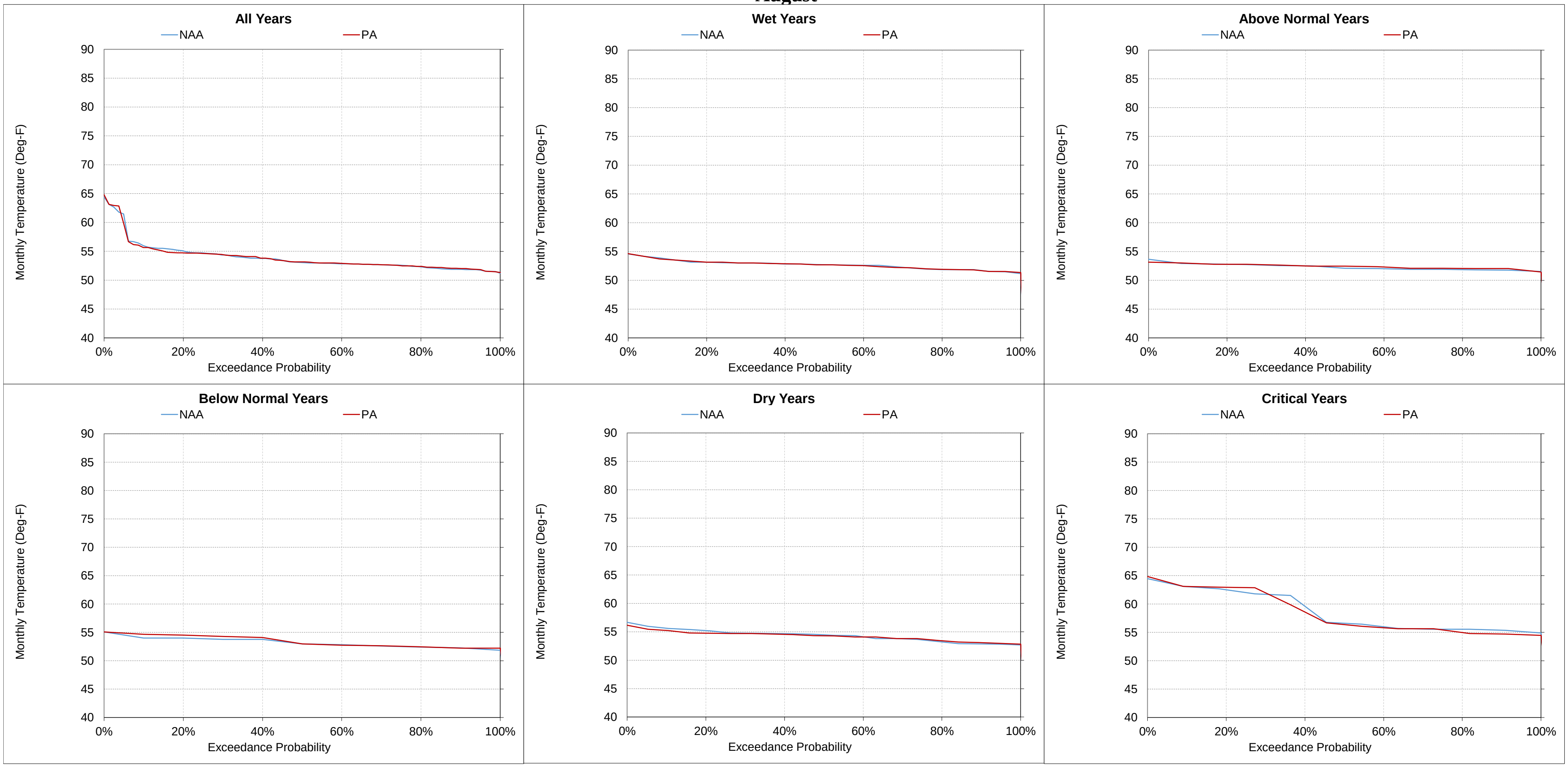
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-17. Sacramento River above Clear Creek Confluence, Monthly Temperature July



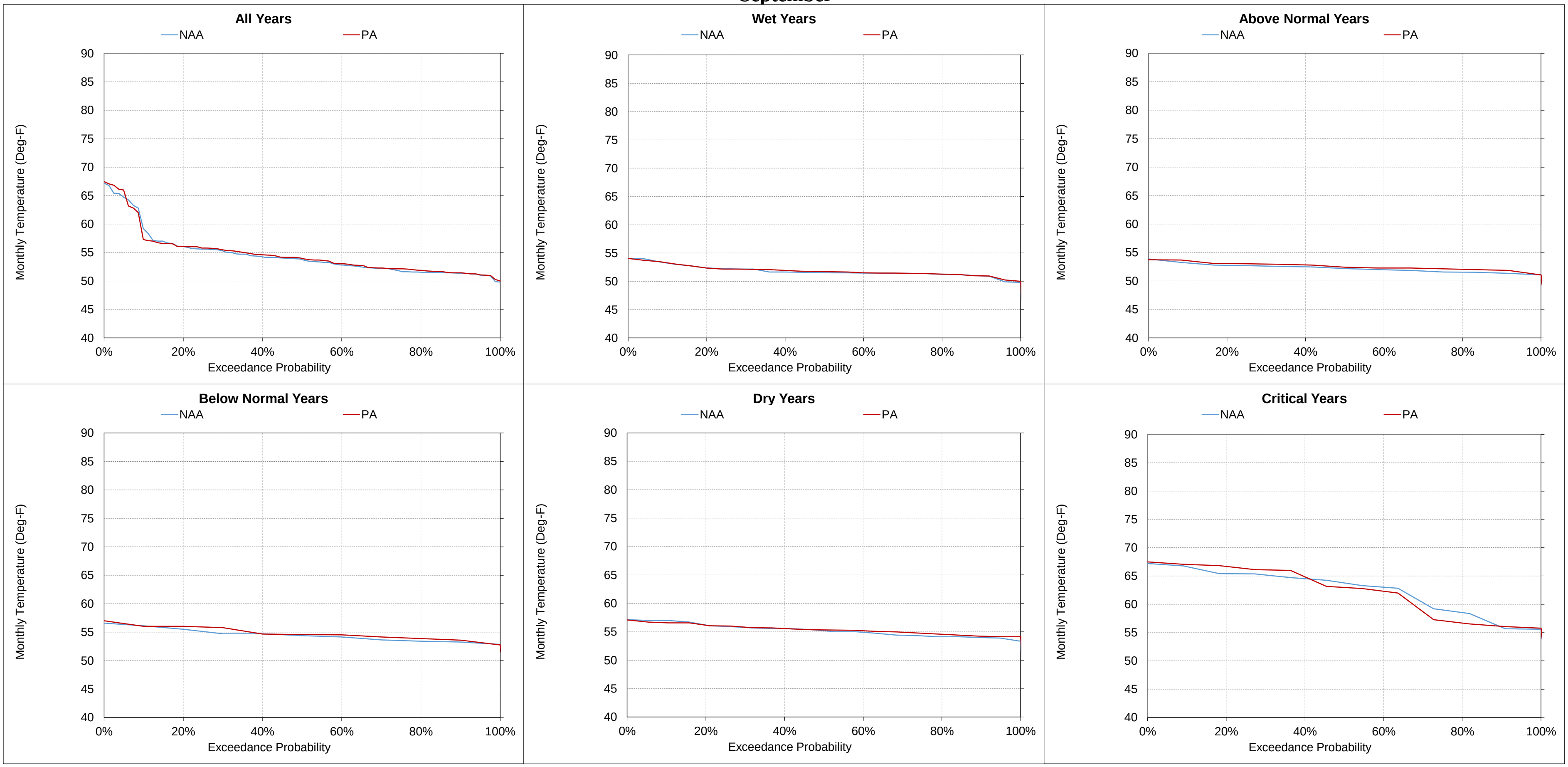
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-18. Sacramento River above Clear Creek Confluence, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-4-19. Sacramento River above Clear Creek Confluence, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-5. Sacramento River at Balls Ferry, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.7	59.2	-1.5	-3%	56.1	56.0	-0.1	0%	52.2	52.0	-0.2	0%	49.3	49.3	0.0	0%	48.7	48.7	0.1	0%	50.9	50.7	-0.3	-1%
20%	56.8	56.6	-0.2	0%	55.6	55.5	-0.1	0%	51.5	51.4	0.0	0%	48.5	48.6	0.0	0%	48.3	48.4	0.1	0%	50.4	50.4	0.0	0%
30%	56.3	56.1	-0.2	0%	55.3	55.1	-0.2	0%	51.0	50.7	-0.2	0%	47.9	47.9	0.0	0%	48.1	48.2	0.1	0%	50.1	50.1	0.0	0%
40%	55.9	55.8	-0.1	0%	55.0	54.9	-0.1	0%	50.4	50.4	-0.1	0%	47.5	47.5	0.0	0%	47.6	47.7	0.0	0%	49.6	49.6	0.0	0%
50%	55.5	55.5	0.1	0%	54.6	54.5	-0.1	0%	50.1	50.1	0.0	0%	47.1	47.3	0.2	0%	47.3	47.2	0.0	0%	48.8	48.7	0.0	0%
60%	55.3	55.3	0.1	0%	54.4	54.1	-0.3	-1%	49.7	49.7	0.0	0%	46.8	46.8	0.1	0%	46.7	46.8	0.1	0%	48.4	48.4	0.0	0%
70%	55.1	55.1	0.0	0%	53.9	53.8	-0.1	0%	49.3	49.5	0.2	0%	46.6	46.6	0.0	0%	46.1	46.2	0.0	0%	47.7	47.8	0.1	0%
80%	54.8	54.8	0.0	0%	53.6	53.3	-0.3	-1%	48.8	48.9	0.1	0%	46.3	46.4	0.1	0%	45.6	45.7	0.1	0%	47.1	47.2	0.0	0%
90%	54.5	54.6	0.2	0%	52.9	52.9	0.0	0%	48.4	48.4	0.0	0%	45.5	45.5	0.0	0%	45.3	45.3	0.0	0%	46.6	46.6	0.1	0%
Long Term Full Simulation Period[b]	56.4	56.3	-0.1	0%	54.6	54.5	-0.1	0%	50.2	50.2	0.0	0%	47.3	47.3	0.1	0%	47.1	47.2	0.0	0%	48.9	48.8	0.0	0%
Water Year Types[c]																								
Wet (32%)	55.1	55.2	0.1	0%	54.9	54.6	-0.2	0%	50.7	50.7	0.0	0%	47.7	47.8	0.1	0%	46.3	46.4	0.0	0%	47.5	47.5	0.0	0%
Above Normal (16%)	55.1	55.0	-0.1	0%	54.3	53.9	-0.4	-1%	50.1	50.0	-0.1	0%	47.9	47.9	0.0	0%	46.4	46.5	0.0	0%	48.2	48.1	-0.1	0%
Below Normal (13%)	55.6	55.4	-0.2	0%	54.2	54.1	-0.1	0%	50.3	50.2	-0.1	0%	47.4	47.4	0.0	0%	47.5	47.5	0.0	0%	49.7	49.5	-0.2	0%
Dry (24%)	56.0	56.0	0.0	0%	54.0	54.1	0.1	0%	49.8	49.9	0.0	0%	46.9	46.9	0.0	0%	47.9	47.9	0.0	0%	49.8	49.8	0.0	0%
Critical (15%)	61.6	61.2	-0.3	-1%	56.0	56.1	0.0	0%	49.8	49.8	0.1	0%	46.4	46.5	0.1	0%	47.9	48.1	0.2	0%	50.3	50.2	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	53.1	53.3	0.2	0%	54.8	54.8	0.0	0%	55.5	55.2	-0.2	0%	56.3	56.3	-0.1	0%	57.9	57.4	-0.4	-1%	60.8	59.3	-1.5	-2%
20%	52.2	52.2	0.0	0%	54.0	53.9	-0.1	0%	54.1	54.1	0.0	0%	55.4	55.4	0.1	0%	56.7	56.4	-0.4	-1%	58.0	58.0	0.0	0%
30%	51.6	51.7	0.0	0%	53.5	53.5	0.0	0%	53.7	53.7	-0.1	0%	54.7	54.8	0.0	0%	56.1	56.1	0.0	0%	57.2	57.5	0.4	1%
40%	51.5	51.5	0.0	0%	53.1	53.1	-0.1	0%	53.3	53.3	0.0	0%	54.1	54.1	0.0	0%	55.3	55.6	0.3	0%	56.2	56.6	0.4	1%
50%	51.1	51.1	0.0	0%	52.7	52.8	0.0	0%	53.1	53.1	-0.1	0%	53.6	53.6	0.0	0%	55.0	54.9	0.0	0%	55.5	55.6	0.1	0%
60%	50.8	50.8	0.0	0%	52.4	52.4	0.0	0%	52.8	52.5	-0.2	0%	53.2	53.3	0.1	0%	54.6	54.6	0.0	0%	54.1	54.5	0.3	1%
70%	50.4	50.4	-0.1	0%	52.2	52.0	-0.2	0%	52.5	52.4	-0.1	0%	52.8	53.0	0.2	0%	54.4	54.4	0.1	0%	53.5	53.5	0.0	0%
80%	49.9	50.0	0.1	0%	51.8	51.8	0.0	0%	52.2	51.9	-0.3	-1%	52.6	52.6	0.0	0%	54.0	54.1	0.0	0%	52.8	53.1	0.3	1%
90%	48.8	48.8	0.0	0%	51.2	51.2	0.0	0%	51.6	51.5	-0.1	0%	52.1	52.1	0.0	0%	53.5	53.7	0.2	0%	52.4	52.5	0.1	0%
Long Term Full Simulation Period[b]	51.0	51.1	0.0	0%	52.9	52.9	0.0	0%	53.2	53.1	-0.1	0%	54.0	54.0	0.1	0%	55.7	55.7	0.0	0%	56.1	56.3	0.2	0%
Water Year Types[c]																								
Wet (32%)	50.3	50.3	0.0	0%	52.6	52.6	0.0	0%	53.1	53.1	0.0	0%	53.4	53.4	0.0	0%	54.5	54.5	0.0	0%	52.9	53.0	0.1	0%
Above Normal (16%)	50.7	50.7	0.0	0%	52.5	52.5	0.0	0%	52.3	52.2	-0.2	0%	52.4	52.6	0.1	0%	54.0	54.1	0.1	0%	53.6	54.0	0.4	1%
Below Normal (13%)	51.4	51.5	0.1	0%	52.6	52.9	0.3	1%	52.8	52.6	-0.2	0%	53.4	53.5	0.1	0%	54.8	55.1	0.3	1%	56.3	56.8	0.5	1%
Dry (24%)	51.9	51.8	0.0	0%	53.0	52.8	-0.2	0%	52.9	52.7	-0.2	0%	54.1	54.2	0.1	0%	56.1	55.9	-0.1	0%	57.2	57.4	0.2	0%
Critical (15%)	51.4	51.4	0.0	0%	54.2	54.1	-0.1	0%	55.5	55.3	-0.1	0%	57.1	57.2	0.1	0%	60.1	59.9	-0.2	0%	63.6	63.5	-0.1	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-1. Monthly Temperature Ranges for Sacramento River at Balls Ferry, All Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.

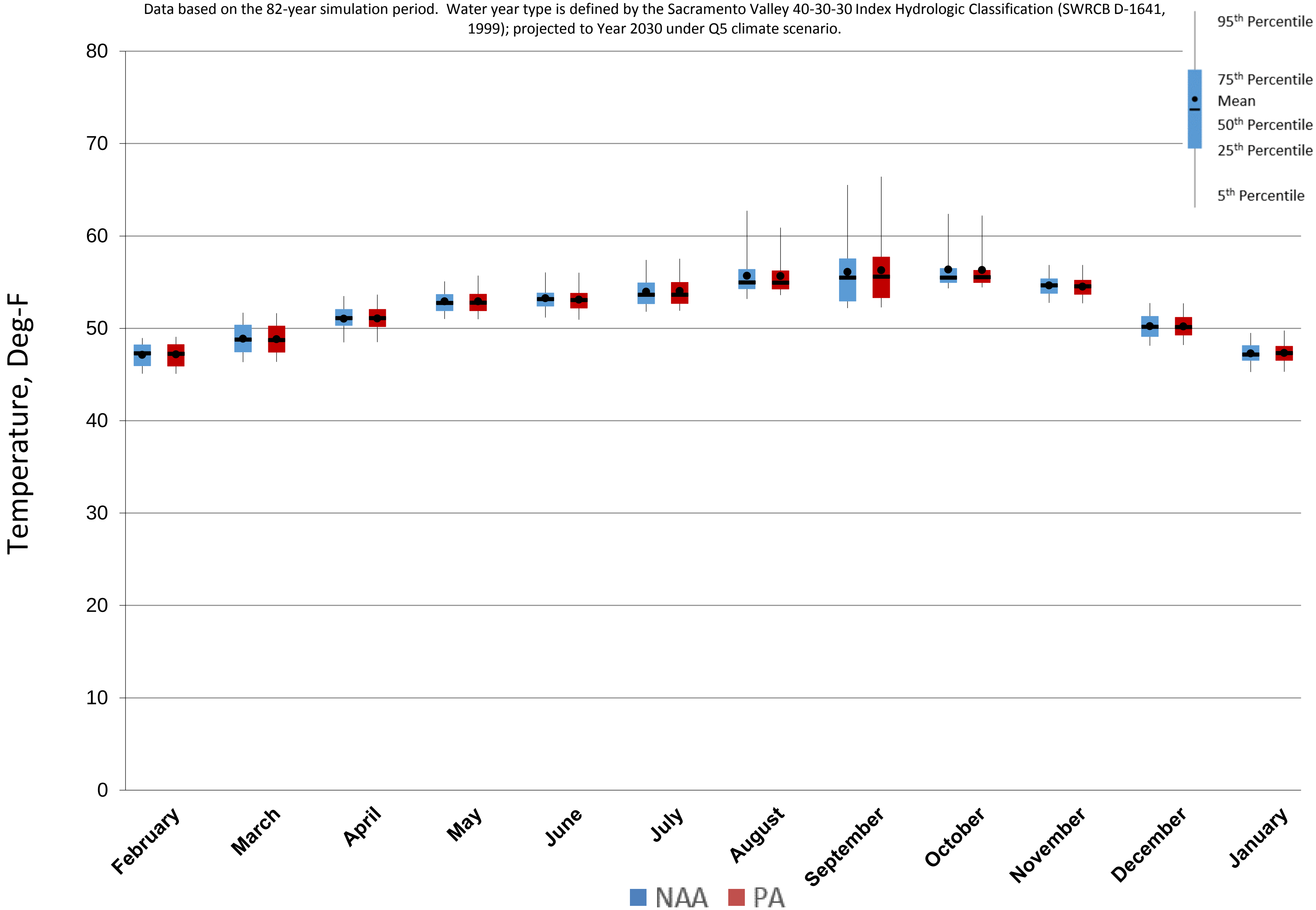


Figure 5.C.7-5-2. Monthly Temperature Ranges for Sacramento River at Balls Ferry, Wet Years

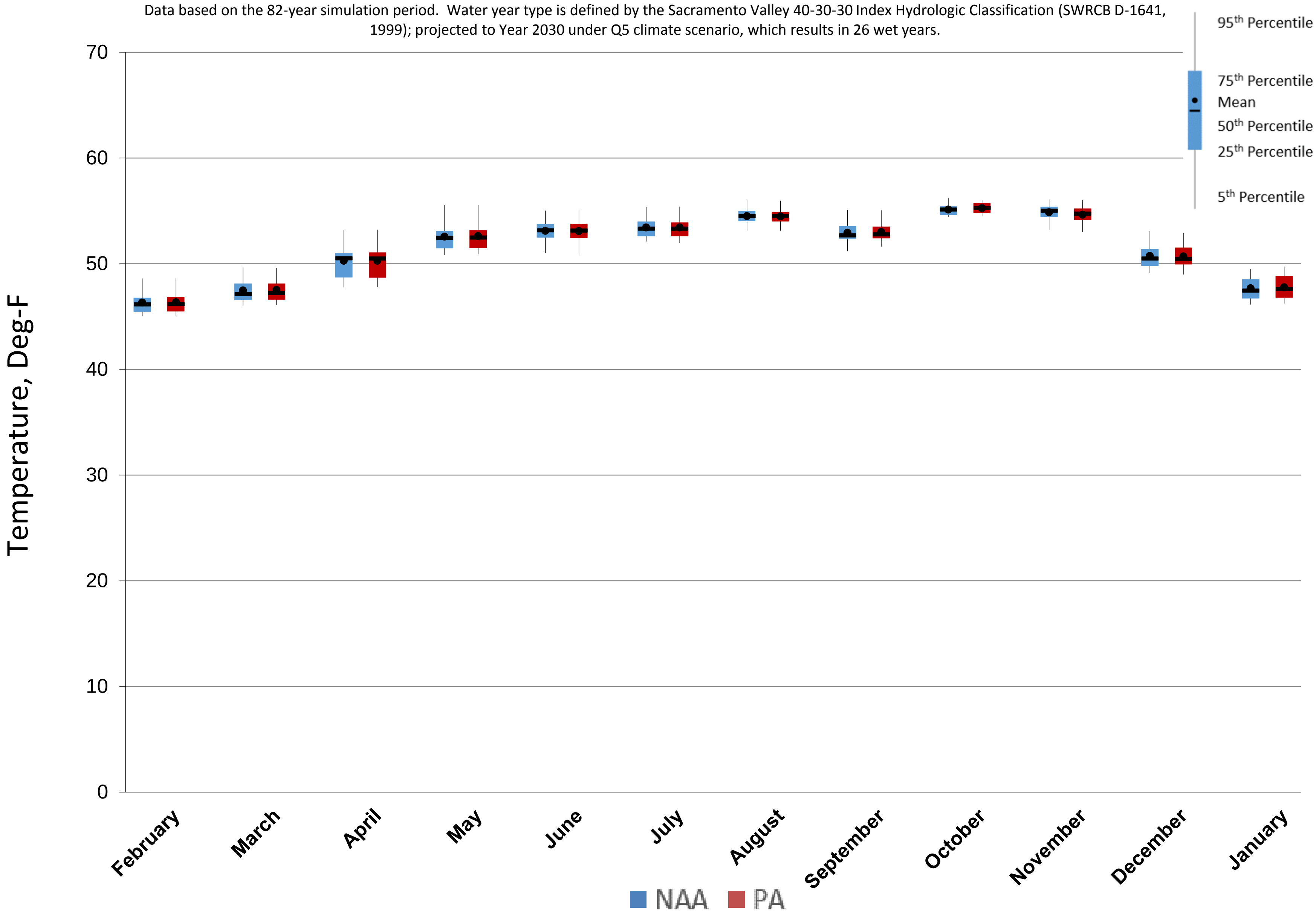


Figure 5.C.7-5-3. Monthly Temperature Ranges for Sacramento River at Balls Ferry, Above Normal Years

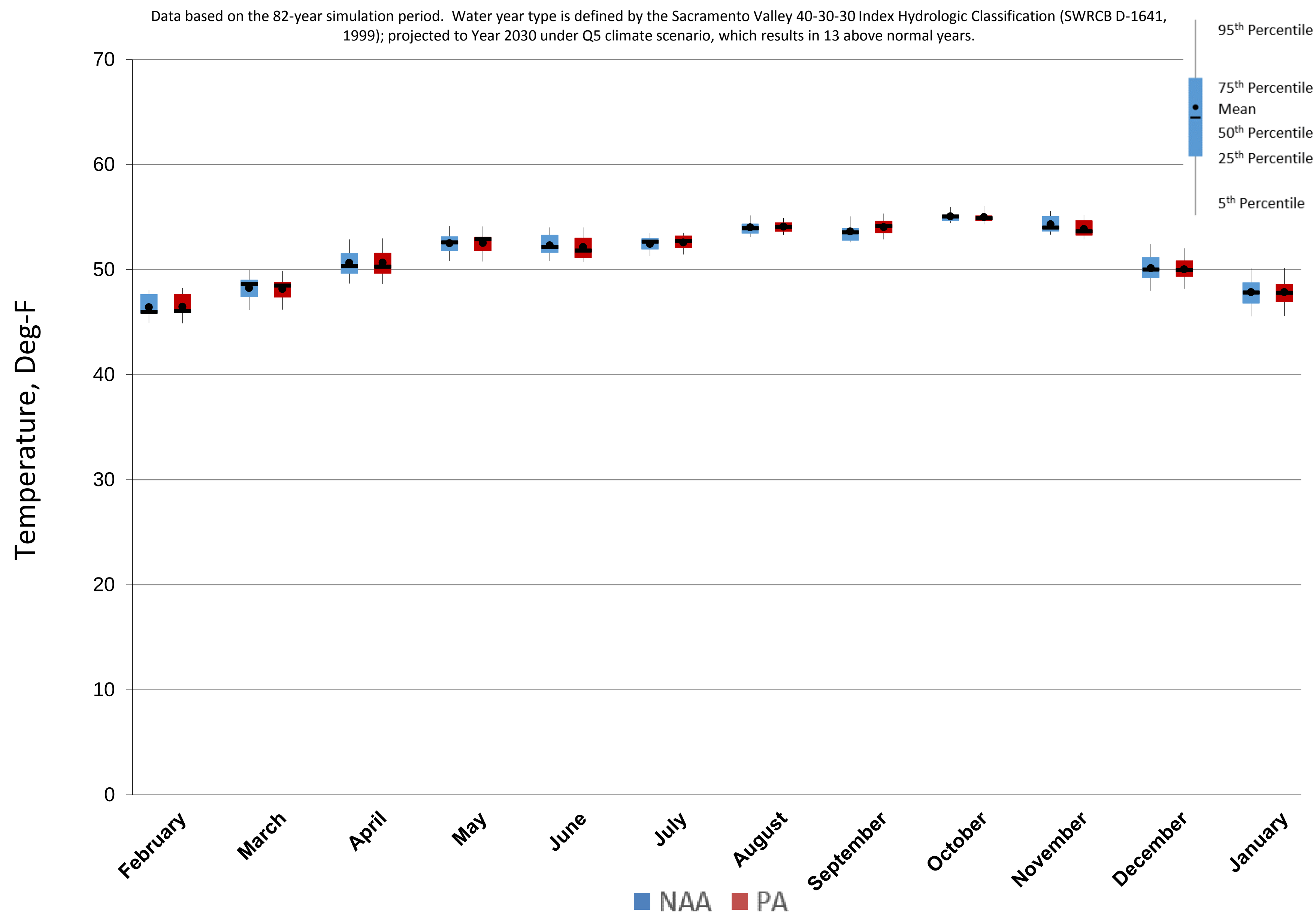
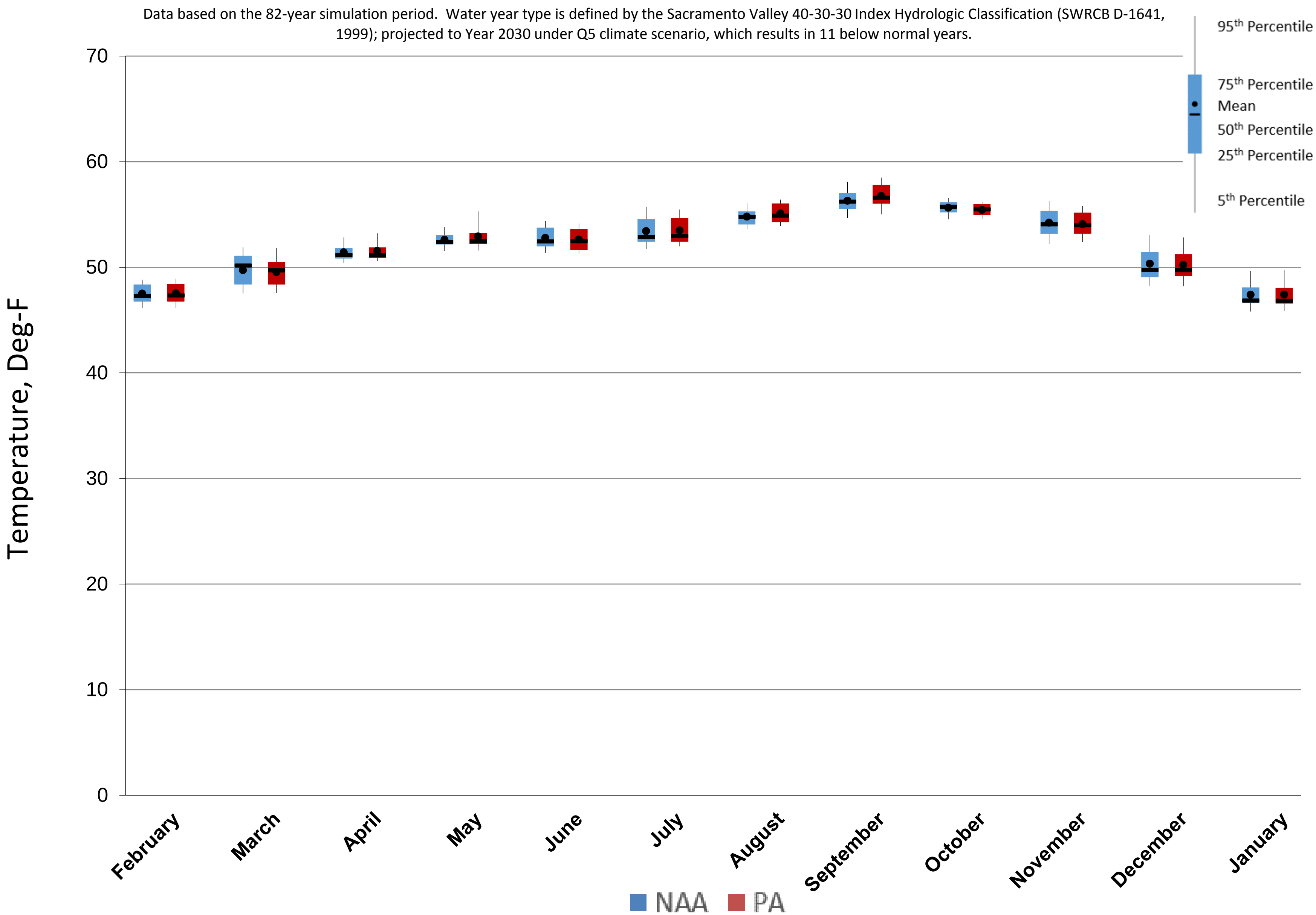


Figure 5.C.7-5-4. Monthly Temperature Ranges for Sacramento River at Balls Ferry, Below Normal Years



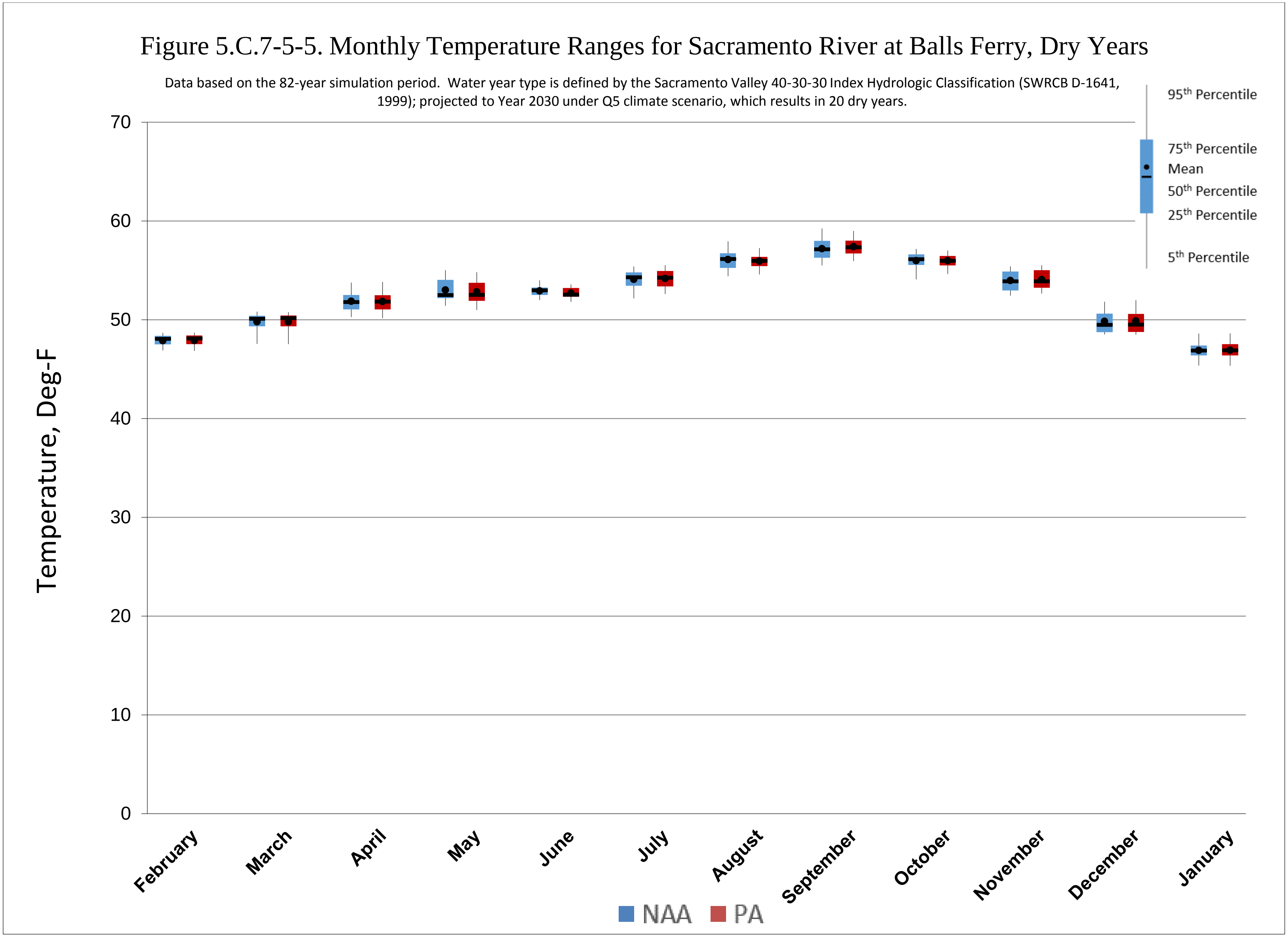


Figure 5.C.7-5-5. Monthly Temperature Ranges for Sacramento River at Balls Ferry, Dry Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

Figure 5.C.7-5-6. Monthly Temperature Ranges for Sacramento River at Balls Ferry, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

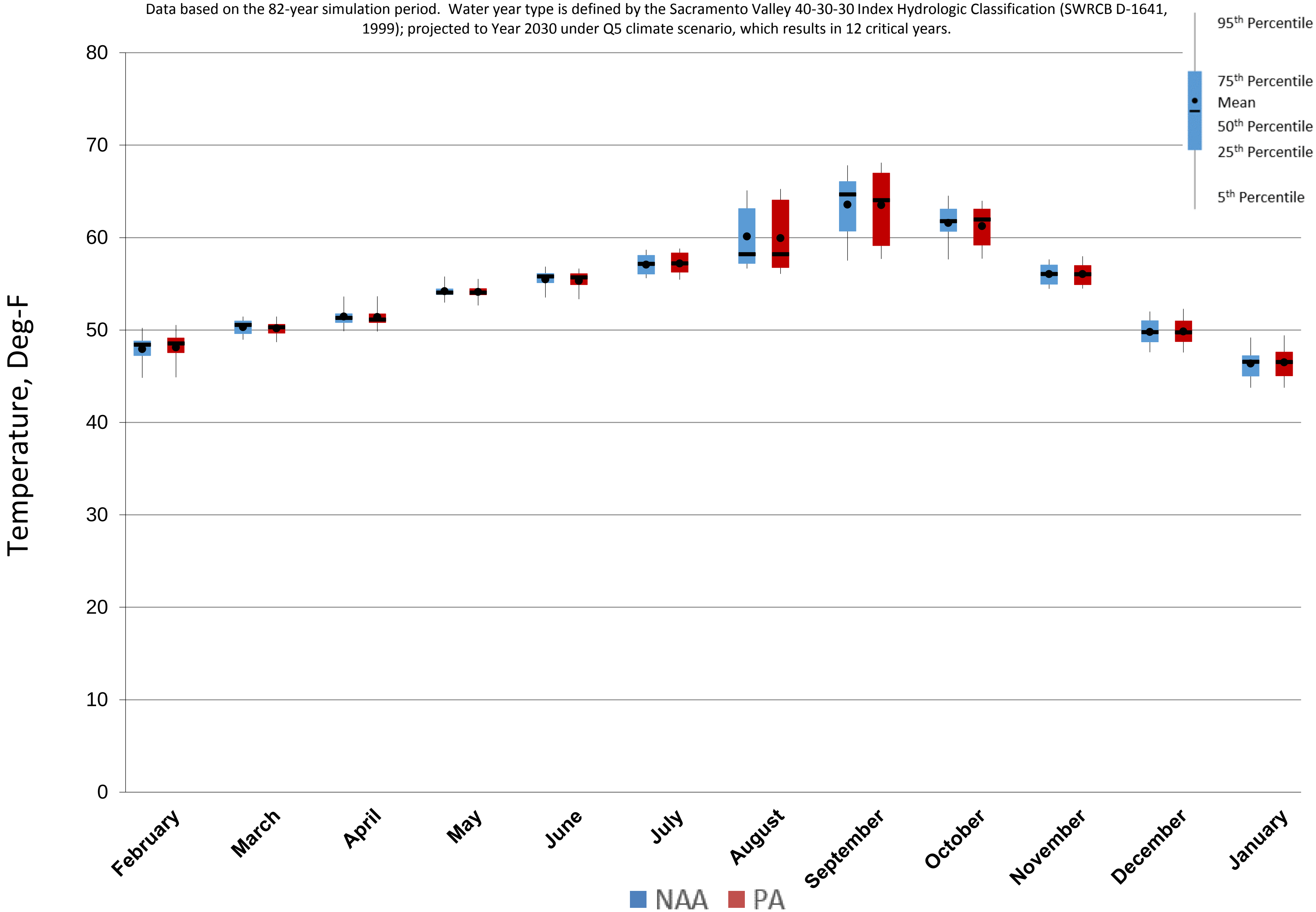
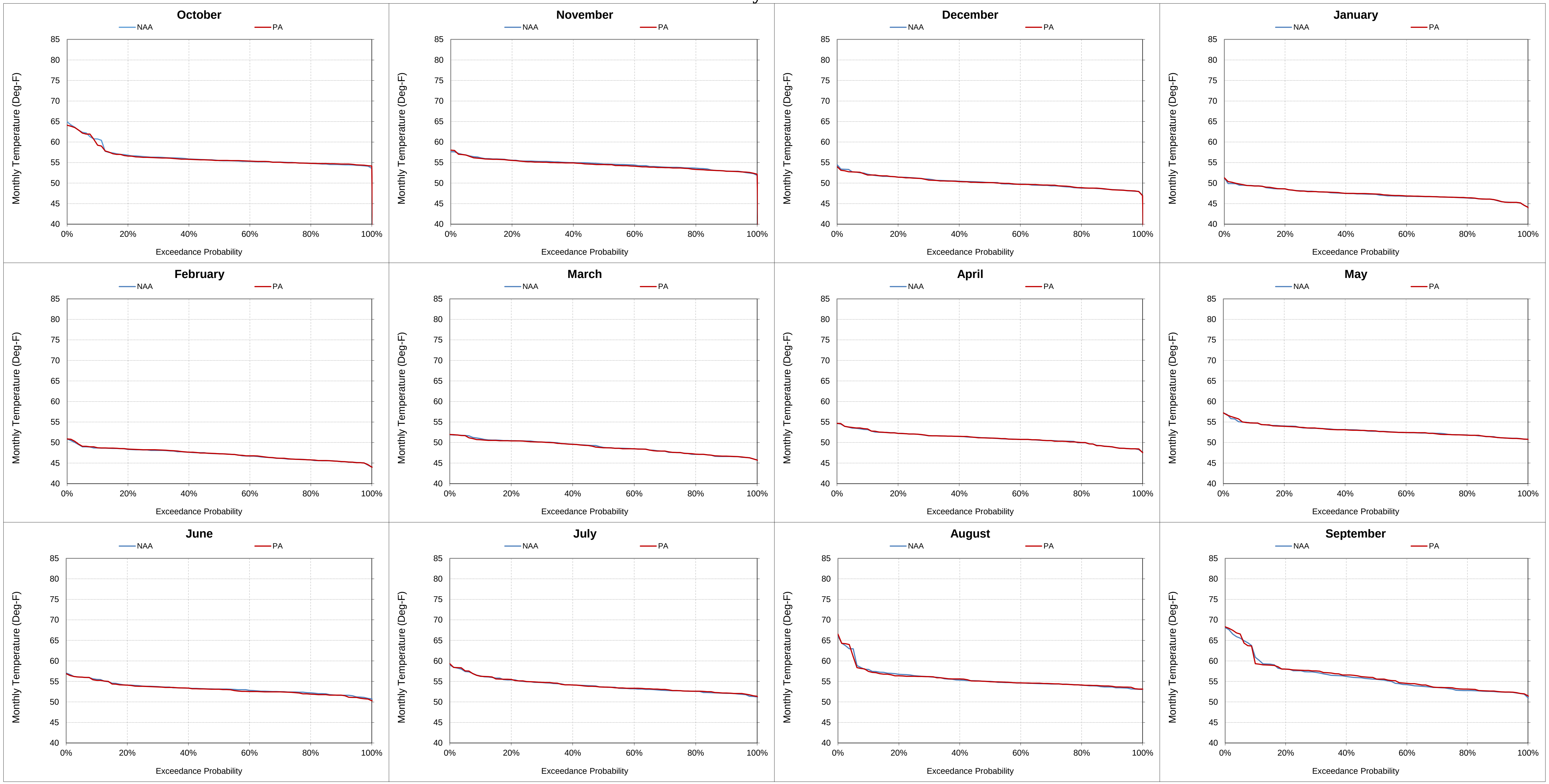
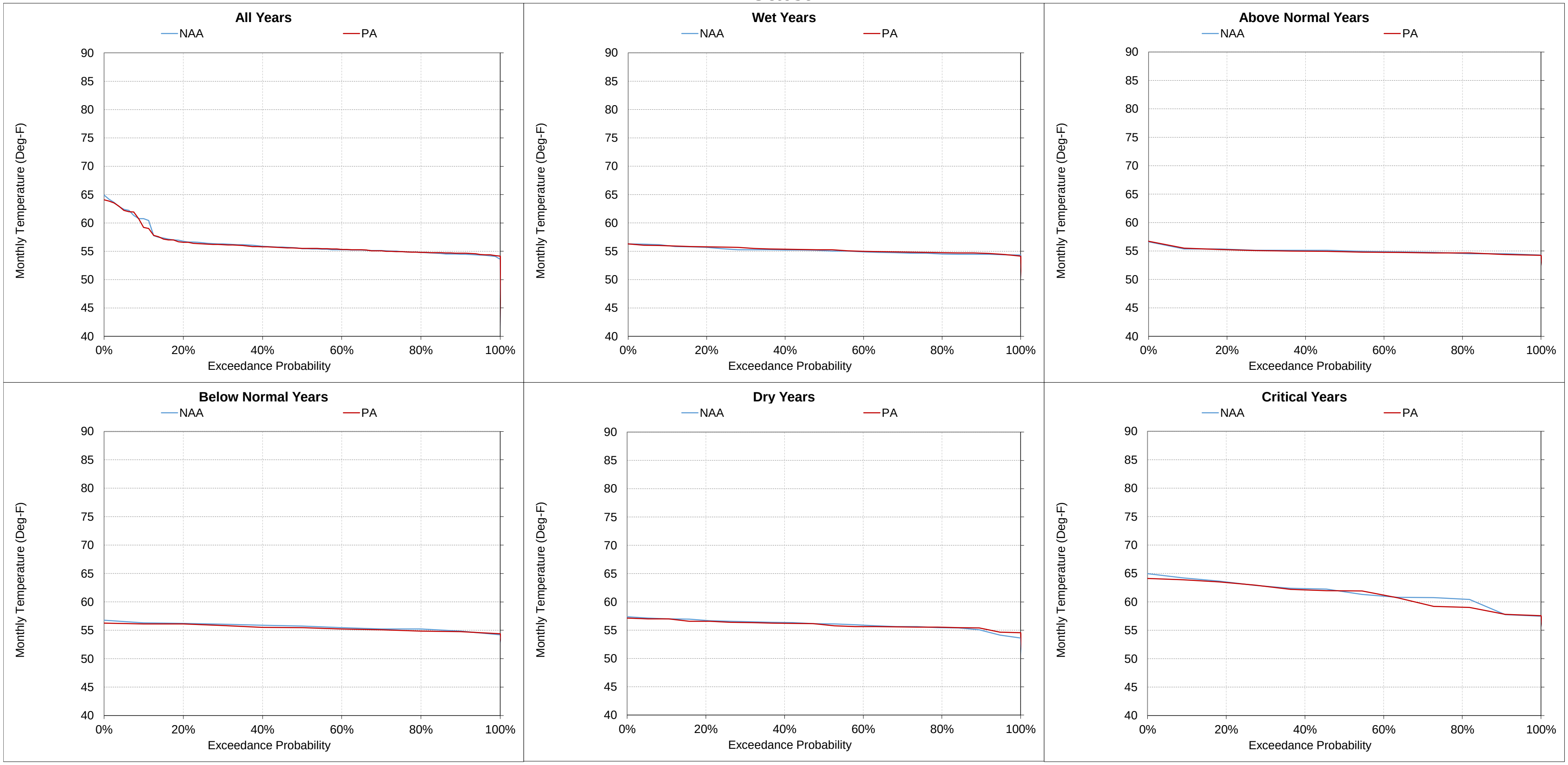


Figure 5.C.7-5-7. Sacramento River at Balls Ferry, Monthly Temperature Probability of Exceedance



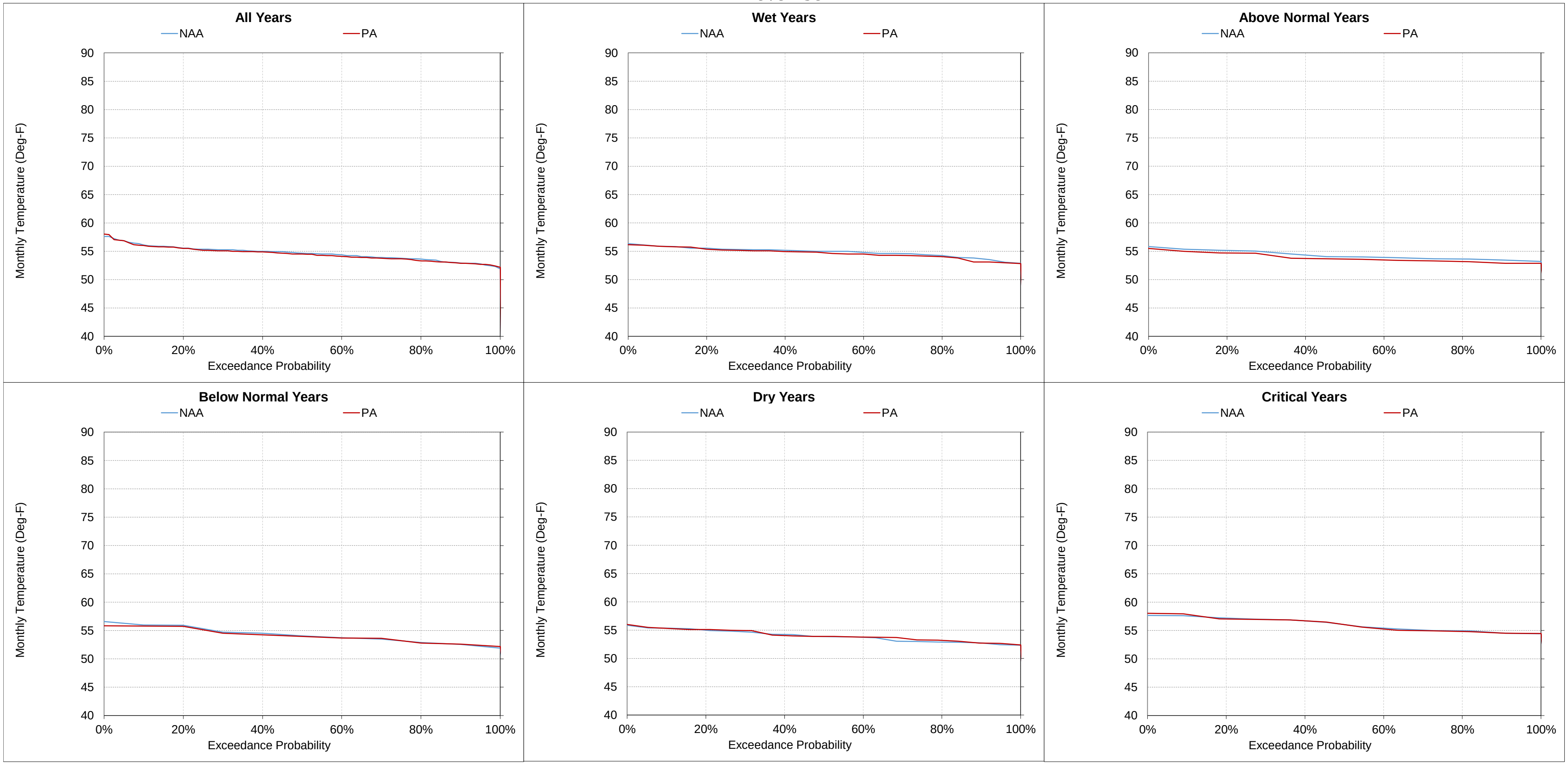
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-8. Sacramento River at Balls Ferry, Monthly Temperature
October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-9. Sacramento River at Balls Ferry, Monthly Temperature November



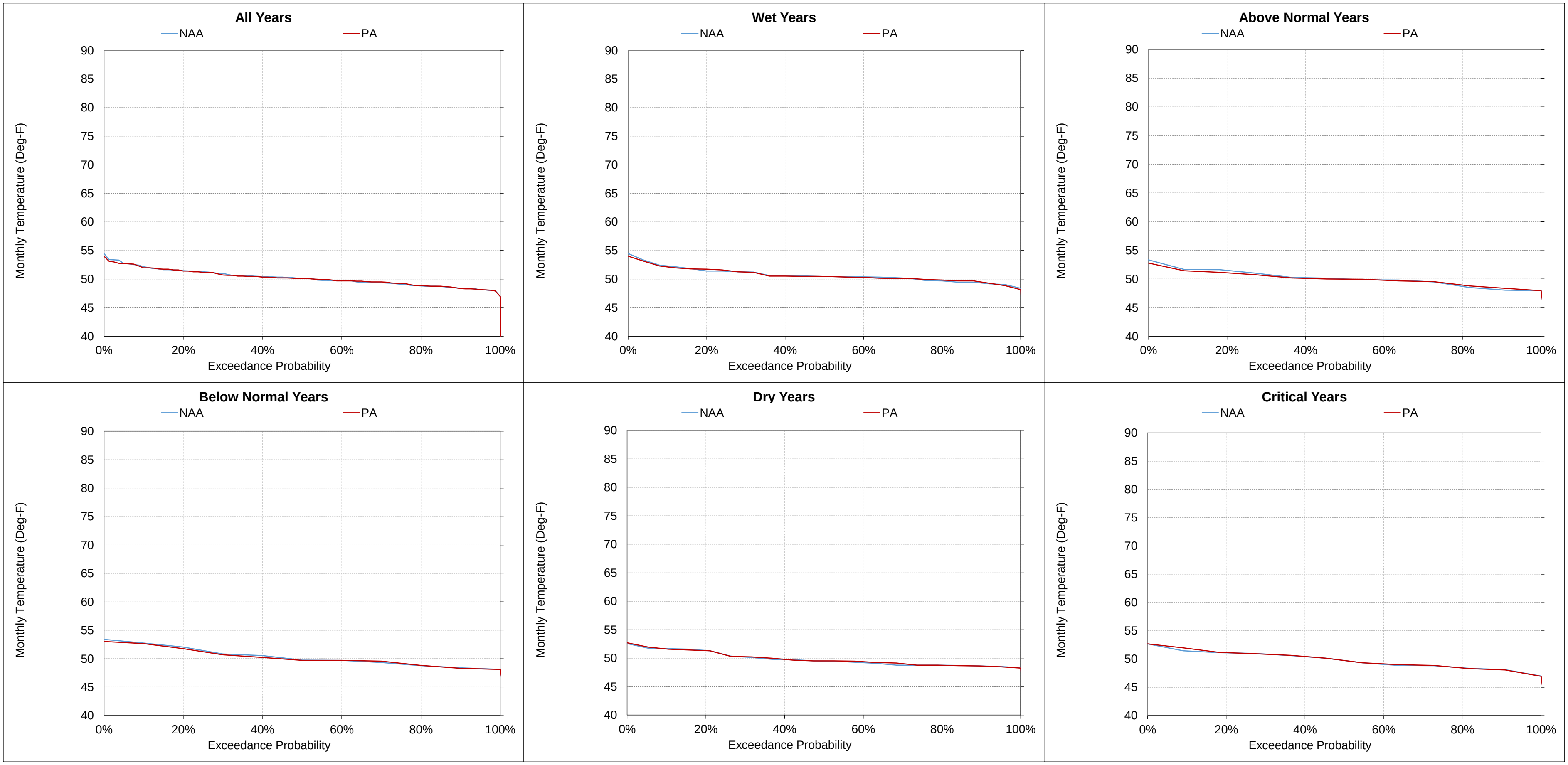
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

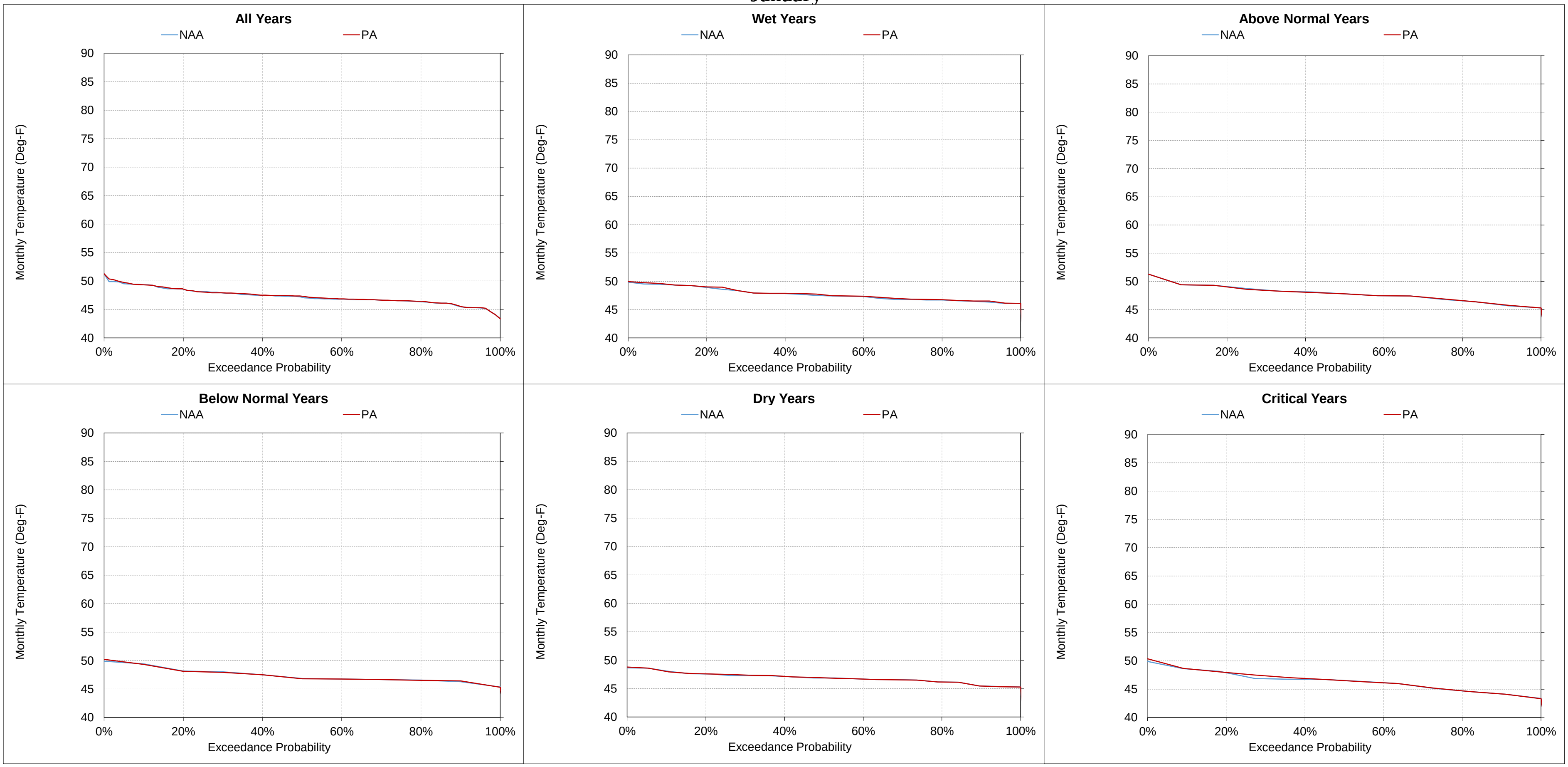
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-10. Sacramento River at Balls Ferry, Monthly Temperature December



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-11. Sacramento River at Balls Ferry, Monthly Temperature January



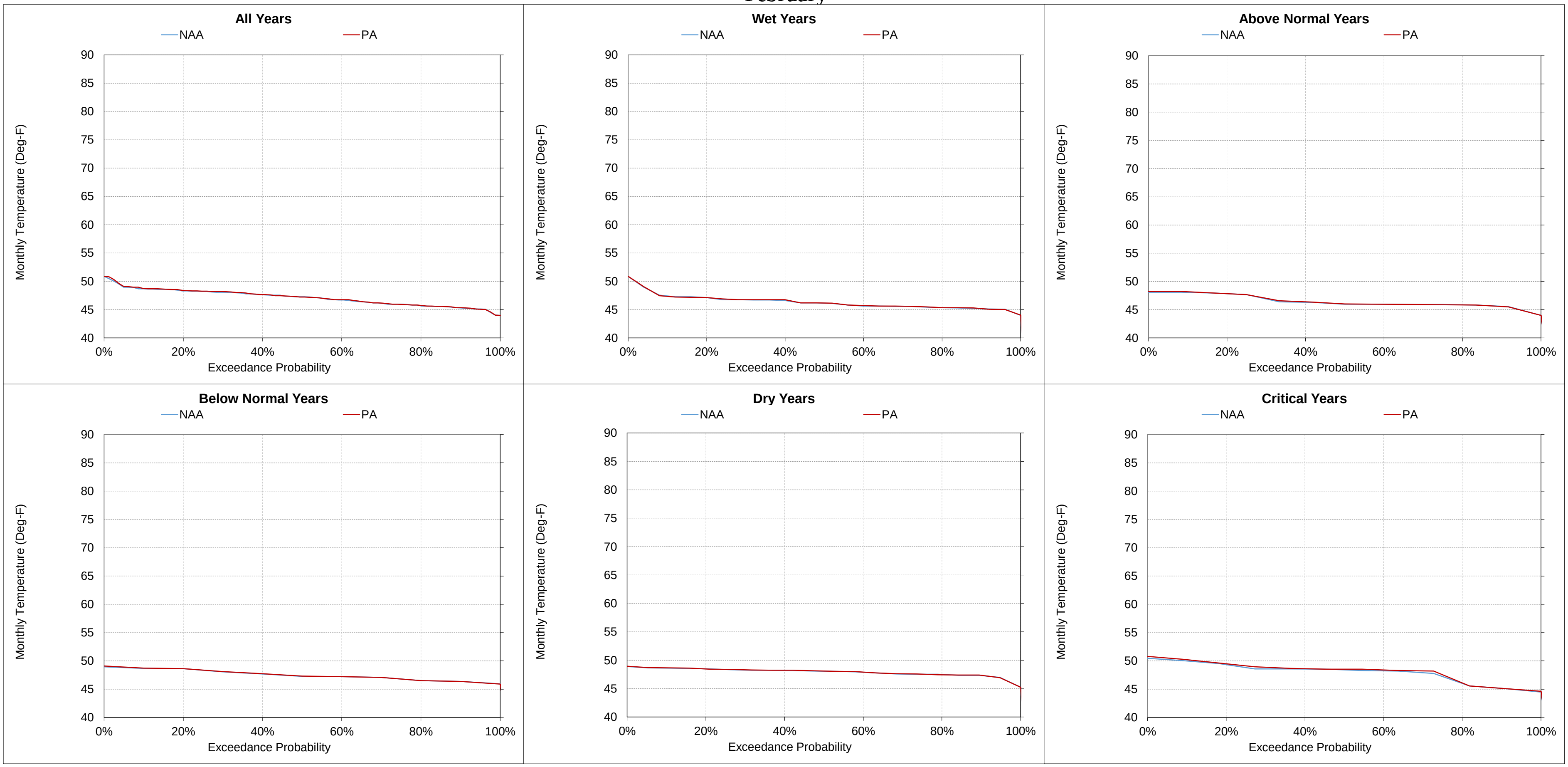
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

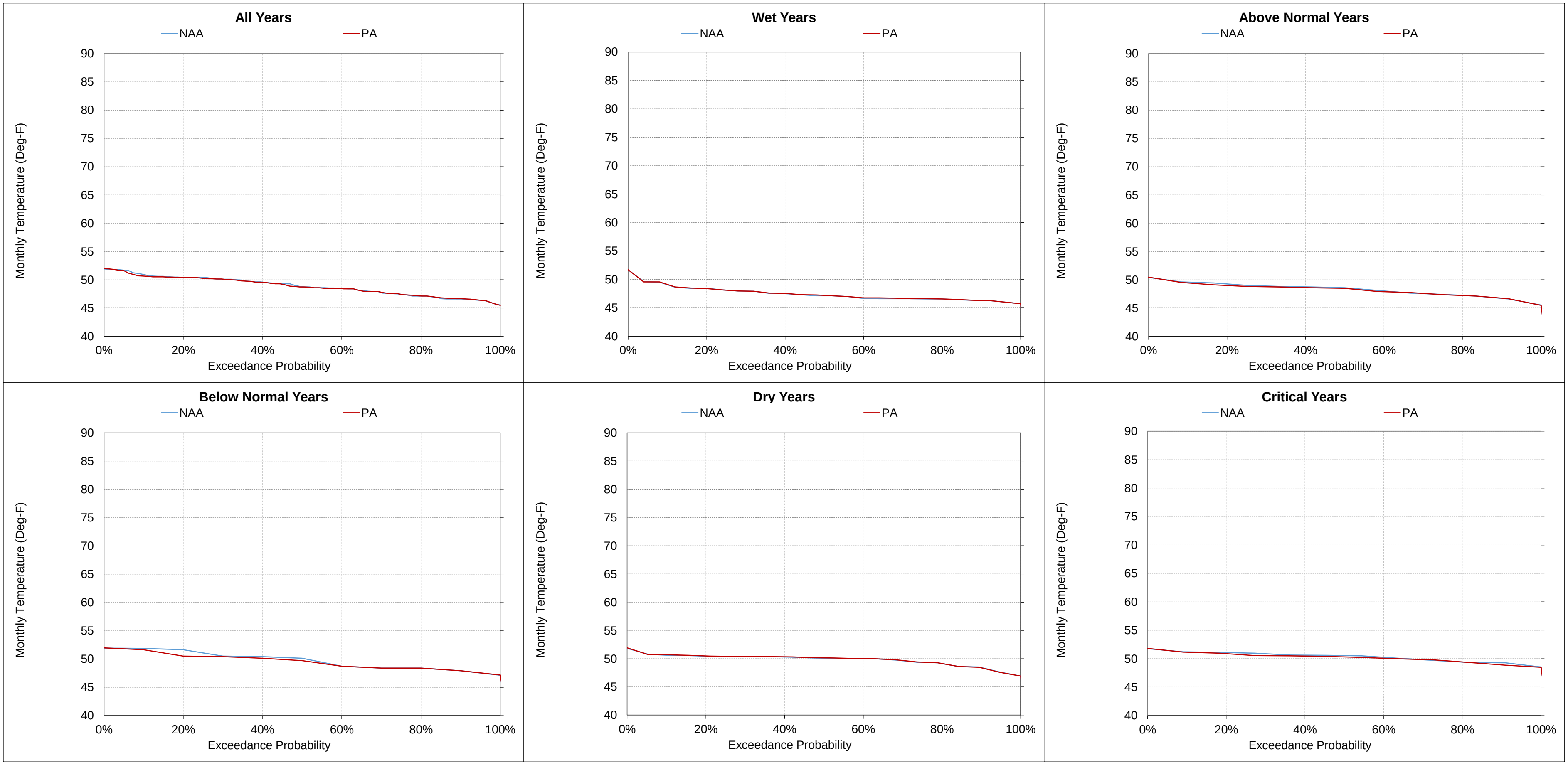
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-12. Sacramento River at Balls Ferry, Monthly Temperature February



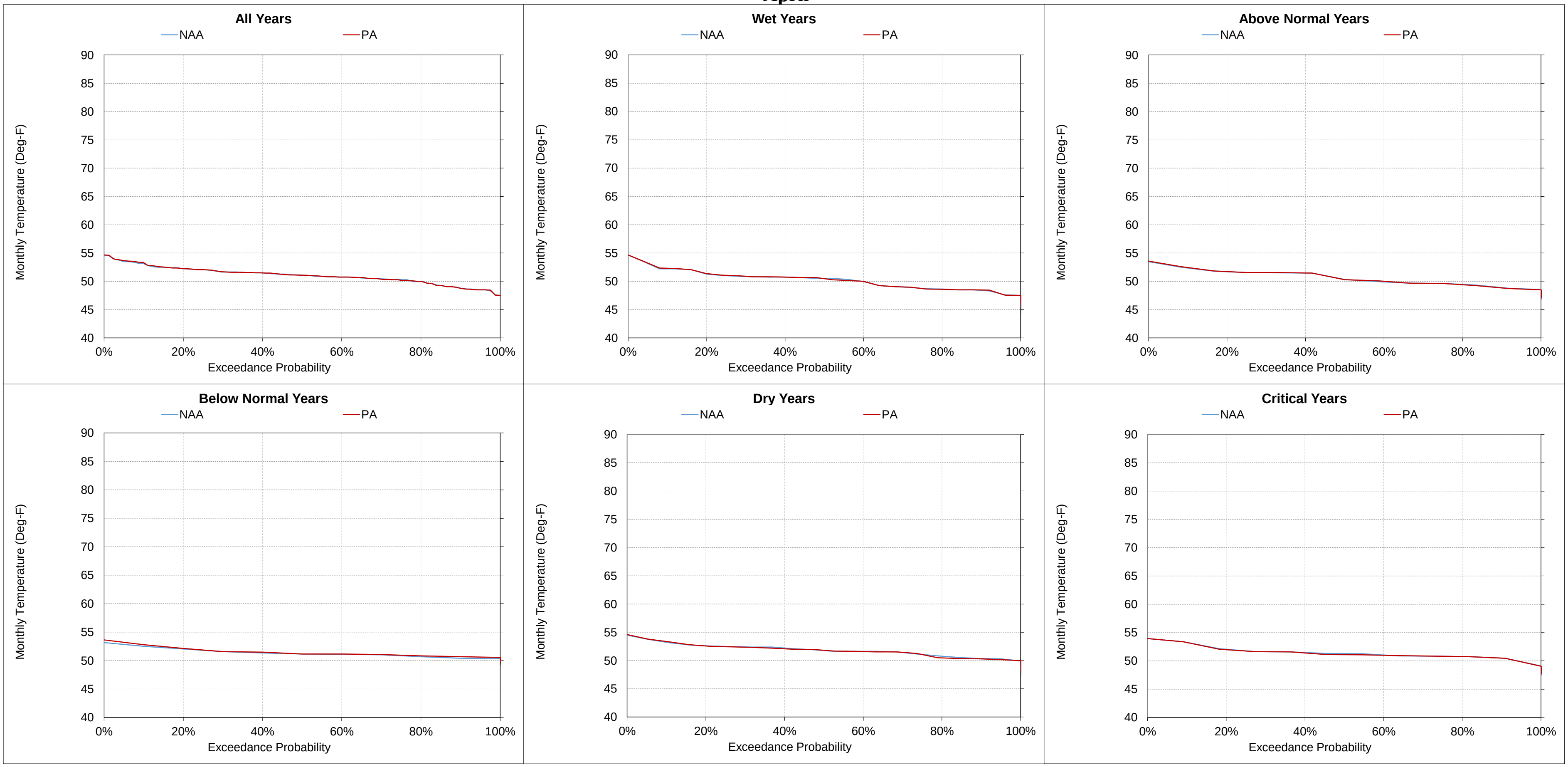
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-13. Sacramento River at Balls Ferry, Monthly Temperature
March



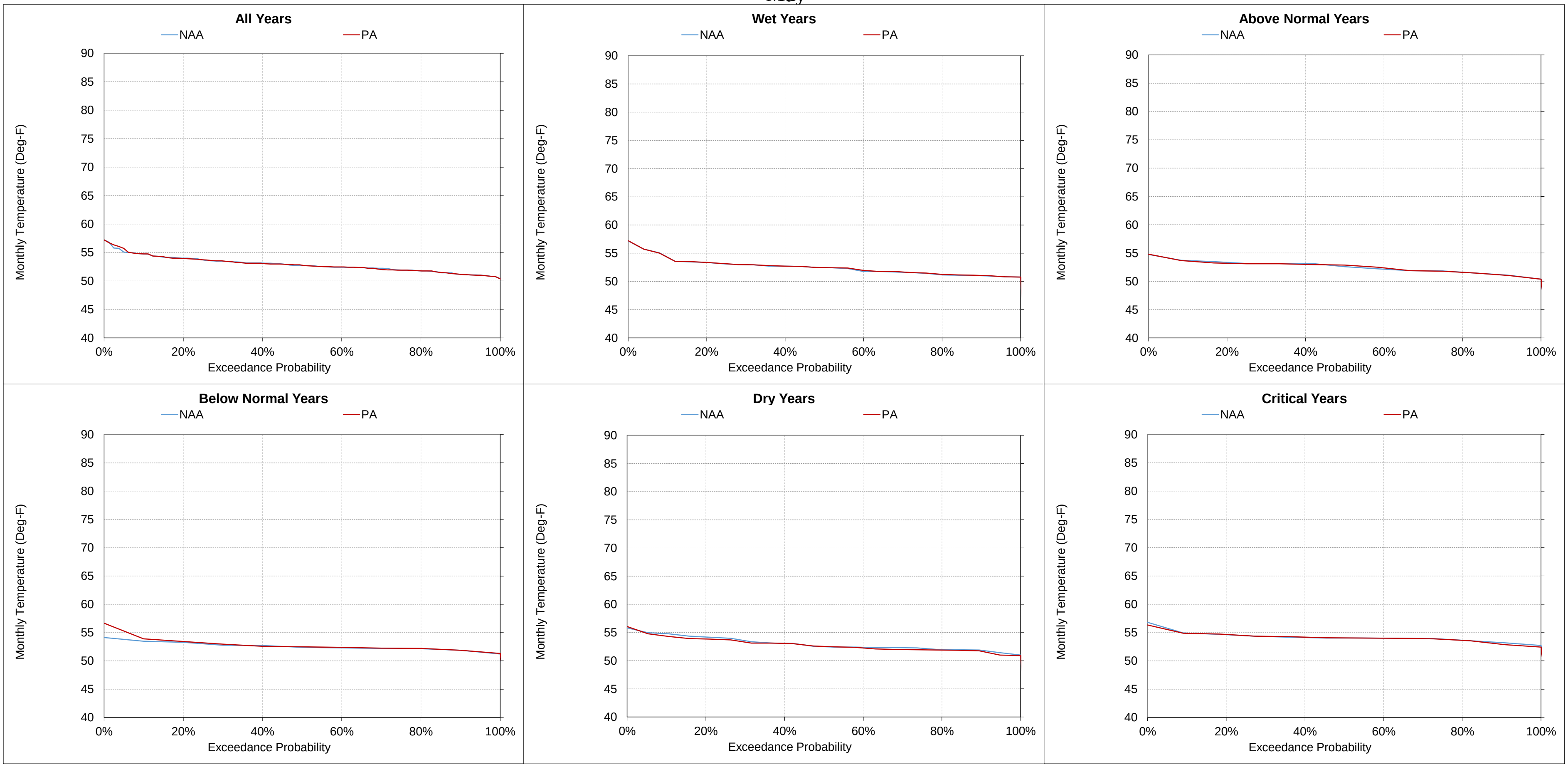
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-14. Sacramento River at Balls Ferry, Monthly Temperature April



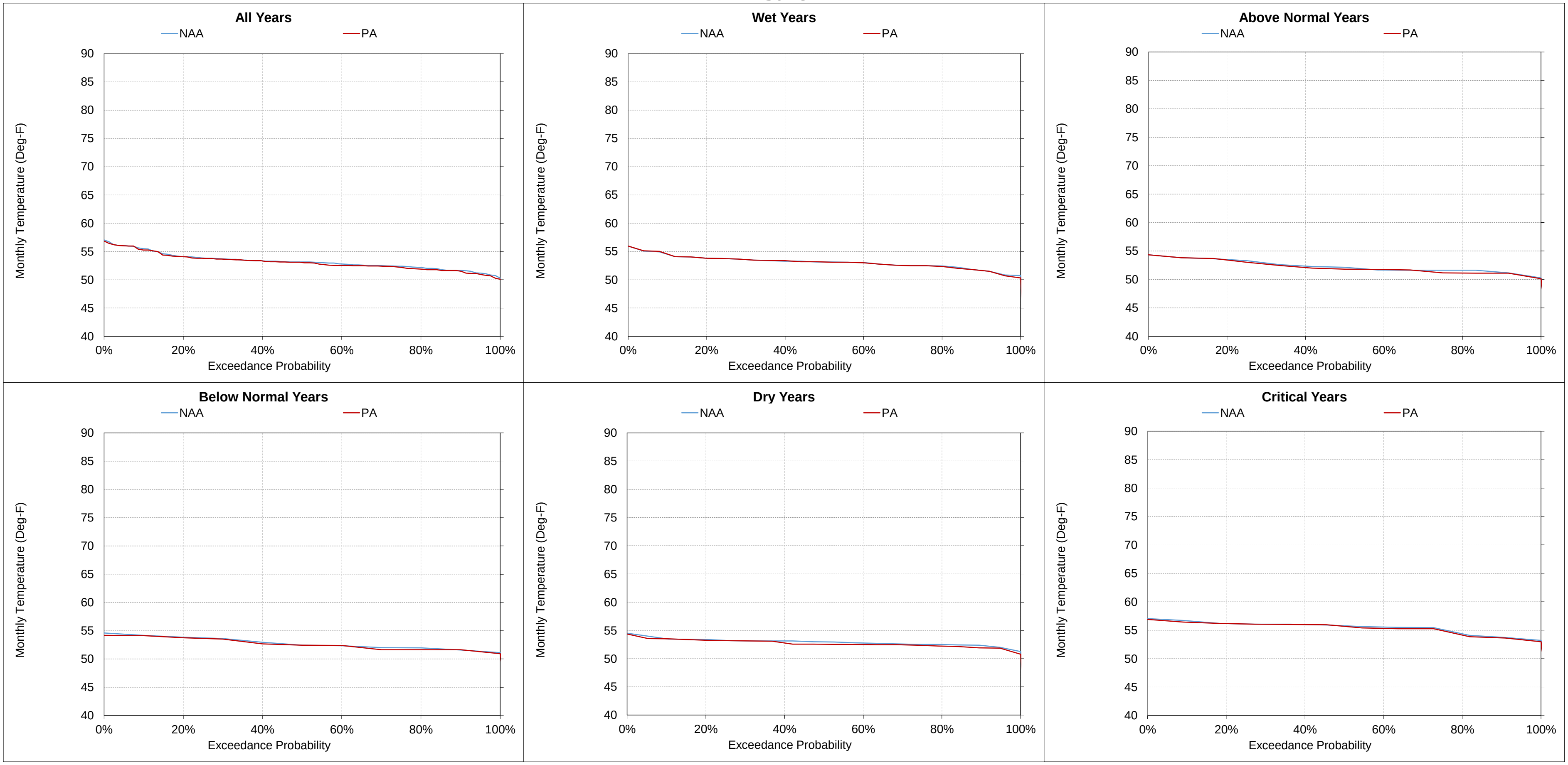
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-15. Sacramento River at Balls Ferry, Monthly Temperature May



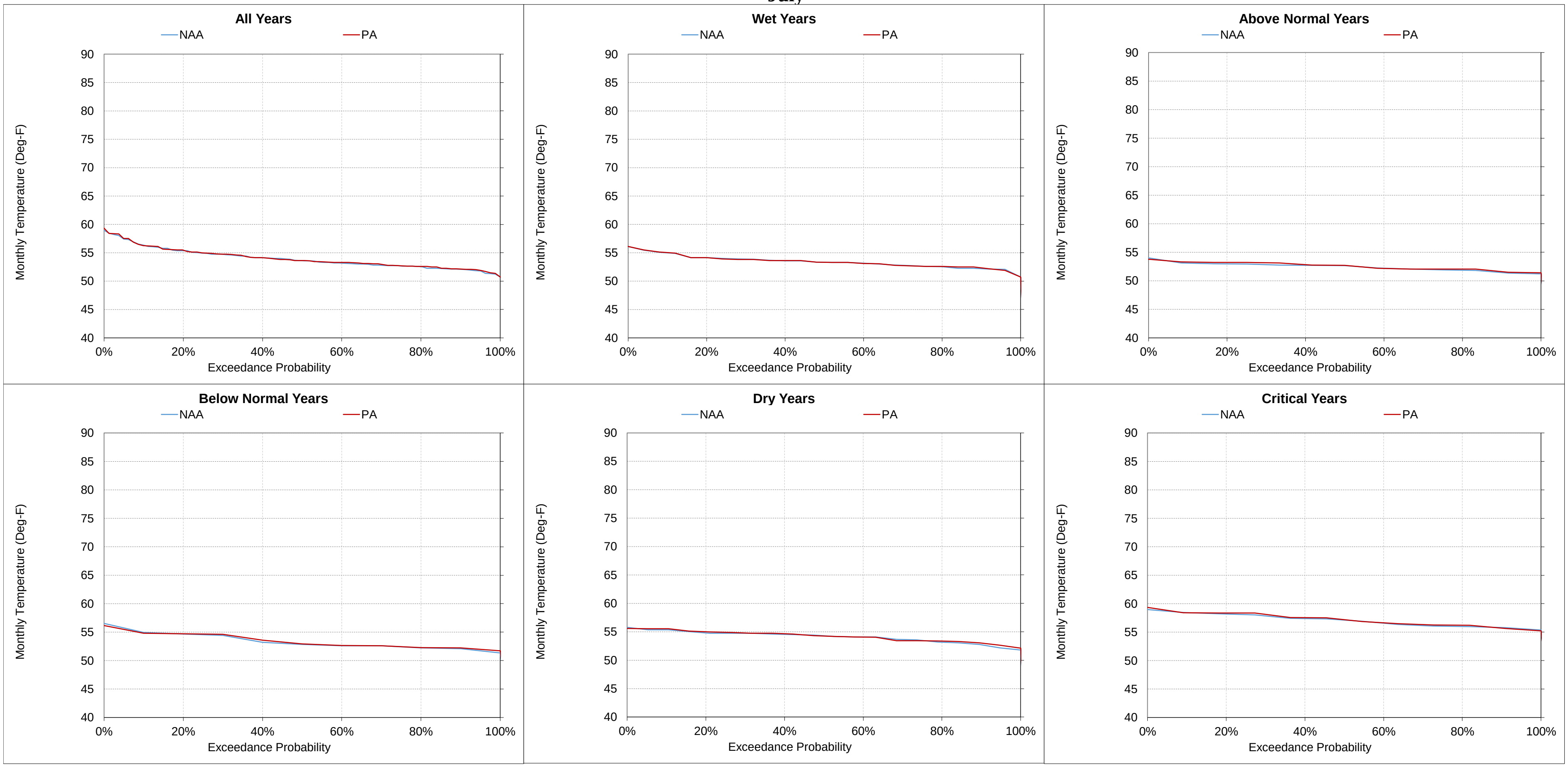
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-16. Sacramento River at Balls Ferry, Monthly Temperature June



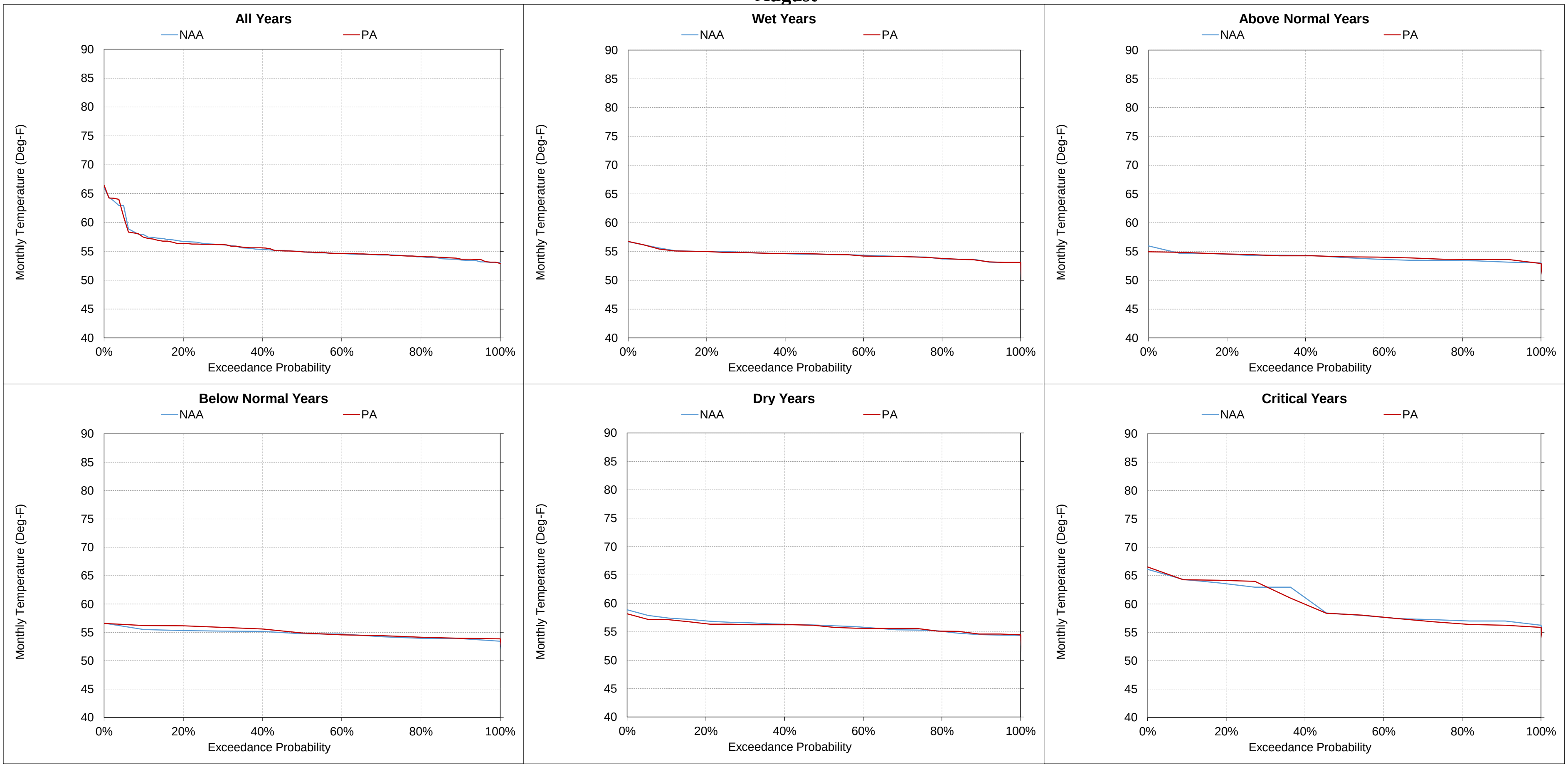
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-17. Sacramento River at Balls Ferry, Monthly Temperature July



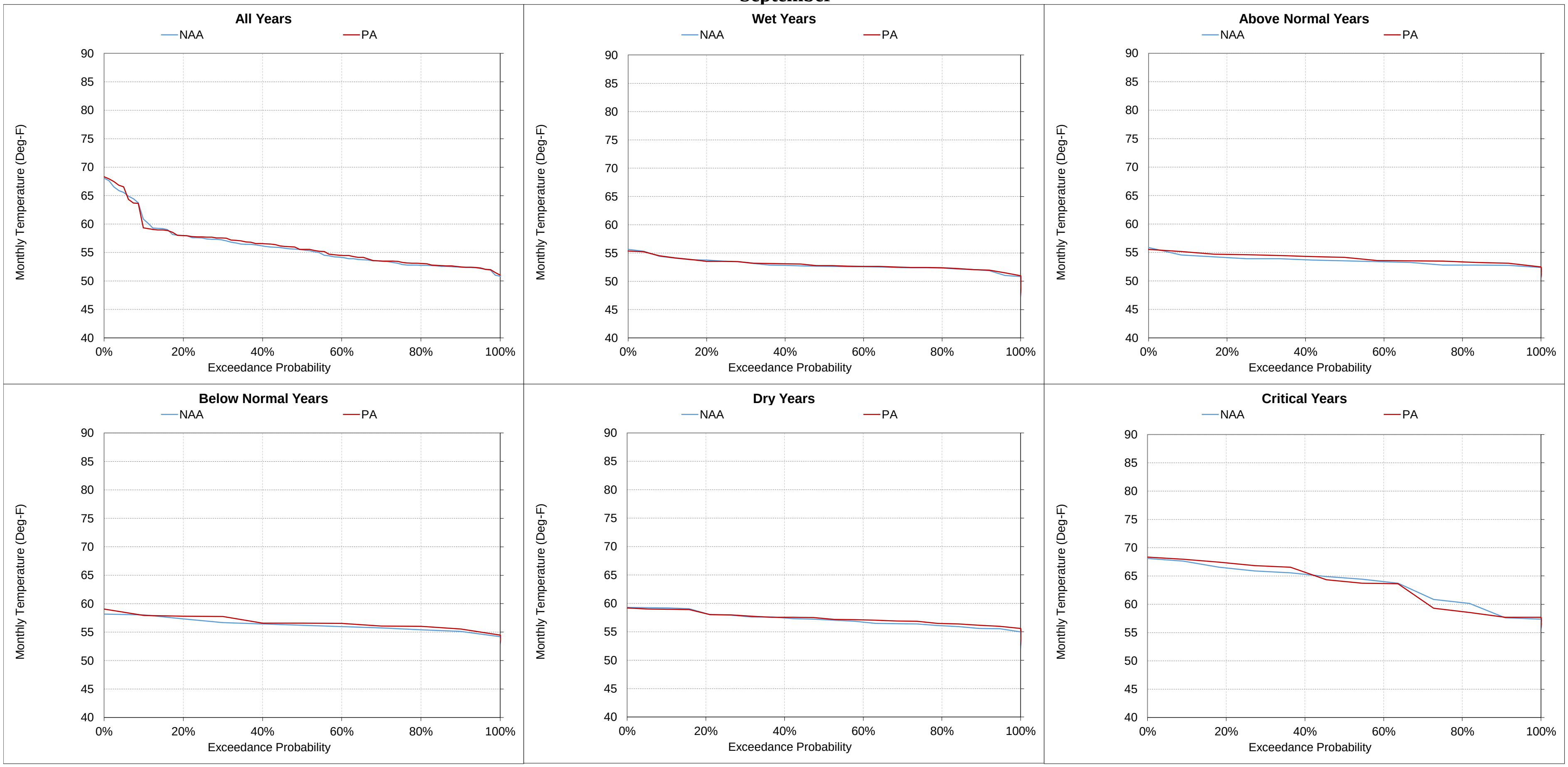
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-18. Sacramento River at Balls Ferry, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-5-19. Sacramento River at Balls Ferry, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-6. Sacramento River at Jellys Ferry, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.7	59.5	-1.2	-2%	55.8	55.7	-0.1	0%	51.3	51.2	-0.1	0%	48.5	48.6	0.1	0%	48.8	48.9	0.1	0%	51.7	51.4	-0.3	-1%
20%	57.3	57.1	-0.2	0%	55.4	55.0	-0.4	-1%	50.7	50.6	-0.1	0%	47.7	47.7	-0.1	0%	48.4	48.6	0.2	0%	51.2	51.0	-0.1	0%
30%	56.7	56.7	-0.1	0%	54.8	54.8	0.0	0%	50.1	50.1	-0.1	0%	47.4	47.5	0.0	0%	48.0	48.1	0.1	0%	50.8	50.8	-0.1	0%
40%	56.4	56.2	-0.2	0%	54.6	54.3	-0.3	-1%	49.5	49.4	-0.1	0%	46.9	47.0	0.1	0%	47.6	47.6	0.0	0%	50.3	50.3	0.0	0%
50%	56.0	56.0	0.1	0%	54.3	54.0	-0.3	-1%	49.2	49.3	0.0	0%	46.8	46.9	0.1	0%	47.3	47.3	0.0	0%	49.6	49.6	0.0	0%
60%	55.8	55.9	0.1	0%	53.8	53.6	-0.2	0%	48.7	48.9	0.2	0%	46.5	46.5	0.1	0%	47.0	47.0	0.0	0%	49.2	49.2	0.0	0%
70%	55.6	55.5	-0.1	0%	53.4	53.3	-0.1	0%	48.5	48.5	0.0	0%	46.2	46.3	0.0	0%	46.3	46.3	0.0	0%	48.5	48.5	0.0	0%
80%	55.2	55.3	0.1	0%	53.1	53.0	-0.1	0%	48.1	48.1	0.1	0%	46.0	46.0	0.0	0%	46.1	46.0	0.0	0%	47.8	47.8	0.0	0%
90%	55.0	55.1	0.1	0%	52.5	52.4	-0.2	0%	47.6	47.8	0.1	0%	45.5	45.5	0.0	0%	45.7	45.8	0.0	0%	47.2	47.3	0.1	0%
Long Term																								
Full Simulation Period[b]	56.8	56.7	0.0	0%	54.2	54.1	-0.2	0%	49.4	49.4	0.0	0%	46.9	46.9	0.1	0%	47.3	47.3	0.0	0%	49.6	49.5	0.0	0%
Water Year Types[c]																								
Wet (32%)	55.6	55.7	0.2	0%	54.5	54.2	-0.3	-1%	49.8	49.8	0.0	0%	47.2	47.3	0.1	0%	46.5	46.5	0.0	0%	48.2	48.2	0.0	0%
Above Normal (16%)	55.6	55.5	-0.1	0%	53.9	53.4	-0.5	-1%	49.3	49.2	-0.1	0%	47.2	47.2	0.0	0%	46.6	46.6	0.0	0%	49.0	48.9	-0.1	0%
Below Normal (13%)	56.1	55.9	-0.2	0%	53.8	53.7	-0.1	0%	49.6	49.5	-0.1	0%	47.0	47.0	0.0	0%	47.6	47.6	0.0	0%	50.4	50.3	-0.2	0%
Dry (24%)	56.5	56.5	0.0	0%	53.5	53.6	0.1	0%	49.0	49.1	0.0	0%	46.5	46.5	0.0	0%	47.9	47.9	0.0	0%	50.4	50.4	0.0	0%
Critical (15%)	61.6	61.3	-0.3	0%	55.4	55.5	0.0	0%	49.0	49.0	0.0	0%	46.2	46.3	0.1	0%	48.2	48.4	0.2	0%	51.1	51.0	-0.2	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	54.3	54.6	0.3	1%	56.9	56.9	0.0	0%	57.4	57.3	-0.1	0%	57.6	57.7	0.0	0%	59.2	58.8	-0.3	-1%	62.1	60.9	-1.2	-2%
20%	53.8	53.8	0.0	0%	55.9	56.0	0.1	0%	56.6	56.5	-0.1	0%	56.9	56.9	0.0	0%	58.2	57.8	-0.4	-1%	59.5	59.5	0.0	0%
30%	53.3	53.2	0.0	0%	55.6	55.4	-0.1	0%	55.8	55.7	0.0	0%	56.1	56.1	0.1	0%	57.5	57.4	-0.1	0%	58.7	59.1	0.3	1%
40%	52.8	52.8	0.0	0%	55.2	55.3	0.1	0%	55.5	55.3	-0.2	0%	55.8	55.8	0.0	0%	56.7	56.8	0.1	0%	57.7	58.1	0.5	1%
50%	52.6	52.6	0.0	0%	54.9	54.9	0.0	0%	55.0	54.8	-0.2	0%	55.3	55.2	0.0	0%	56.4	56.5	0.1	0%	56.9	57.2	0.3	1%
60%	52.3	52.3	0.0	0%	54.6	54.6	0.0	0%	54.5	54.4	-0.2	0%	54.6	54.6	0.1	0%	56.1	56.2	0.1	0%	55.3	55.8	0.6	1%
70%	52.0	51.9	0.0	0%	54.1	54.1	0.0	0%	54.3	54.0	-0.3	-1%	54.3	54.4	0.1	0%	55.9	55.9	0.0	0%	54.6	54.7	0.1	0%
80%	51.4	51.3	-0.1	0%	53.7	53.7	0.0	0%	54.0	53.6	-0.5	-1%	54.0	54.1	0.1	0%	55.6	55.6	0.0	0%	53.9	54.1	0.3	1%
90%	50.6	50.5	0.0	0%	53.5	53.3	-0.3	0%	53.4	53.1	-0.3	-1%	53.5	53.6	0.1	0%	54.8	55.2	0.4	1%	53.3	53.5	0.2	0%
Long Term																								
Full Simulation Period[b]	52.5	52.5	0.0	0%	55.0	55.0	0.0	0%	55.2	55.0	-0.2	0%	55.4	55.5	0.1	0%	57.1	57.1	0.0	0%	57.3	57.5	0.2	0%
Water Year Types[c]																								
Wet (32%)	51.8	51.8	0.0	0%	54.9	54.9	0.0	0%	55.5	55.4	-0.1	0%	55.1	55.1	0.0	0%	56.1	56.0	0.0	0%	53.9	54.0	0.1	0%
Above Normal (16%)	52.2	52.2	0.0	0%	54.9	54.8	0.0	0%	54.3	54.1	-0.2	0%	53.9	54.0	0.1	0%	55.5	55.5	0.1	0%	54.8	55.3	0.5	1%
Below Normal (13%)	52.9	53.0	0.1	0%	54.5	54.8	0.3	1%	54.5	54.3	-0.2	0%	54.7	54.8	0.1	0%	56.1	56.5	0.4	1%	57.8	58.4	0.5	1%
Dry (24%)	53.4	53.3	-0.1	0%	55.0	54.8	-0.2	0%	54.6	54.3	-0.3	-1%	55.4	55.5	0.1	0%	57.5	57.3	-0.2	0%	58.8	59.0	0.3	0%
Critical (15%)	52.8	52.7	0.0	0%	55.9	55.8	-0.1	0%	57.0	56.8	-0.2	0%	58.4	58.5	0.2	0%	61.3	61.1	-0.2	0%	64.4	64.4	0.0	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-1. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, All Years

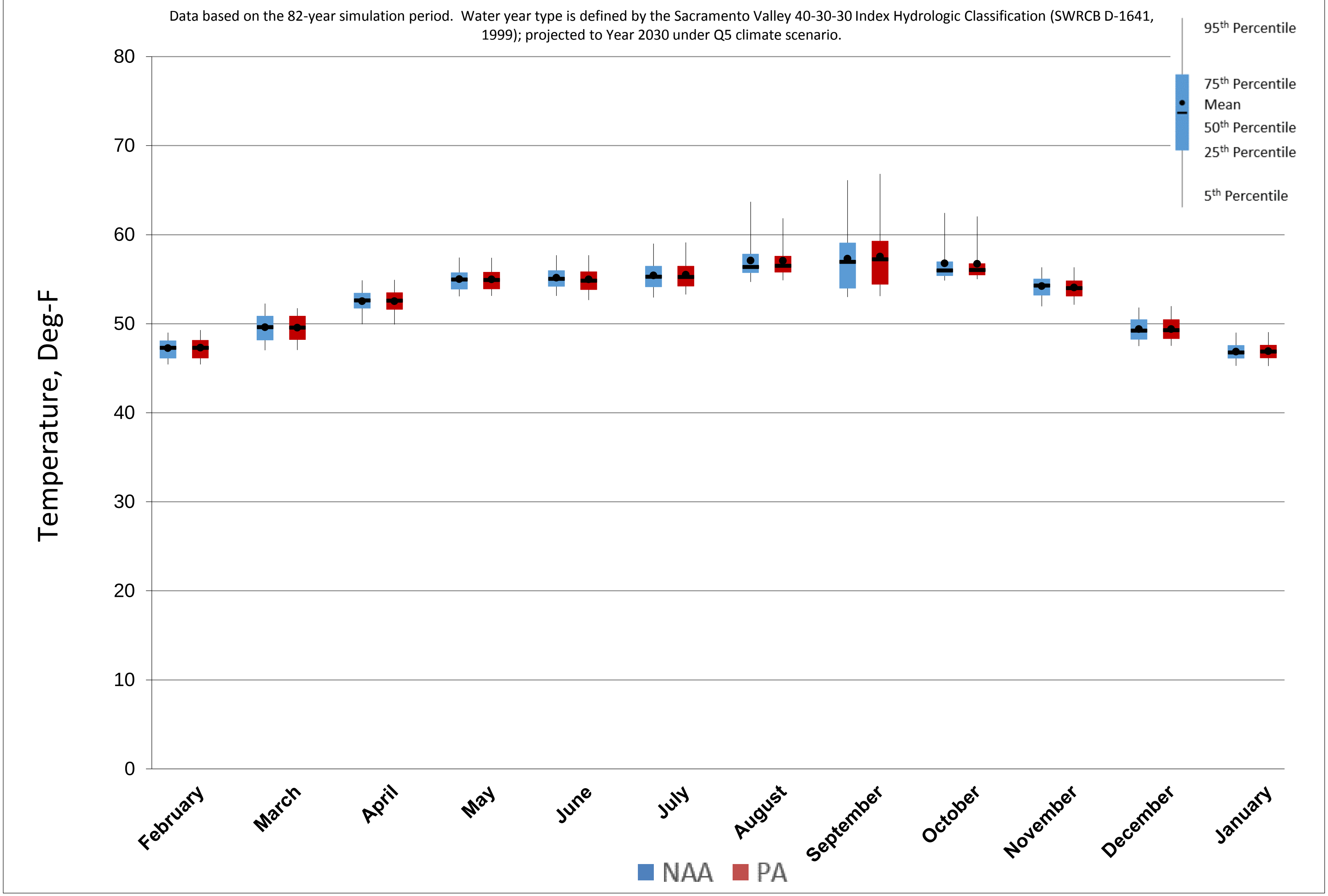


Figure 5.C.7-6-2. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, Wet Years

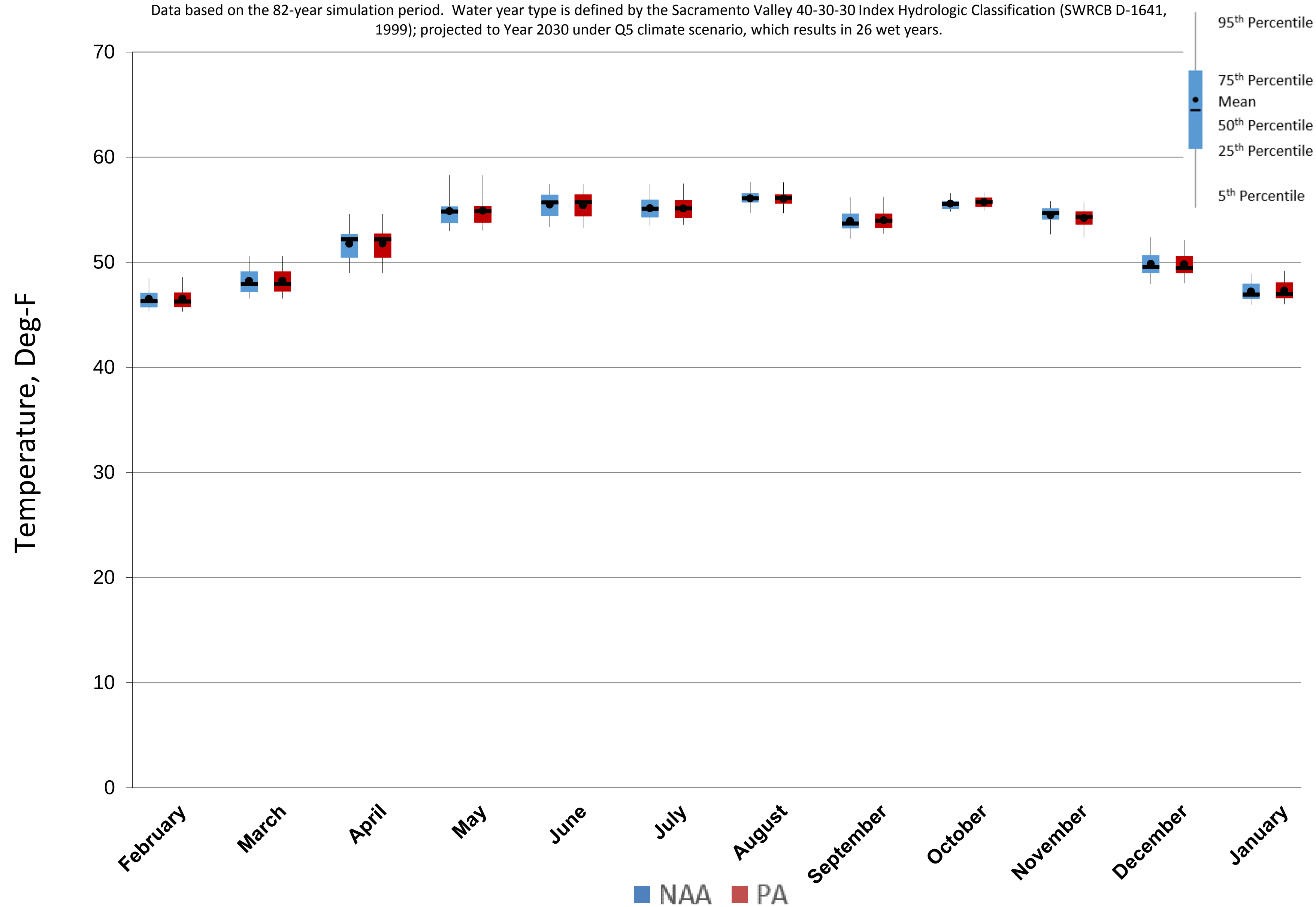


Figure 5.C.7-6-3. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, Above Normal Years

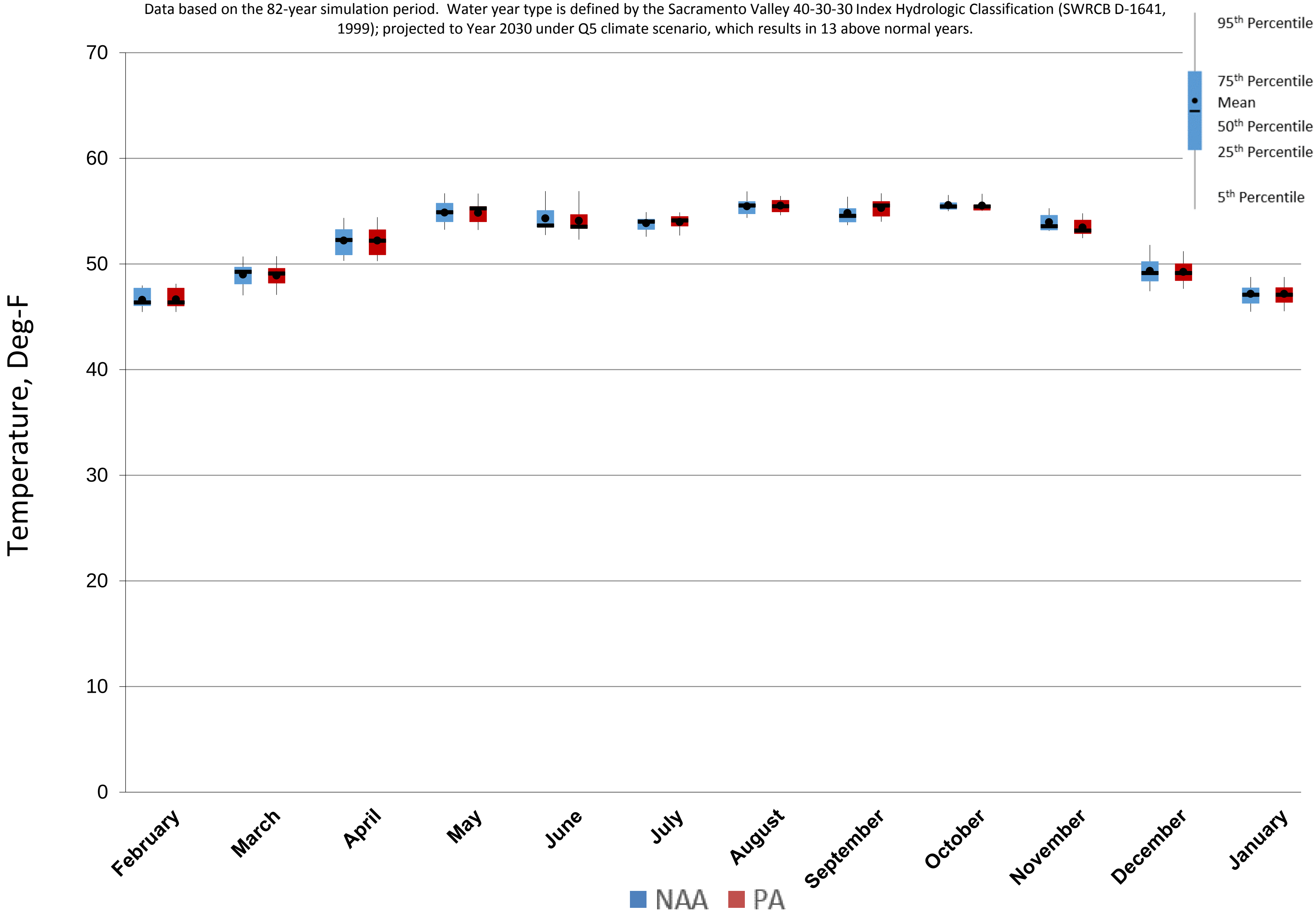


Figure 5.C.7-6-4. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, Below Normal Years

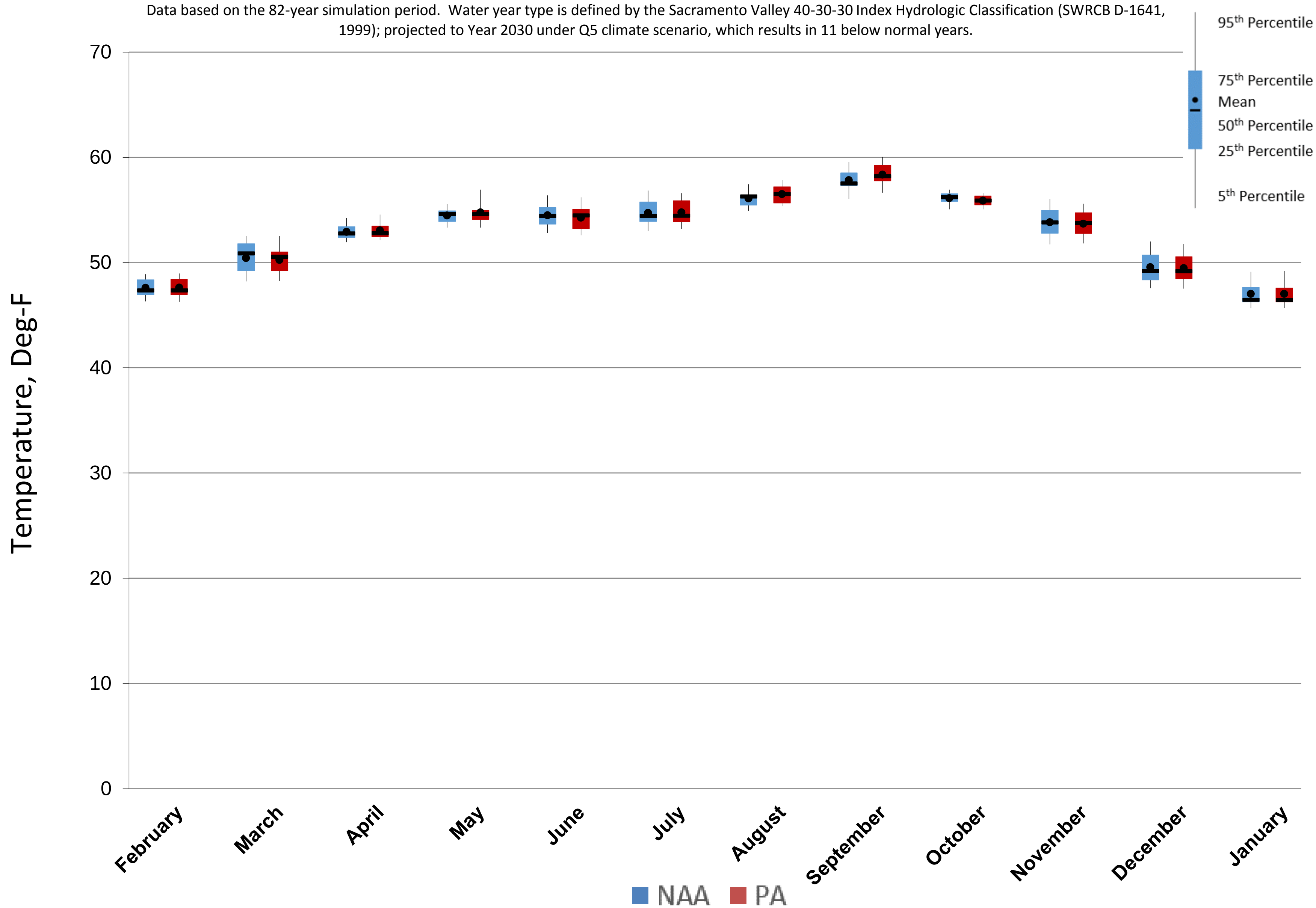


Figure 5.C.7-6-5. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, Dry Years

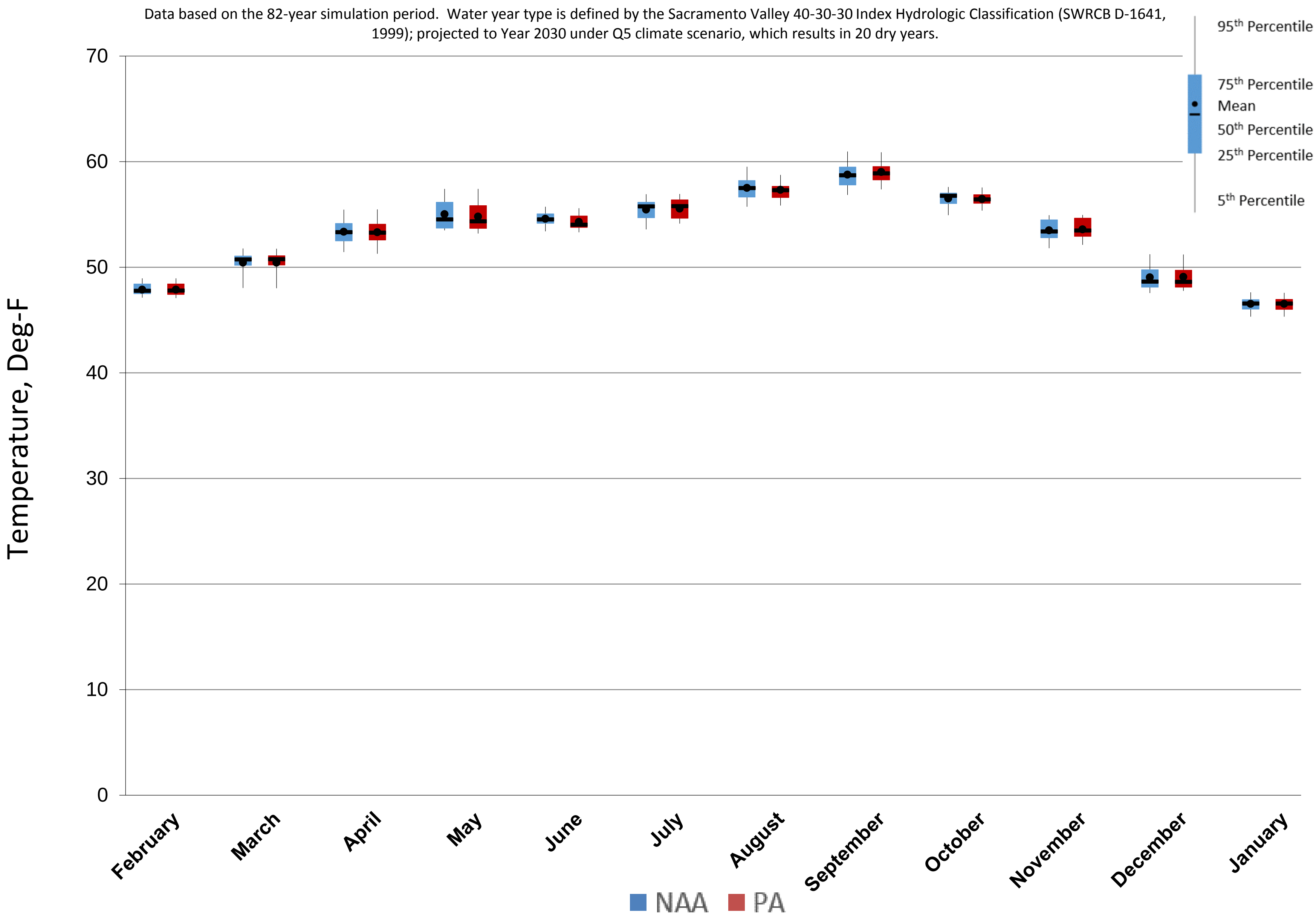


Figure 5.C.7-6-6. Monthly Temperature Ranges for Sacramento River at Jellys Ferry, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

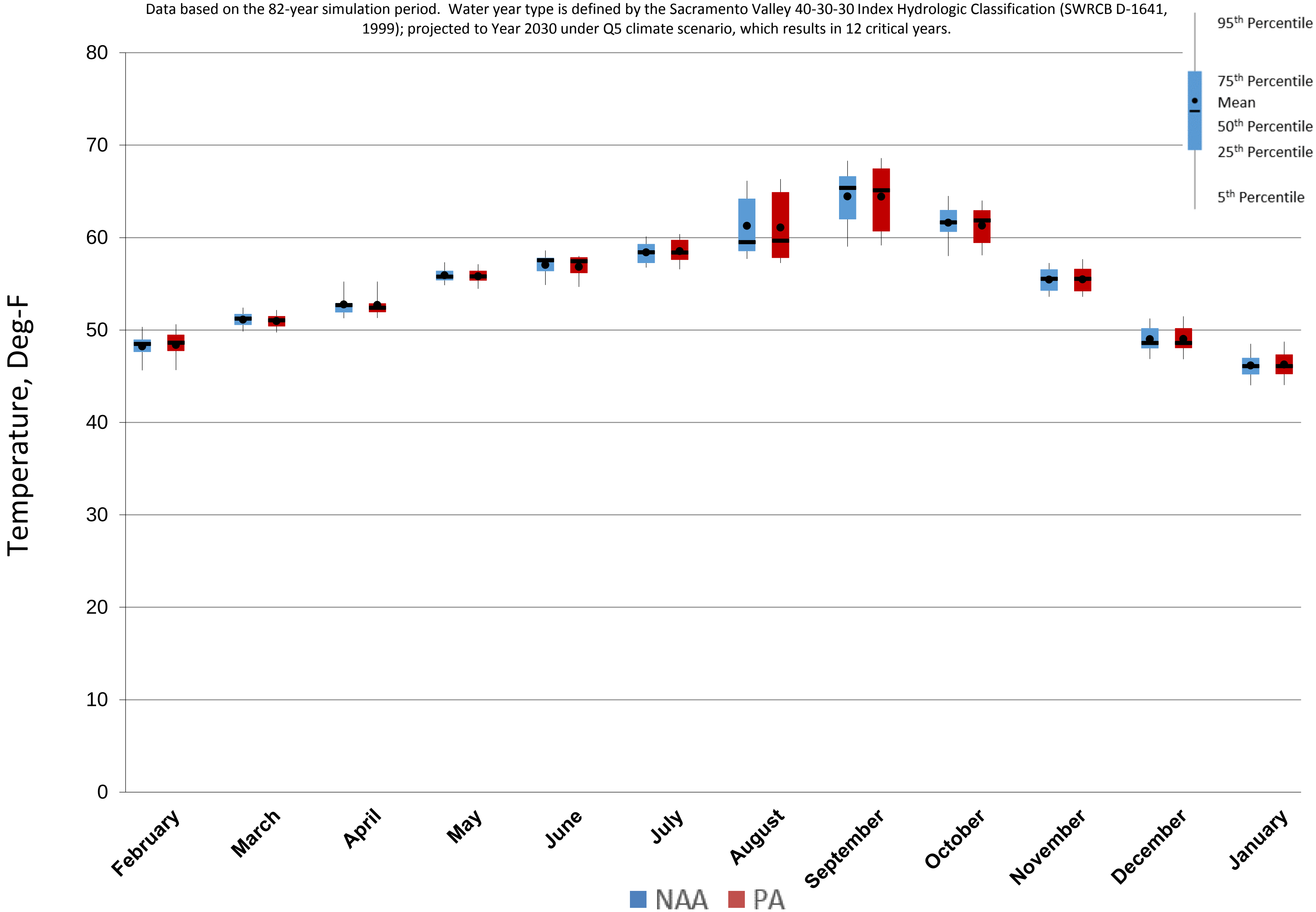
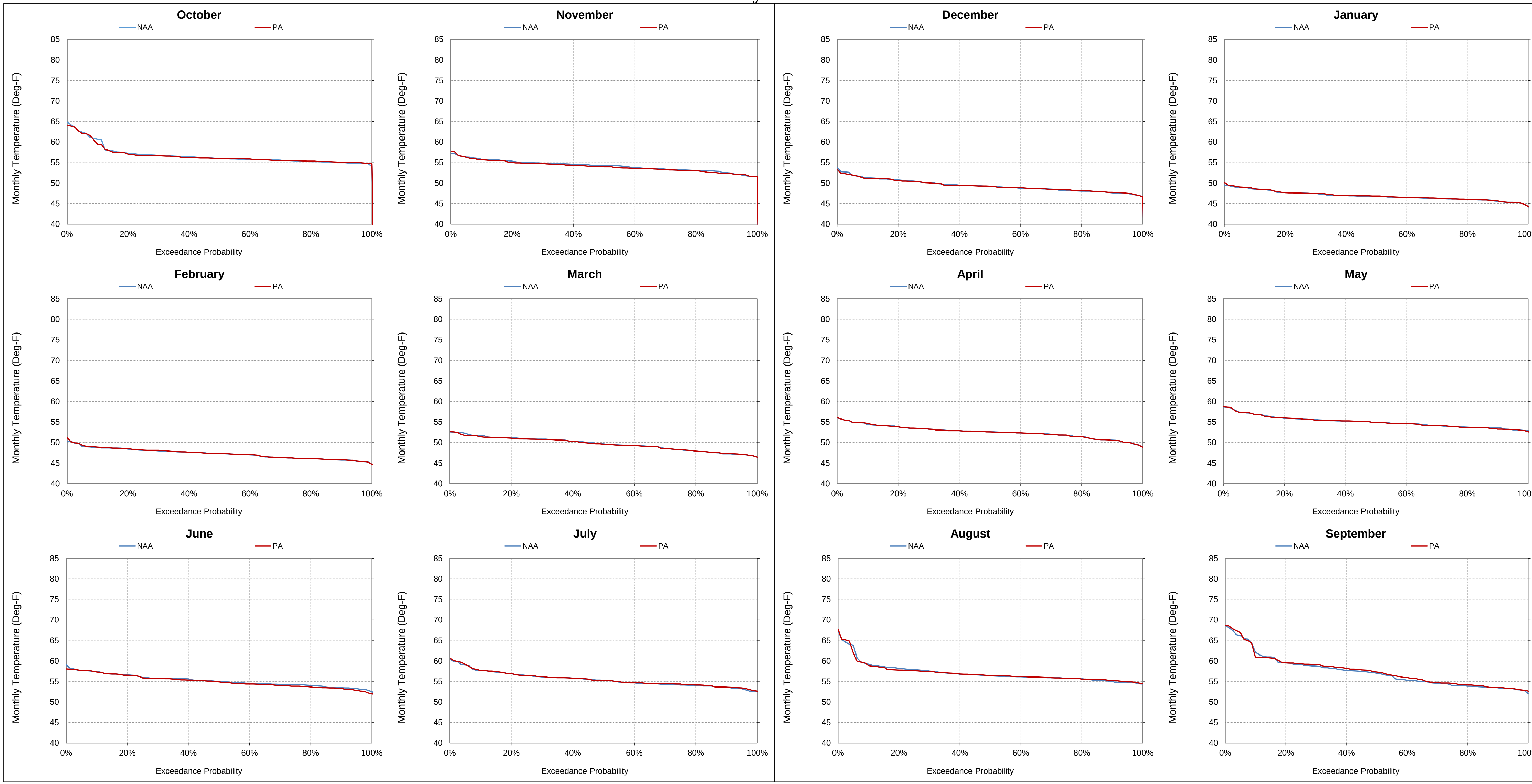
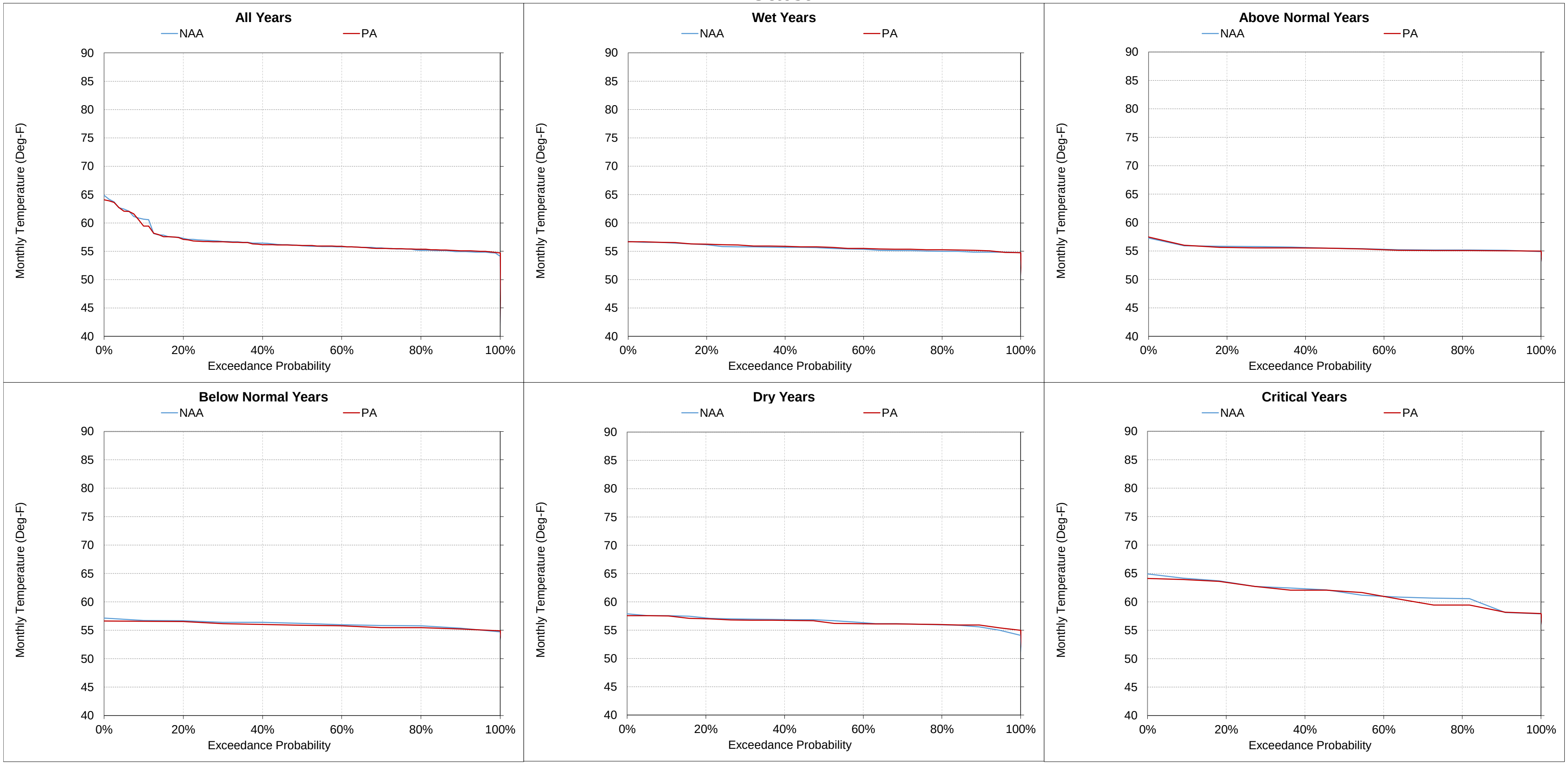


Figure 5.C.7-6-7. Sacramento River at Jellys Ferry, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-8. Sacramento River at Jellys Ferry, Monthly Temperature October



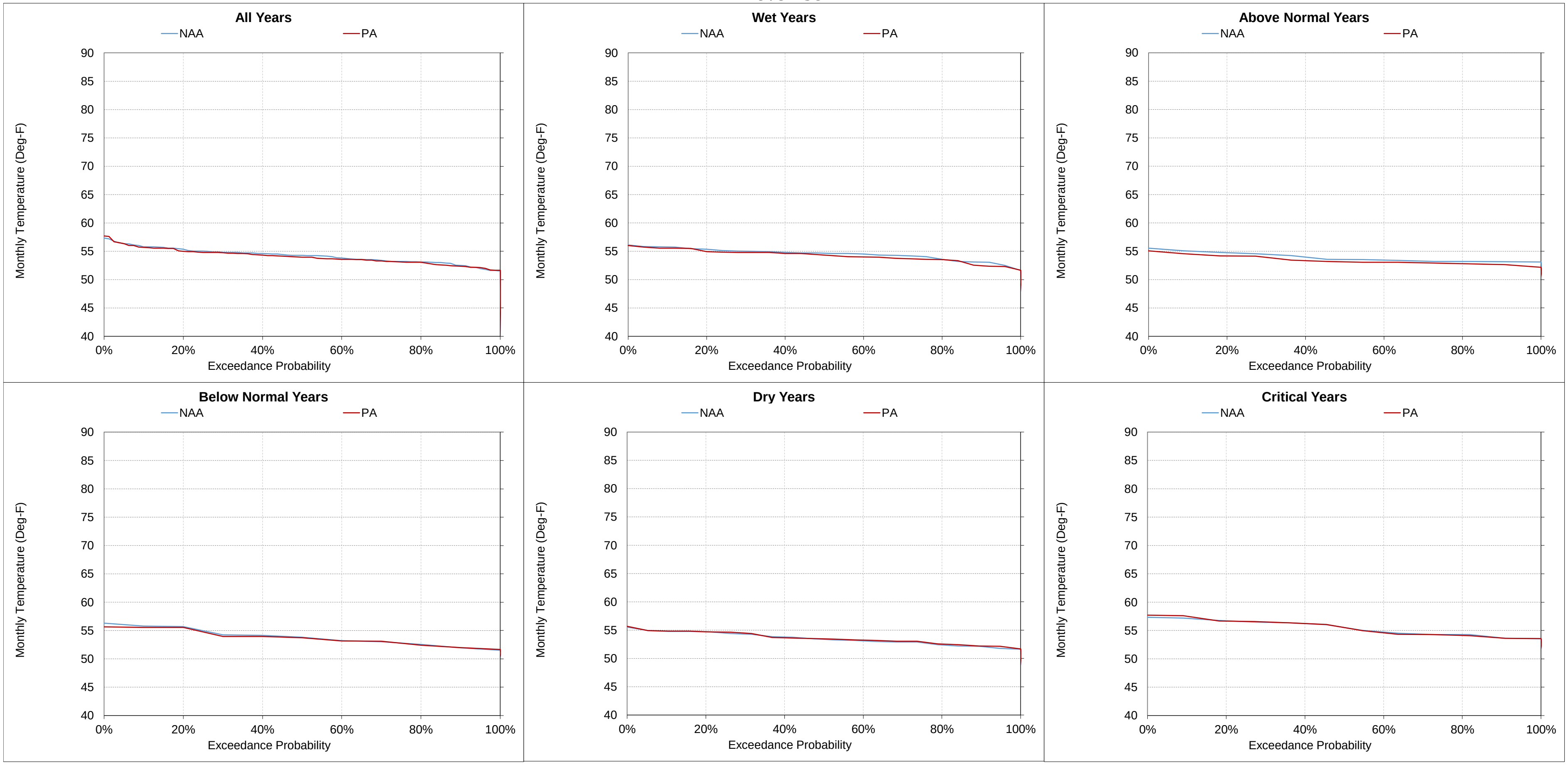
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-9. Sacramento River at Jellys Ferry, Monthly Temperature November



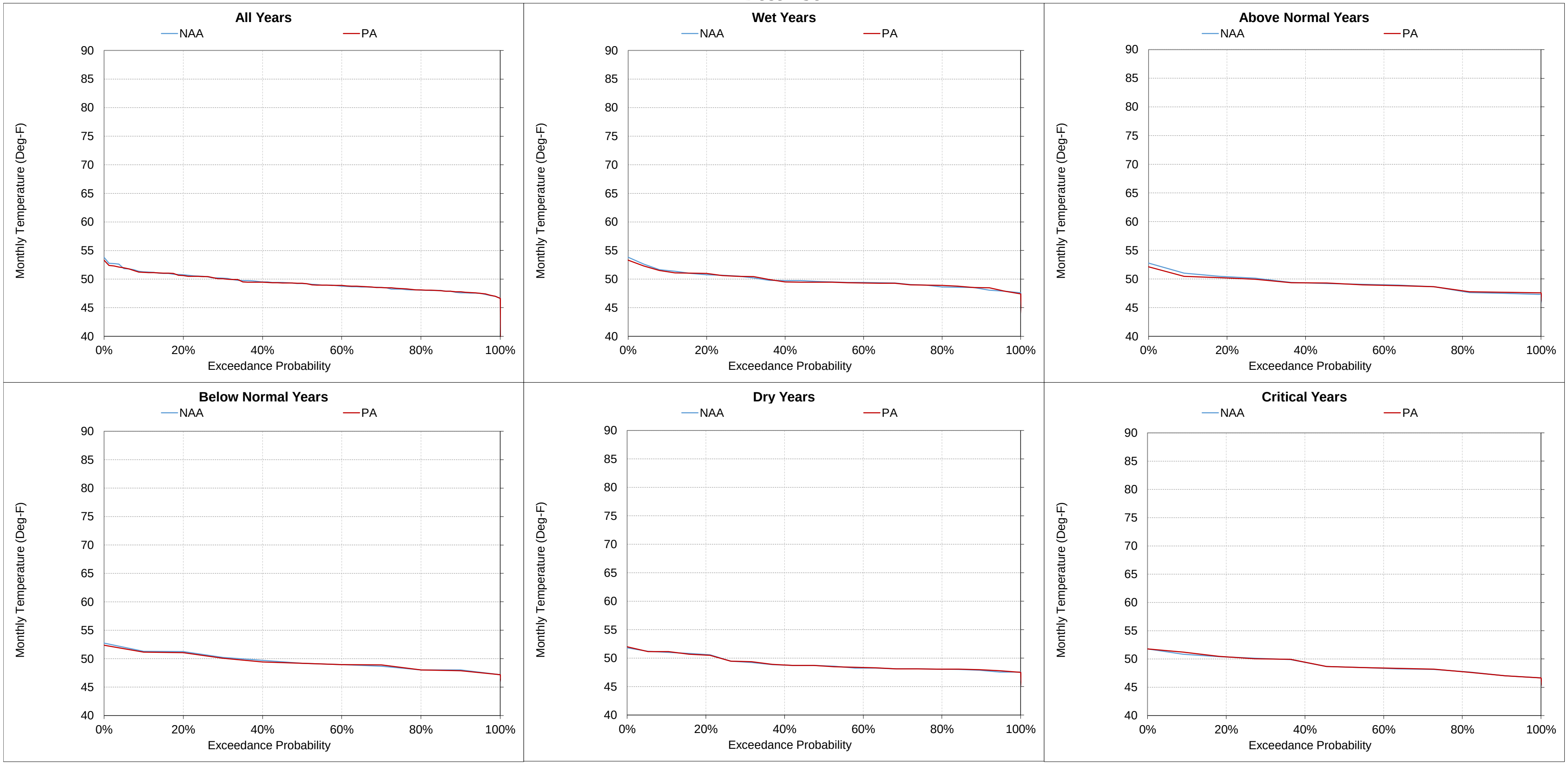
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

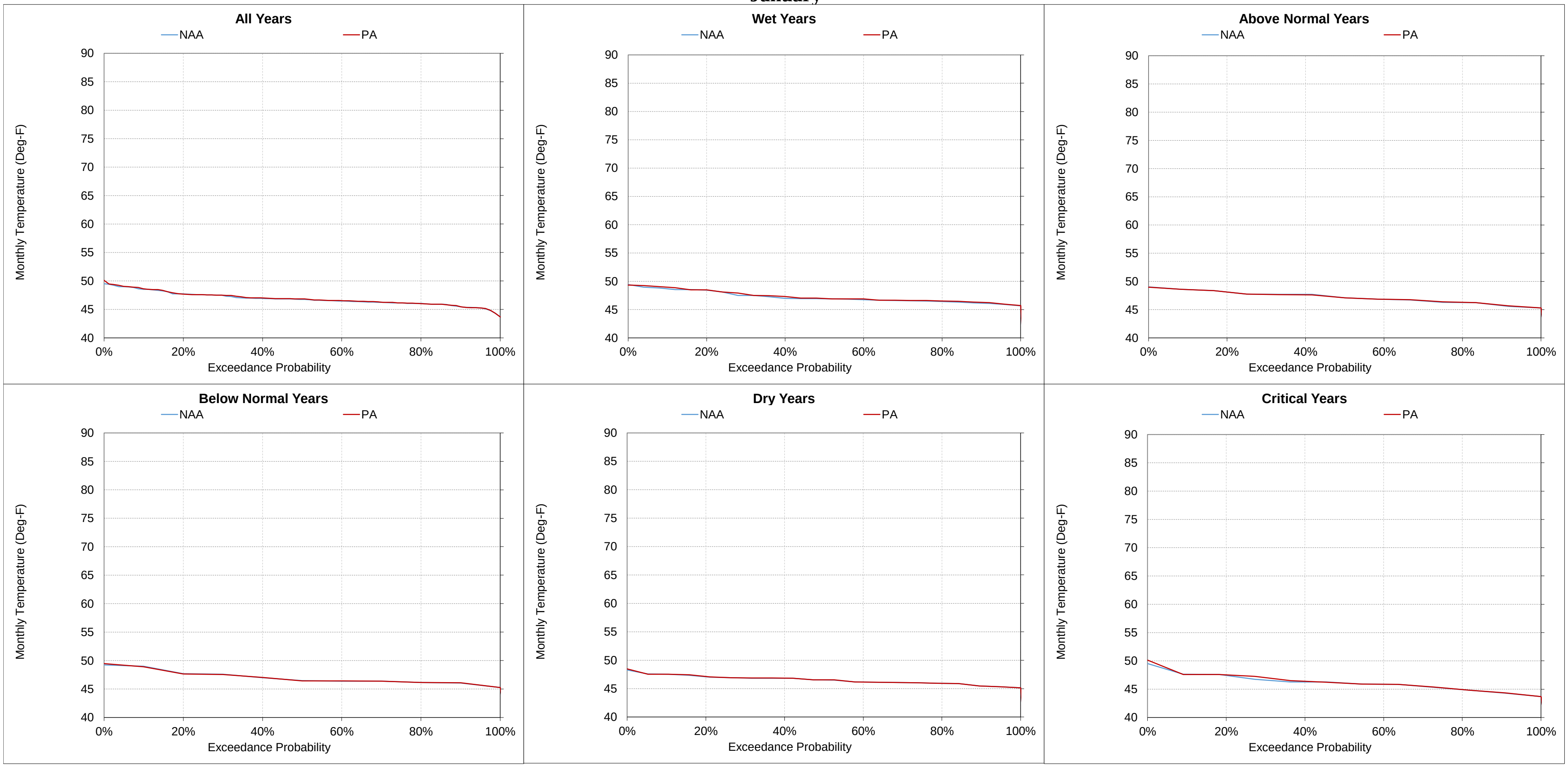
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-10. Sacramento River at Jellys Ferry, Monthly Temperature December



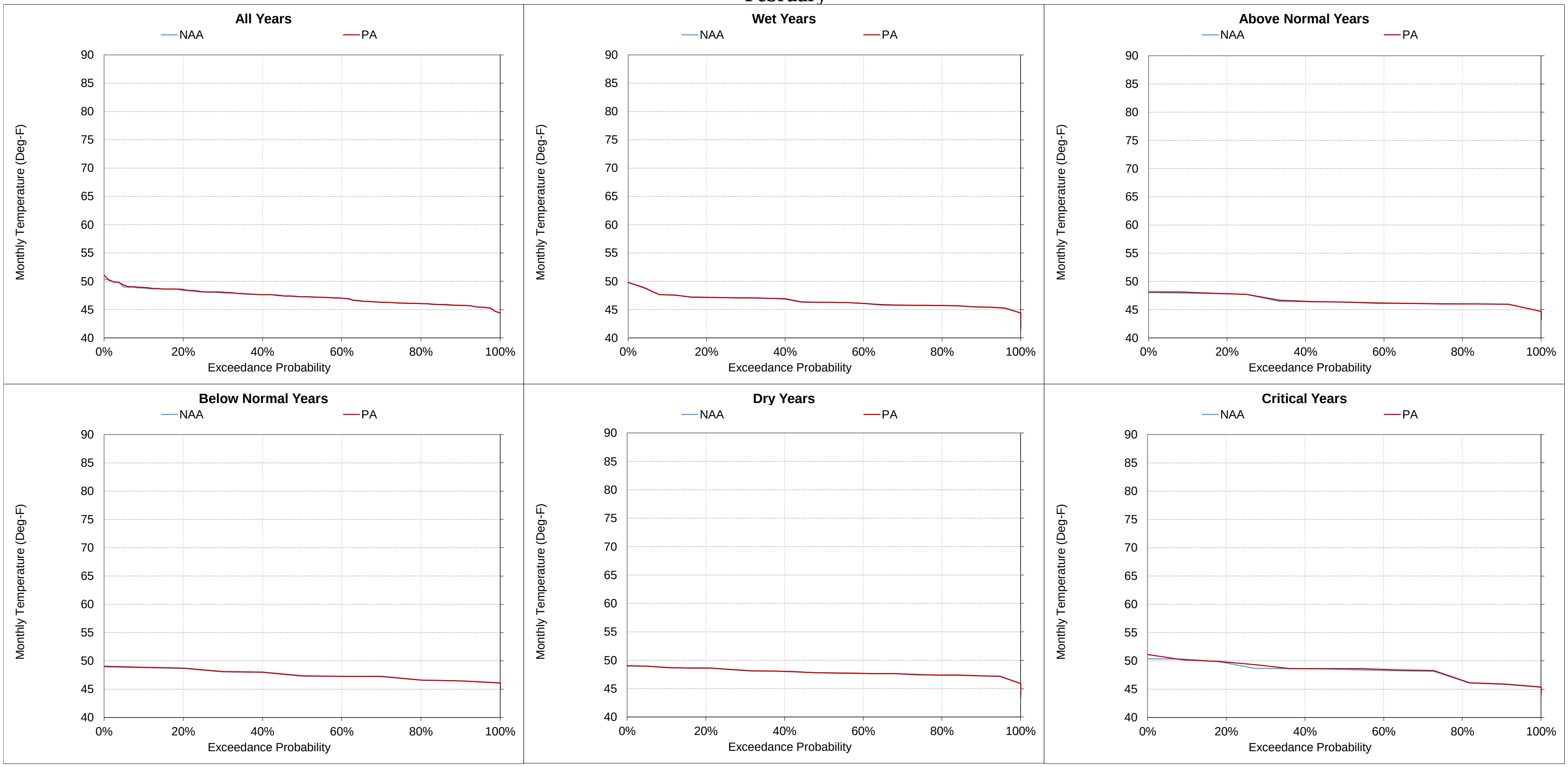
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-11. Sacramento River at Jellys Ferry, Monthly Temperature
January



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-12. Sacramento River at Jellys Ferry, Monthly Temperature February



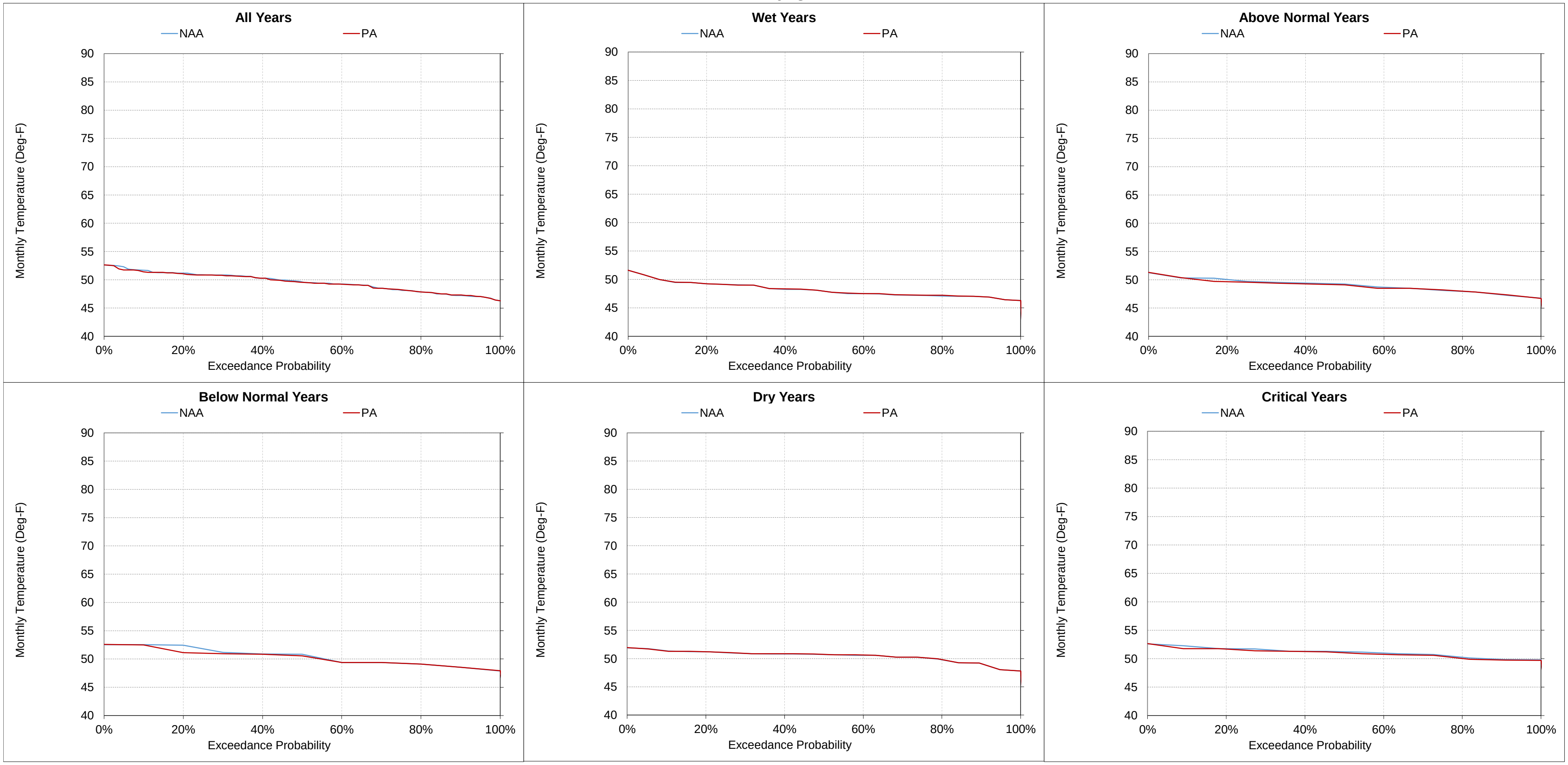
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

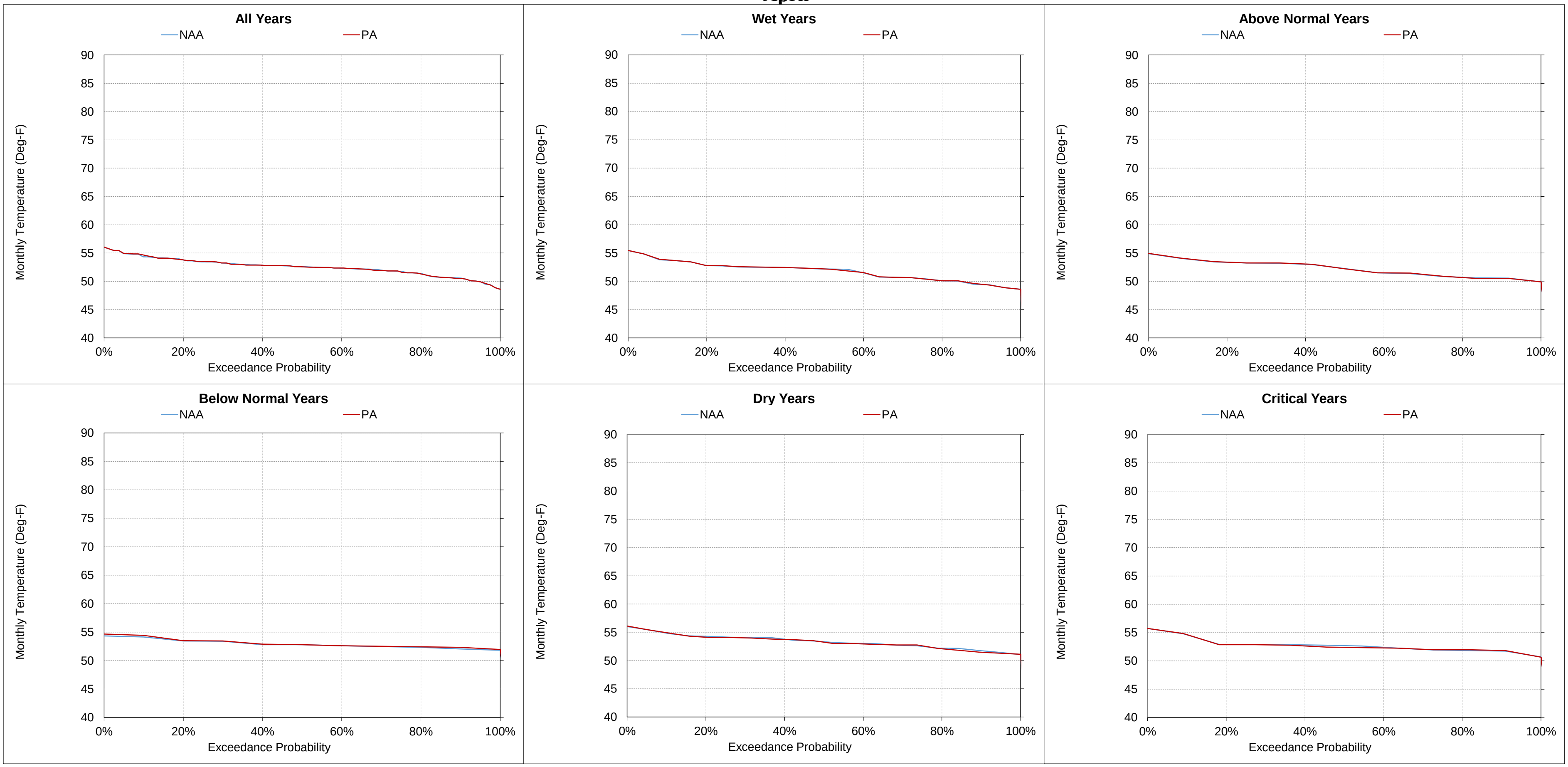
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-13. Sacramento River at Jellys Ferry, Monthly Temperature March



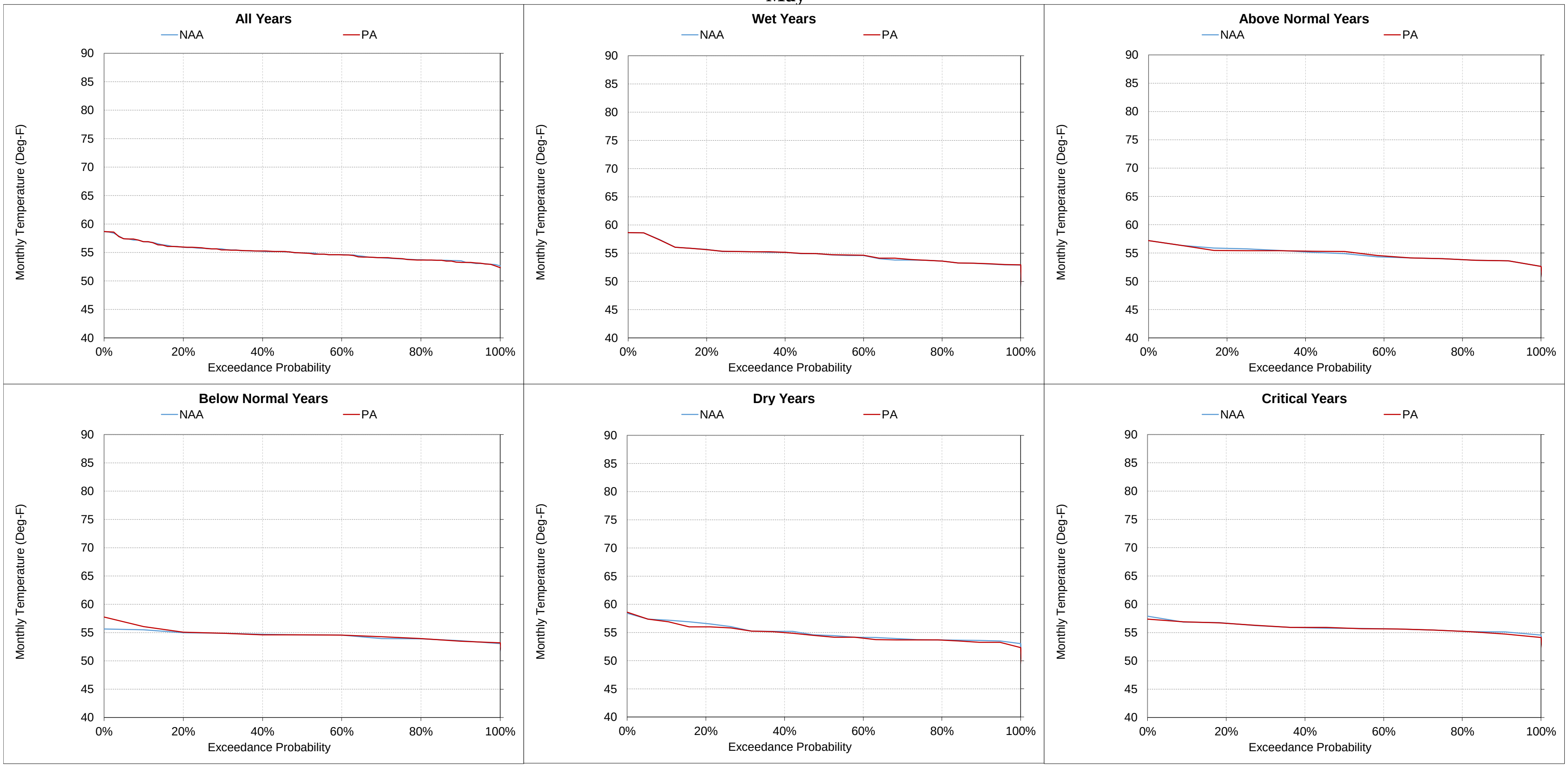
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-14. Sacramento River at Jellys Ferry, Monthly Temperature April



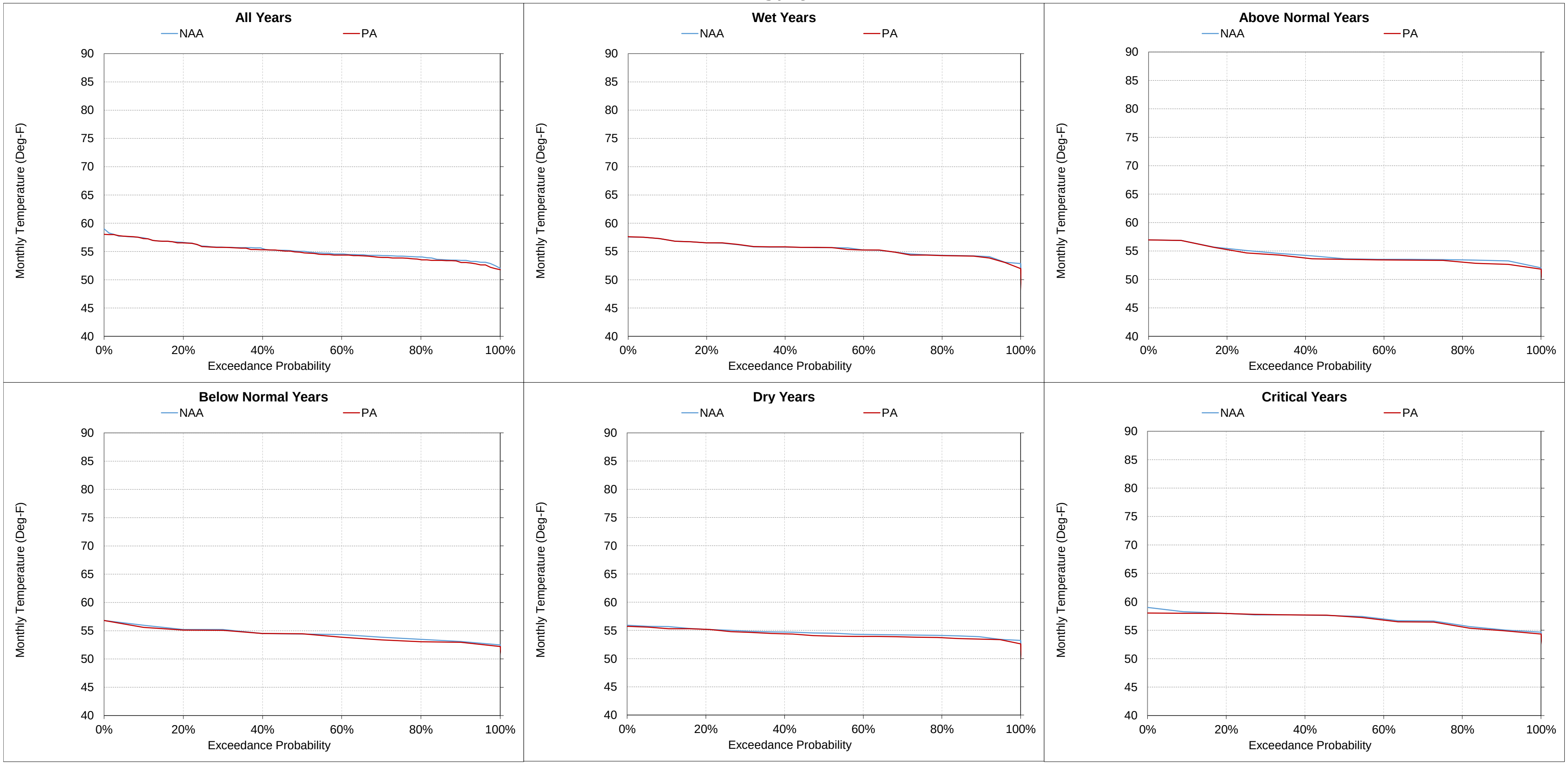
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-15. Sacramento River at Jellys Ferry, Monthly Temperature May



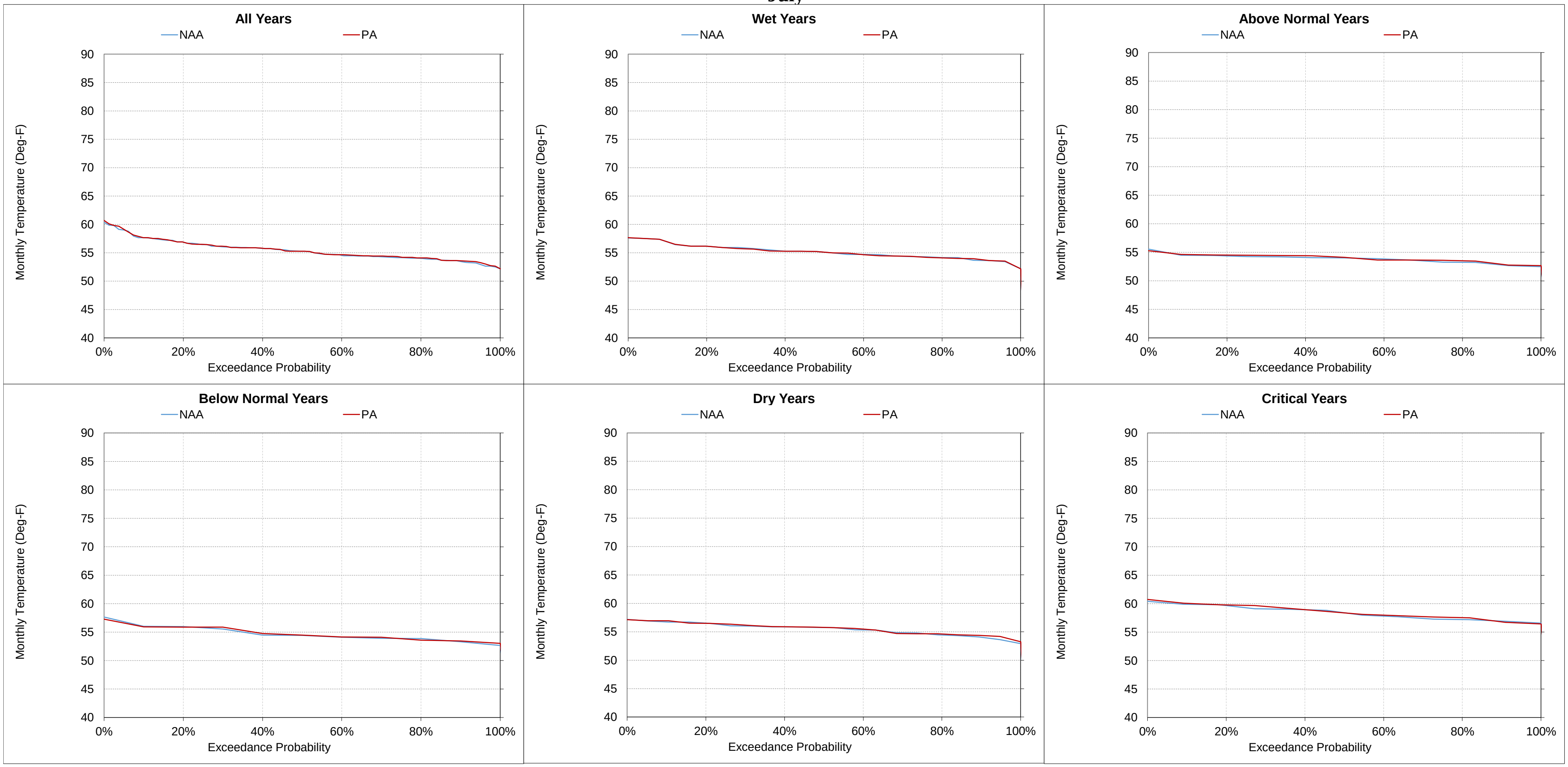
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-16. Sacramento River at Jellys Ferry, Monthly Temperature
June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-17. Sacramento River at Jellys Ferry, Monthly Temperature July



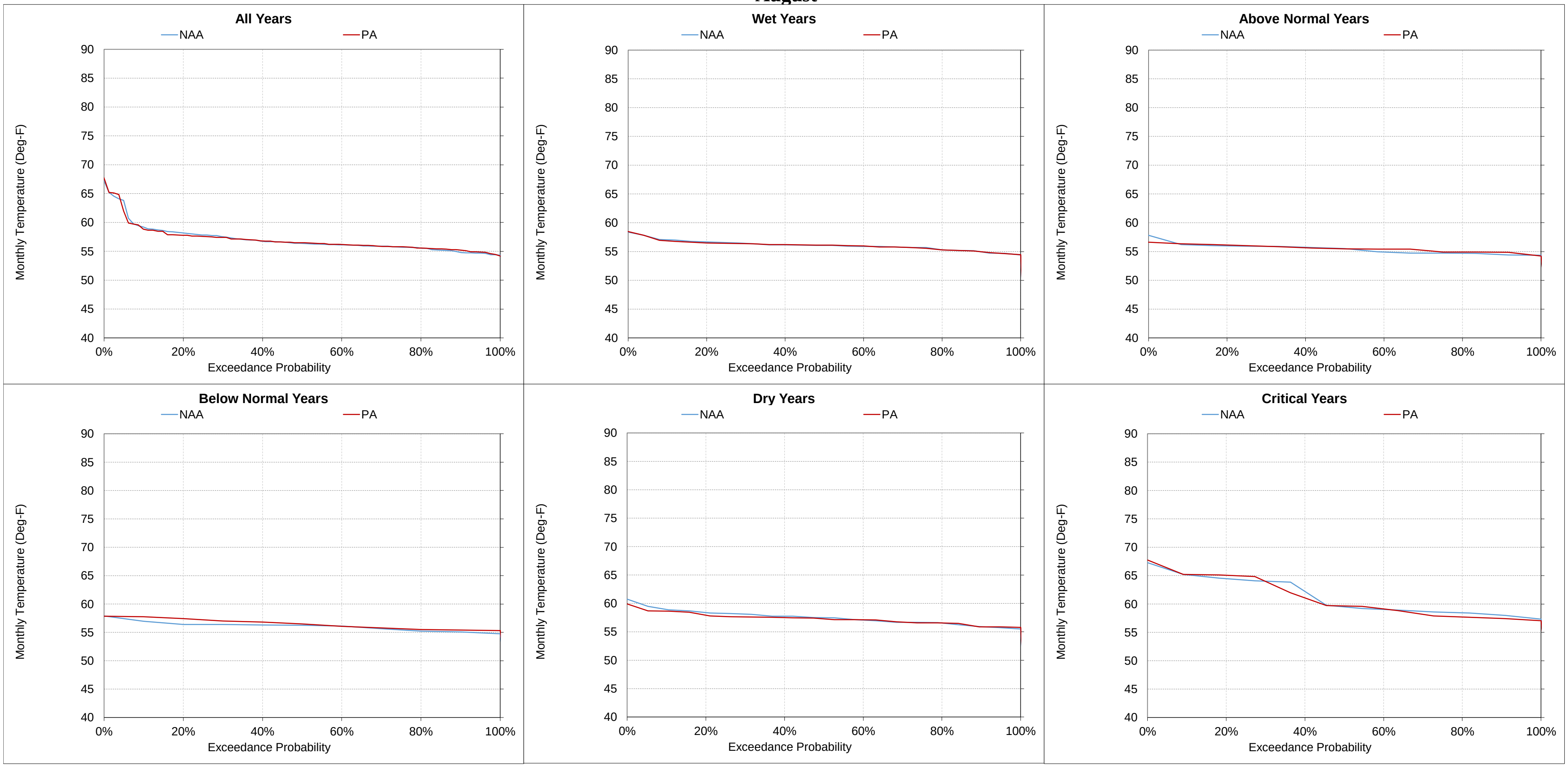
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-18. Sacramento River at Jellys Ferry, Monthly Temperature August



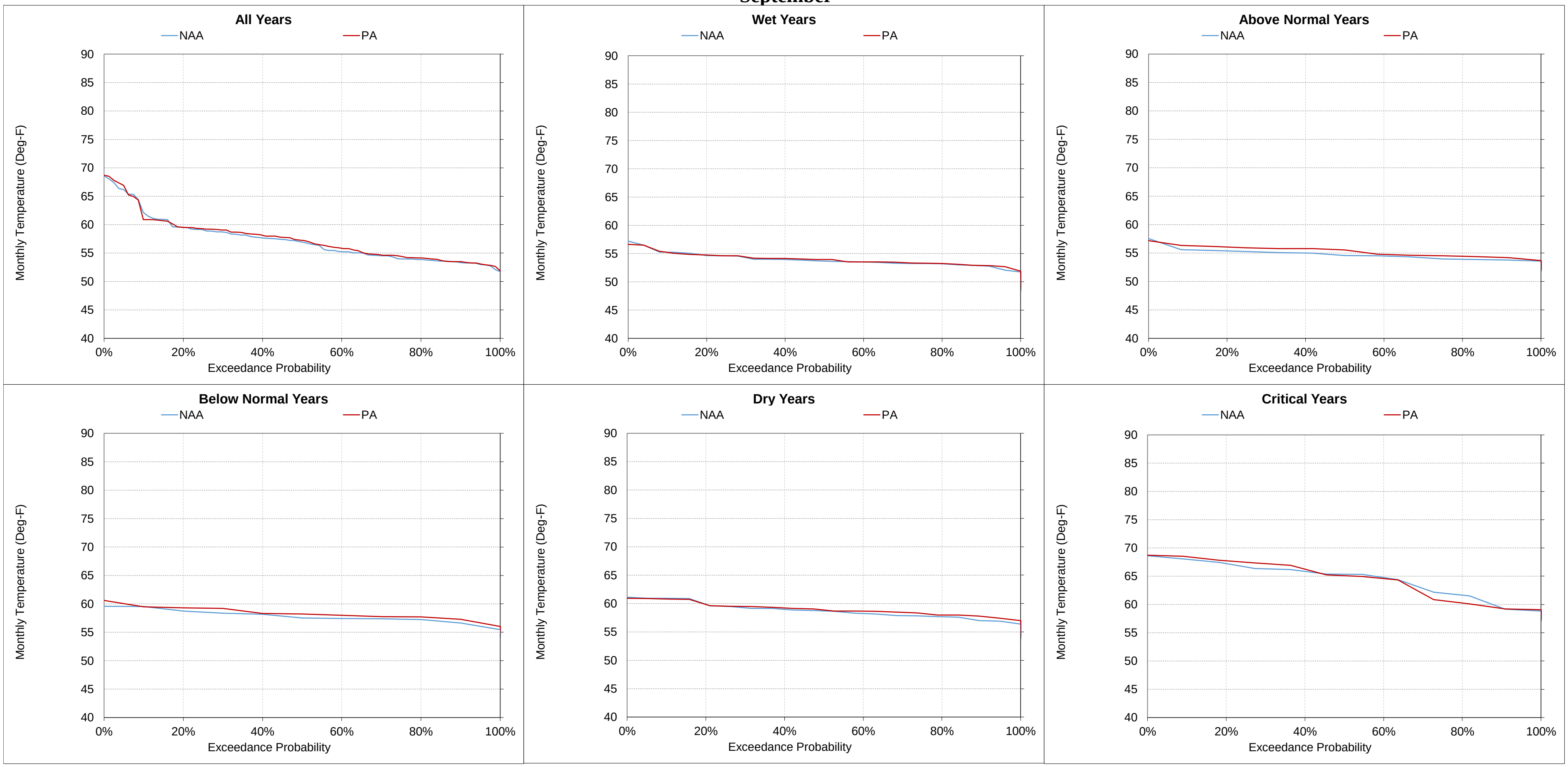
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-6-19. Sacramento River at Jellys Ferry, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-7. Sacramento River at Bend Bridge, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.8	59.7	-1.1	-2%	55.8	55.5	-0.3	-1%	51.1	50.9	-0.2	0%	48.2	48.2	0.1	0%	48.9	49.0	0.1	0%	52.2	51.8	-0.3	-1%
20%	57.7	57.4	-0.3	-1%	55.2	54.8	-0.4	-1%	50.4	50.3	-0.1	0%	47.6	47.5	0.0	0%	48.5	48.5	0.0	0%	51.7	51.6	0.0	0%
30%	57.1	57.0	-0.1	0%	54.6	54.4	-0.2	0%	49.5	49.3	-0.2	0%	47.0	47.1	0.1	0%	48.0	48.1	0.1	0%	51.3	51.3	0.0	0%
40%	56.7	56.5	-0.3	0%	54.2	53.9	-0.2	0%	49.0	49.0	0.0	0%	46.8	46.9	0.1	0%	47.7	47.7	0.0	0%	50.9	50.9	0.0	0%
50%	56.3	56.3	0.1	0%	53.9	53.6	-0.3	-1%	48.8	48.8	0.0	0%	46.6	46.6	0.0	0%	47.4	47.4	0.0	0%	50.2	50.2	0.0	0%
60%	56.0	56.2	0.1	0%	53.3	53.1	-0.2	0%	48.4	48.4	0.0	0%	46.4	46.5	0.1	0%	47.2	47.2	0.0	0%	49.8	49.8	0.0	0%
70%	55.9	55.8	-0.1	0%	52.9	52.9	-0.1	0%	48.1	48.1	0.0	0%	46.2	46.2	0.0	0%	46.5	46.5	0.0	0%	49.1	49.1	0.0	0%
80%	55.6	55.6	0.0	0%	52.8	52.5	-0.2	0%	47.7	47.8	0.1	0%	46.0	45.9	0.0	0%	46.3	46.3	0.0	0%	48.5	48.5	0.0	0%
90%	55.3	55.4	0.1	0%	52.0	51.9	-0.2	0%	47.4	47.5	0.1	0%	45.6	45.6	0.0	0%	46.0	46.0	0.0	0%	47.8	47.8	0.0	0%
Long Term																								
Full Simulation Period[b]	57.0	57.0	0.0	0%	53.9	53.7	-0.2	0%	49.0	48.9	0.0	0%	46.7	46.8	0.1	0%	47.4	47.4	0.0	0%	50.2	50.1	-0.1	0%
Water Year Types[c]																								
Wet (32%)	55.8	56.0	0.2	0%	54.2	53.9	-0.3	-1%	49.4	49.4	0.0	0%	47.0	47.1	0.1	0%	46.7	46.7	0.0	0%	48.8	48.8	0.0	0%
Above Normal (16%)	55.9	55.8	0.0	0%	53.6	53.1	-0.5	-1%	48.9	48.8	-0.1	0%	47.0	47.0	0.0	0%	46.8	46.8	0.0	0%	49.6	49.5	-0.1	0%
Below Normal (13%)	56.4	56.2	-0.3	0%	53.6	53.4	-0.1	0%	49.0	49.0	-0.1	0%	46.8	46.8	0.0	0%	47.7	47.7	0.0	0%	50.9	50.8	-0.2	0%
Dry (24%)	56.8	56.8	-0.1	0%	53.1	53.2	0.1	0%	48.6	48.6	0.0	0%	46.4	46.4	0.0	0%	47.9	48.0	0.0	0%	51.0	51.0	0.0	0%
Critical (15%)	61.7	61.4	-0.3	0%	54.8	54.9	0.1	0%	48.5	48.6	0.0	0%	46.2	46.3	0.1	0%	48.4	48.5	0.2	0%	51.6	51.5	-0.2	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	55.2	55.3	0.0	0%	58.0	57.9	-0.1	0%	58.3	58.3	0.0	0%	58.7	58.9	0.3	0%	60.4	60.0	-0.4	-1%	63.0	62.5	-0.5	-1%
20%	54.7	54.6	-0.1	0%	56.8	56.9	0.1	0%	57.5	57.4	-0.2	0%	57.8	57.9	0.1	0%	59.5	59.0	-0.5	-1%	60.4	60.8	0.4	1%
30%	54.0	54.0	0.0	0%	56.6	56.6	0.0	0%	56.9	56.8	-0.1	0%	57.3	57.3	0.1	0%	58.7	58.4	-0.3	0%	59.7	60.1	0.3	1%
40%	53.6	53.6	0.0	0%	56.2	56.2	0.0	0%	56.5	56.5	-0.1	0%	56.8	56.9	0.1	0%	58.1	58.0	-0.1	0%	58.9	59.4	0.5	1%
50%	53.5	53.4	0.0	0%	55.9	55.9	0.0	0%	56.0	56.0	-0.1	0%	56.4	56.3	-0.2	0%	57.5	57.7	0.2	0%	57.9	58.3	0.4	1%
60%	53.2	53.2	0.0	0%	55.7	55.7	0.0	0%	55.7	55.5	-0.2	0%	55.8	55.8	0.0	0%	57.3	57.3	0.0	0%	56.3	57.0	0.6	1%
70%	52.7	52.7	-0.1	0%	55.2	55.2	0.0	0%	55.4	55.0	-0.4	-1%	55.5	55.5	0.1	0%	57.0	57.1	0.1	0%	55.3	55.5	0.2	0%
80%	52.0	52.1	0.1	0%	54.8	54.8	-0.1	0%	55.0	54.7	-0.4	-1%	55.1	55.2	0.1	0%	56.6	56.7	0.1	0%	54.7	55.0	0.3	0%
90%	51.4	51.3	0.0	0%	54.3	54.1	-0.2	0%	54.5	54.2	-0.3	-1%	54.5	54.7	0.2	0%	56.0	56.2	0.2	0%	54.1	54.2	0.1	0%
Long Term																								
Full Simulation Period[b]	53.3	53.3	0.0	0%	56.0	56.0	0.0	0%	56.3	56.0	-0.2	0%	56.5	56.6	0.1	0%	58.2	58.2	0.0	0%	58.2	58.5	0.3	0%
Water Year Types[c]																								
Wet (32%)	52.5	52.5	0.0	0%	55.7	55.7	0.0	0%	56.5	56.4	-0.1	0%	56.3	56.3	0.0	0%	57.3	57.2	0.0	0%	54.7	54.8	0.1	0%
Above Normal (16%)	53.2	53.2	0.0	0%	55.9	55.9	0.0	0%	55.4	55.1	-0.3	0%	54.9	55.0	0.1	0%	56.7	56.7	0.1	0%	55.7	56.3	0.5	1%
Below Normal (13%)	53.7	53.8	0.1	0%	55.5	55.8	0.3	0%	55.6	55.3	-0.2	0%	55.8	55.8	0.0	0%	57.2	57.7	0.5	1%	58.9	59.5	0.6	1%
Dry (24%)	54.2	54.1	-0.1	0%	56.1	55.9	-0.3	0%	55.8	55.4	-0.4	-1%	56.6	56.7	0.1	0%	58.7	58.5	-0.2	0%	59.9	60.2	0.3	0%
Critical (15%)	53.6	53.5	-0.1	0%	56.9	56.8	-0.1	0%	58.1	57.8	-0.2	0%	59.4	59.6	0.2	0%	62.1	62.0	-0.2	0%	65.0	65.0	0.0	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-1. Monthly Temperature Ranges for Sacramento River at Bend Bridge, All Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.

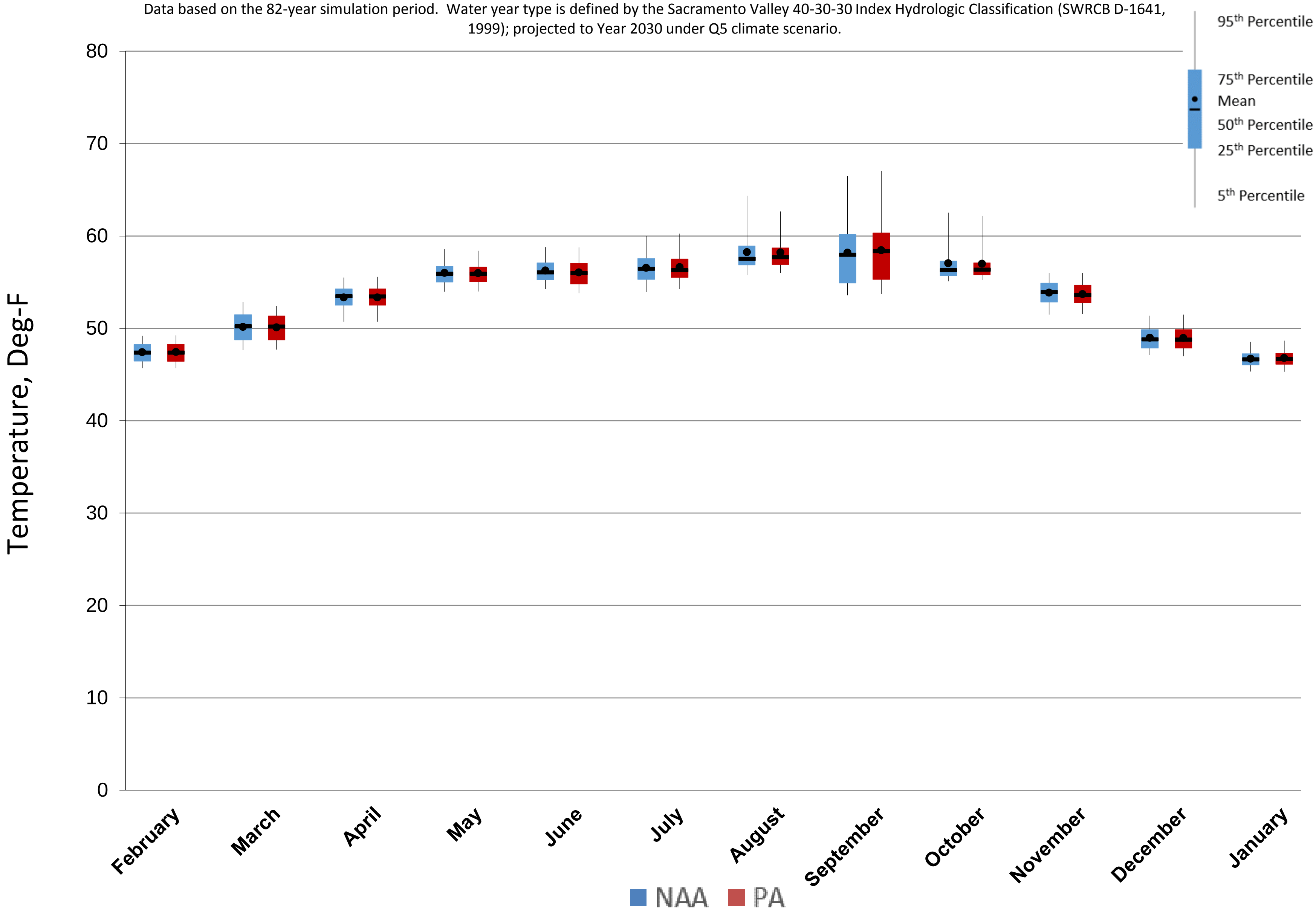


Figure 5.C.7-7-2. Monthly Temperature Ranges for Sacramento River at Bend Bridge, Wet Years

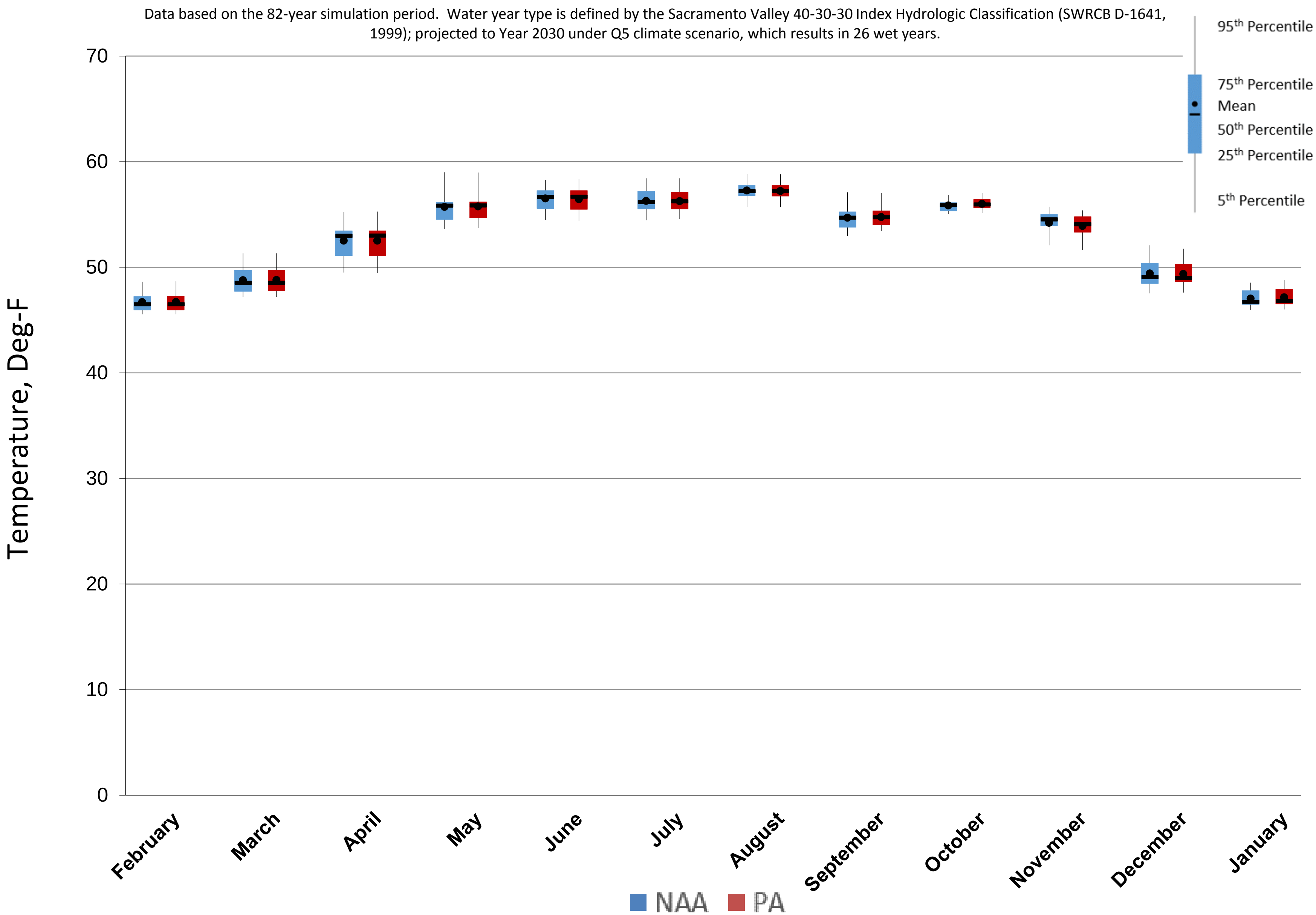


Figure 5.C.7-7-3. Monthly Temperature Ranges for Sacramento River at Bend Bridge, Above Normal Years

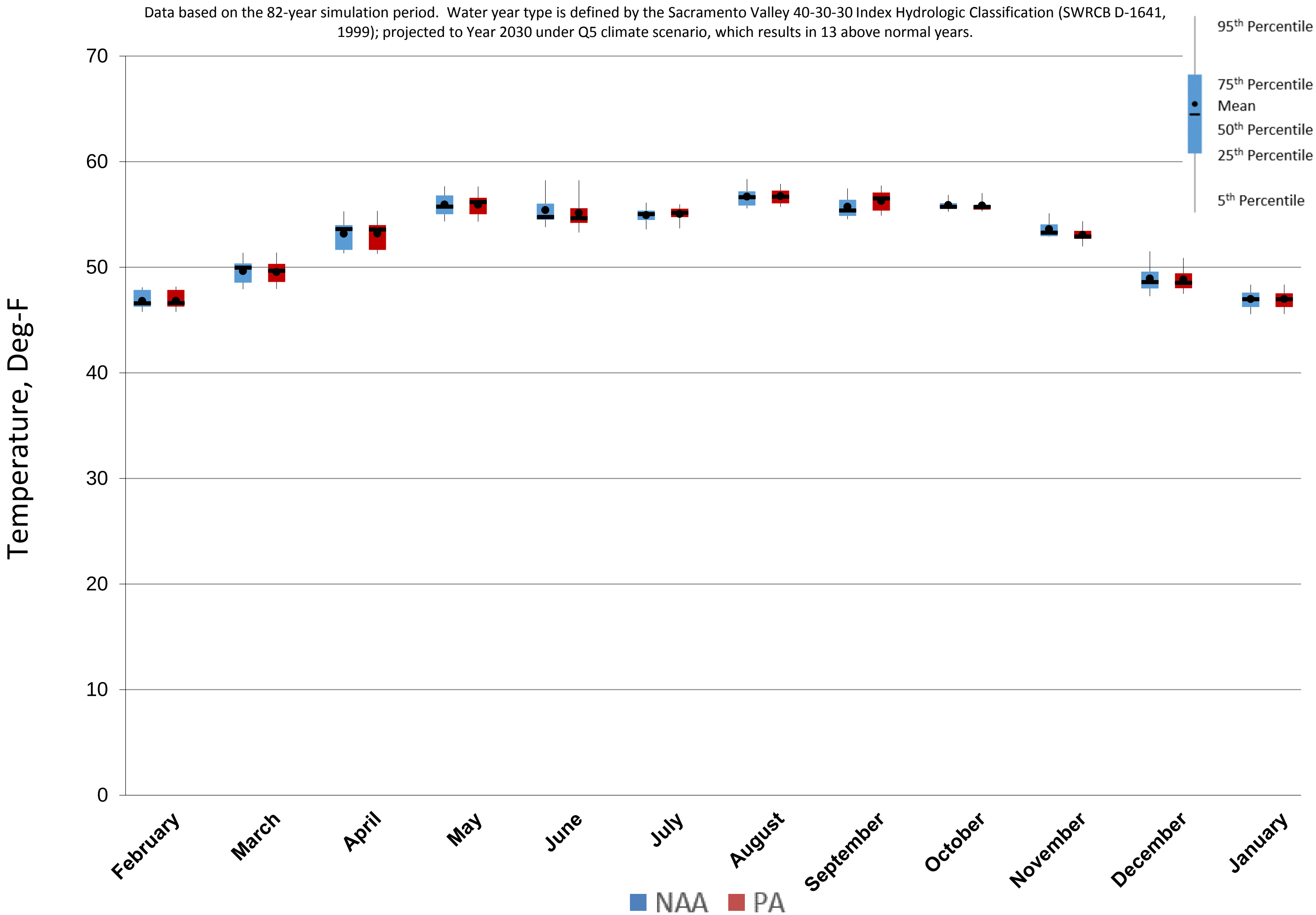


Figure 5.C.7-7-4. Monthly Temperature Ranges for Sacramento River at Bend Bridge, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 11 below normal years.

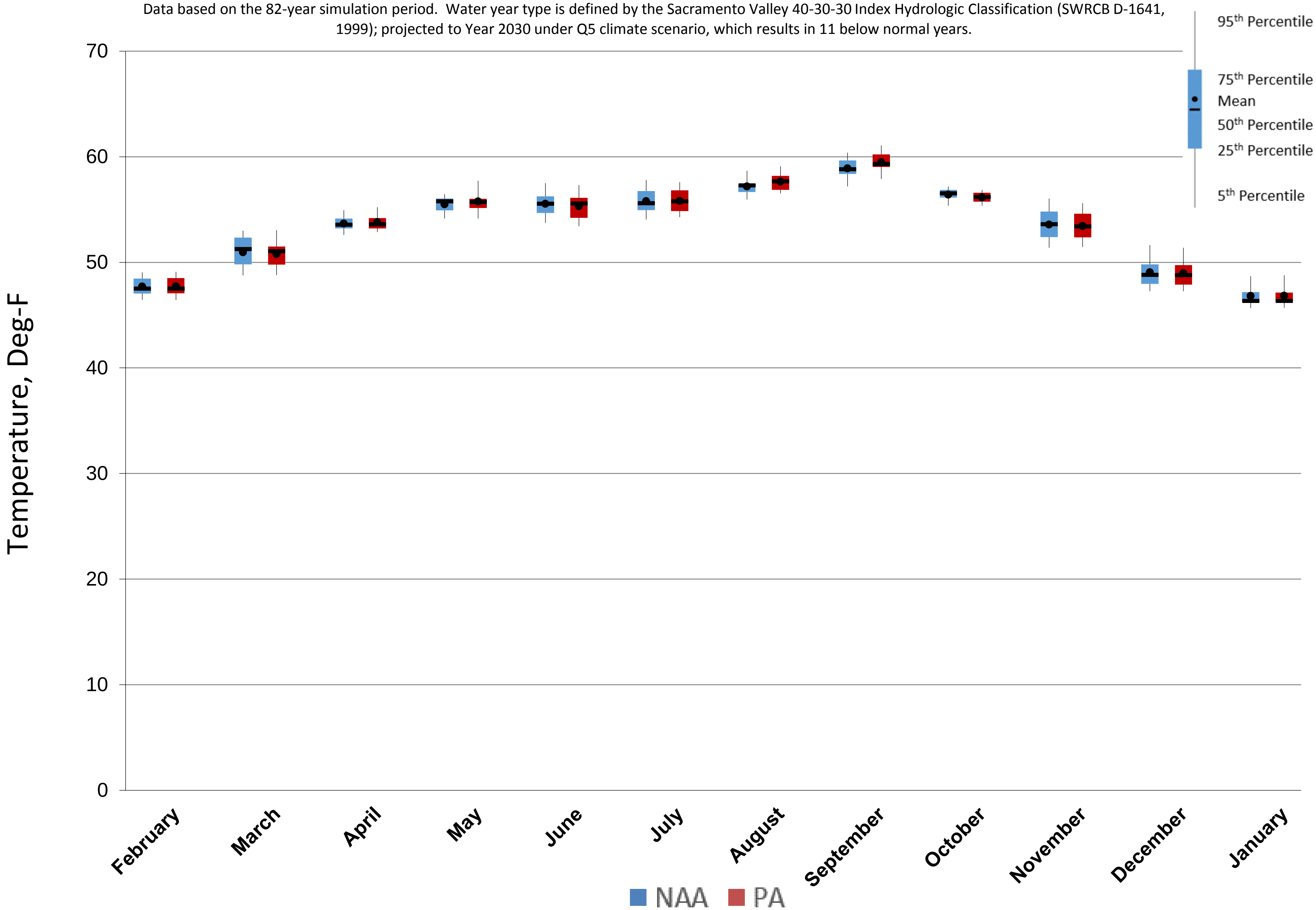


Figure 5.C.7-7-5. Monthly Temperature Ranges for Sacramento River at Bend Bridge, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.

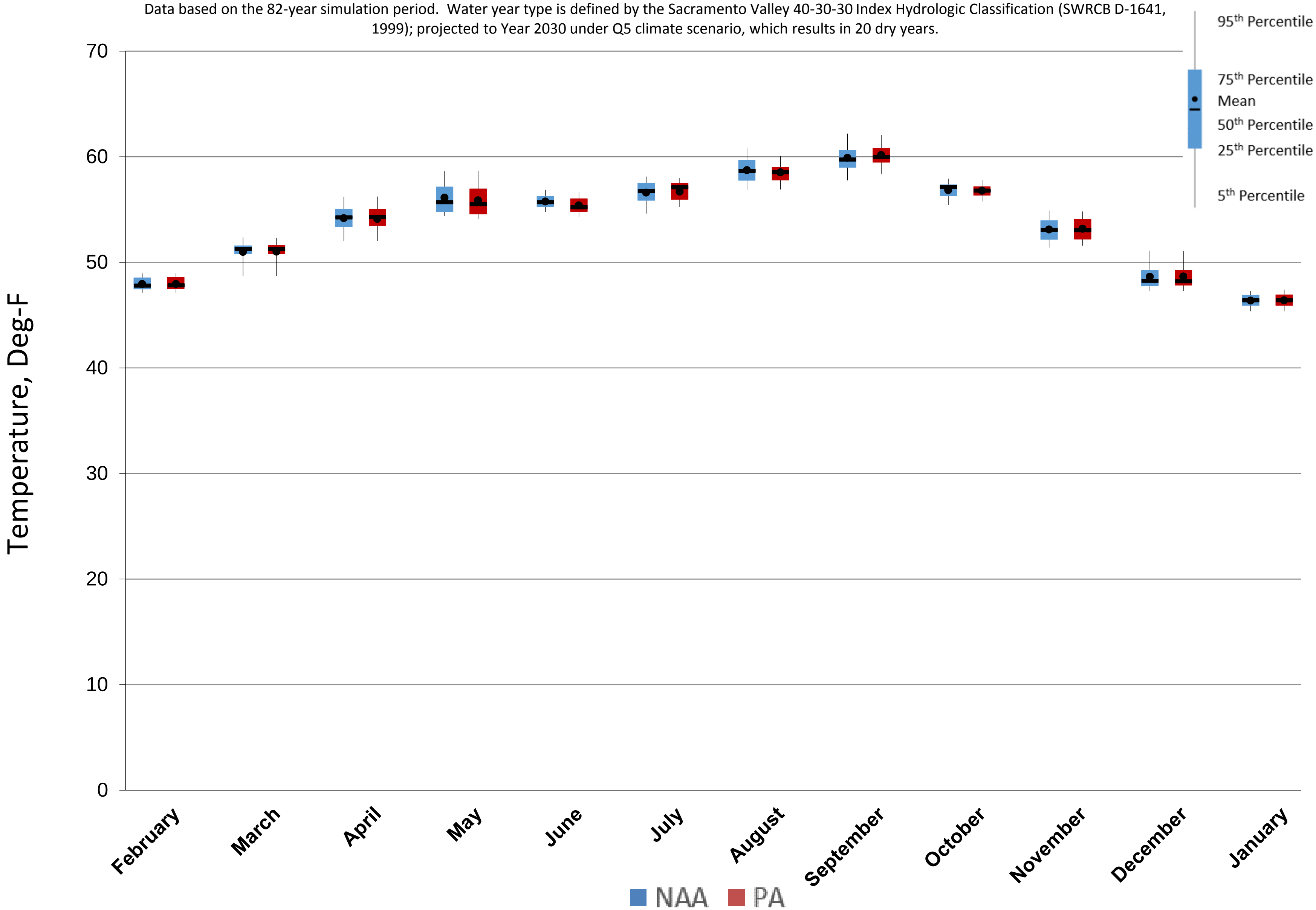


Figure 5.C.7-7-6. Monthly Temperature Ranges for Sacramento River at Bend Bridge, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

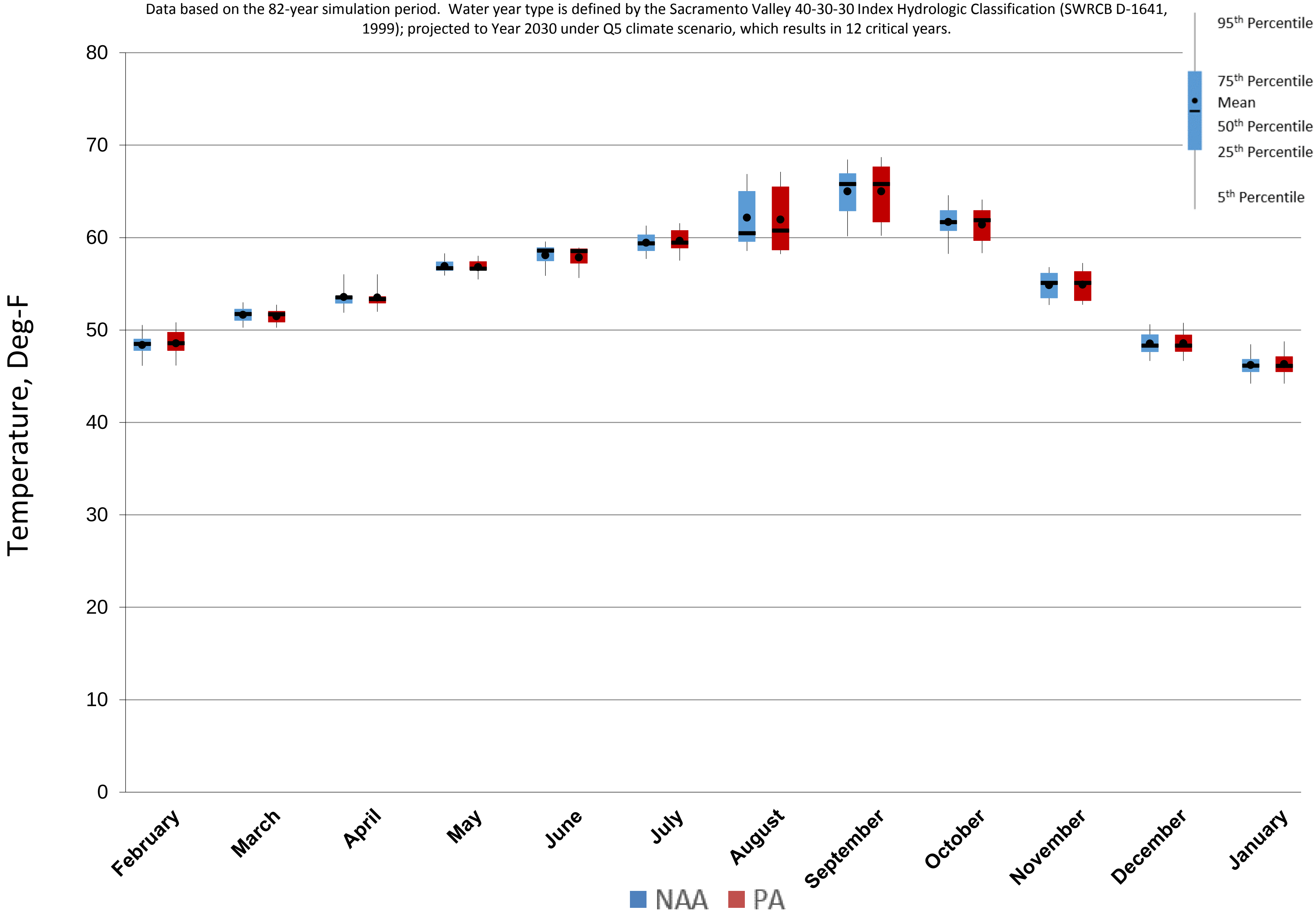
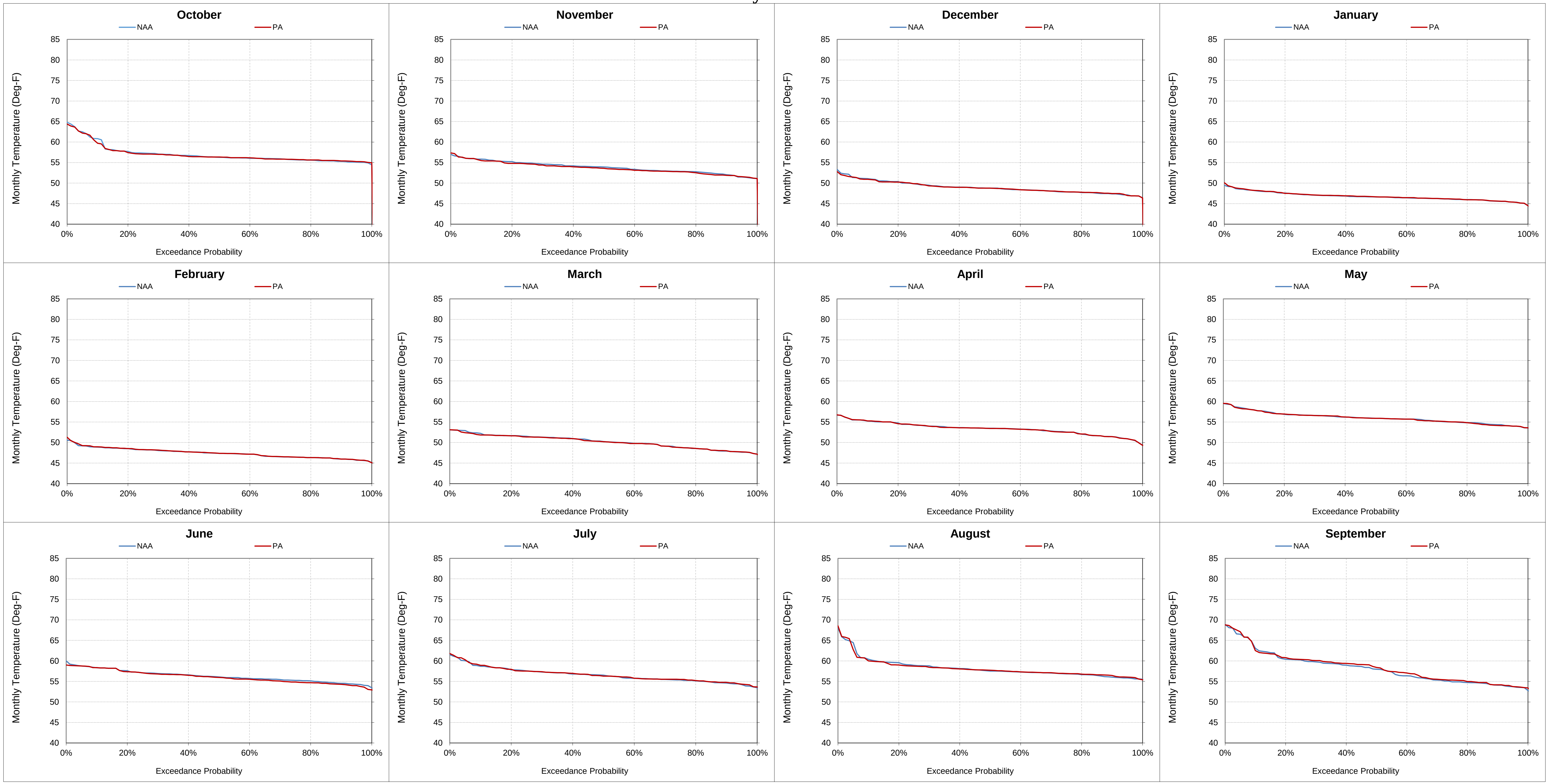
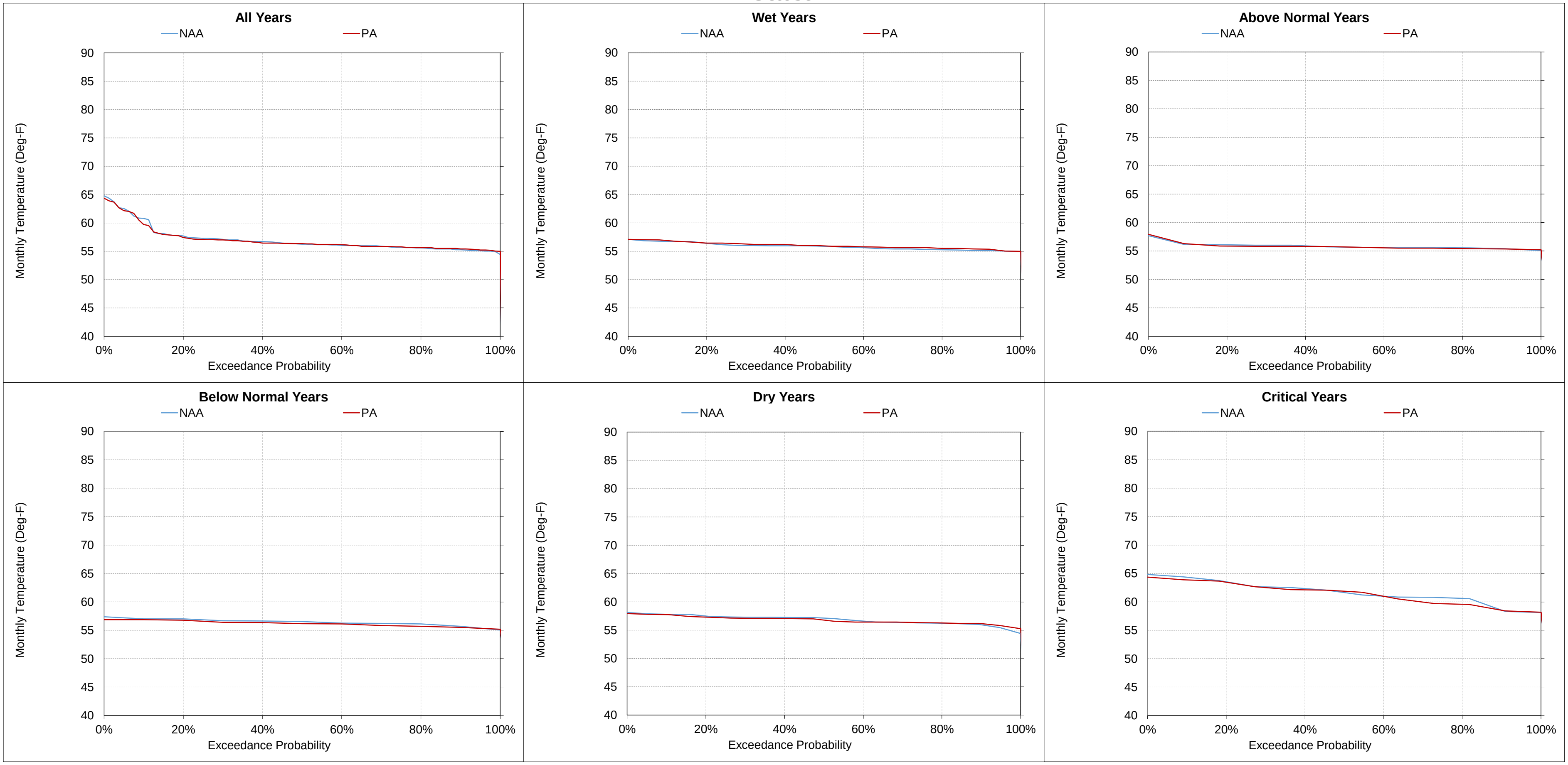


Figure 5.C.7-7-7. Sacramento River at Bend Bridge, Monthly Temperature Probability of Exceedance



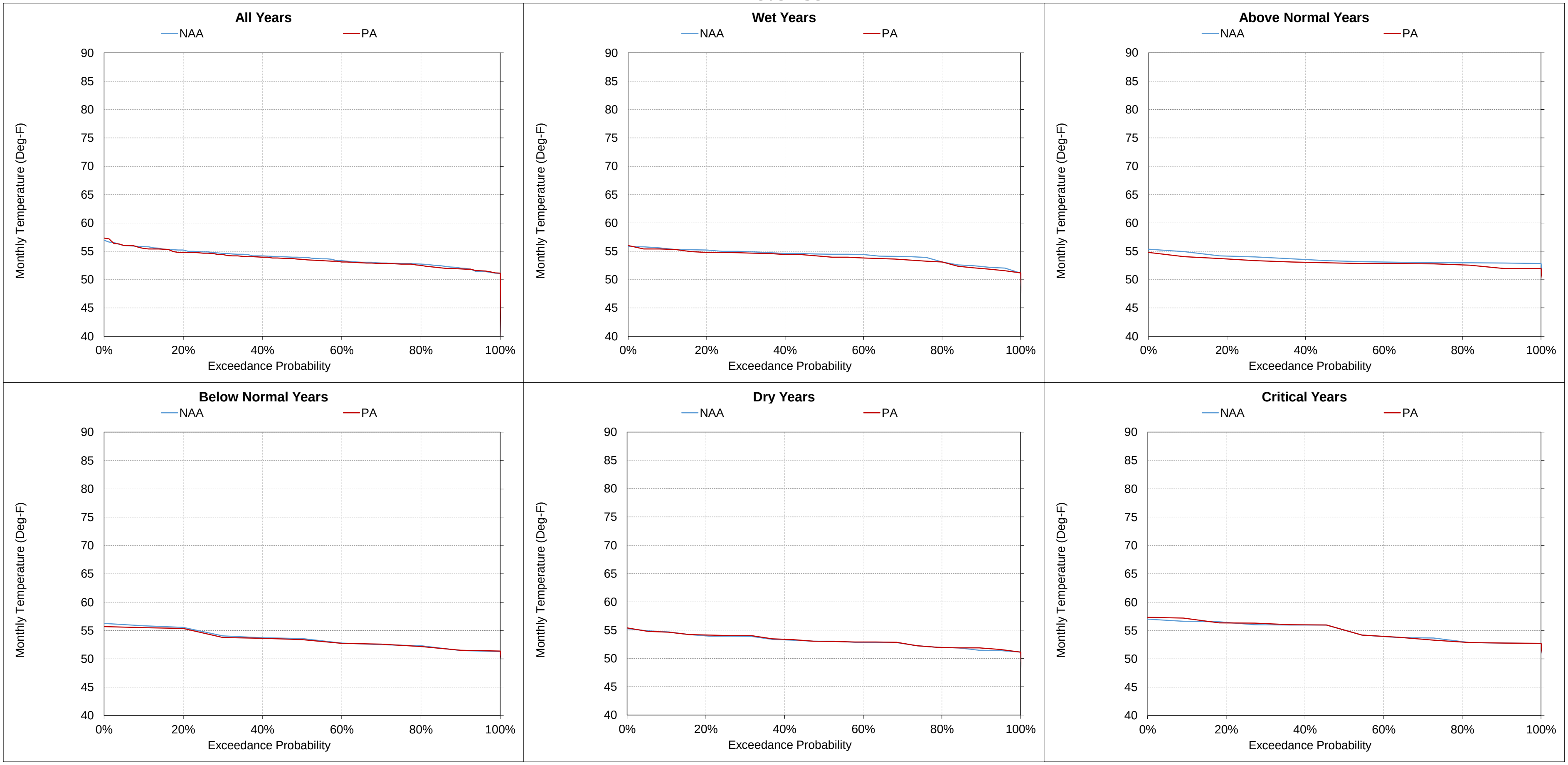
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-8. Sacramento River at Bend Bridge, Monthly Temperature October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-9. Sacramento River at Bend Bridge, Monthly Temperature November



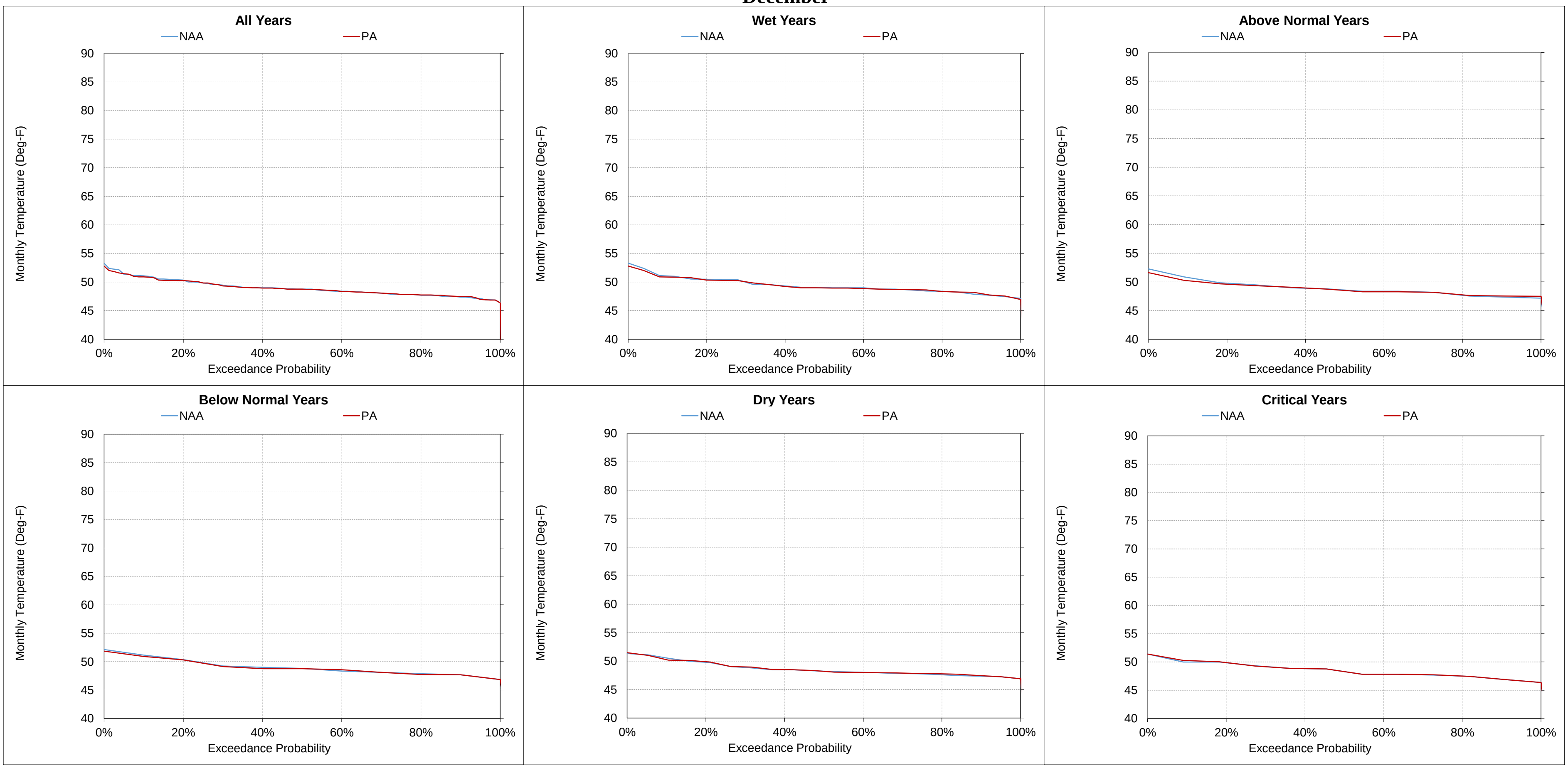
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

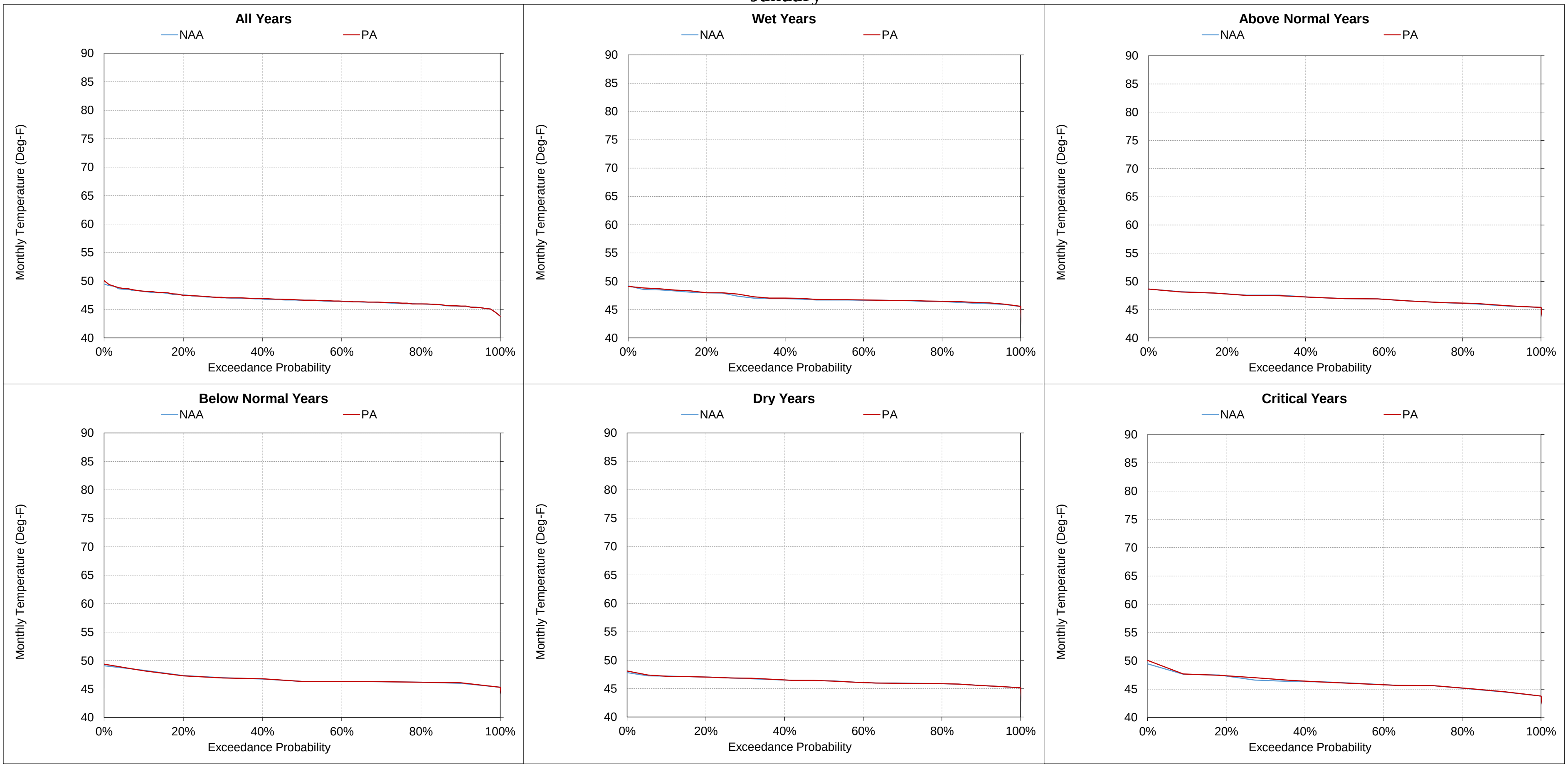
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-10. Sacramento River at Bend Bridge, Monthly Temperature
December



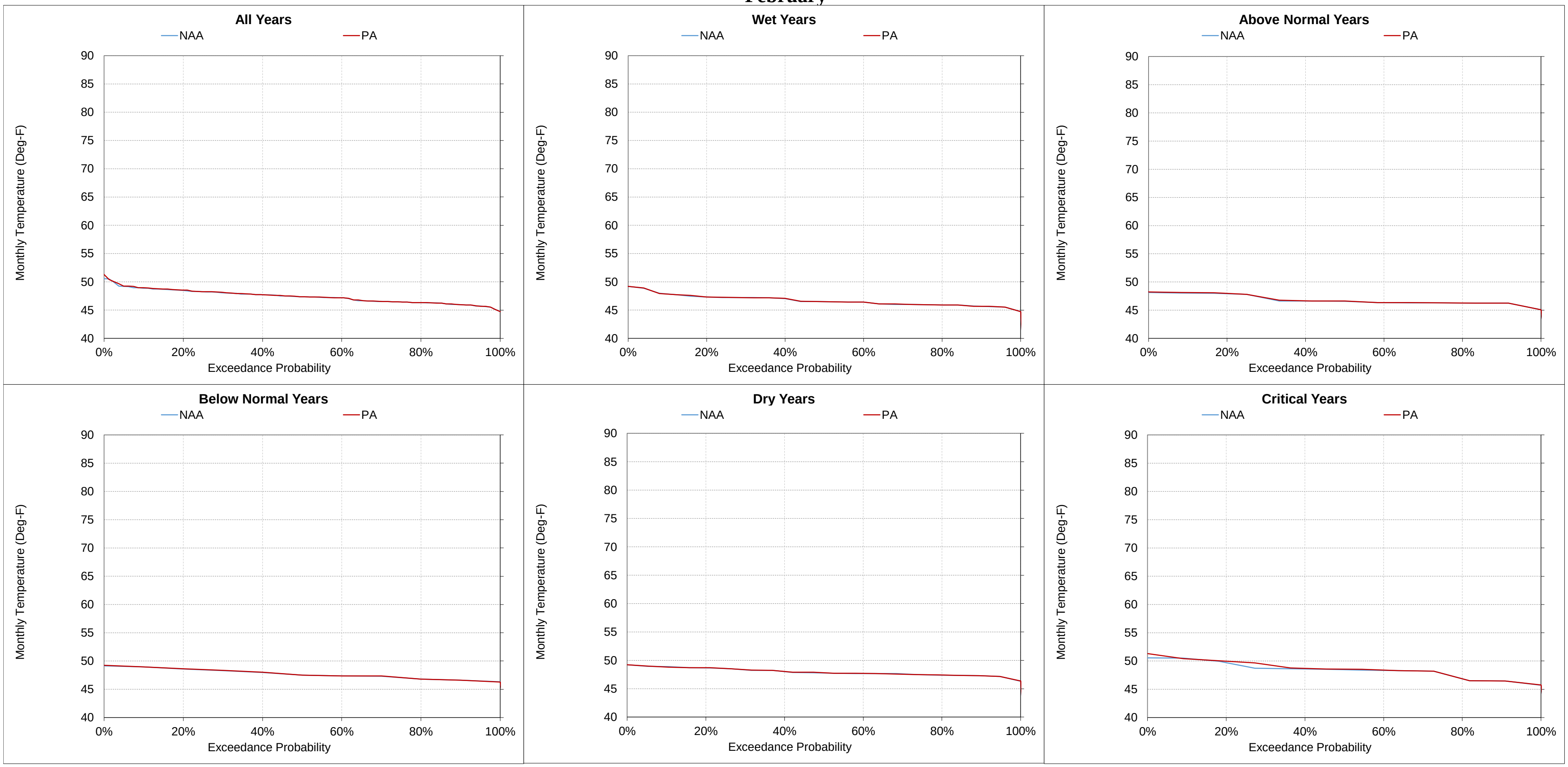
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-11. Sacramento River at Bend Bridge, Monthly Temperature
January



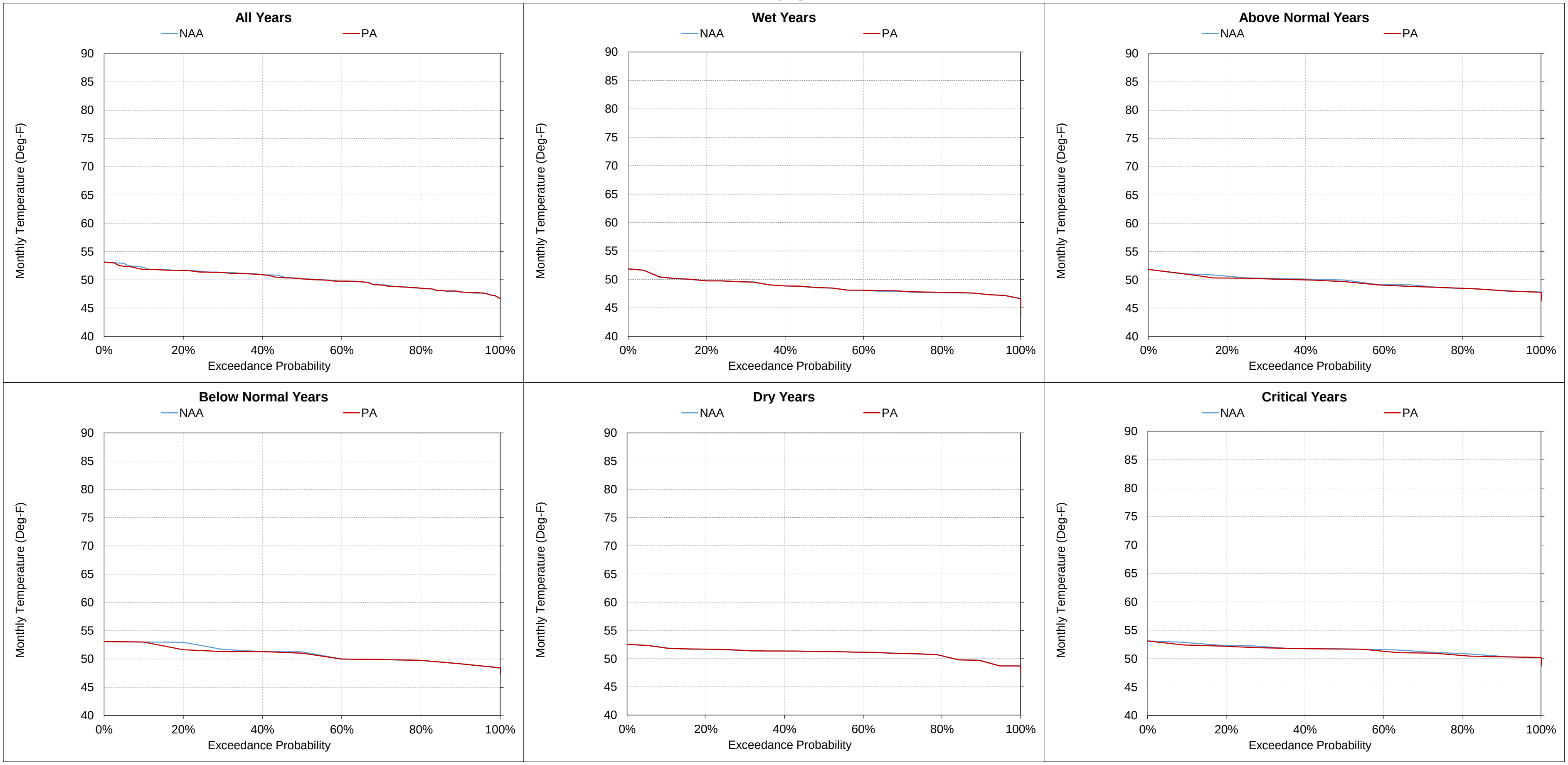
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-12. Sacramento River at Bend Bridge, Monthly Temperature February



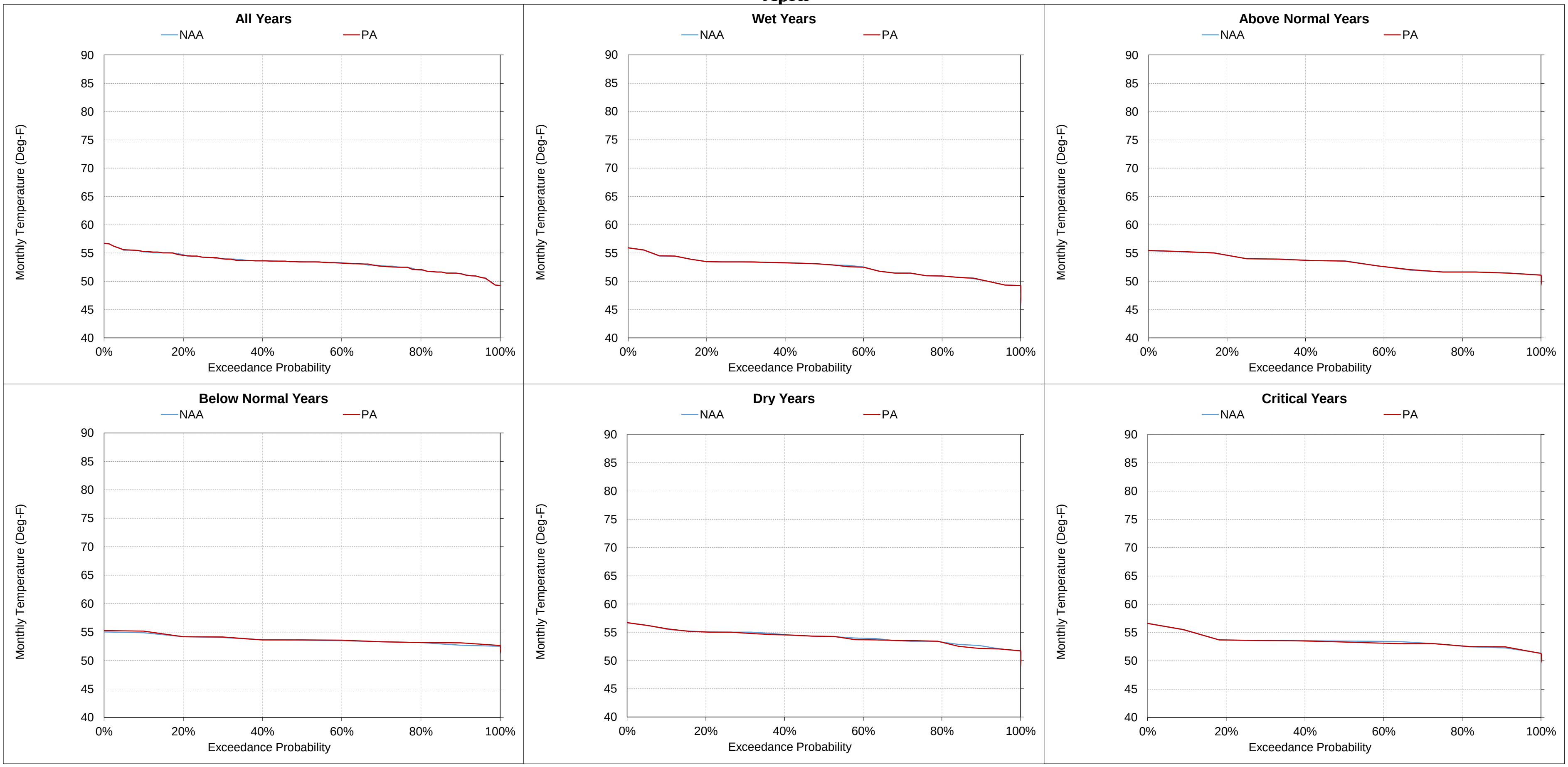
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-13. Sacramento River at Bend Bridge, Monthly Temperature
March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-14. Sacramento River at Bend Bridge, Monthly Temperature April



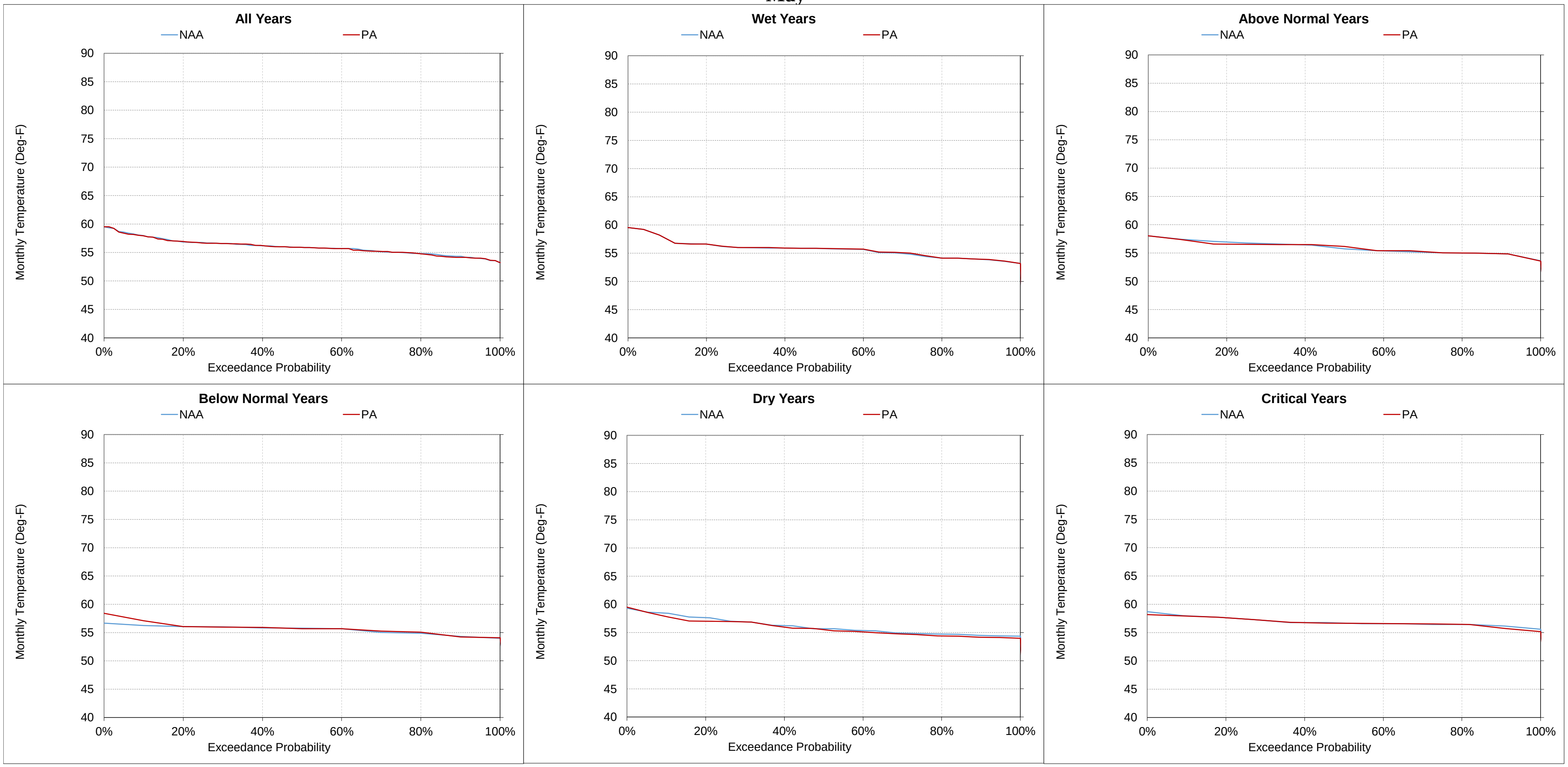
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

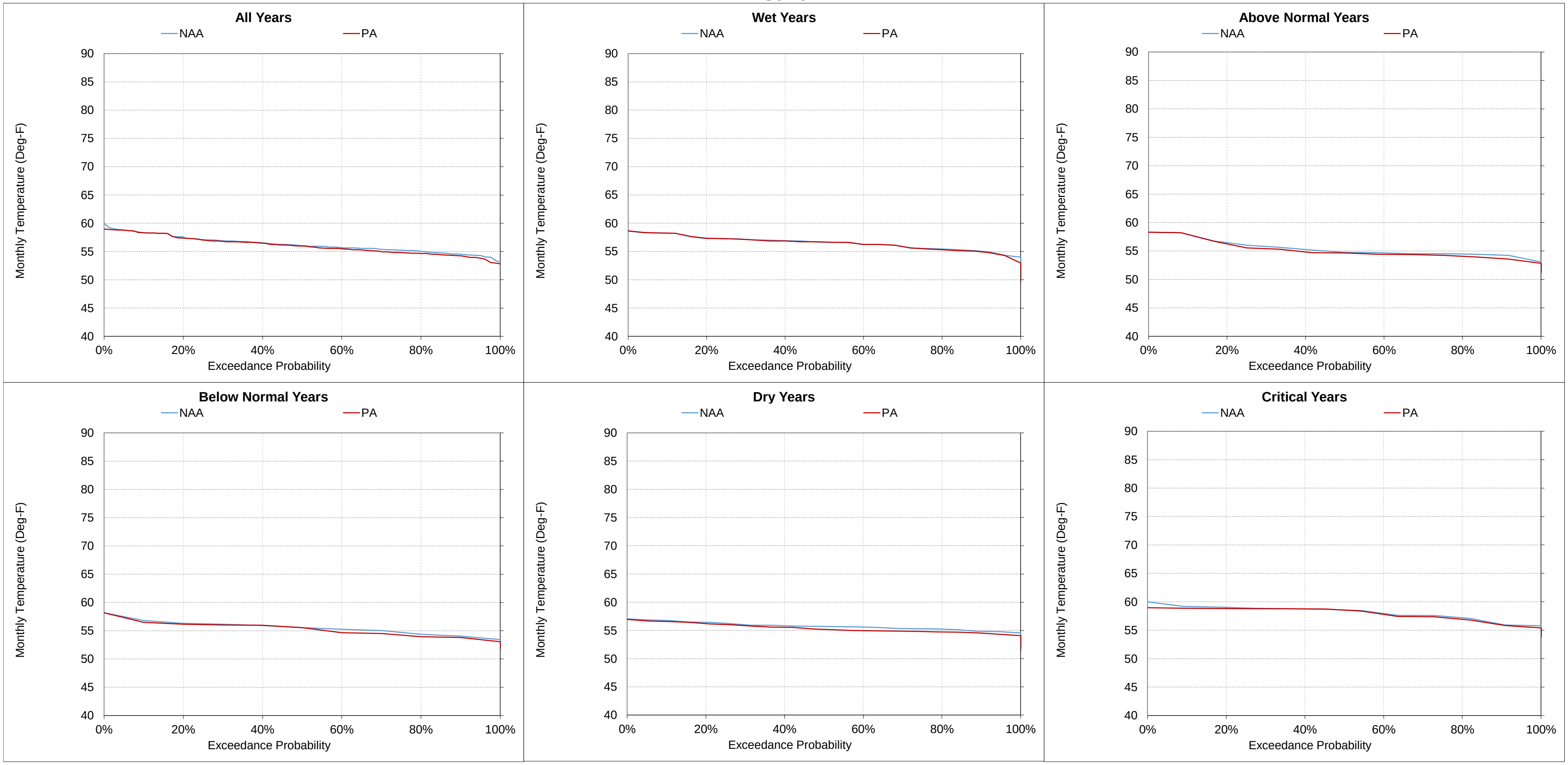
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-15. Sacramento River at Bend Bridge, Monthly Temperature May



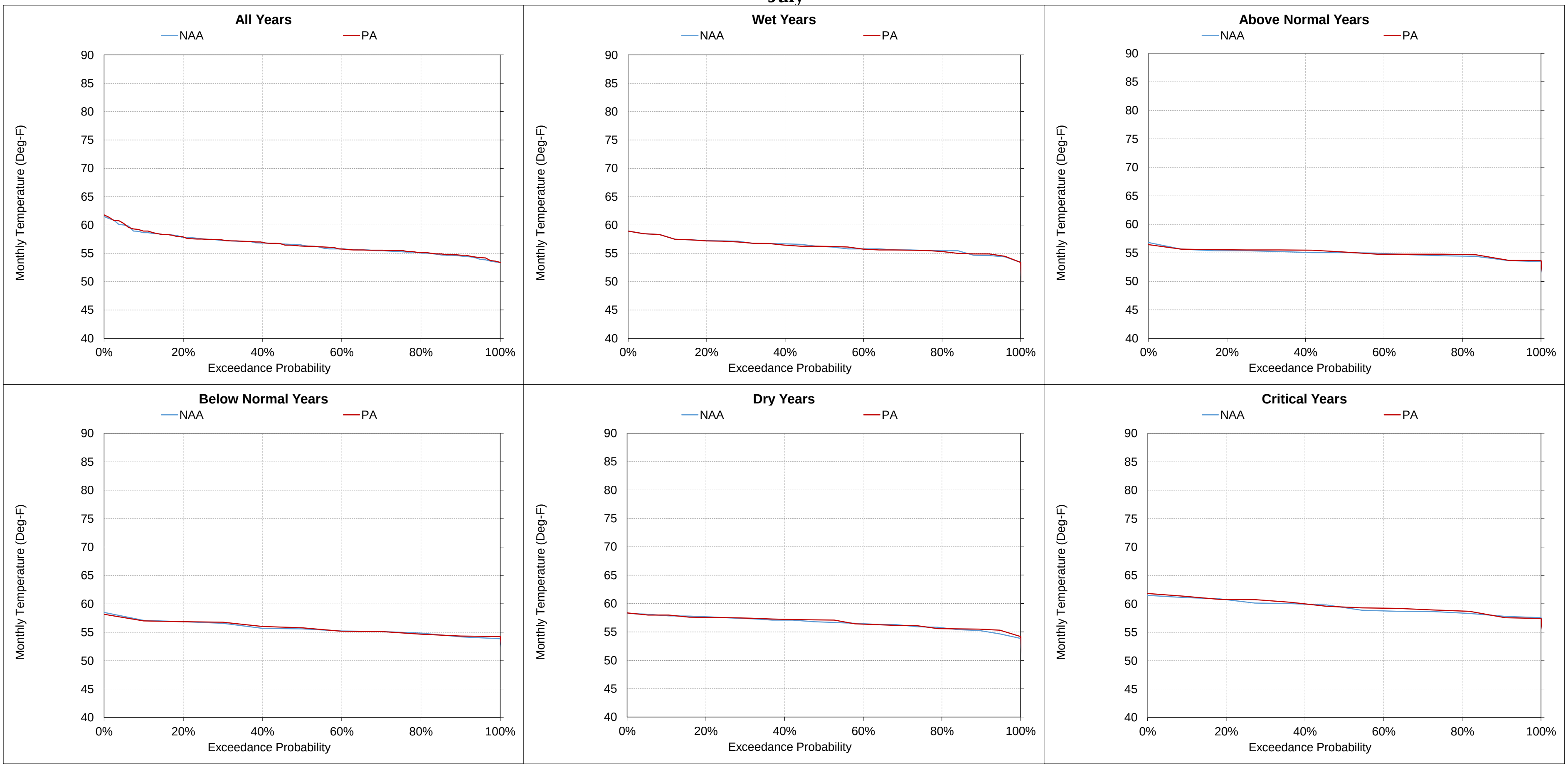
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-16. Sacramento River at Bend Bridge, Monthly Temperature
June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-17. Sacramento River at Bend Bridge, Monthly Temperature July



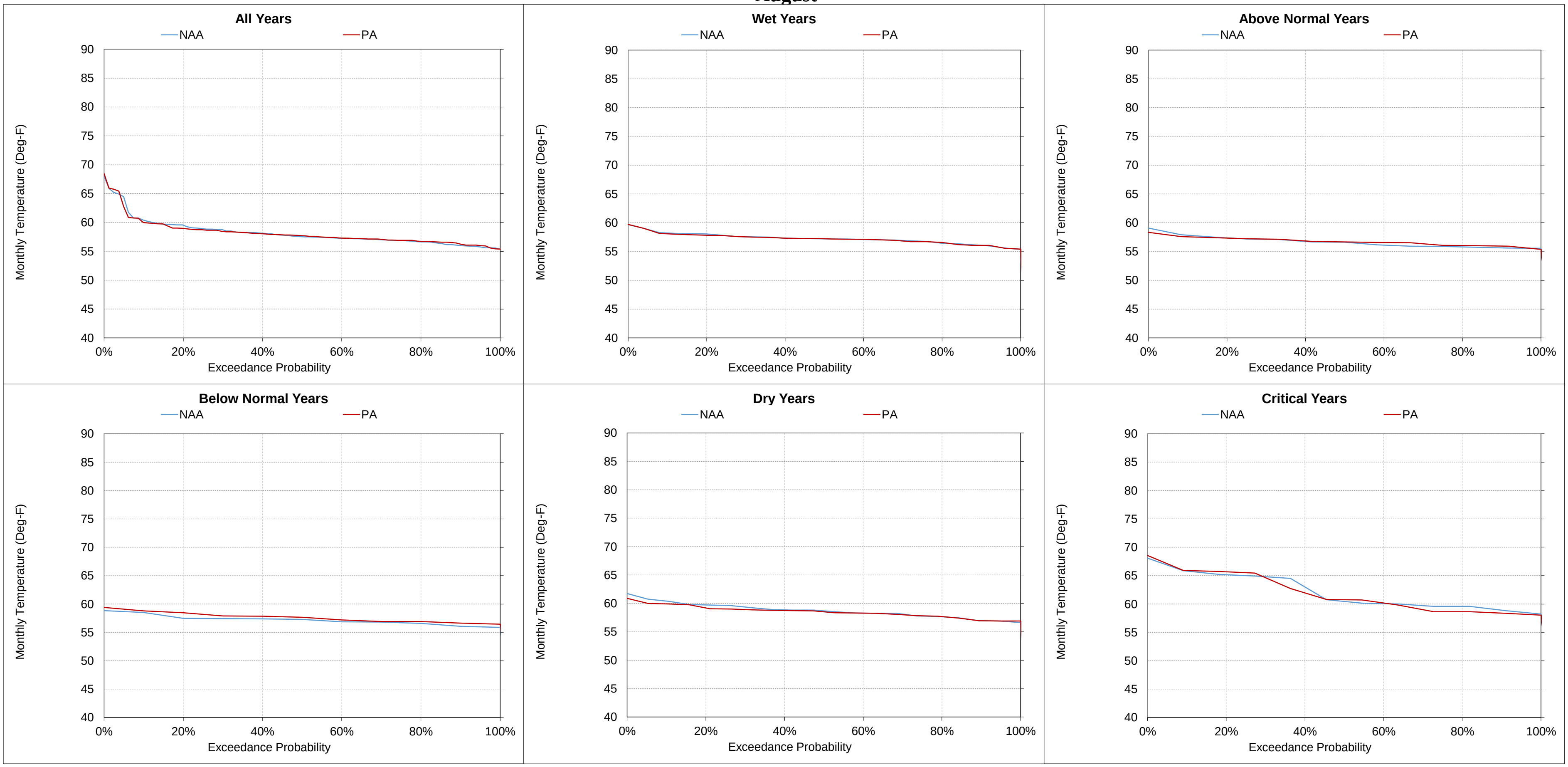
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

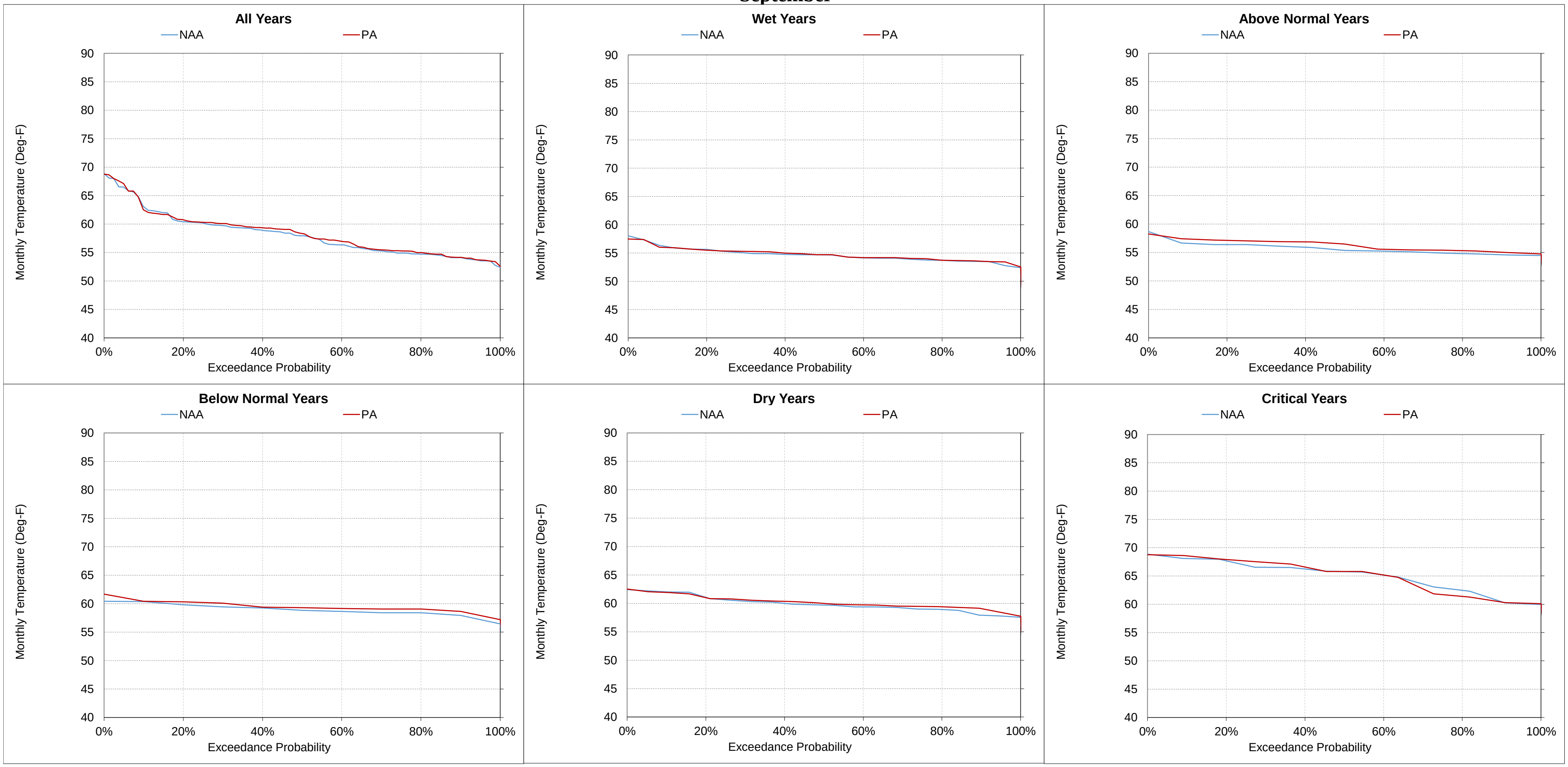
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-18. Sacramento River at Bend Bridge, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-7-19. Sacramento River at Bend Bridge, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-8. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	61.2	60.3	-0.9	-1%	55.9	55.5	-0.4	-1%	50.9	50.7	-0.2	0%	48.2	48.2	0.0	0%	49.2	49.2	0.0	0%	52.9	52.7	-0.3	-1%
20%	58.3	58.0	-0.3	-1%	55.3	54.8	-0.5	-1%	50.2	50.0	-0.2	0%	47.5	47.5	0.0	0%	48.8	48.9	0.0	0%	52.3	52.2	-0.1	0%
30%	57.6	57.6	-0.1	0%	54.7	54.4	-0.3	-1%	49.3	49.2	-0.1	0%	47.1	47.1	0.1	0%	48.4	48.4	0.0	0%	51.9	51.7	-0.2	0%
40%	57.1	57.0	-0.2	0%	54.2	53.9	-0.3	-1%	48.9	48.9	-0.1	0%	46.9	46.9	0.0	0%	47.9	47.9	0.0	0%	51.5	51.4	0.0	0%
50%	56.8	56.8	0.0	0%	53.9	53.6	-0.3	-1%	48.7	48.7	-0.1	0%	46.6	46.7	0.0	0%	47.6	47.6	0.0	0%	50.6	50.6	0.0	0%
60%	56.5	56.6	0.1	0%	53.3	53.2	-0.1	0%	48.4	48.4	0.1	0%	46.4	46.5	0.0	0%	47.3	47.3	0.0	0%	50.3	50.3	-0.1	0%
70%	56.4	56.3	0.0	0%	53.0	52.9	-0.1	0%	47.9	48.1	0.2	0%	46.3	46.3	0.0	0%	46.7	46.8	0.0	0%	49.5	49.5	0.0	0%
80%	56.0	56.1	0.0	0%	52.8	52.6	-0.2	0%	47.8	47.8	0.0	0%	46.0	46.0	0.0	0%	46.5	46.5	0.0	0%	48.8	48.8	0.0	0%
90%	55.7	55.9	0.2	0%	52.1	52.0	-0.1	0%	47.4	47.5	0.1	0%	45.6	45.6	0.0	0%	46.1	46.1	0.0	0%	48.1	48.2	0.1	0%
Long Term																								
Full Simulation Period[b]	57.5	57.5	0.0	0%	53.9	53.7	-0.2	0%	48.9	48.9	0.0	0%	46.7	46.8	0.0	0%	47.6	47.7	0.0	0%	50.7	50.6	-0.1	0%
Water Year Types[c]																								
Wet (32%)	56.3	56.5	0.2	0%	54.2	53.9	-0.3	-1%	49.3	49.3	-0.1	0%	47.1	47.2	0.1	0%	46.9	46.9	0.0	0%	49.1	49.2	0.0	0%
Above Normal (16%)	56.4	56.4	0.0	0%	53.6	53.1	-0.5	-1%	48.9	48.8	-0.1	0%	46.9	46.9	0.0	0%	47.0	47.0	0.0	0%	50.1	49.9	-0.1	0%
Below Normal (13%)	56.9	56.7	-0.3	0%	53.6	53.5	-0.1	0%	49.0	48.9	-0.1	0%	46.8	46.8	0.0	0%	48.0	48.0	0.0	0%	51.5	51.4	-0.2	0%
Dry (24%)	57.4	57.3	-0.1	0%	53.2	53.2	0.1	0%	48.6	48.6	0.0	0%	46.4	46.4	0.0	0%	48.2	48.2	0.0	0%	51.5	51.5	0.0	0%
Critical (15%)	62.1	61.8	-0.2	0%	54.9	54.9	0.1	0%	48.5	48.5	0.0	0%	46.3	46.4	0.1	0%	48.8	49.0	0.2	0%	52.4	52.2	-0.2	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	56.2	56.2	0.0	0%	59.2	59.2	0.0	0%	60.1	60.1	0.0	0%	60.2	60.7	0.5	1%	62.0	61.9	-0.1	0%	64.5	64.2	-0.3	0%
20%	55.5	55.5	0.0	0%	58.2	58.1	0.0	0%	59.0	58.9	-0.1	0%	59.7	59.6	-0.1	0%	61.2	60.7	-0.6	-1%	62.3	62.6	0.3	0%
30%	54.9	54.9	-0.1	0%	57.8	57.9	0.1	0%	58.6	58.4	-0.2	0%	59.2	59.1	-0.1	0%	60.2	60.0	-0.2	0%	61.4	61.7	0.3	1%
40%	54.6	54.5	0.0	0%	57.4	57.5	0.0	0%	58.1	57.9	-0.2	0%	58.4	58.5	0.1	0%	59.8	59.7	-0.1	0%	60.6	61.0	0.4	1%
50%	54.2	54.2	-0.1	0%	57.1	57.1	0.0	0%	57.7	57.6	-0.2	0%	58.1	57.9	-0.1	0%	59.3	59.4	0.1	0%	59.5	60.0	0.5	1%
60%	54.0	54.0	0.0	0%	56.9	56.9	-0.1	0%	57.4	57.2	-0.2	0%	57.4	57.5	0.1	0%	58.9	59.0	0.1	0%	57.6	58.4	0.8	1%
70%	53.5	53.5	0.0	0%	56.5	56.4	-0.1	0%	57.1	56.6	-0.6	-1%	57.2	57.1	0.0	0%	58.6	58.7	0.1	0%	56.4	56.7	0.2	0%
80%	52.6	52.7	0.0	0%	56.0	55.9	-0.1	0%	56.6	56.2	-0.3	-1%	56.8	56.8	0.0	0%	58.2	58.4	0.2	0%	55.9	56.3	0.4	1%
90%	52.0	52.0	-0.1	0%	55.4	55.3	-0.1	0%	56.1	55.7	-0.4	-1%	56.1	56.4	0.3	1%	57.5	58.0	0.5	1%	55.1	55.1	0.1	0%
Long Term																								
Full Simulation Period[b]	54.1	54.1	0.0	0%	57.2	57.1	0.0	0%	57.9	57.6	-0.3	0%	58.2	58.3	0.1	0%	59.9	59.9	0.0	0%	59.6	59.9	0.3	0%
Water Year Types[c]																								
Wet (32%)	53.1	53.1	0.0	0%	56.8	56.8	0.0	0%	58.1	58.0	-0.1	0%	58.0	58.0	0.0	0%	59.0	58.9	0.0	0%	55.8	55.9	0.1	0%
Above Normal (16%)	53.9	53.9	0.0	0%	57.2	57.1	0.0	0%	57.1	56.8	-0.3	-1%	56.6	56.7	0.1	0%	58.4	58.4	0.1	0%	57.0	57.7	0.6	1%
Below Normal (13%)	54.6	54.7	0.1	0%	56.7	57.0	0.2	0%	57.2	56.9	-0.3	-1%	57.4	57.4	0.0	0%	58.8	59.3	0.6	1%	60.5	61.2	0.6	1%
Dry (24%)	55.1	55.0	-0.1	0%	57.4	57.1	-0.3	0%	57.5	57.0	-0.4	-1%	58.3	58.4	0.1	0%	60.4	60.2	-0.2	0%	61.6	61.9	0.3	0%
Critical (15%)	54.6	54.5	-0.1	0%	58.2	58.1	-0.1	0%	59.7	59.4	-0.3	-1%	61.1	61.3	0.2	0%	63.6	63.5	-0.2	0%	66.2	66.3	0.0	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-1. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, All Years

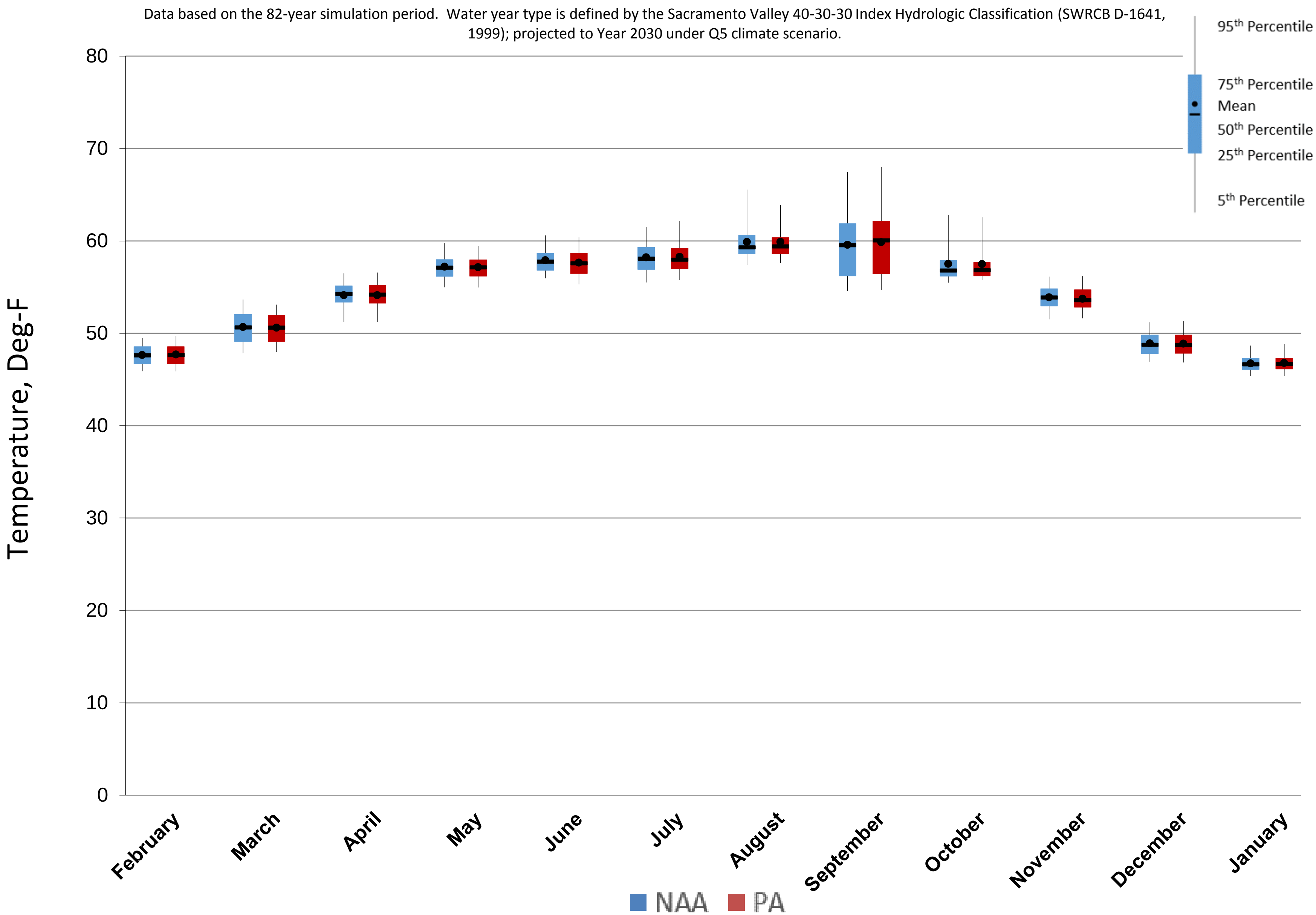


Figure 5.C.7-8-2. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, Wet Years

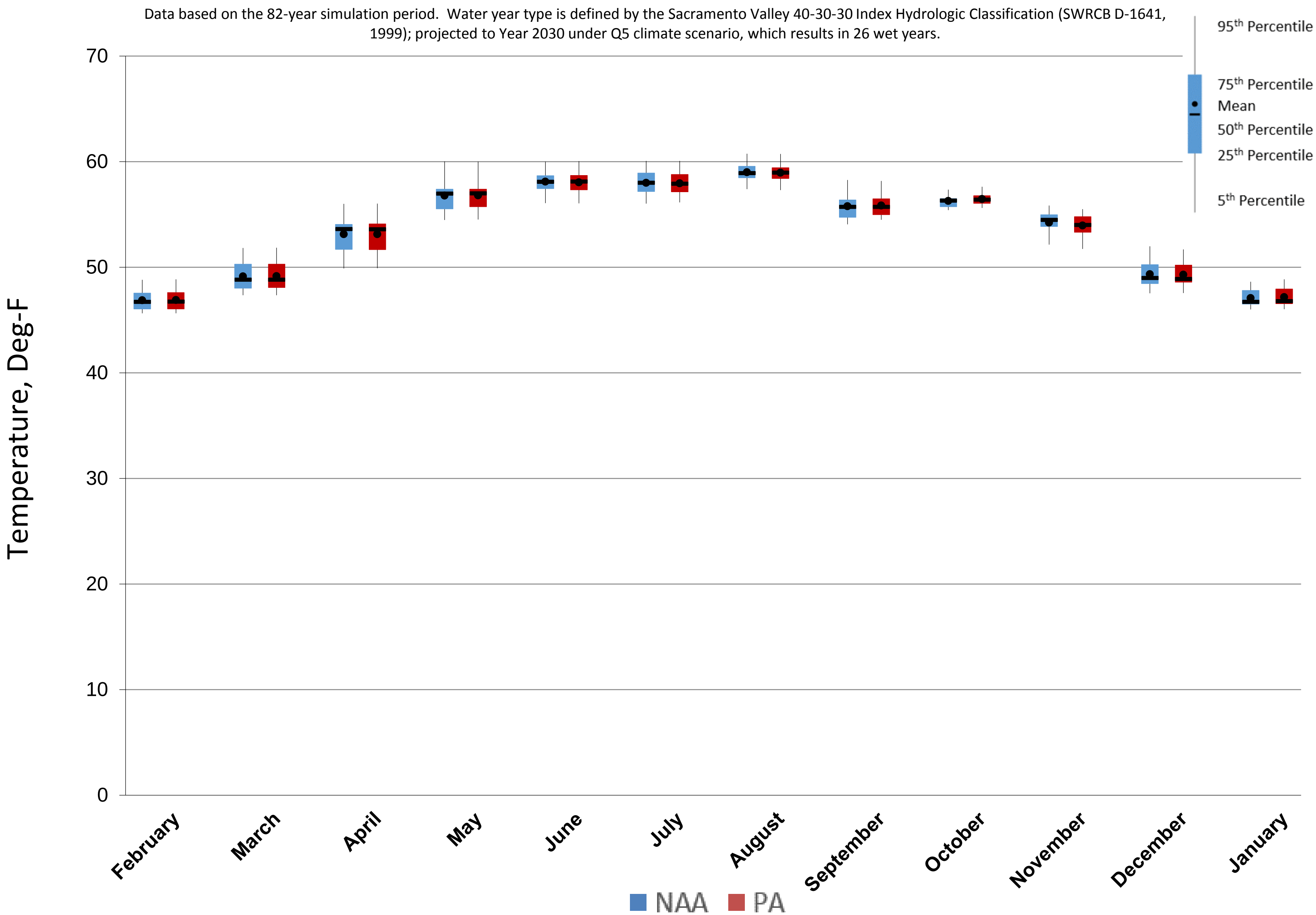


Figure 5.C.7-8-3. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

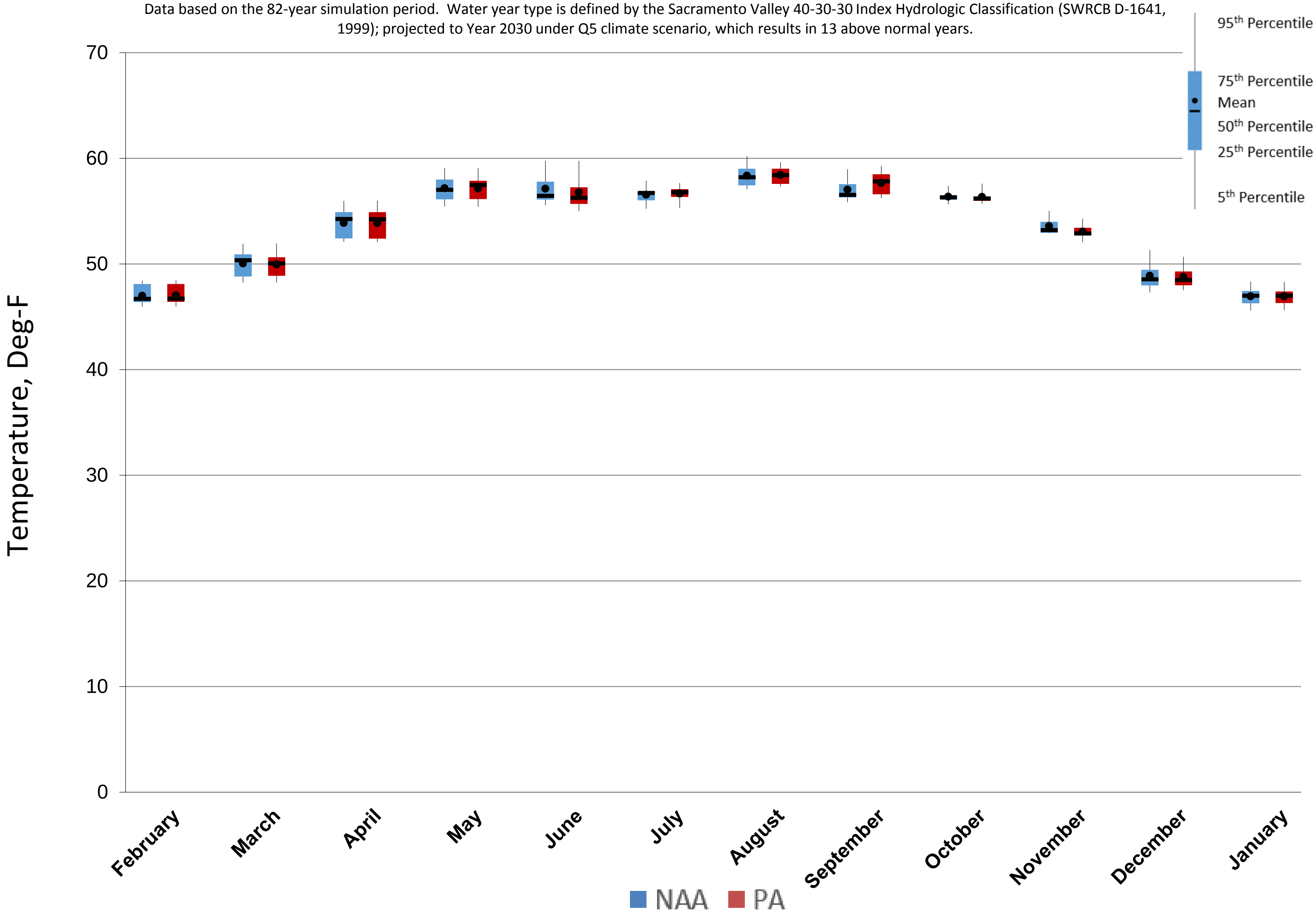


Figure 5.C.7-8-4. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, Below Normal Years

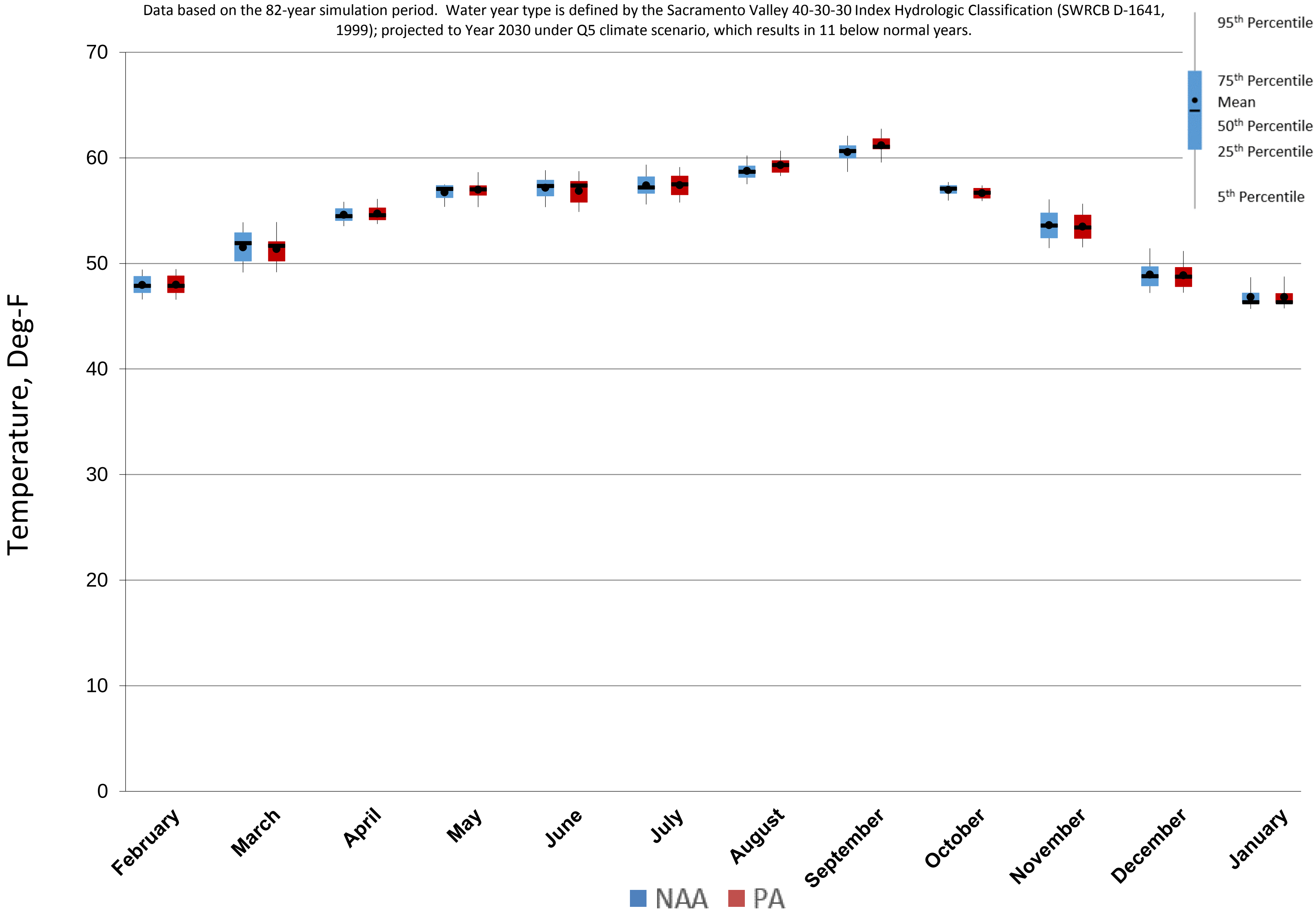


Figure 5.C.7-8-5. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, Dry Years

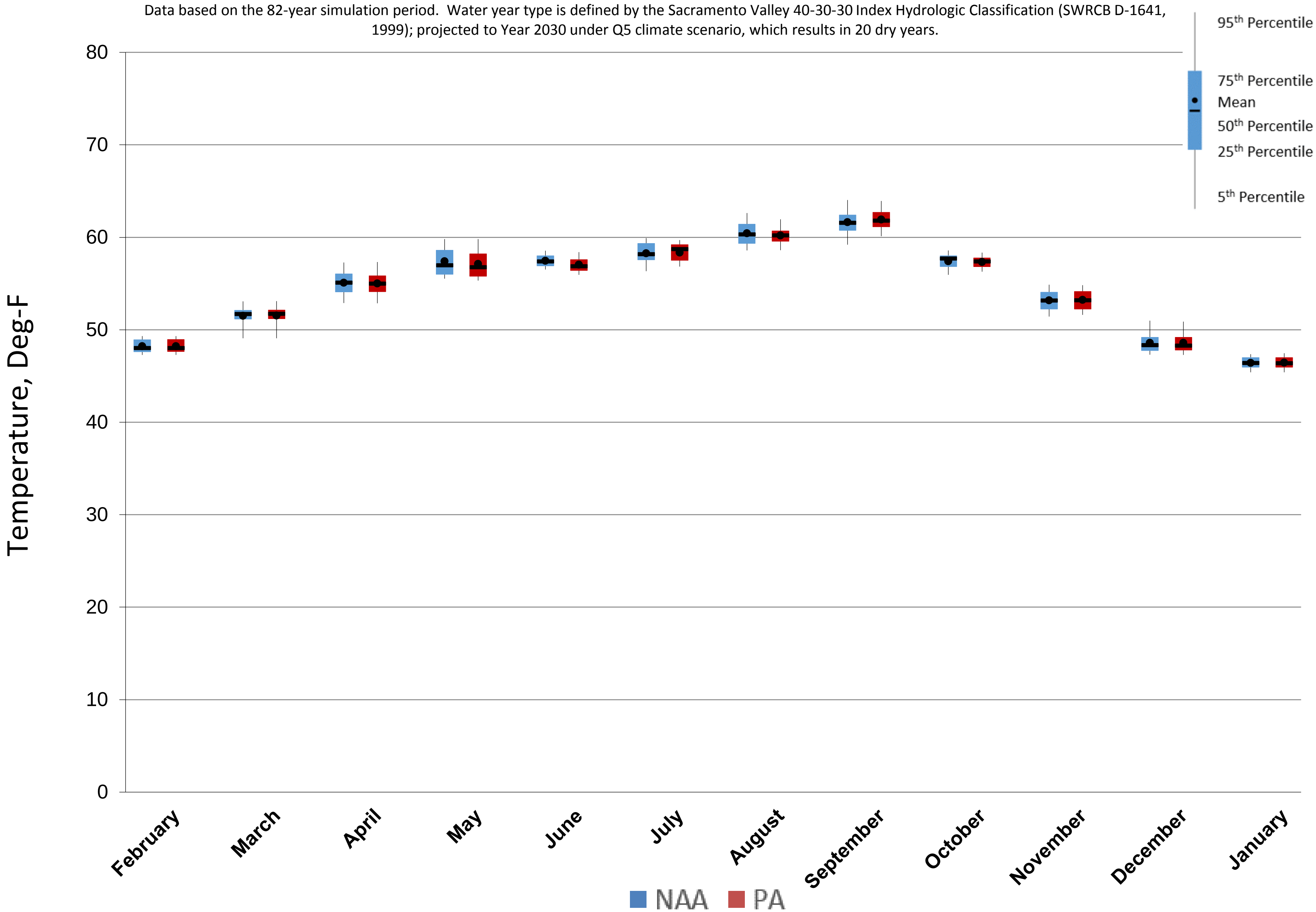


Figure 5.C.7-8-6. Monthly Temperature Ranges for Sacramento River at Red Bluff Diversion Dam, Critical Years

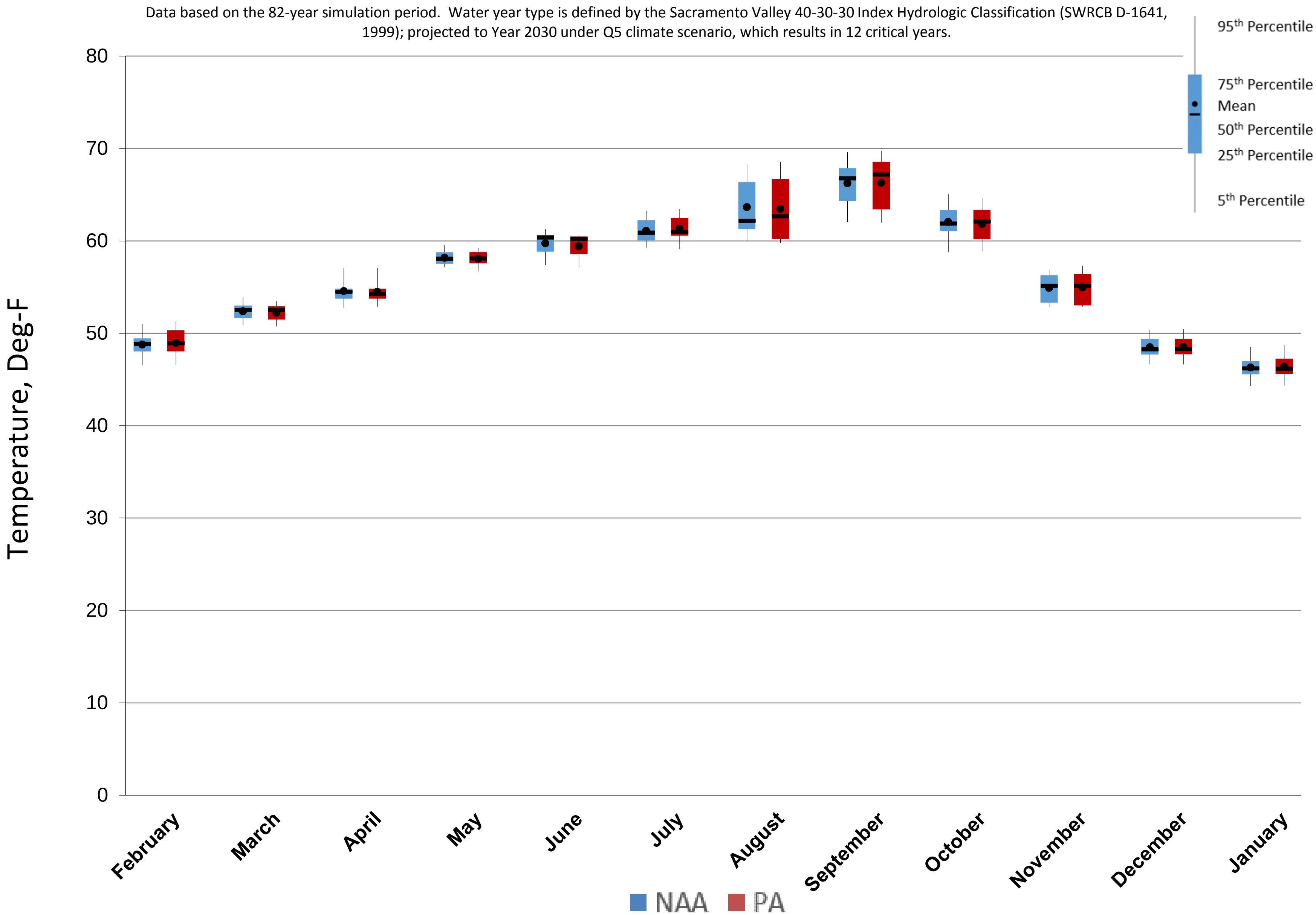
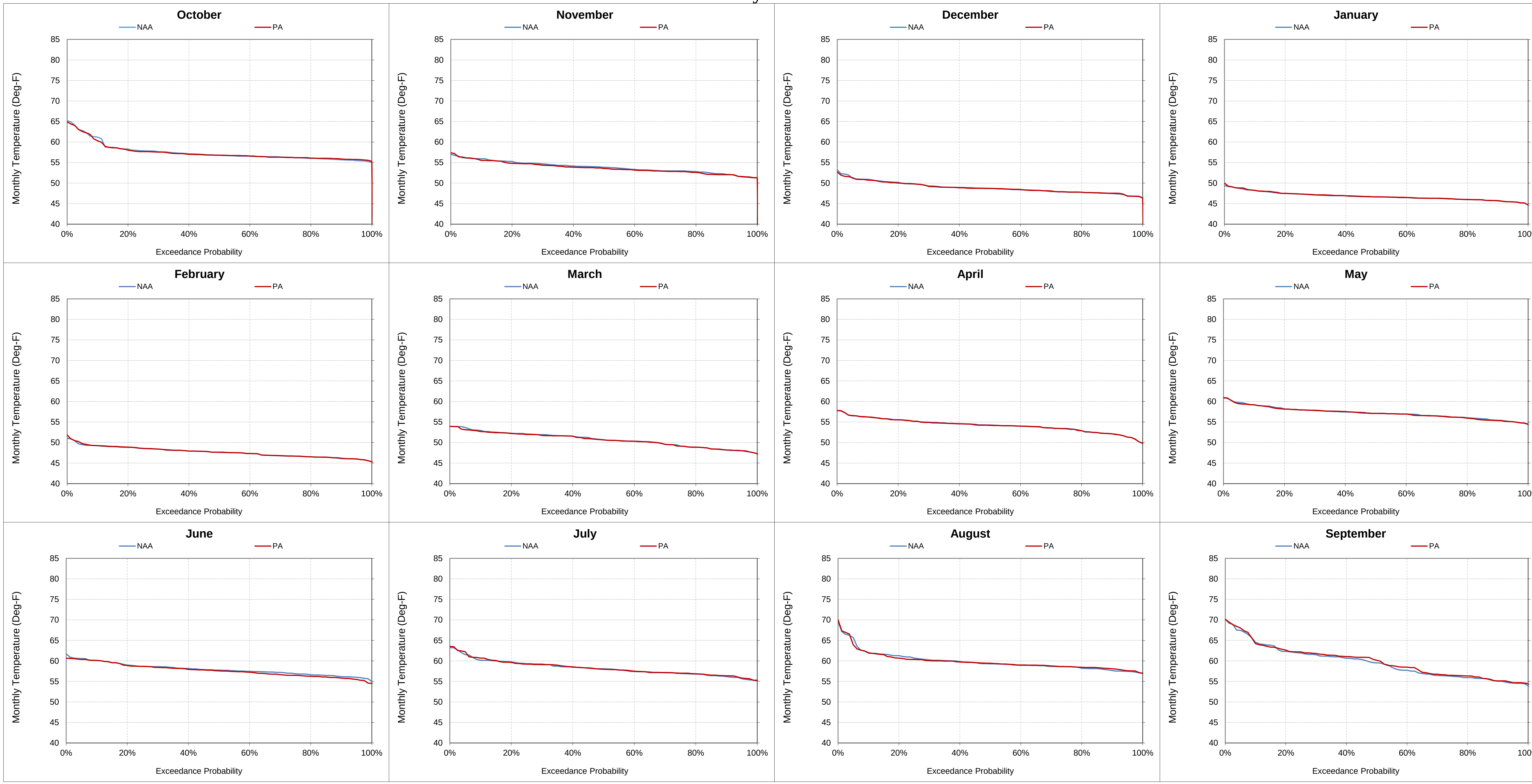
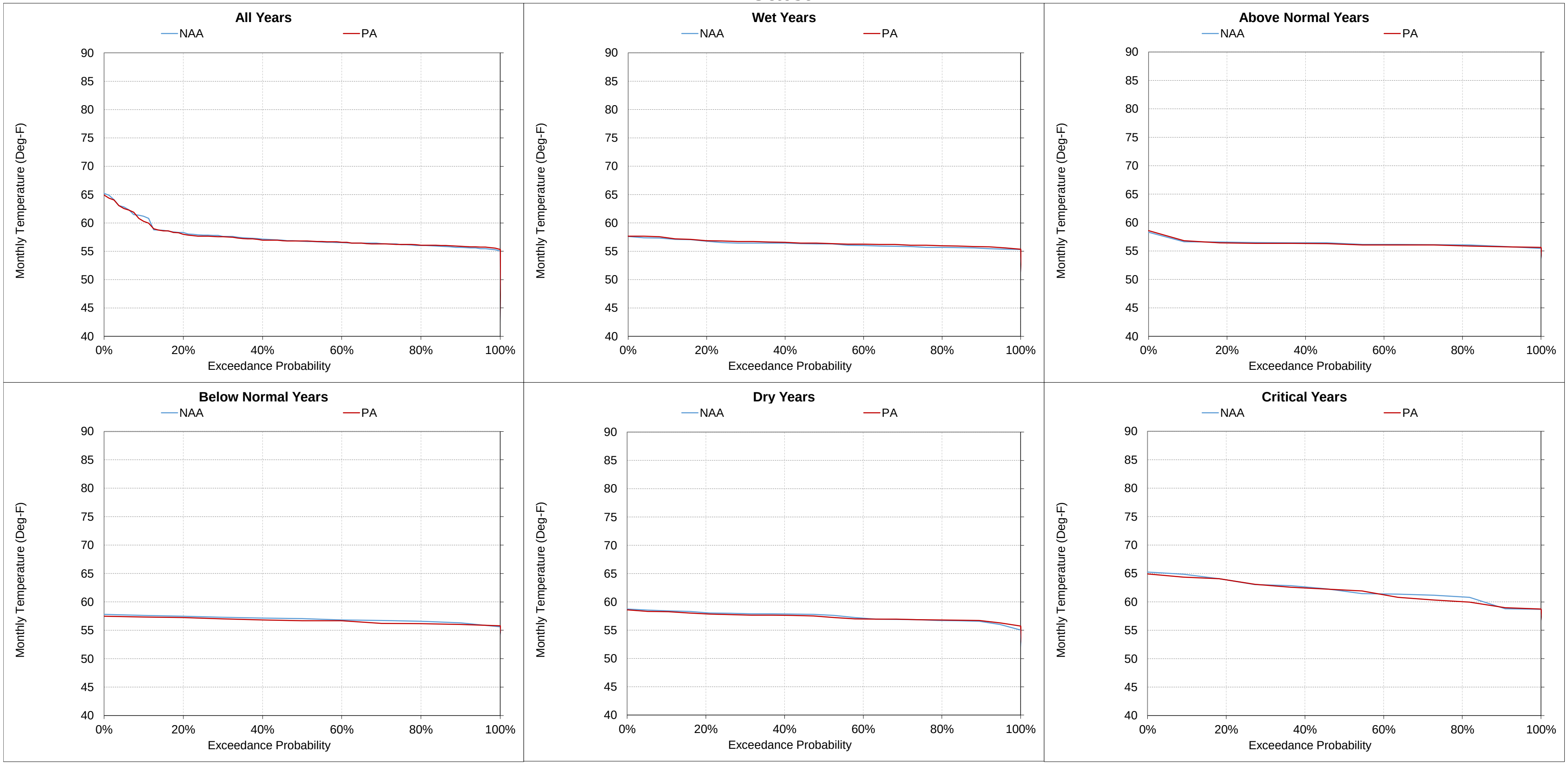


Figure 5.C.7-8-7. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-8. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature October



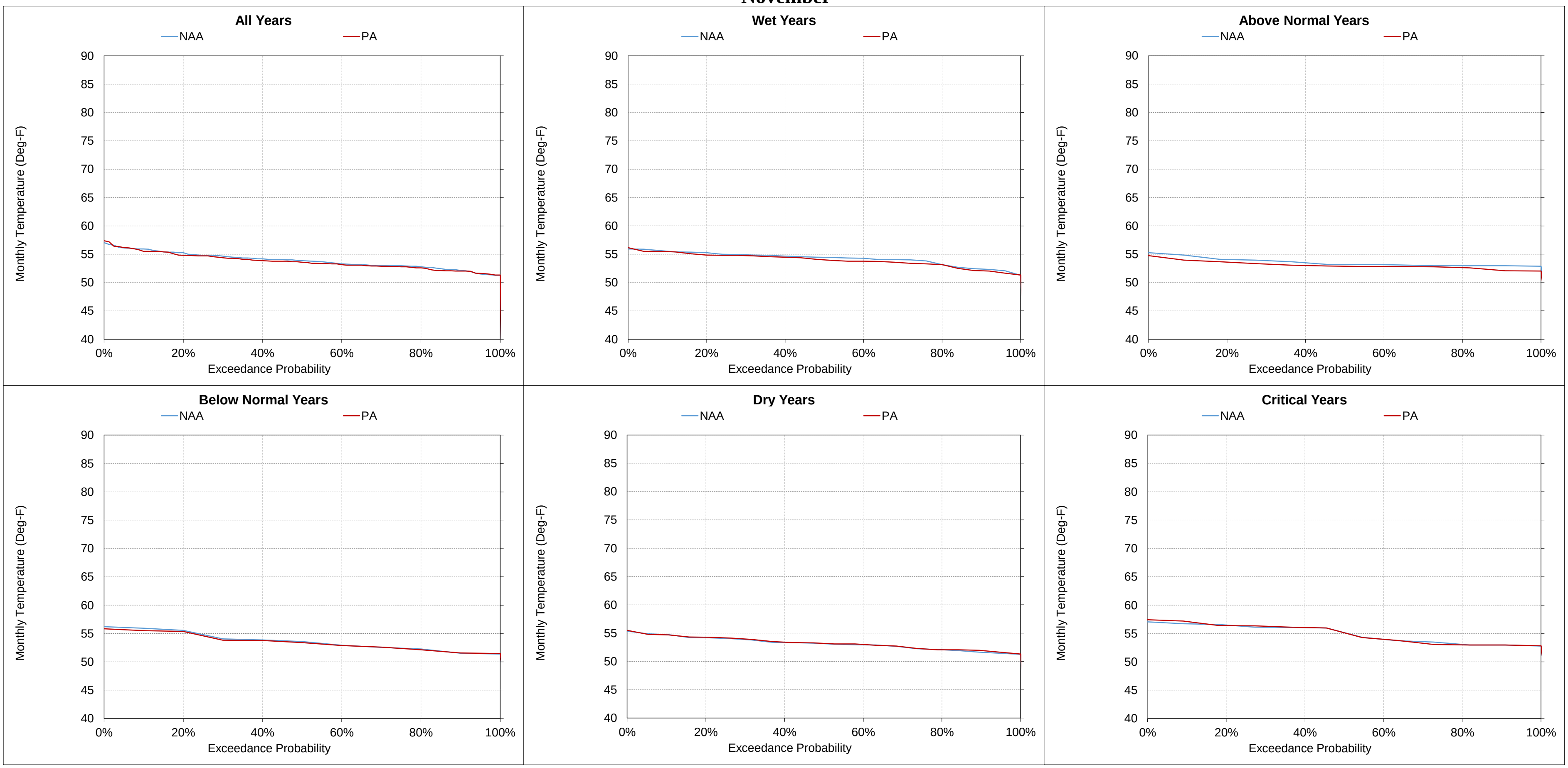
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

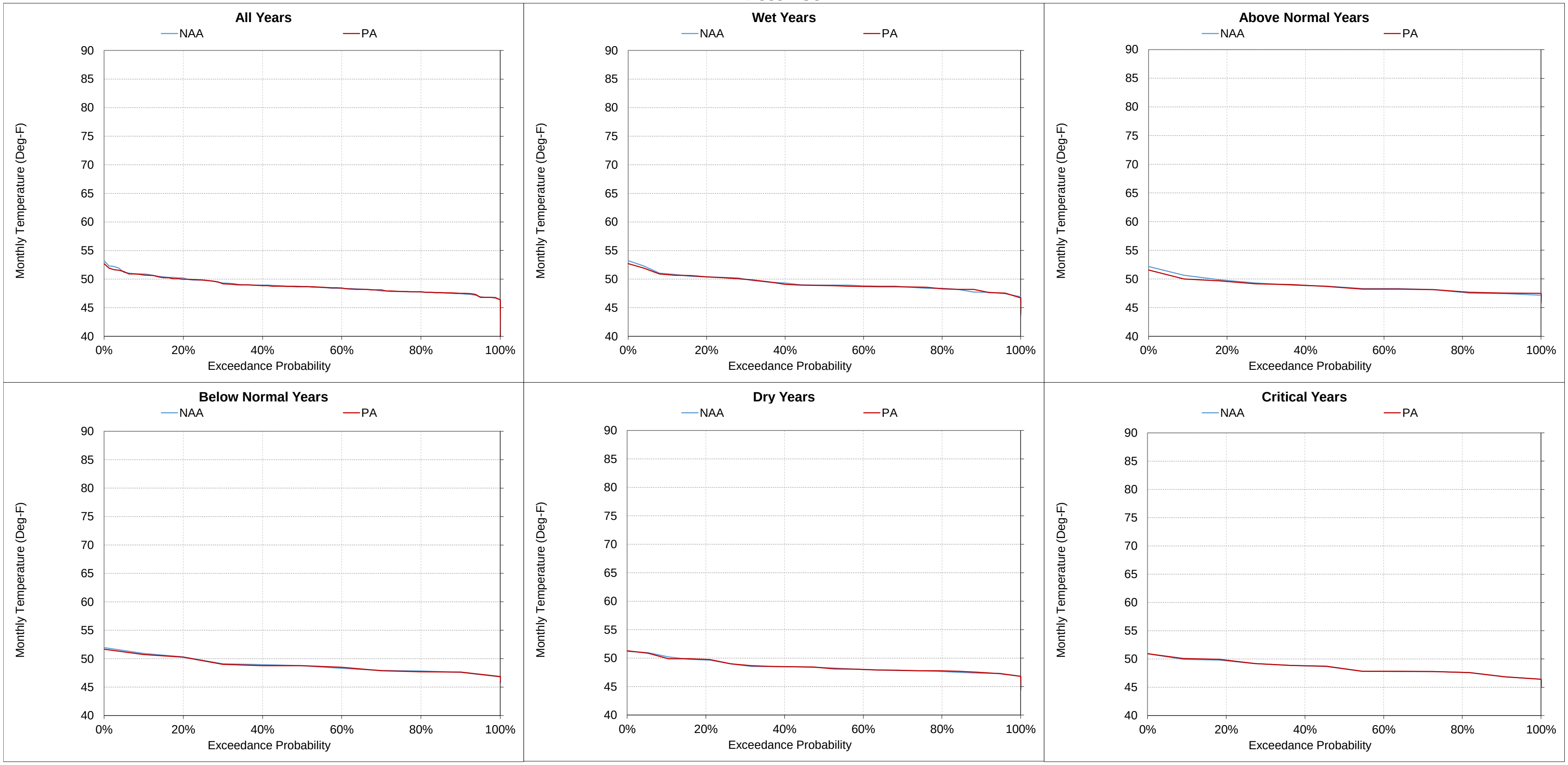
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-9. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

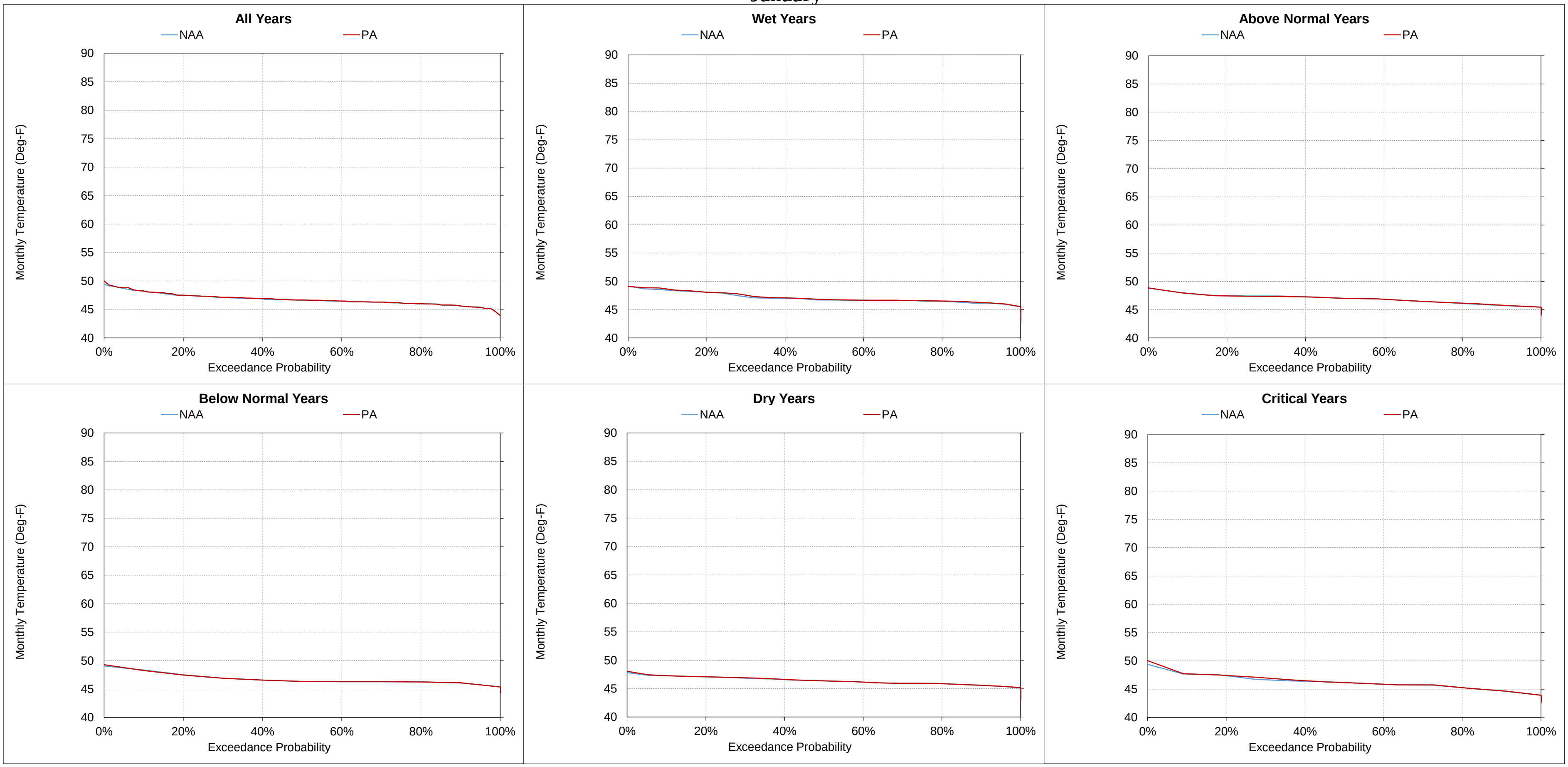
Figure 5.C.7-8-10. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature December



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-11. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature

January



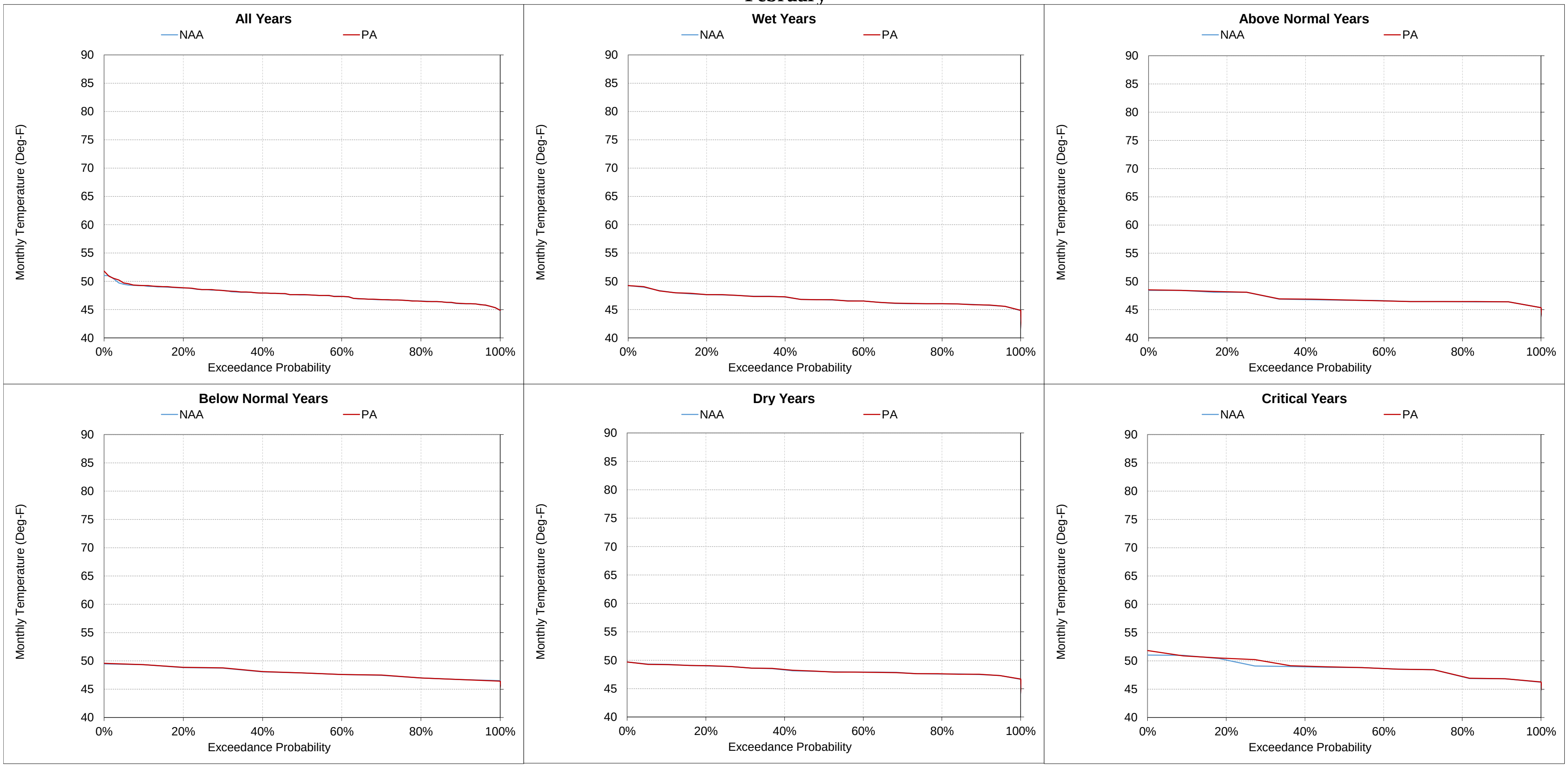
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

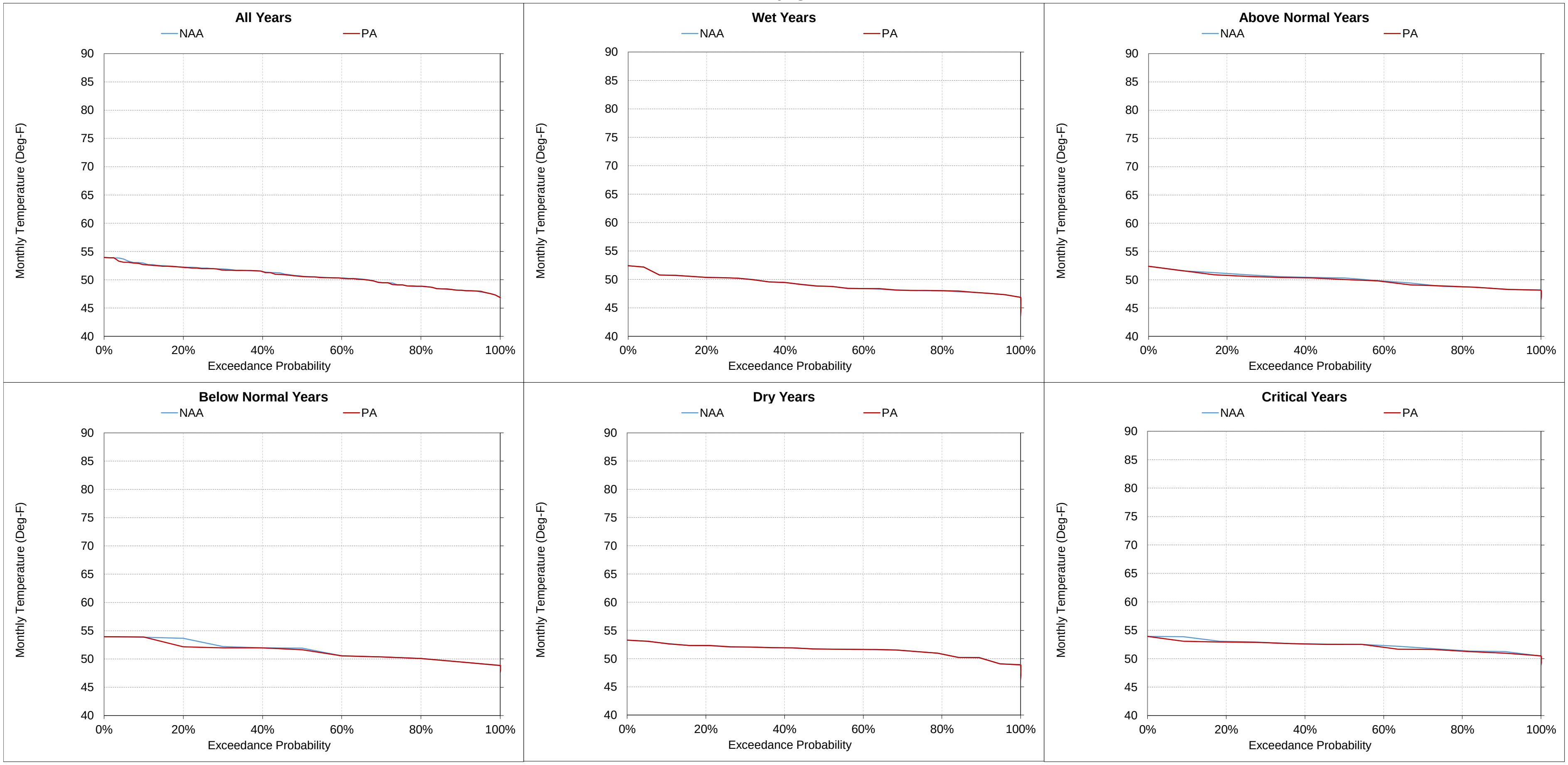
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-12. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature February



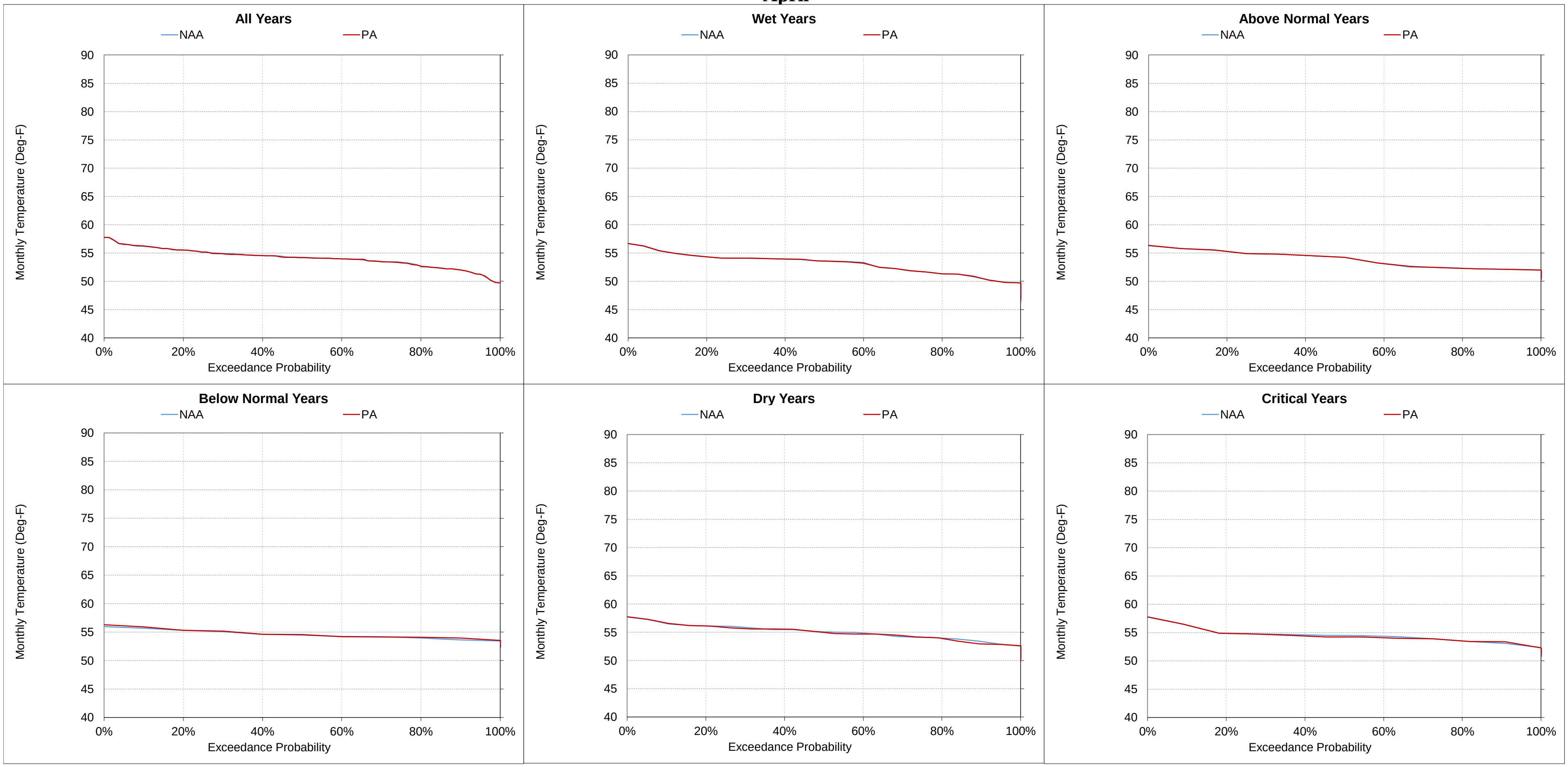
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-13. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature
March



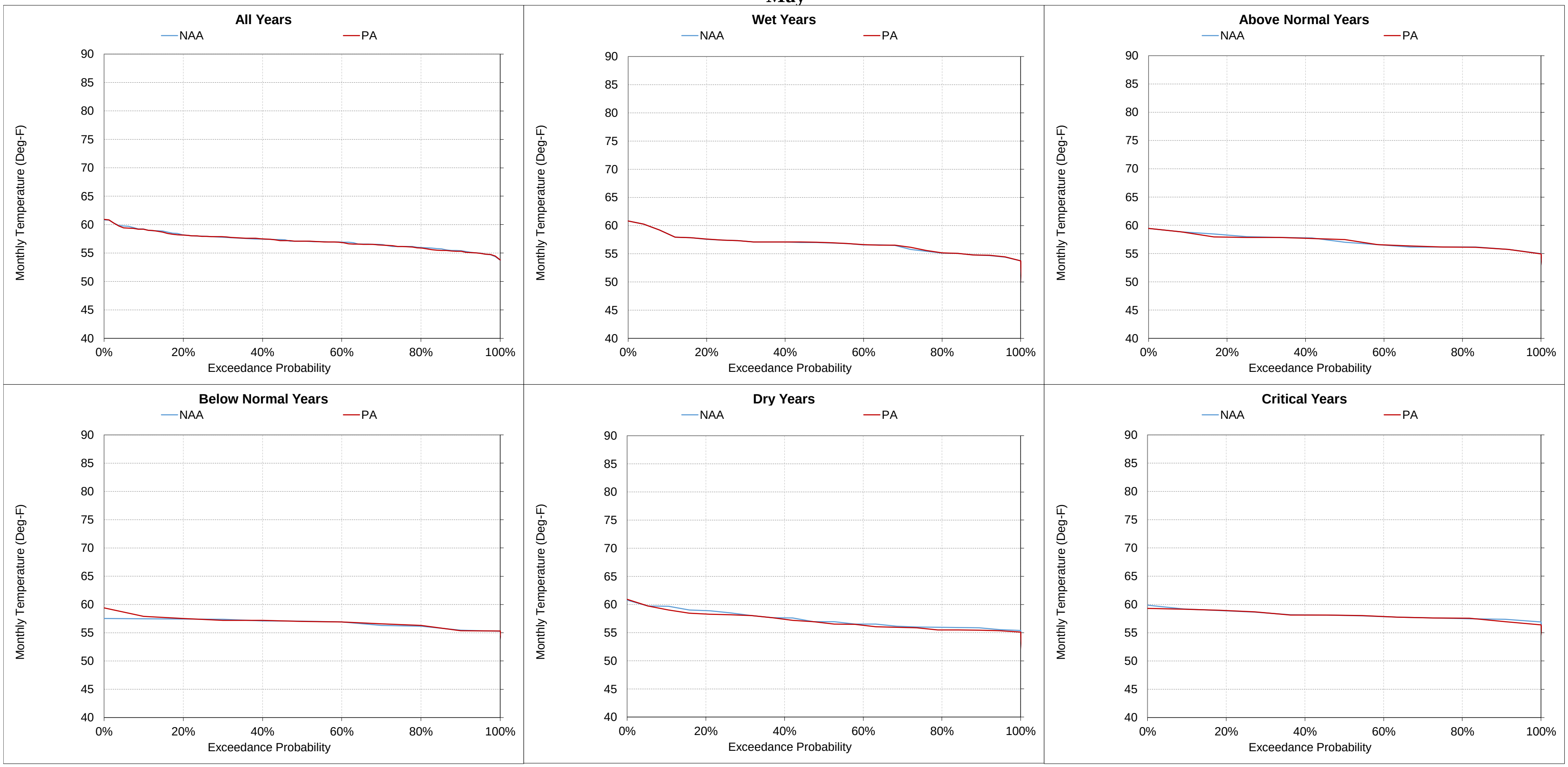
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-14. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature
April



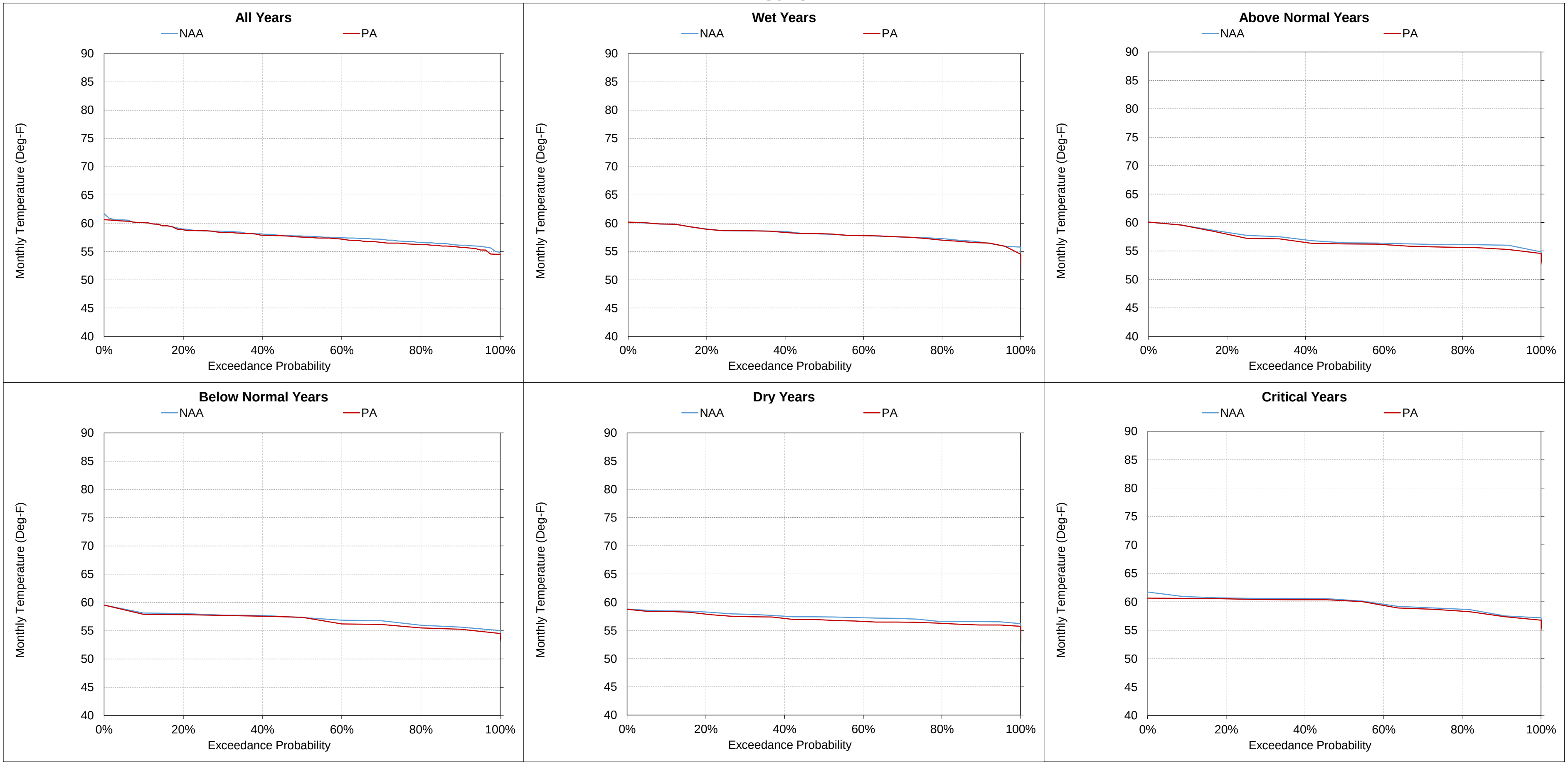
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-15. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature May



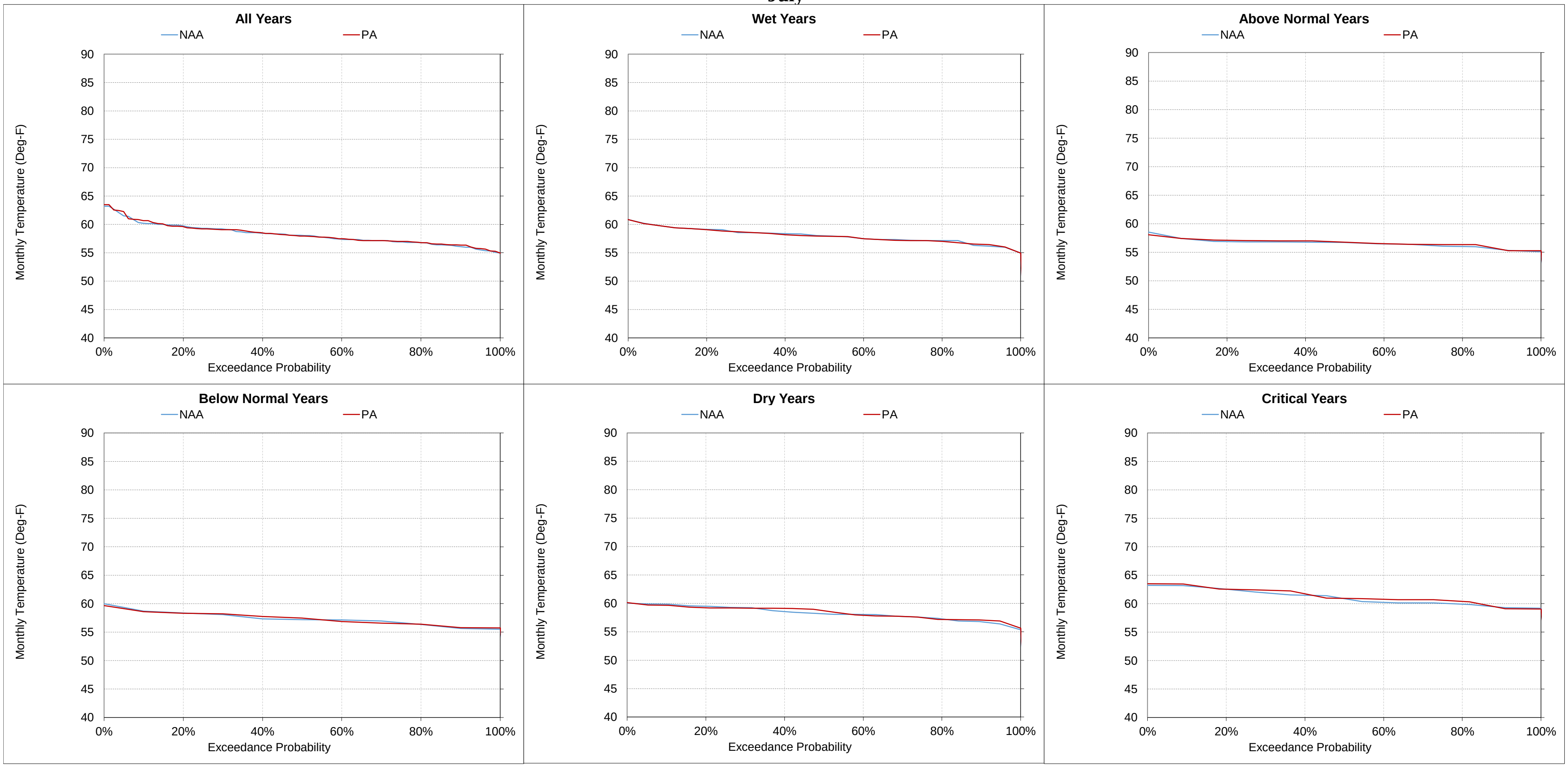
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-16. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature
June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-17. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature July



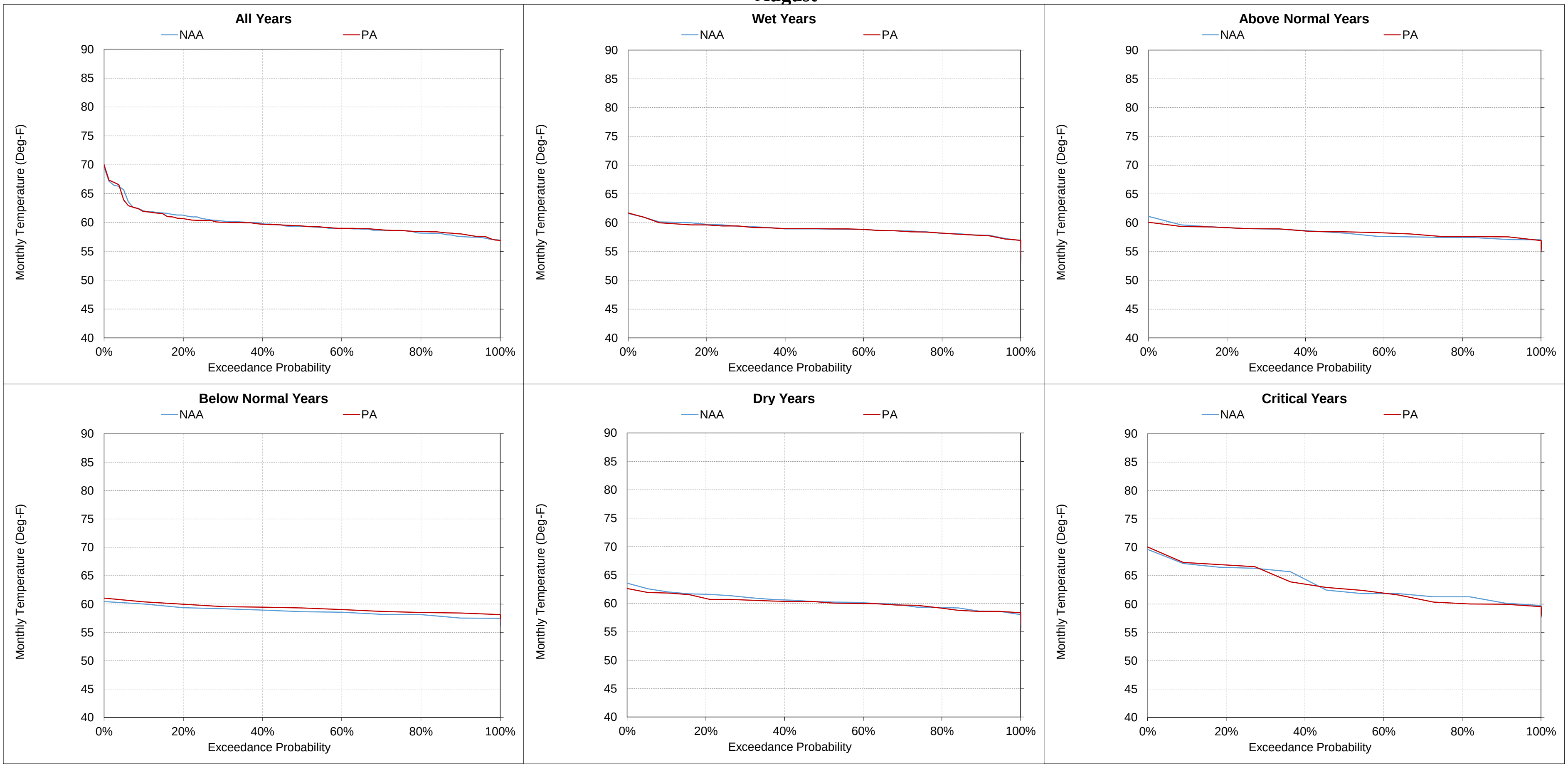
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

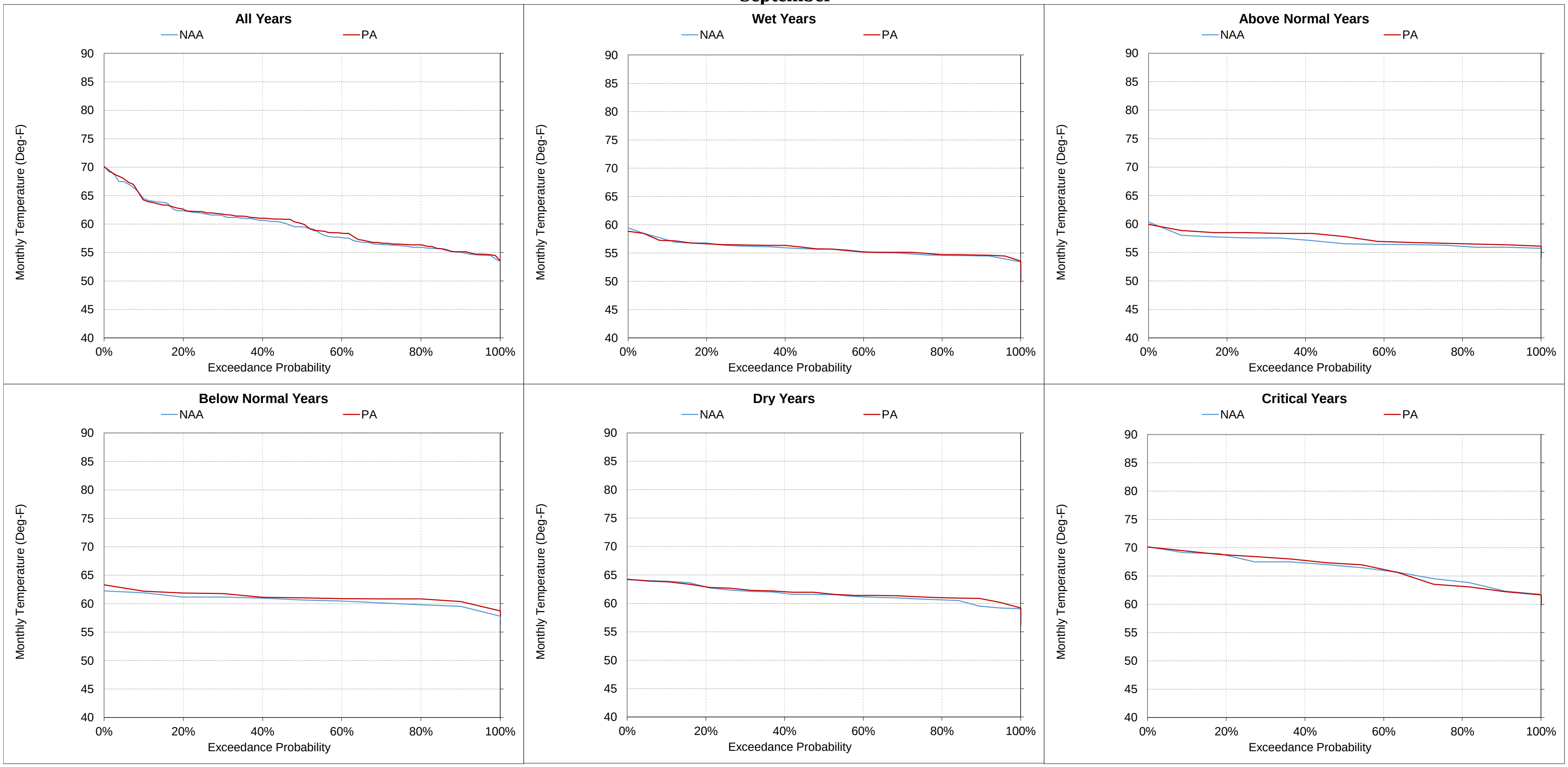
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-18. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-8-19. Sacramento River at Red Bluff Diversion Dam, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-9. Sacramento River at Hamilton City, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	62.3	61.7	-0.7	-1%	56.1	55.9	-0.2	0%	50.2	50.2	0.0	0%	48.3	48.3	-0.1	0%	50.1	50.1	0.1	0%	54.7	54.7	-0.1	0%
20%	60.4	60.1	-0.4	-1%	55.1	55.0	-0.1	0%	49.6	49.5	-0.1	0%	47.5	47.6	0.1	0%	49.6	49.6	0.0	0%	53.9	53.7	-0.3	0%
30%	59.6	59.5	-0.1	0%	54.7	54.6	-0.1	0%	49.0	48.8	-0.1	0%	47.1	47.2	0.0	0%	49.1	49.1	0.0	0%	53.4	53.3	-0.1	0%
40%	59.1	58.9	-0.2	0%	54.3	53.8	-0.5	-1%	48.7	48.6	-0.1	0%	46.9	46.9	0.0	0%	48.5	48.5	0.0	0%	52.6	52.5	-0.1	0%
50%	58.7	58.6	-0.1	0%	53.8	53.6	-0.3	-1%	48.4	48.3	0.0	0%	46.6	46.7	0.1	0%	48.2	48.2	0.0	0%	52.0	51.9	-0.1	0%
60%	58.3	58.2	0.0	0%	53.5	53.3	-0.1	0%	48.1	48.1	0.0	0%	46.4	46.4	0.0	0%	47.8	47.8	0.0	0%	51.5	51.4	0.0	0%
70%	58.1	58.1	0.0	0%	53.2	53.0	-0.2	0%	47.9	47.9	0.1	0%	46.2	46.2	0.0	0%	47.6	47.6	0.0	0%	50.7	50.7	0.0	0%
80%	57.7	57.9	0.1	0%	52.8	52.6	-0.2	0%	47.5	47.6	0.1	0%	46.1	46.1	0.0	0%	46.9	46.9	0.0	0%	49.6	49.7	0.0	0%
90%	57.4	57.6	0.2	0%	52.2	52.2	0.0	0%	47.3	47.3	0.0	0%	45.7	45.7	0.0	0%	46.4	46.4	0.0	0%	49.1	49.1	0.0	0%
Long Term																								
Full Simulation Period[b]	59.3	59.2	0.0	0%	54.0	53.9	-0.1	0%	48.6	48.5	0.0	0%	46.8	46.8	0.0	0%	48.3	48.3	0.0	0%	52.0	51.9	-0.1	0%
Water Year Types[c]																								
Wet (32%)	57.9	58.2	0.3	1%	54.3	54.1	-0.2	0%	49.0	48.9	-0.1	0%	47.1	47.2	0.1	0%	47.3	47.4	0.0	0%	50.2	50.2	0.0	0%
Above Normal (16%)	58.2	58.2	0.0	0%	53.5	53.1	-0.4	-1%	48.6	48.5	-0.1	0%	46.8	46.8	0.0	0%	47.5	47.5	0.0	0%	51.1	51.0	-0.1	0%
Below Normal (13%)	58.9	58.5	-0.4	-1%	53.8	53.7	-0.1	0%	48.6	48.5	-0.1	0%	46.8	46.8	0.0	0%	48.6	48.6	0.0	0%	53.0	52.9	-0.2	0%
Dry (24%)	59.4	59.3	-0.1	0%	53.4	53.4	0.1	0%	48.3	48.3	0.0	0%	46.5	46.5	0.0	0%	48.9	48.9	0.0	0%	52.8	52.8	0.0	0%
Critical (15%)	63.4	63.2	-0.1	0%	55.1	55.1	0.0	0%	48.2	48.2	0.0	0%	46.5	46.6	0.1	0%	49.9	50.1	0.2	0%	54.3	54.1	-0.2	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	58.7	58.7	0.0	0%	63.1	63.0	-0.1	0%	65.0	64.8	-0.2	0%	65.2	65.2	0.0	0%	66.9	66.9	0.1	0%	68.5	68.5	0.0	0%
20%	58.4	58.2	-0.2	0%	62.6	62.4	-0.2	0%	63.8	63.8	0.0	0%	64.5	64.5	0.0	0%	66.1	65.2	-0.8	-1%	66.8	66.9	0.1	0%
30%	57.7	57.7	0.0	0%	62.1	62.1	0.0	0%	63.4	63.2	-0.2	0%	63.8	63.8	0.0	0%	65.0	64.7	-0.3	0%	65.7	65.8	0.2	0%
40%	57.2	57.1	0.0	0%	61.6	61.5	0.0	0%	62.9	62.6	-0.3	0%	63.3	63.2	-0.1	0%	64.4	64.3	0.0	0%	65.0	65.2	0.3	0%
50%	56.7	56.7	0.0	0%	61.2	61.2	0.0	0%	62.7	62.5	-0.2	0%	62.4	62.6	0.2	0%	63.9	63.9	0.0	0%	63.3	64.3	1.0	2%
60%	56.2	56.2	0.0	0%	60.7	60.7	0.0	0%	62.3	61.9	-0.4	-1%	62.2	62.2	0.0	0%	63.7	63.7	0.0	0%	61.3	62.0	0.7	1%
70%	55.6	55.6	-0.1	0%	60.4	60.1	-0.3	0%	61.8	61.2	-0.6	-1%	61.7	61.6	-0.1	0%	63.2	63.3	0.1	0%	59.9	59.9	0.1	0%
80%	55.0	55.0	0.0	0%	59.8	59.7	-0.1	0%	61.3	60.9	-0.5	-1%	61.2	61.2	0.0	0%	62.8	63.0	0.2	0%	59.1	59.6	0.4	1%
90%	53.7	53.7	0.0	0%	59.1	59.0	0.0	0%	60.9	60.1	-0.7	-1%	60.5	60.8	0.3	0%	61.9	62.4	0.5	1%	57.8	57.9	0.1	0%
Long Term																								
Full Simulation Period[b]	56.5	56.5	0.0	0%	61.1	61.0	-0.1	0%	62.7	62.3	-0.4	-1%	62.9	62.9	0.1	0%	64.4	64.4	0.0	0%	63.1	63.5	0.4	1%
Water Year Types[c]																								
Wet (32%)	55.0	55.0	0.0	0%	60.3	60.3	0.0	0%	63.1	63.0	-0.1	0%	63.0	62.9	-0.1	0%	63.8	63.7	-0.1	0%	58.8	58.9	0.1	0%
Above Normal (16%)	56.0	56.0	0.0	0%	61.2	61.2	0.0	0%	62.1	61.7	-0.5	-1%	61.2	61.3	0.1	0%	63.0	63.0	0.1	0%	60.5	61.3	0.8	1%
Below Normal (13%)	57.4	57.5	0.1	0%	60.8	61.0	0.2	0%	61.8	61.4	-0.4	-1%	61.8	61.8	0.0	0%	63.1	63.8	0.8	1%	64.6	65.4	0.8	1%
Dry (24%)	57.7	57.6	-0.1	0%	61.5	61.2	-0.3	-1%	62.2	61.6	-0.6	-1%	62.8	62.9	0.1	0%	65.0	64.7	-0.3	0%	65.8	66.1	0.3	1%
Critical (15%)	57.7	57.6	-0.1	0%	62.3	62.2	-0.1	0%	64.2	63.8	-0.4	-1%	65.5	65.9	0.3	1%	67.7	67.5	-0.2	0%	69.3	69.5	0.1	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-1. Monthly Temperature Ranges for Sacramento River at Hamilton City, All Years

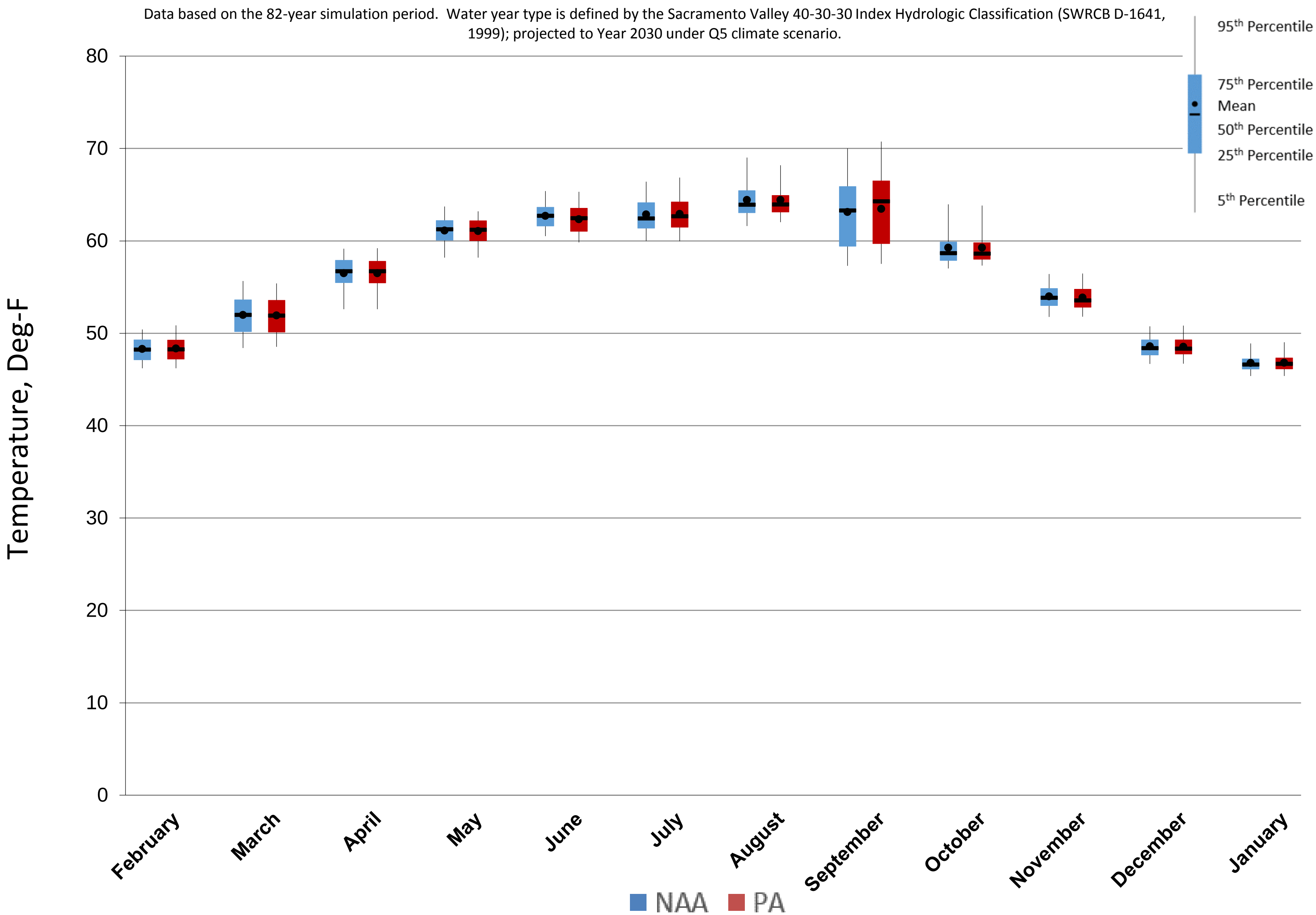


Figure 5.C.7-9-2. Monthly Temperature Ranges for Sacramento River at Hamilton City, Wet Years

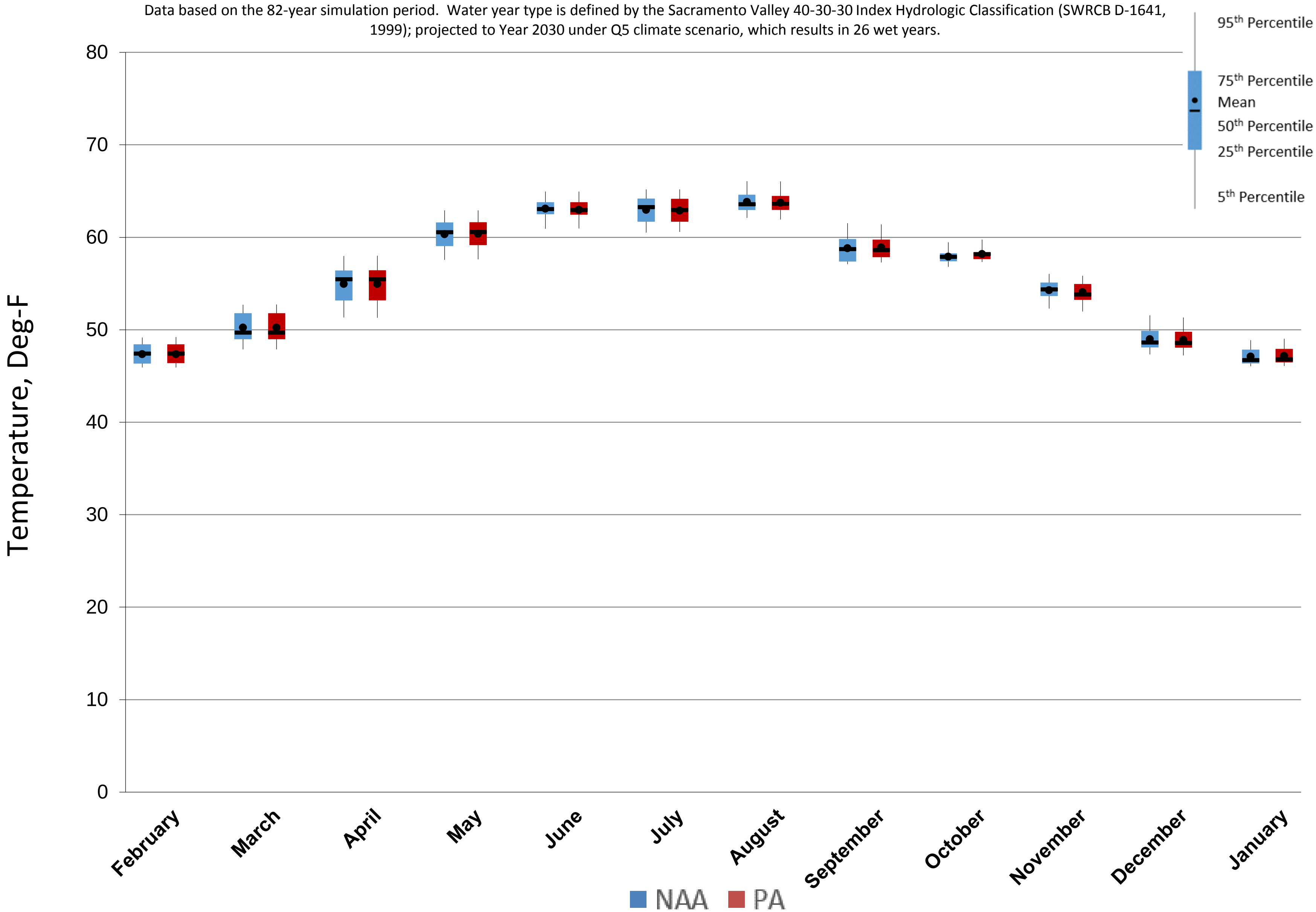


Figure 5.C.7-9-3. Monthly Temperature Ranges for Sacramento River at Hamilton City, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

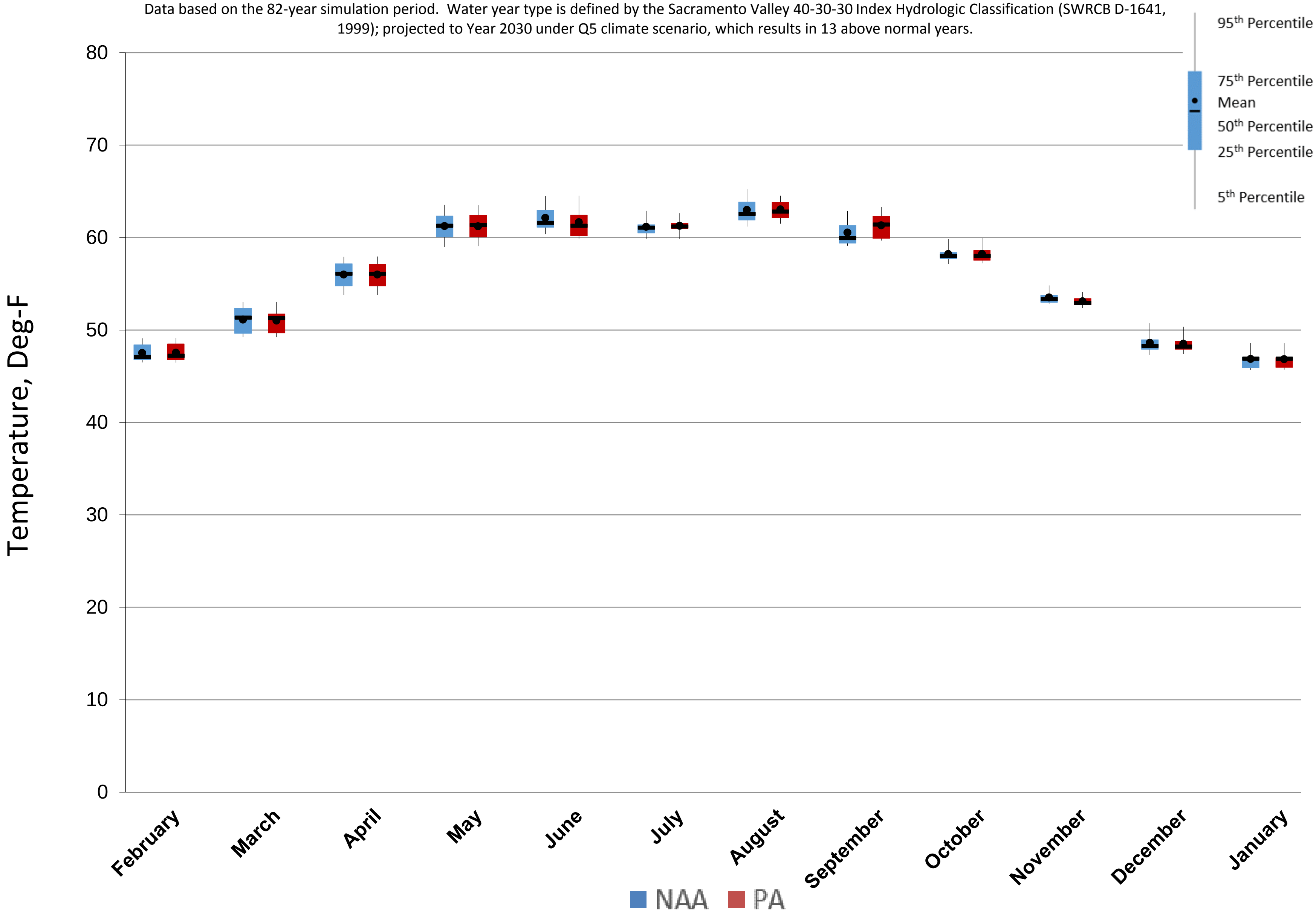


Figure 5.C.7-9-4. Monthly Temperature Ranges for Sacramento River at Hamilton City, Below Normal Years

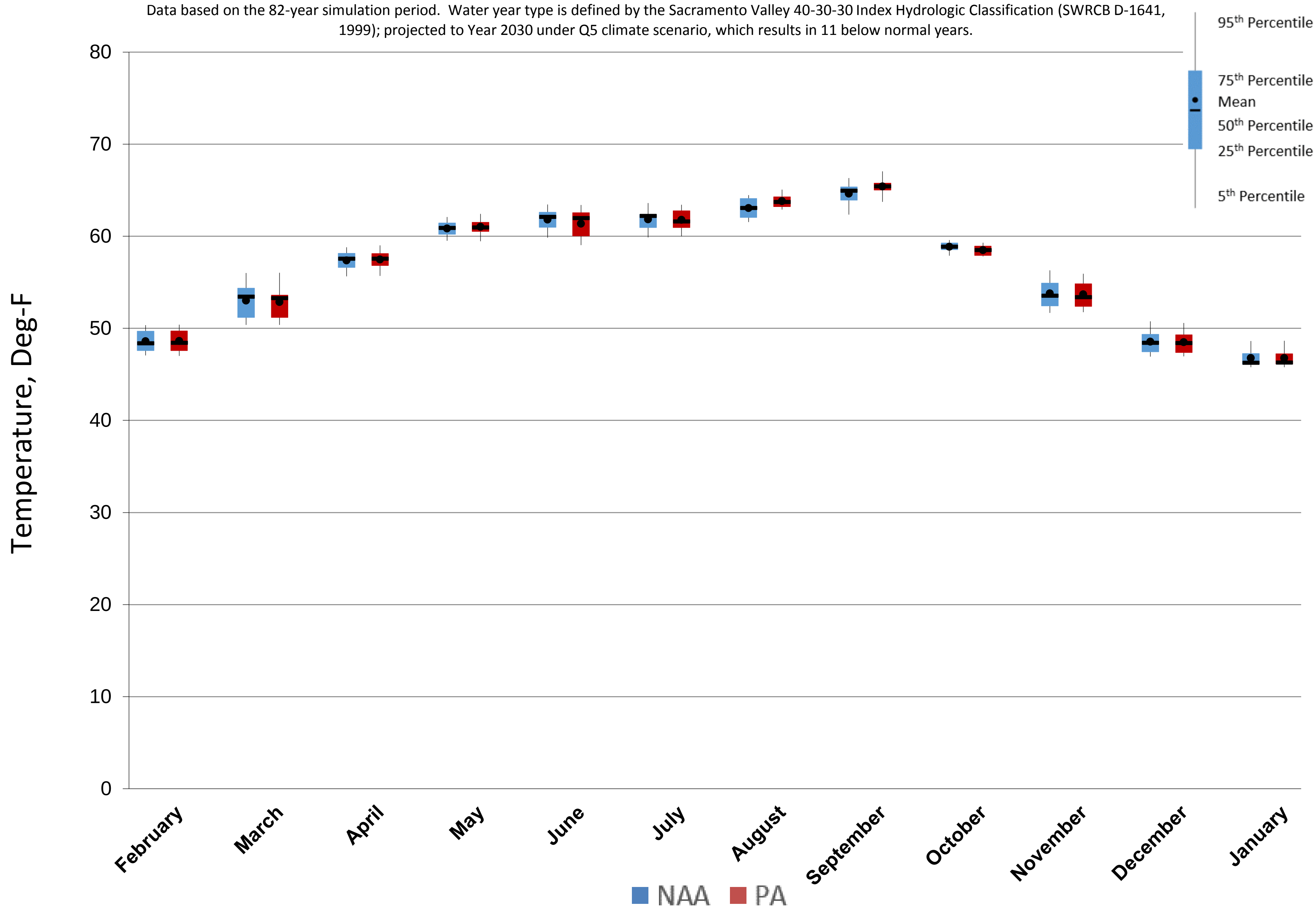


Figure 5.C.7-9-5. Monthly Temperature Ranges for Sacramento River at Hamilton City, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.

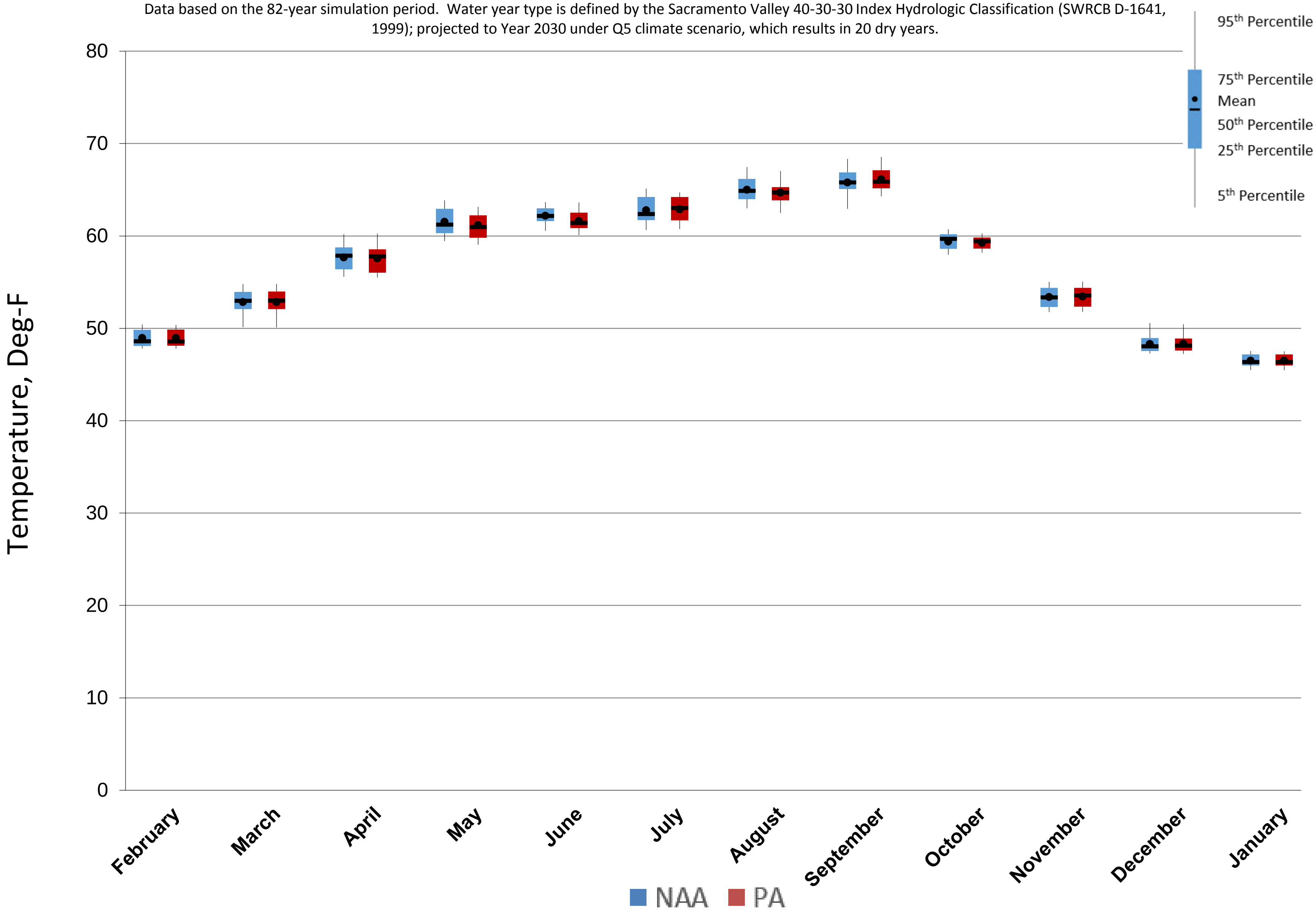


Figure 5.C.7-9-6. Monthly Temperature Ranges for Sacramento River at Hamilton City, Critical Years

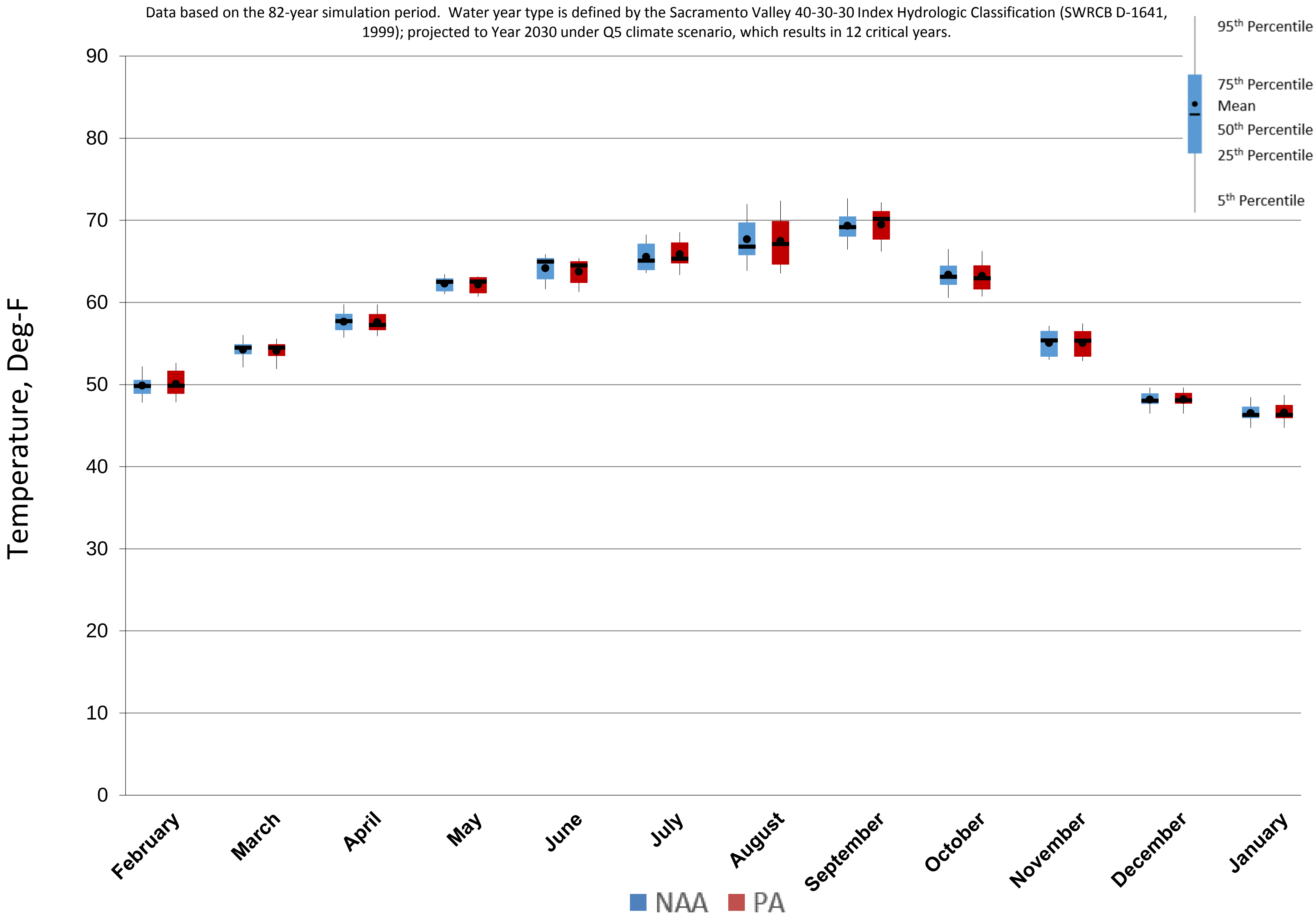
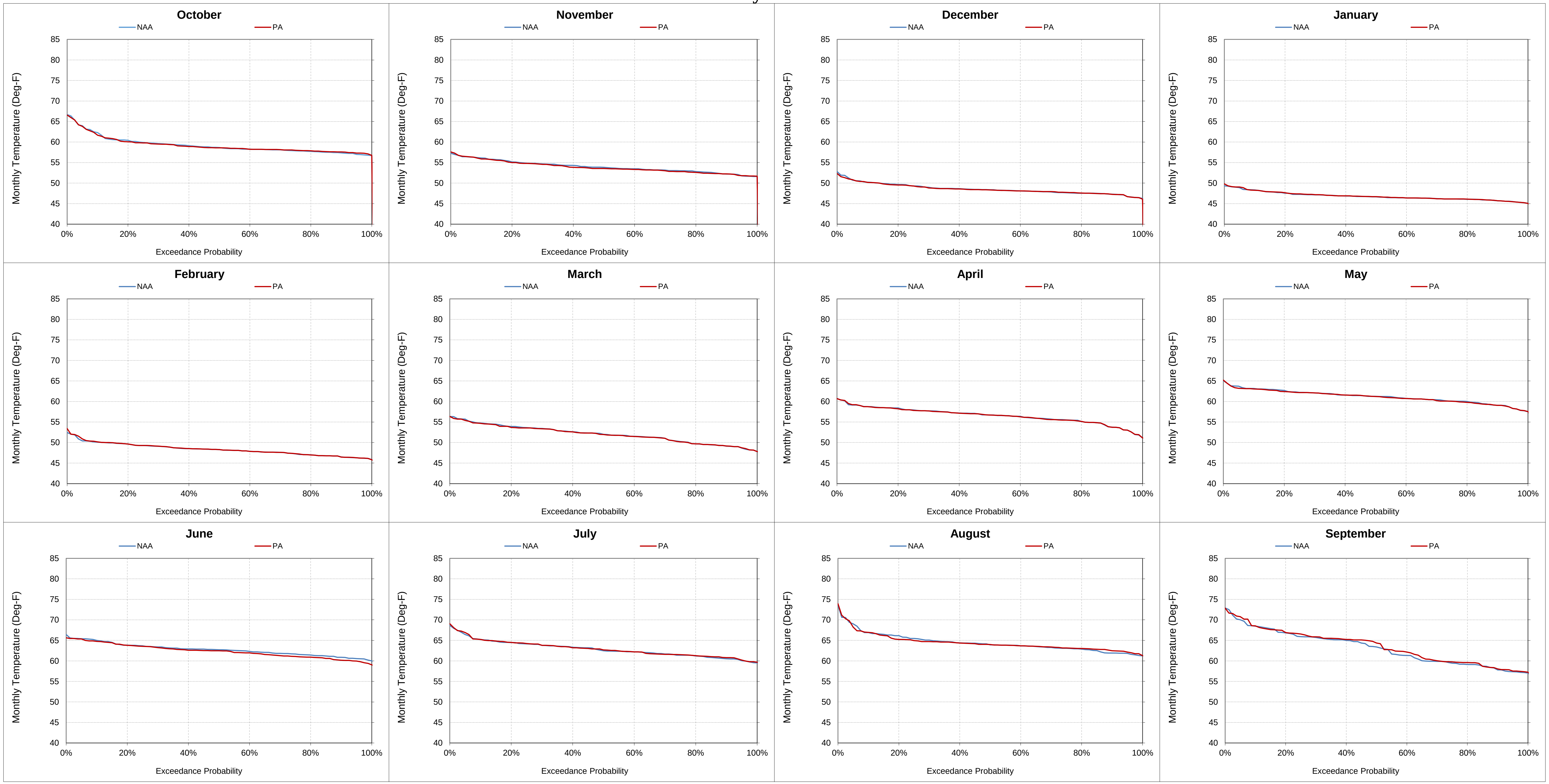
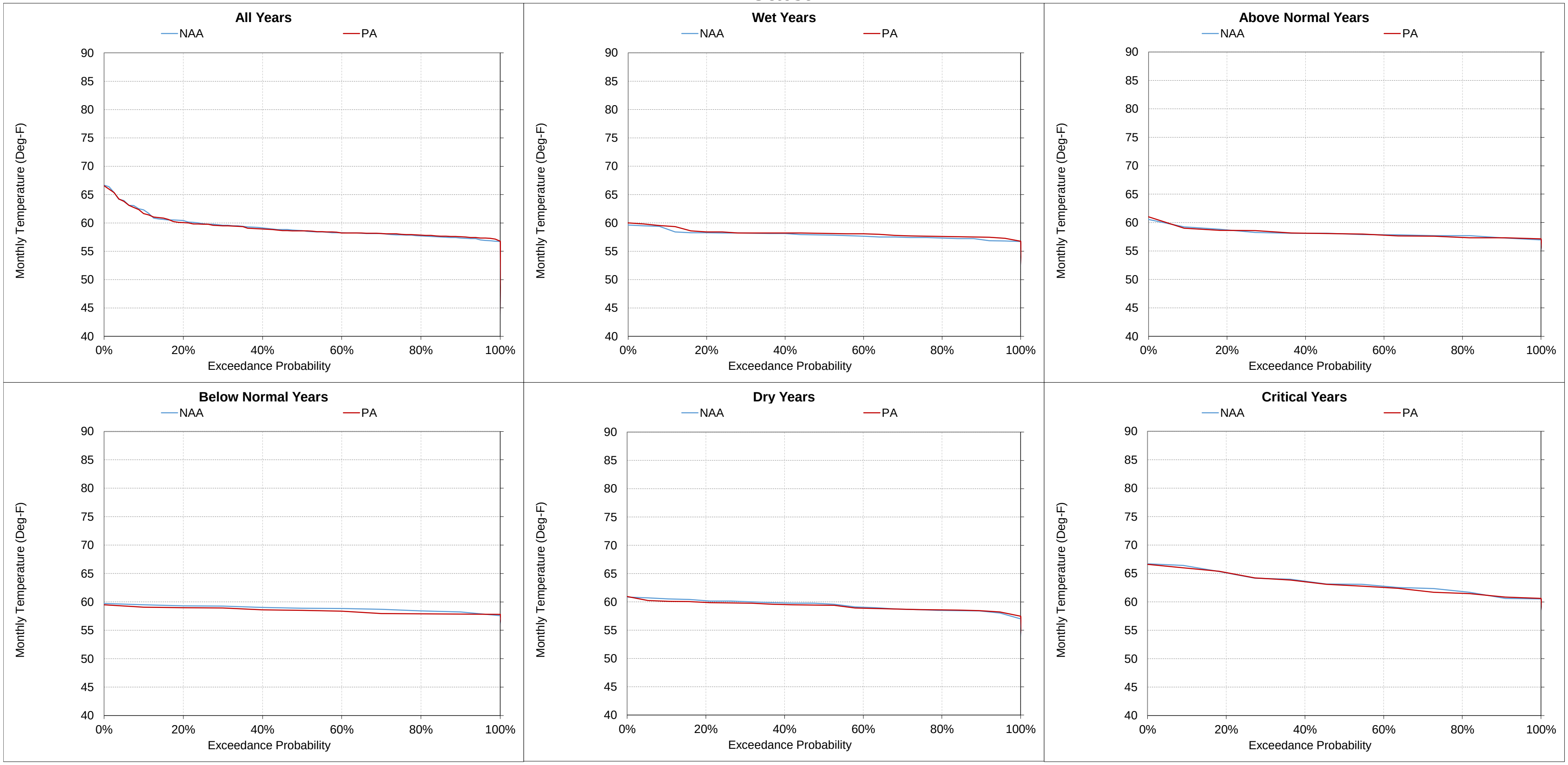


Figure 5.C.7-9-7. Sacramento River at Hamilton City, Monthly Temperature Probability of Exceedance



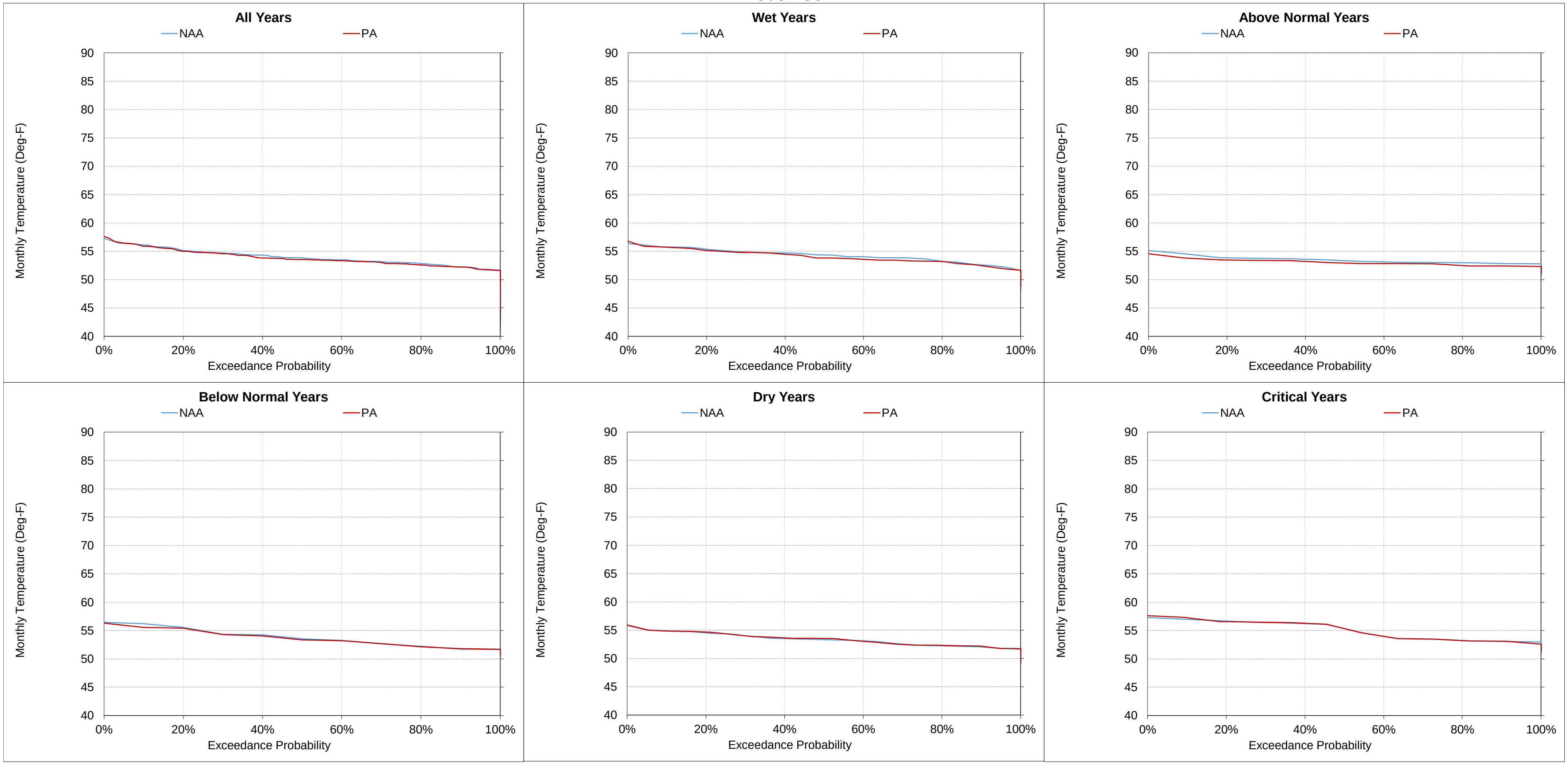
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-8. Sacramento River at Hamilton City, Monthly Temperature October



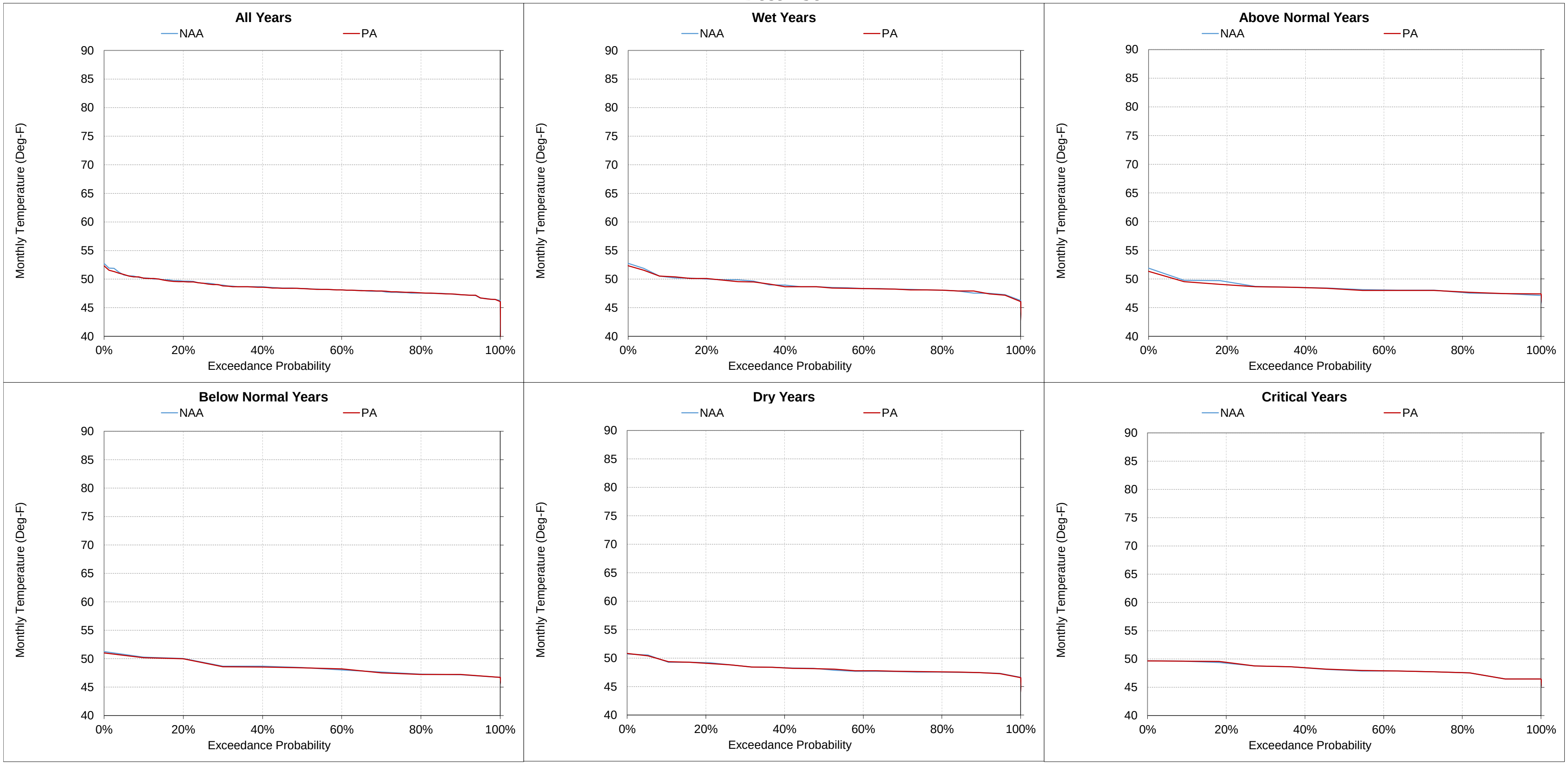
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-9. Sacramento River at Hamilton City, Monthly Temperature November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

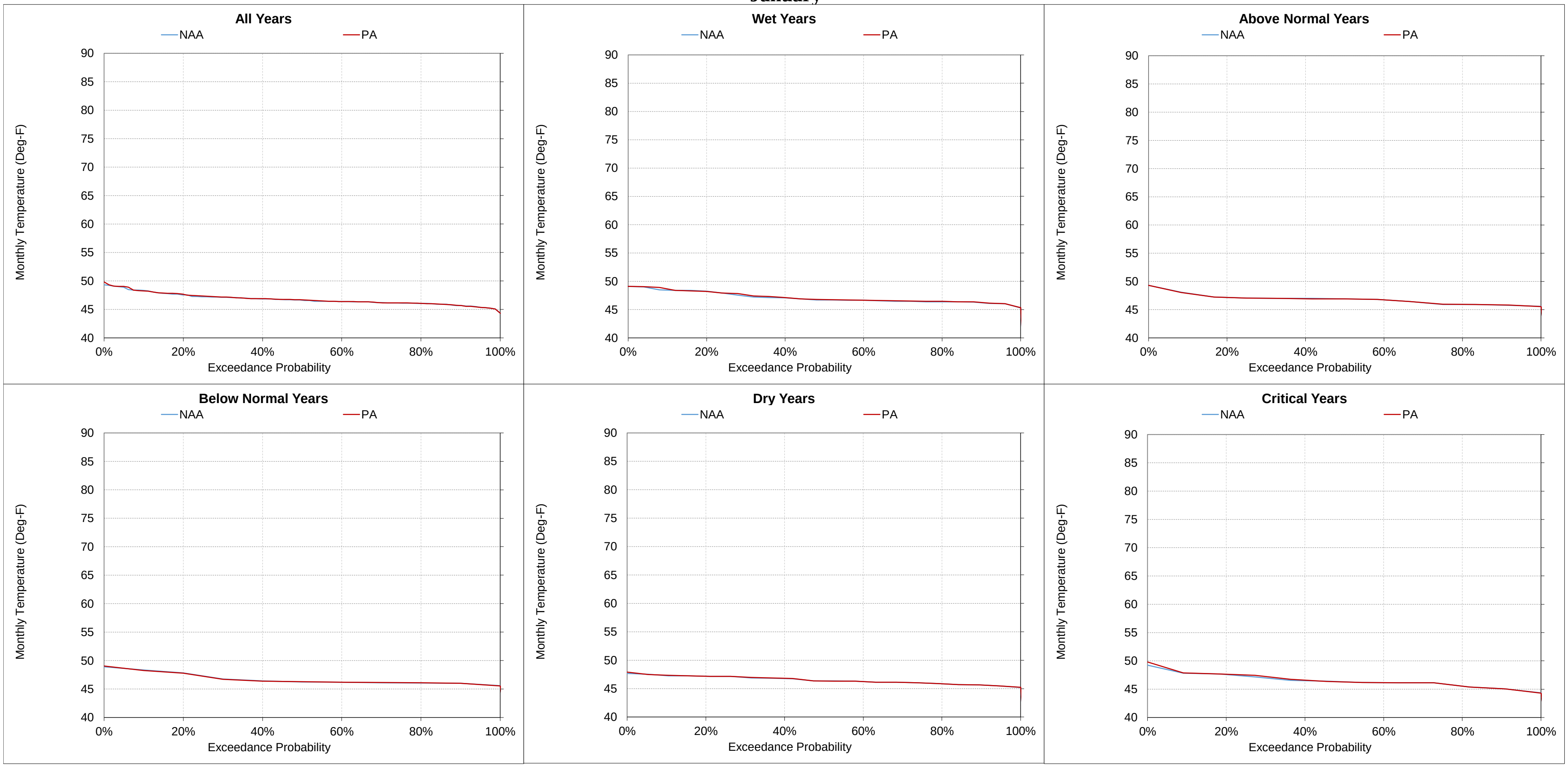
Figure 5.C.7-9-10. Sacramento River at Hamilton City, Monthly Temperature
December



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-11. Sacramento River at Hamilton City, Monthly Temperature

January



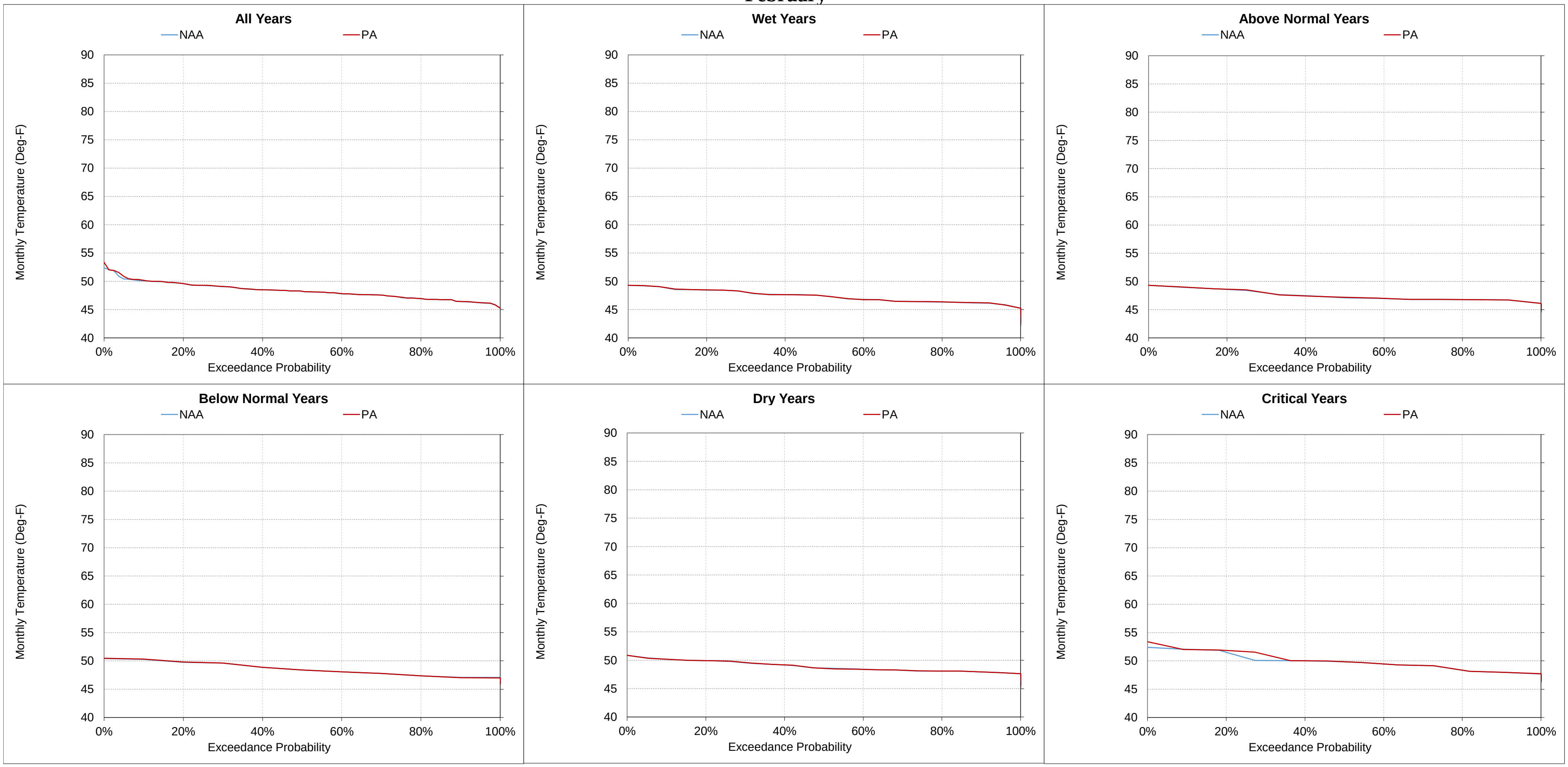
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

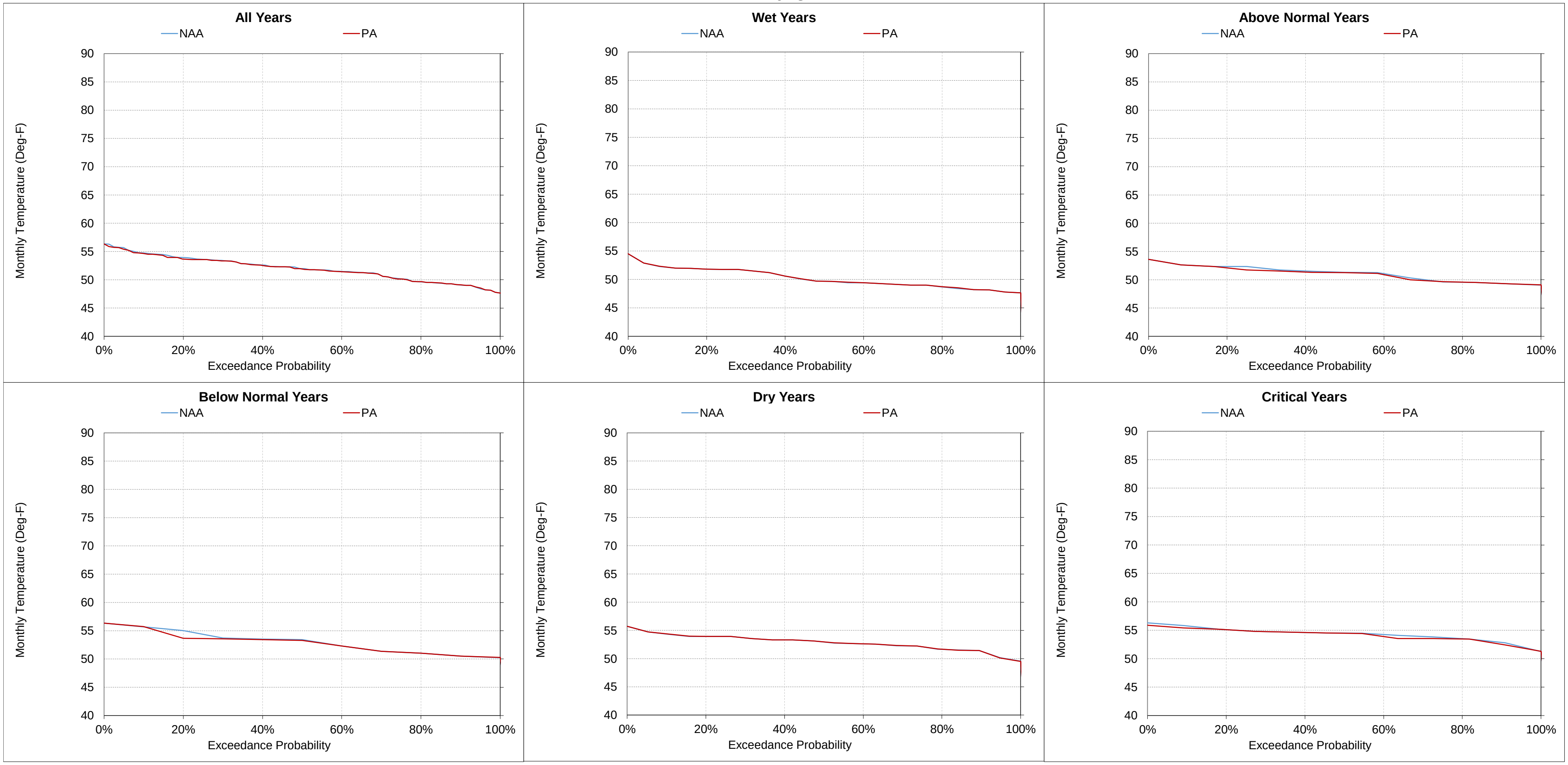
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-12. Sacramento River at Hamilton City, Monthly Temperature February



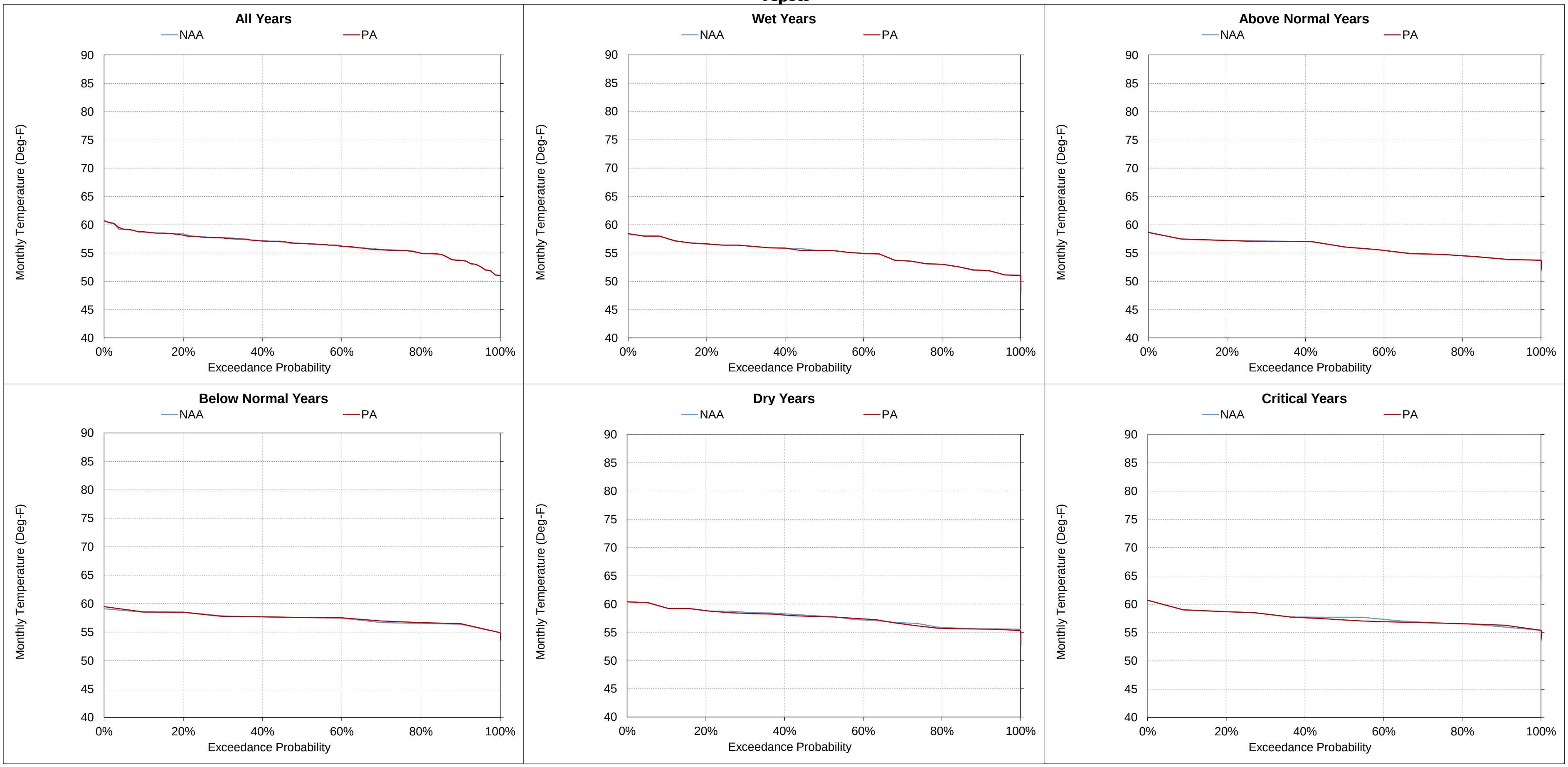
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-13. Sacramento River at Hamilton City, Monthly Temperature
March



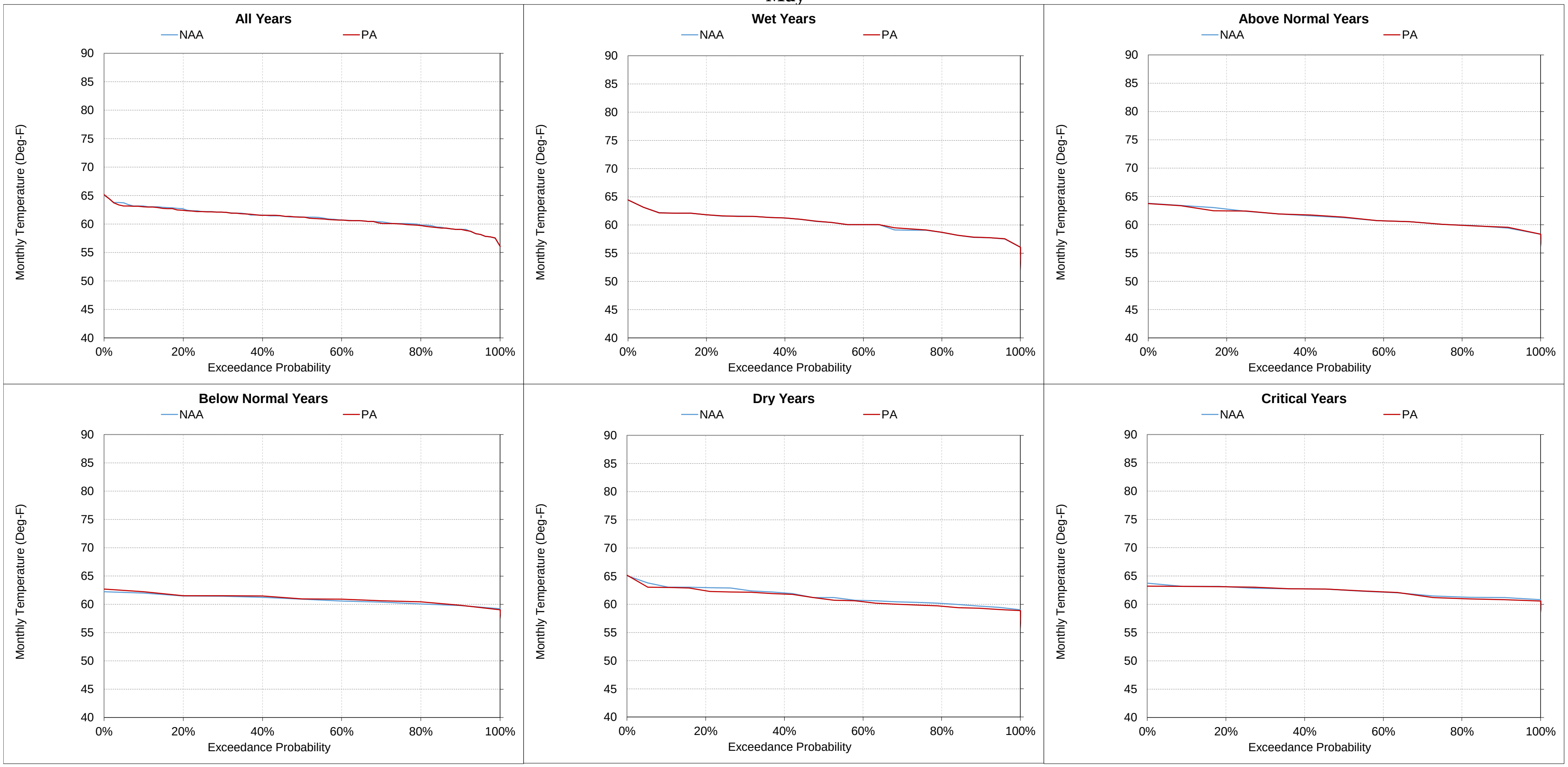
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-14. Sacramento River at Hamilton City, Monthly Temperature April



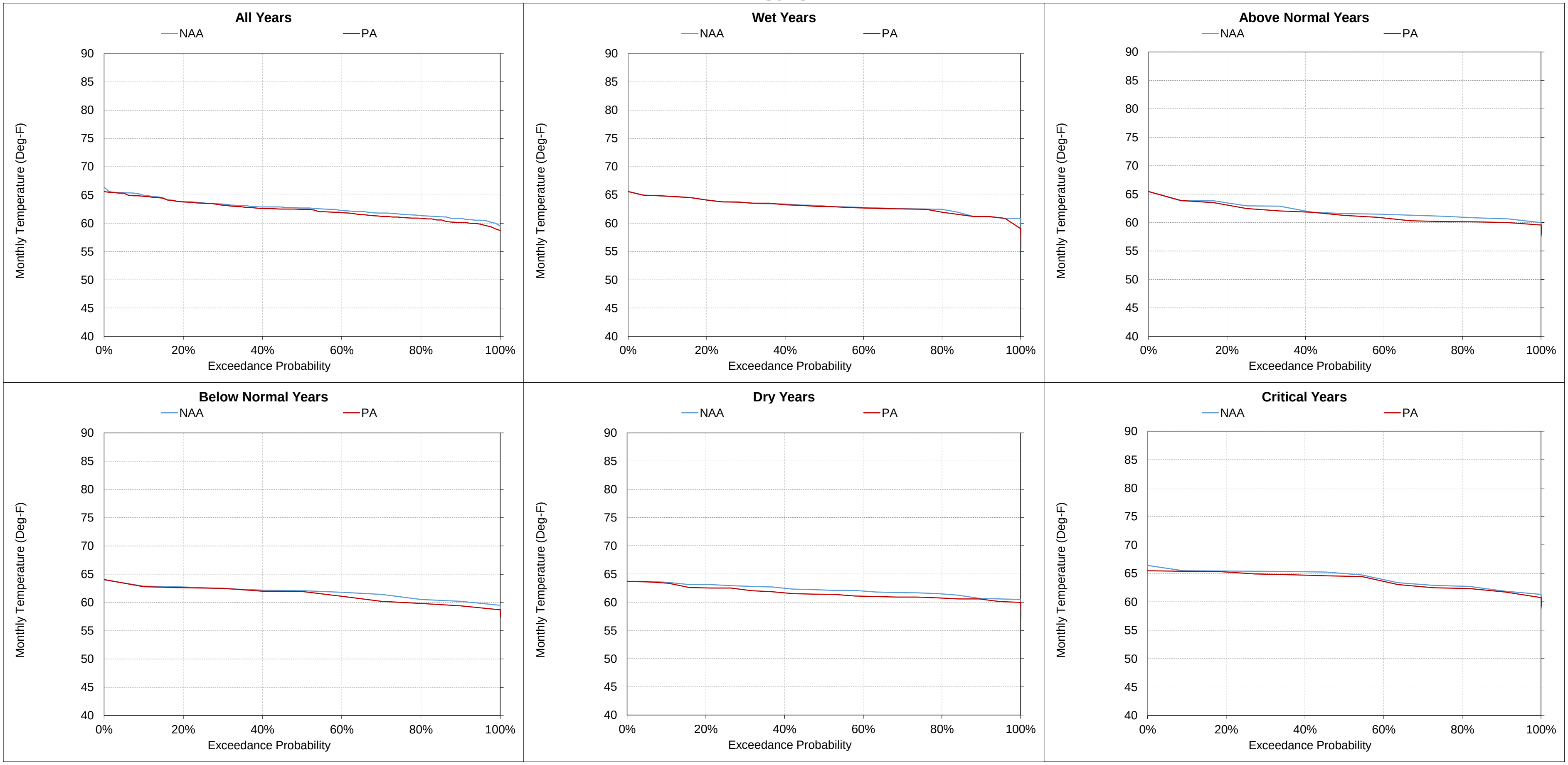
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-15. Sacramento River at Hamilton City, Monthly Temperature May



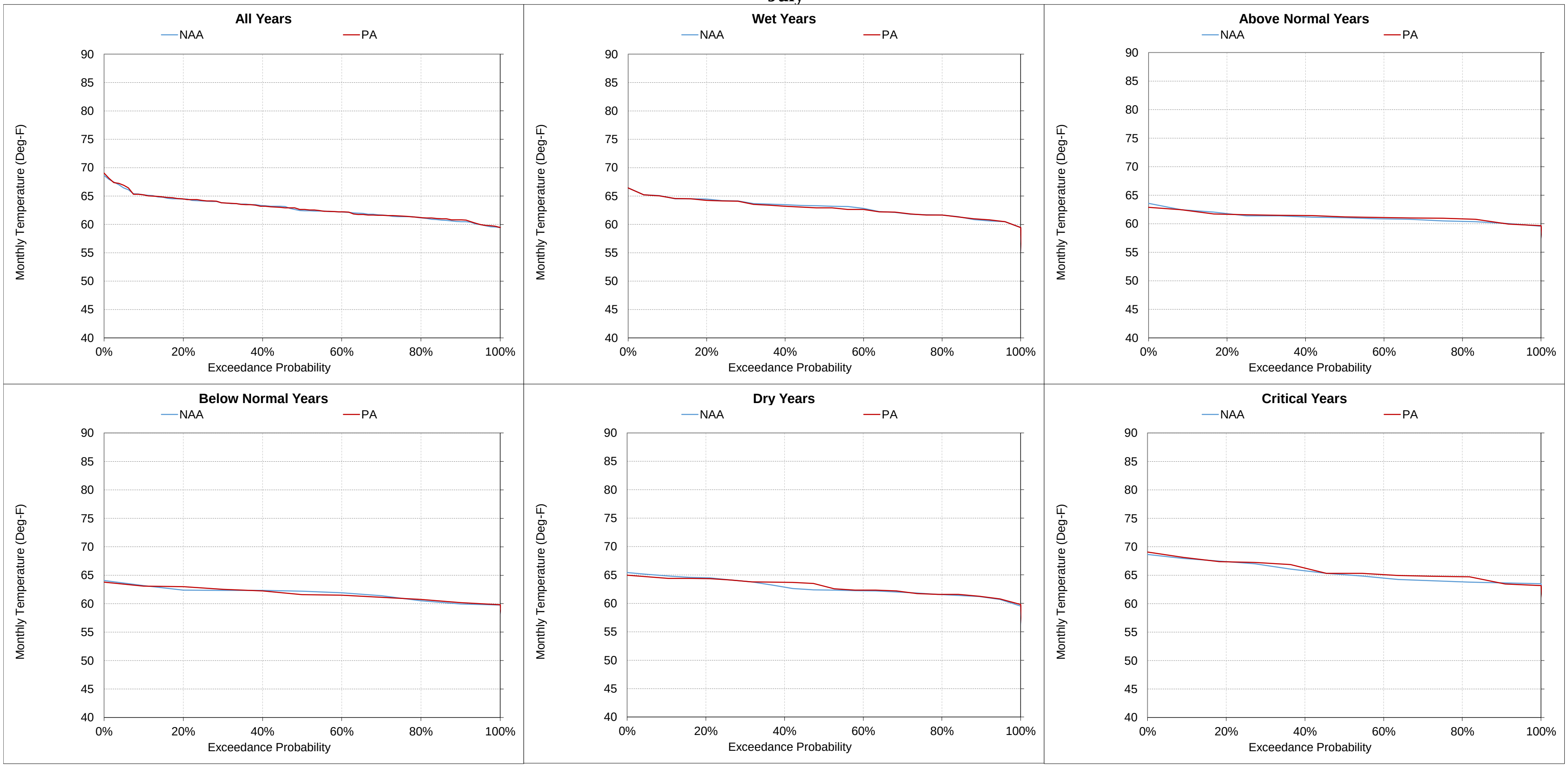
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-16. Sacramento River at Hamilton City, Monthly Temperature
June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-17. Sacramento River at Hamilton City, Monthly Temperature July



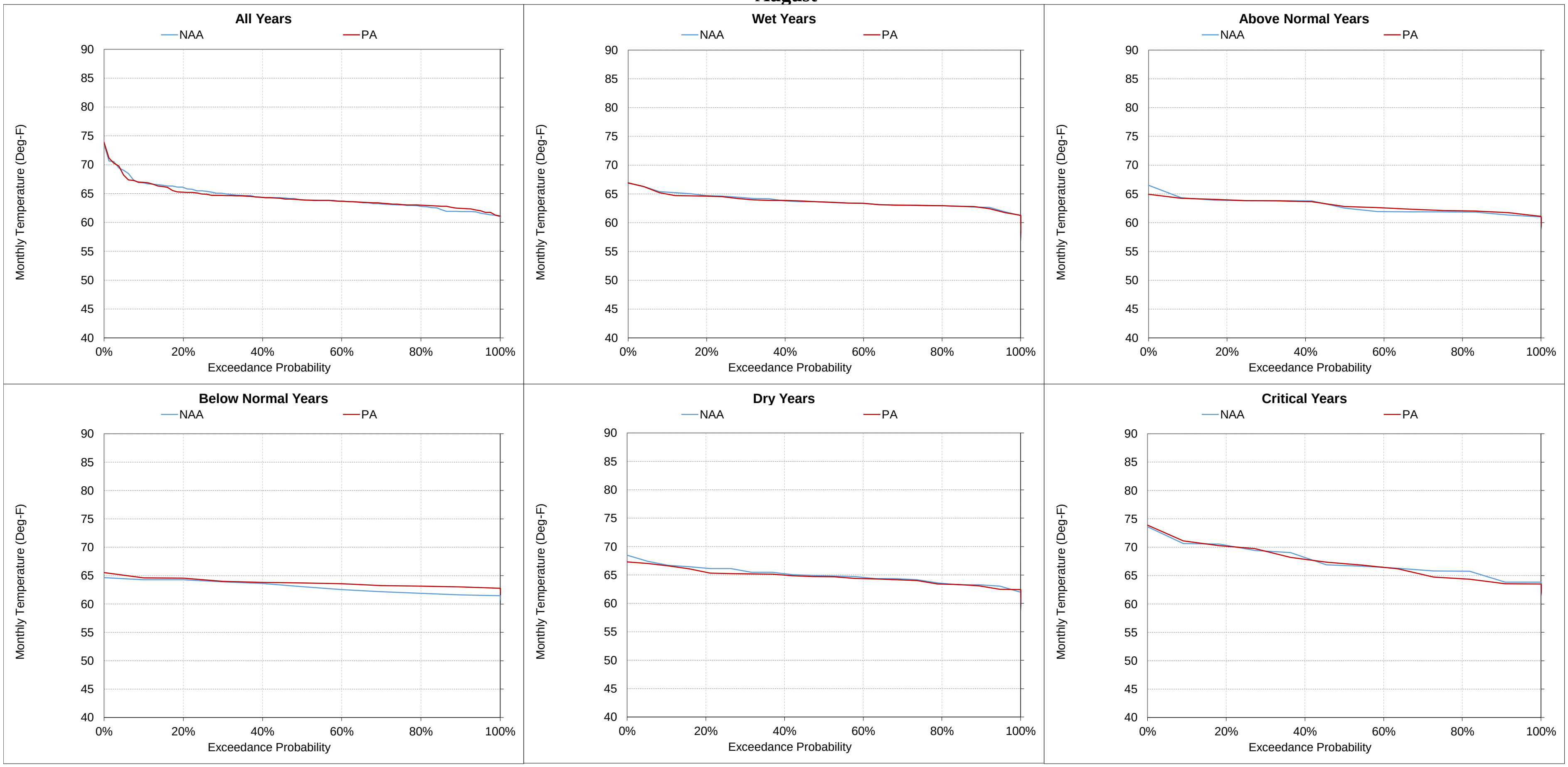
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

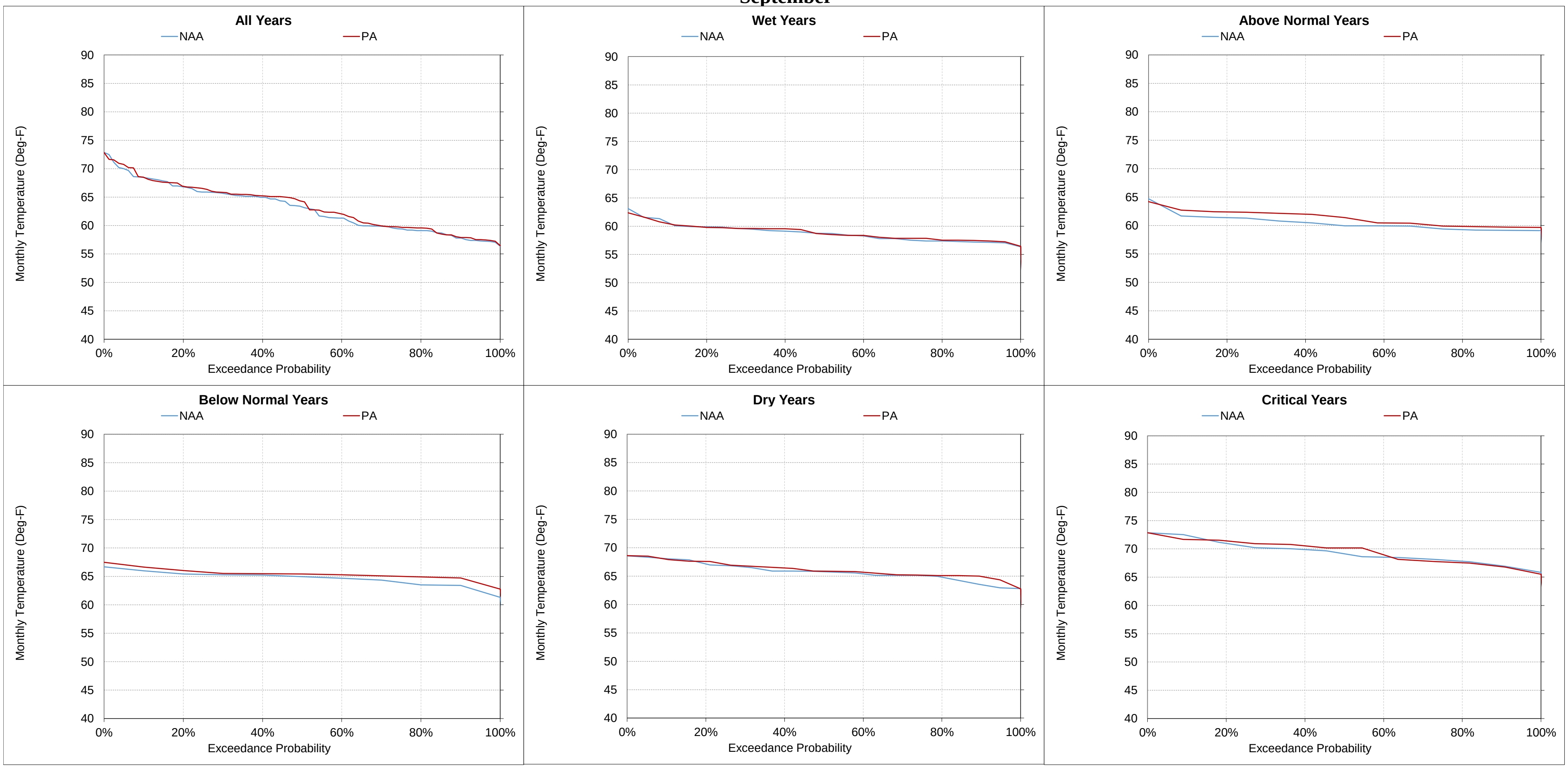
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-18. Sacramento River at Hamilton City, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-9-19. Sacramento River at Hamilton City, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-10. Sacramento River at Knights Landing, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	65.4	65.3	0.0	0%	57.6	57.6	0.0	0%	50.3	50.1	-0.1	0%	48.4	48.3	-0.1	0%	51.1	51.1	0.0	0%	57.2	57.1	-0.1	0%
20%	64.6	64.2	-0.3	0%	56.7	56.7	0.0	0%	49.7	49.7	0.0	0%	47.7	47.7	0.0	0%	50.4	50.4	0.0	0%	56.3	56.1	-0.2	0%
30%	63.7	63.7	0.0	0%	56.1	56.1	0.0	0%	49.1	49.0	0.0	0%	47.3	47.3	0.0	0%	49.8	49.8	0.0	0%	55.1	55.1	0.0	0%
40%	63.3	63.1	-0.2	0%	55.3	55.4	0.1	0%	48.7	48.6	-0.1	0%	46.9	46.9	0.0	0%	49.2	49.2	0.0	0%	54.3	54.3	0.0	0%
50%	62.7	62.5	-0.3	0%	54.9	54.9	0.0	0%	48.4	48.4	0.0	0%	46.7	46.7	0.0	0%	48.7	48.7	0.0	0%	53.7	53.7	0.0	0%
60%	61.9	62.0	0.1	0%	54.5	54.7	0.1	0%	48.2	48.1	-0.1	0%	46.5	46.5	0.0	0%	48.5	48.5	0.0	0%	52.9	52.8	-0.1	0%
70%	61.5	61.7	0.2	0%	54.4	54.4	0.0	0%	47.8	47.8	0.0	0%	46.2	46.2	0.0	0%	48.0	47.9	0.0	0%	52.2	52.2	0.0	0%
80%	60.9	61.3	0.3	1%	54.1	54.0	-0.1	0%	47.5	47.5	0.0	0%	46.1	46.1	0.0	0%	47.6	47.6	0.0	0%	51.1	51.1	0.0	0%
90%	60.4	60.6	0.2	0%	53.5	53.5	0.0	0%	47.1	47.0	-0.1	0%	45.5	45.5	0.0	0%	47.2	47.2	0.0	0%	50.7	50.7	0.0	0%
Long Term																								
Full Simulation Period[b]	62.9	63.0	0.1	0%	55.3	55.3	0.0	0%	48.6	48.5	0.0	0%	46.9	46.9	0.0	0%	49.0	49.1	0.0	0%	53.7	53.7	0.0	0%
Water Year Types[c]																								
Wet (32%)	61.2	61.6	0.4	1%	55.1	55.2	0.1	0%	48.8	48.8	-0.1	0%	47.2	47.3	0.0	0%	47.9	47.9	0.0	0%	51.8	51.8	0.0	0%
Above Normal (16%)	61.9	62.0	0.1	0%	54.3	54.3	0.0	0%	48.6	48.4	-0.1	0%	46.7	46.7	0.0	0%	48.3	48.3	0.0	0%	52.6	52.5	-0.1	0%
Below Normal (13%)	63.0	62.5	-0.5	-1%	55.2	55.1	-0.1	0%	48.5	48.5	0.0	0%	46.7	46.7	0.0	0%	49.2	49.2	0.0	0%	55.0	54.8	-0.2	0%
Dry (24%)	63.5	63.4	-0.2	0%	55.0	55.1	0.0	0%	48.4	48.4	0.0	0%	46.7	46.7	0.0	0%	49.7	49.7	0.0	0%	54.5	54.5	0.0	0%
Critical (15%)	66.6	66.7	0.0	0%	57.2	57.0	-0.1	0%	48.5	48.5	0.0	0%	46.8	46.8	0.1	0%	51.0	51.1	0.1	0%	56.6	56.4	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	63.2	63.0	-0.2	0%	69.3	68.8	-0.5	-1%	72.6	72.2	-0.4	-1%	74.2	74.0	-0.1	0%	74.7	74.7	0.0	0%	73.4	73.4	0.0	0%
20%	62.2	62.2	0.0	0%	68.7	68.7	0.0	0%	72.1	71.6	-0.5	-1%	73.4	73.5	0.1	0%	74.3	74.0	-0.3	0%	72.6	72.7	0.2	0%
30%	61.7	61.8	0.1	0%	68.1	67.9	-0.2	0%	71.6	70.9	-0.6	-1%	72.6	72.6	0.0	0%	73.7	73.5	-0.2	0%	72.0	72.1	0.1	0%
40%	61.2	61.1	-0.1	0%	67.8	67.5	-0.3	0%	71.0	70.7	-0.3	0%	71.9	72.0	0.1	0%	73.2	72.8	-0.4	0%	71.3	71.6	0.3	0%
50%	60.7	60.6	-0.2	0%	67.2	67.0	-0.2	0%	70.7	70.0	-0.6	-1%	71.3	71.4	0.1	0%	72.5	72.3	-0.2	0%	69.4	70.5	1.1	2%
60%	60.1	60.1	0.0	0%	66.8	66.6	-0.2	0%	70.2	69.6	-0.6	-1%	71.0	70.8	-0.2	0%	72.0	72.0	0.0	0%	67.2	67.9	0.7	1%
70%	58.6	58.6	0.0	0%	65.9	65.8	-0.1	0%	69.9	69.2	-0.6	-1%	70.2	70.4	0.1	0%	71.6	71.8	0.1	0%	65.9	66.2	0.2	0%
80%	56.9	56.9	0.0	0%	65.1	65.3	0.2	0%	69.2	68.8	-0.4	-1%	69.7	69.8	0.1	0%	70.9	71.0	0.1	0%	65.1	65.7	0.6	1%
90%	55.7	55.7	0.0	0%	62.9	62.9	0.0	0%	68.8	68.4	-0.5	-1%	69.2	69.1	-0.1	0%	70.1	70.6	0.5	1%	63.3	63.6	0.3	1%
Long Term																								
Full Simulation Period[b]	59.9	59.8	0.0	0%	66.8	66.7	-0.1	0%	70.7	70.2	-0.5	-1%	71.6	71.6	0.0	0%	72.5	72.6	0.0	0%	68.9	69.3	0.3	0%
Water Year Types[c]																								
Wet (32%)	57.4	57.4	0.0	0%	65.1	65.1	0.0	0%	70.3	70.2	-0.2	0%	71.8	71.7	-0.1	0%	72.3	72.2	-0.1	0%	64.7	64.8	0.1	0%
Above Normal (16%)	58.9	58.9	0.0	0%	66.7	66.7	0.0	0%	70.5	69.9	-0.6	-1%	70.2	70.2	0.0	0%	71.6	71.7	0.1	0%	66.7	67.5	0.9	1%
Below Normal (13%)	61.6	61.6	0.1	0%	67.1	67.1	0.1	0%	69.9	69.3	-0.6	-1%	70.6	70.4	-0.2	0%	71.1	72.1	1.0	1%	70.7	71.5	0.8	1%
Dry (24%)	61.2	61.1	-0.1	0%	67.9	67.5	-0.4	-1%	70.9	70.1	-0.8	-1%	71.5	71.6	0.1	0%	73.1	72.8	-0.2	0%	72.0	72.2	0.2	0%
Critical (15%)	62.6	62.5	-0.1	0%	68.4	68.3	-0.1	0%	71.9	71.4	-0.5	-1%	73.5	74.0	0.4	1%	74.5	74.3	-0.2	0%	73.7	73.8	0.1	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-1. Monthly Temperature Ranges for Sacramento River at Knights Landing, All Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.

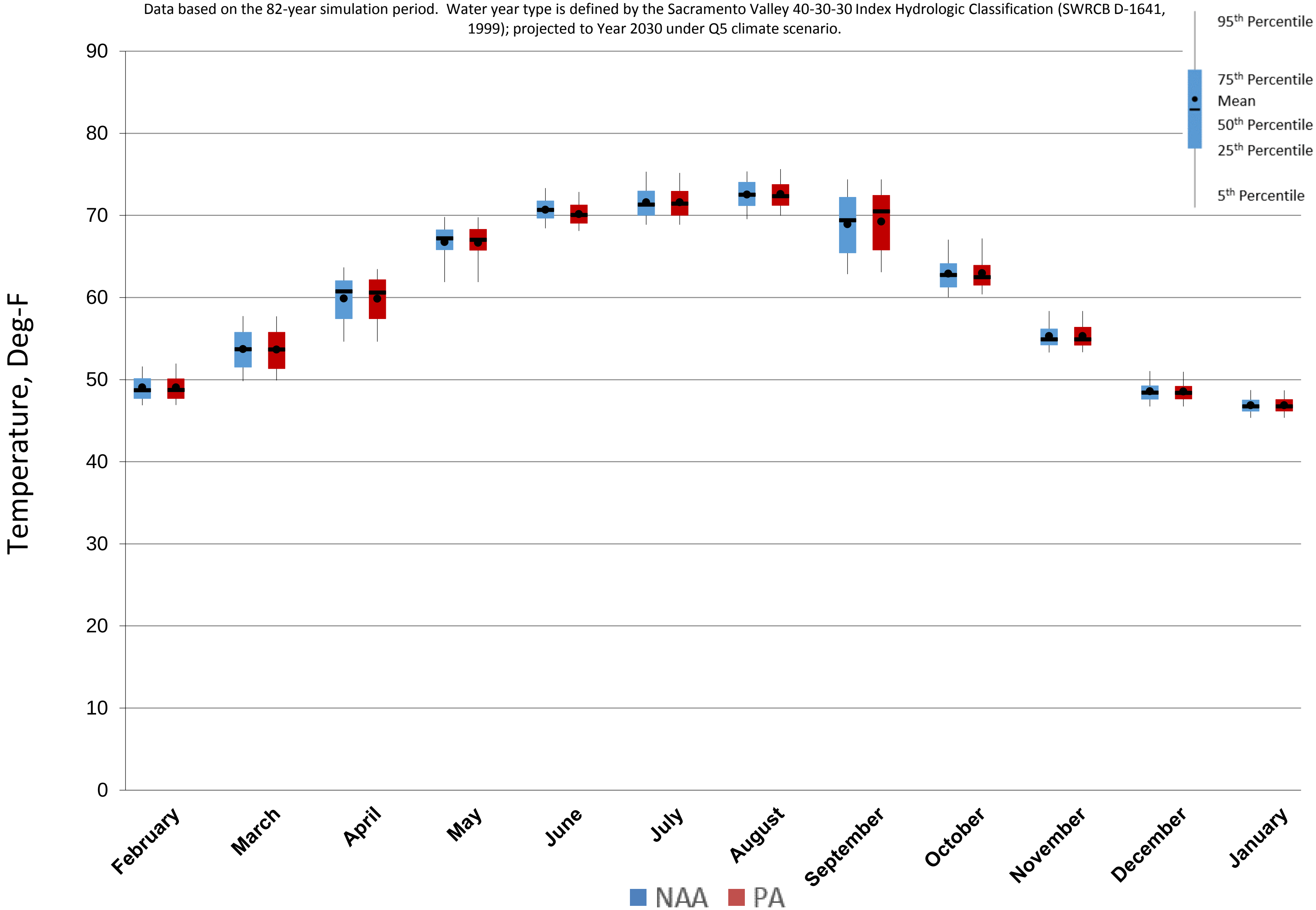


Figure 5.C.7-10-2. Monthly Temperature Ranges for Sacramento River at Knights Landing, Wet Years

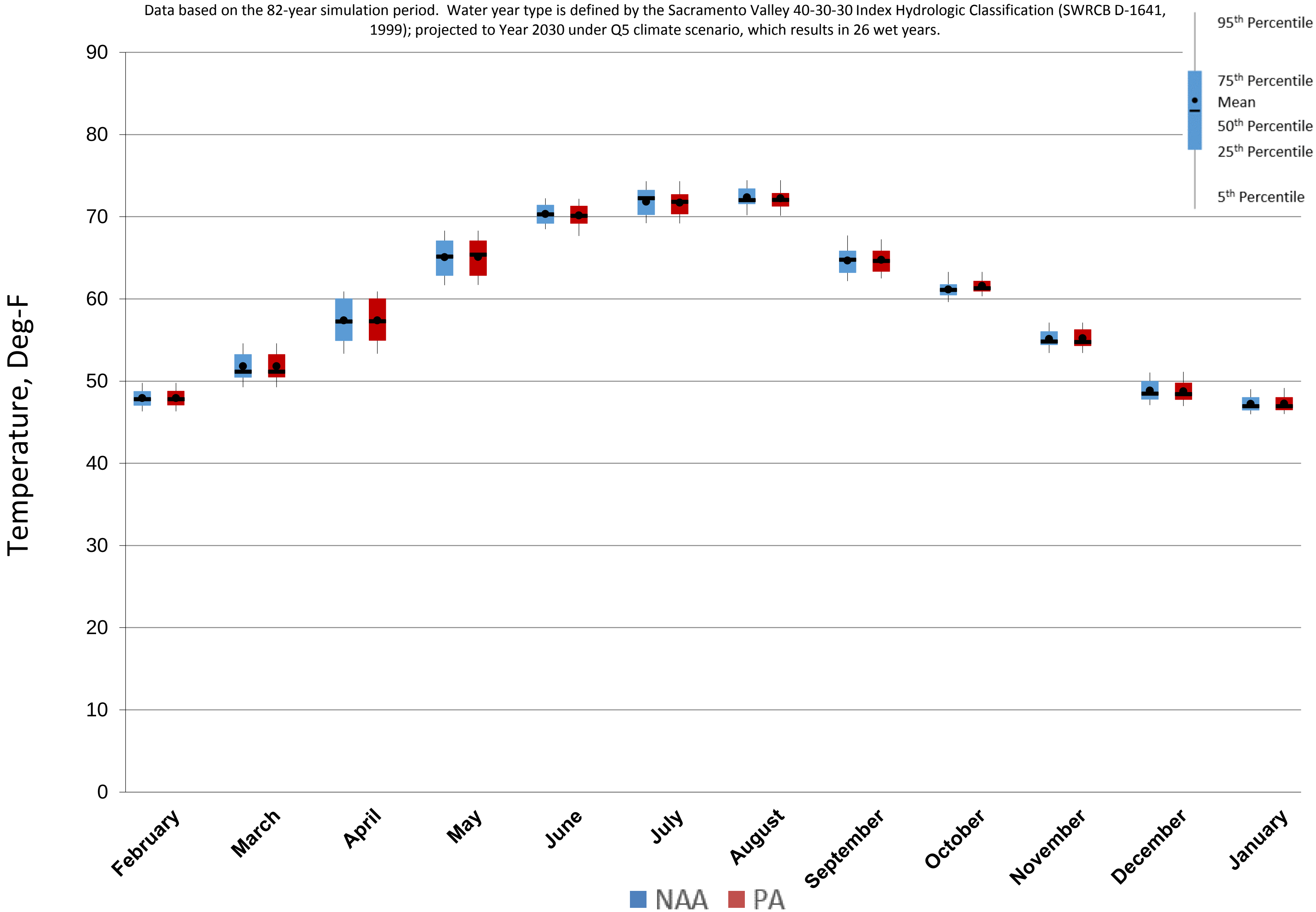


Figure 5.C.7-10-3. Monthly Temperature Ranges for Sacramento River at Knights Landing, Above Normal Years

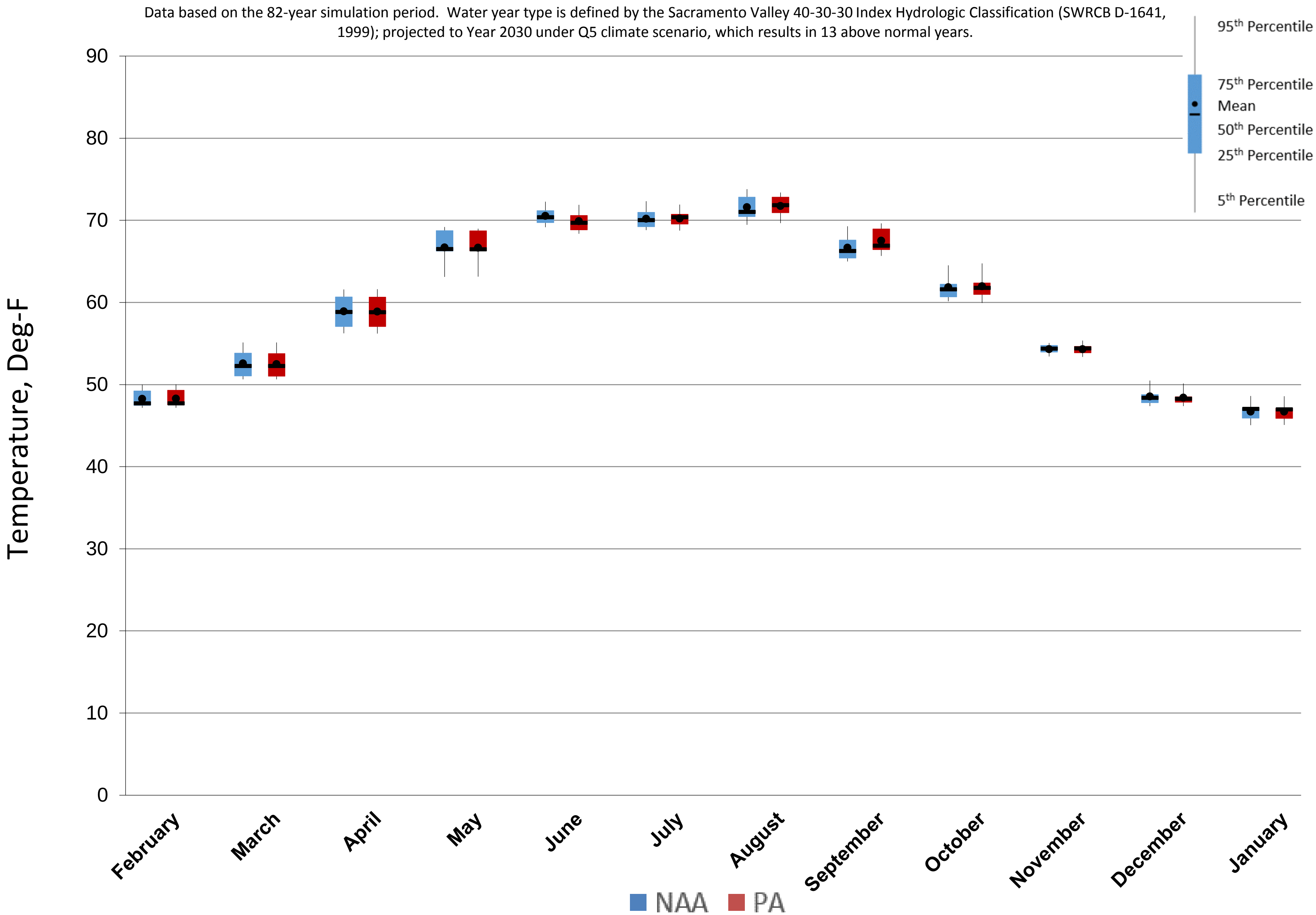


Figure 5.C.7-10-4. Monthly Temperature Ranges for Sacramento River at Knights Landing, Below Normal Years

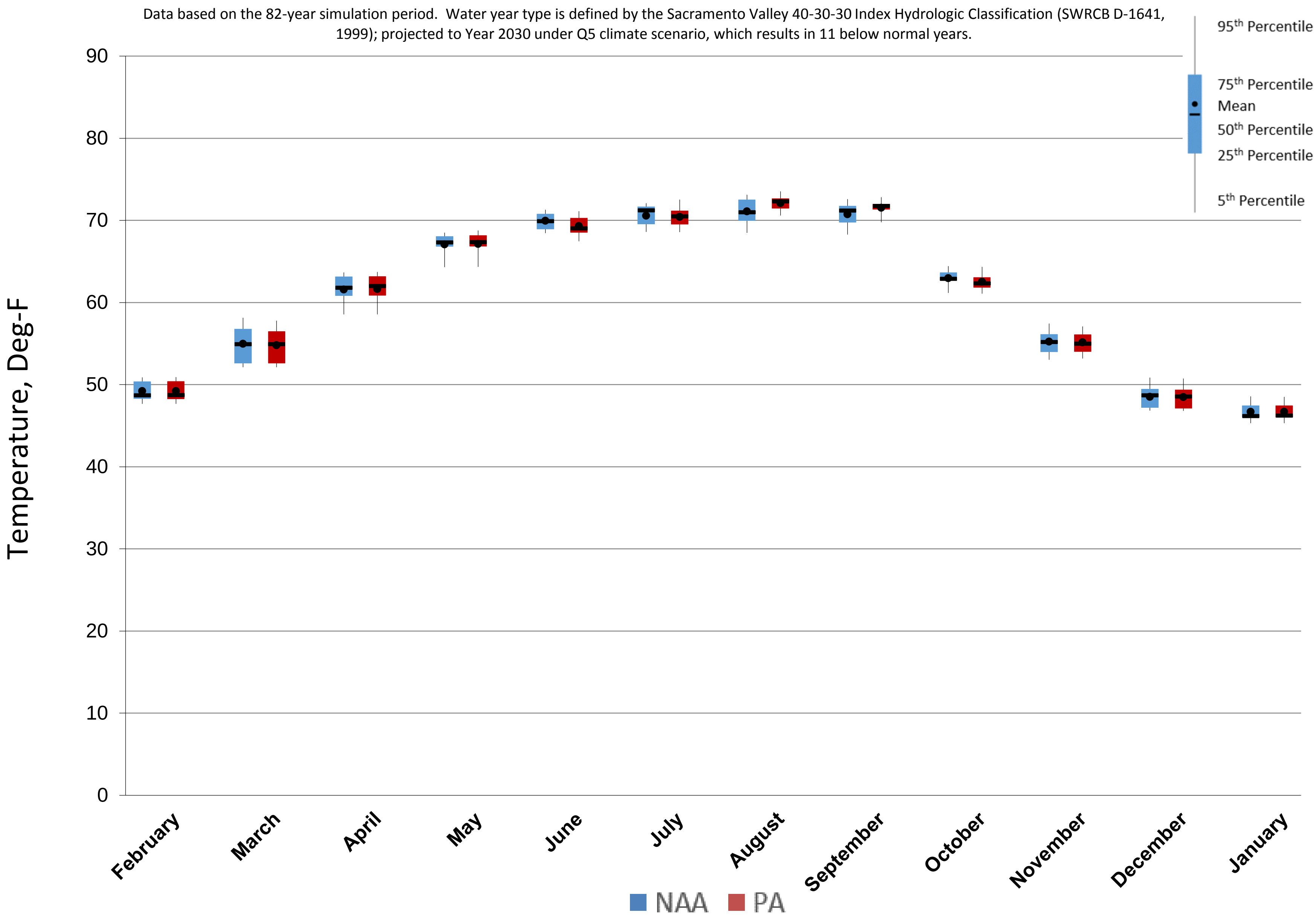


Figure 5.C.7-10-5. Monthly Temperature Ranges for Sacramento River at Knights Landing, Dry Years

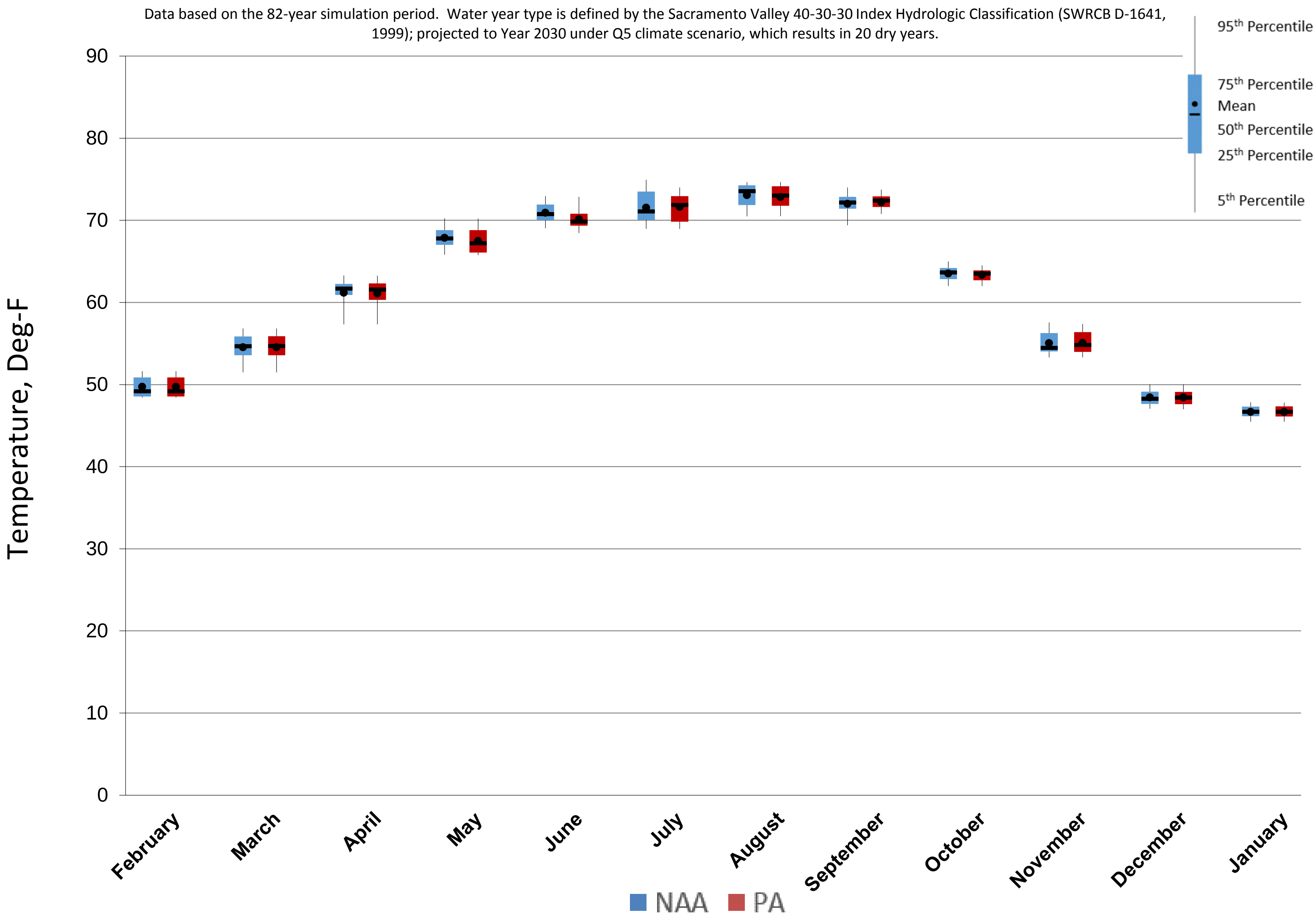


Figure 5.C.7-10-6. Monthly Temperature Ranges for Sacramento River at Knights Landing, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

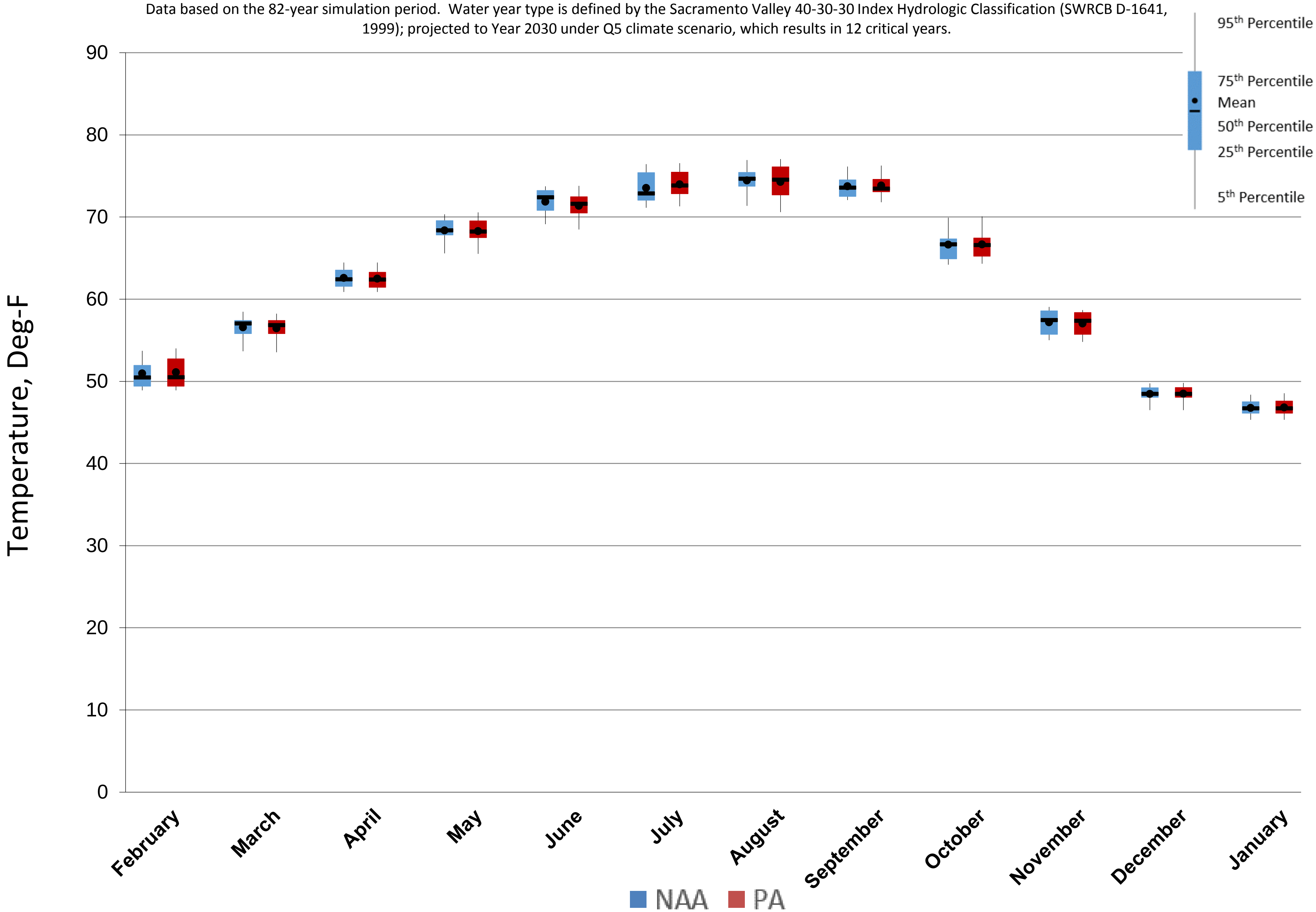
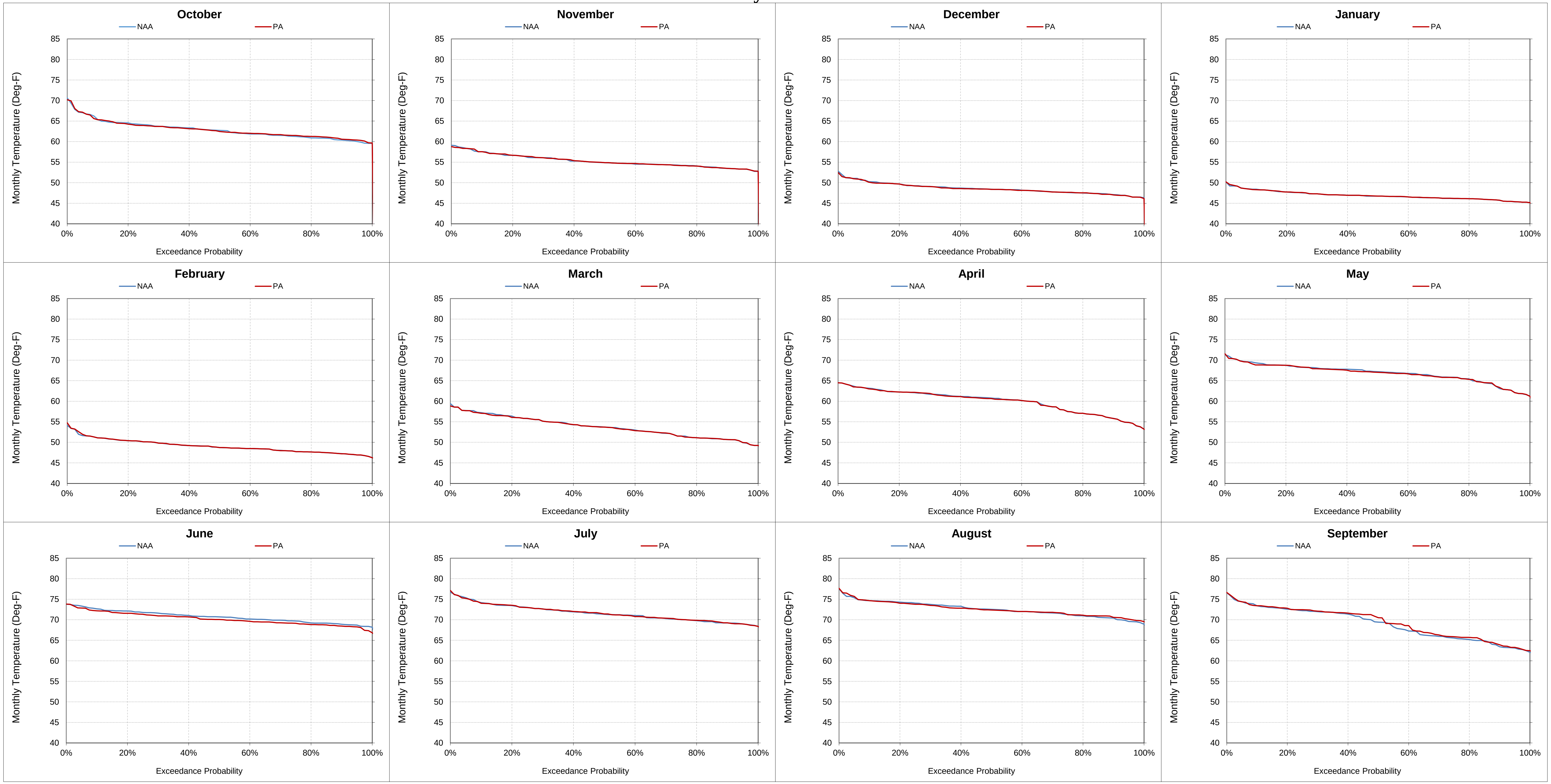
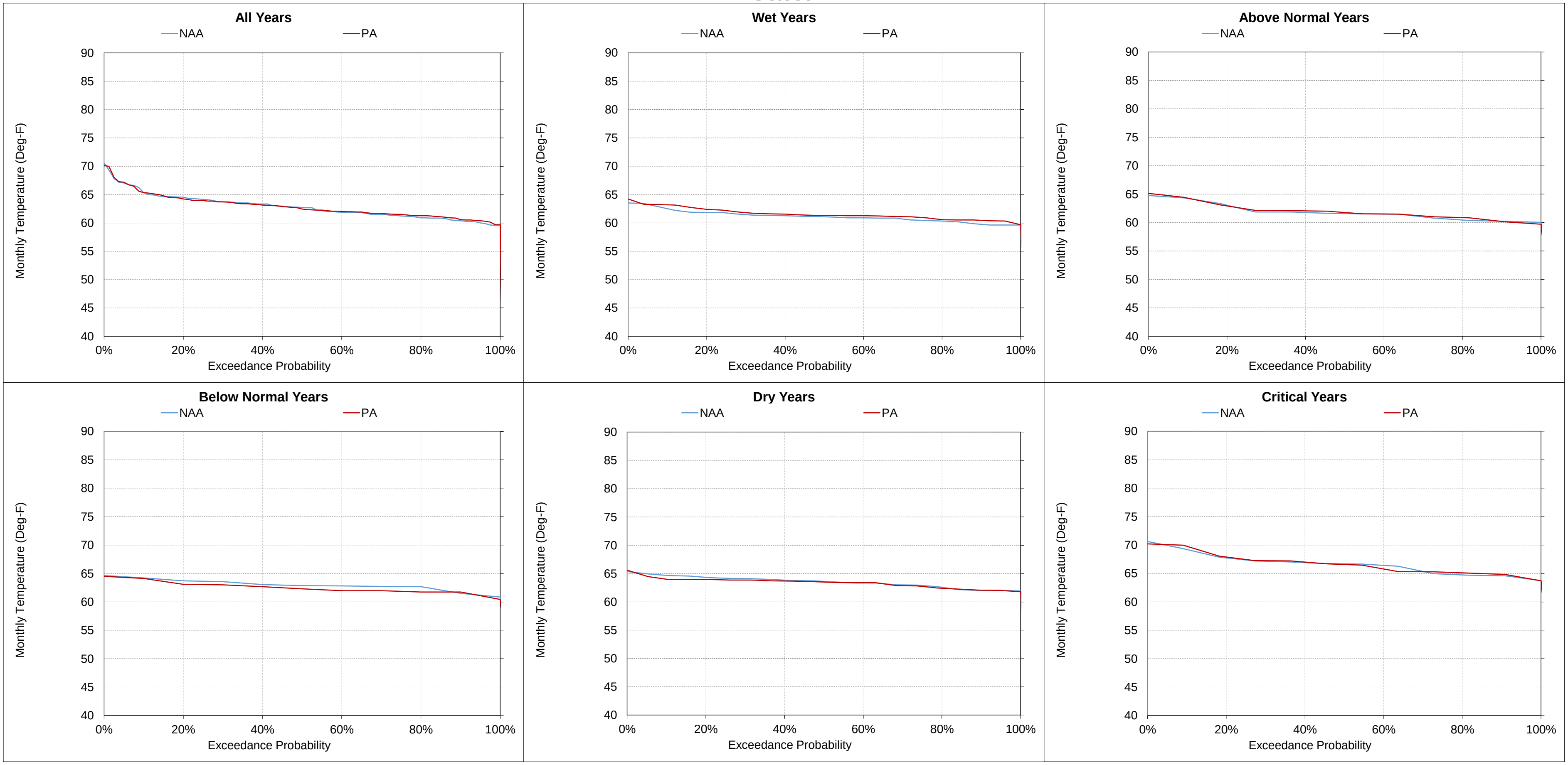


Figure 5.C.7-10-7. Sacramento River at Knights Landing, Monthly Temperature Probability of Exceedance



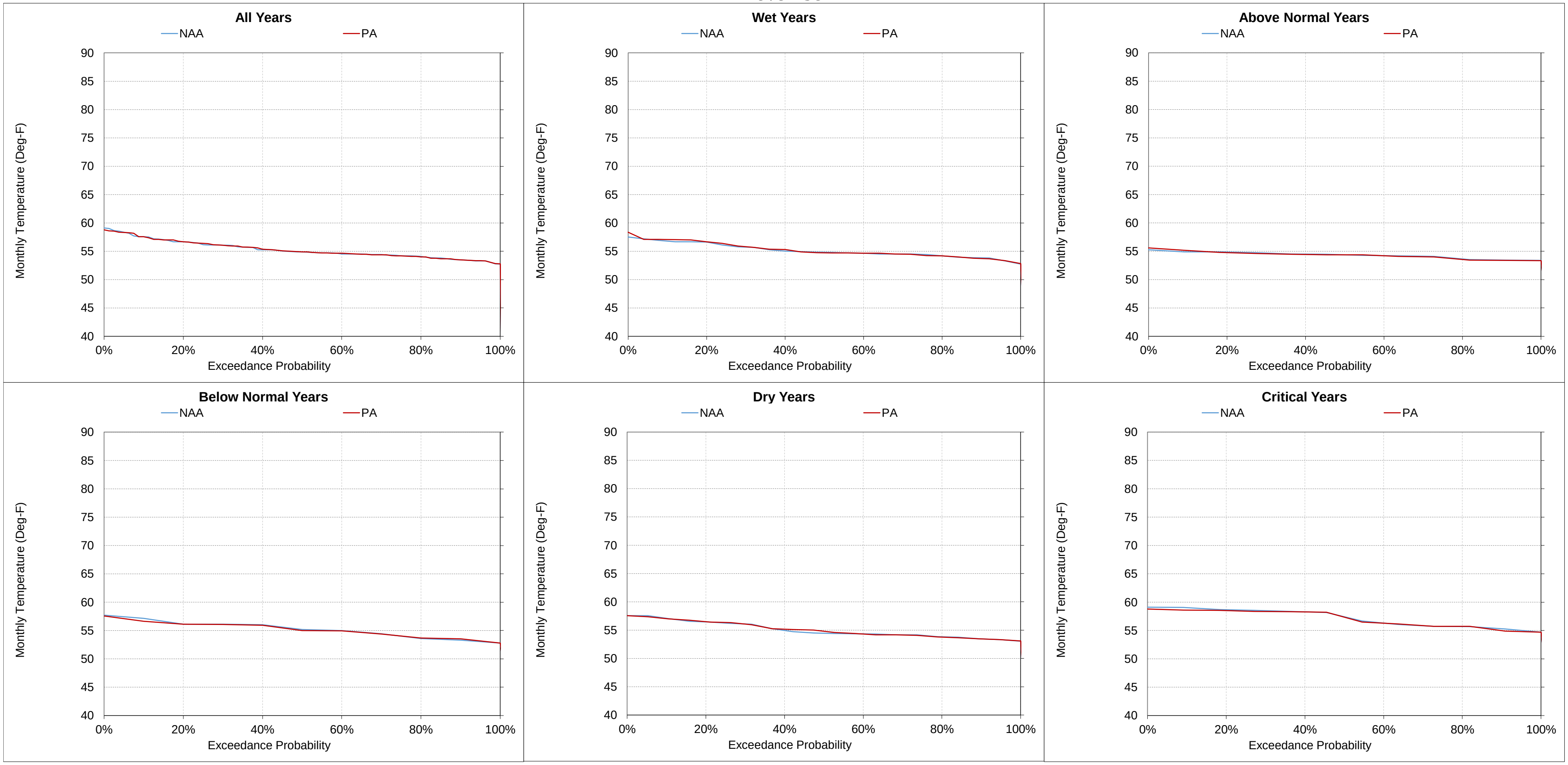
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-8. Sacramento River at Knights Landing, Monthly Temperature October



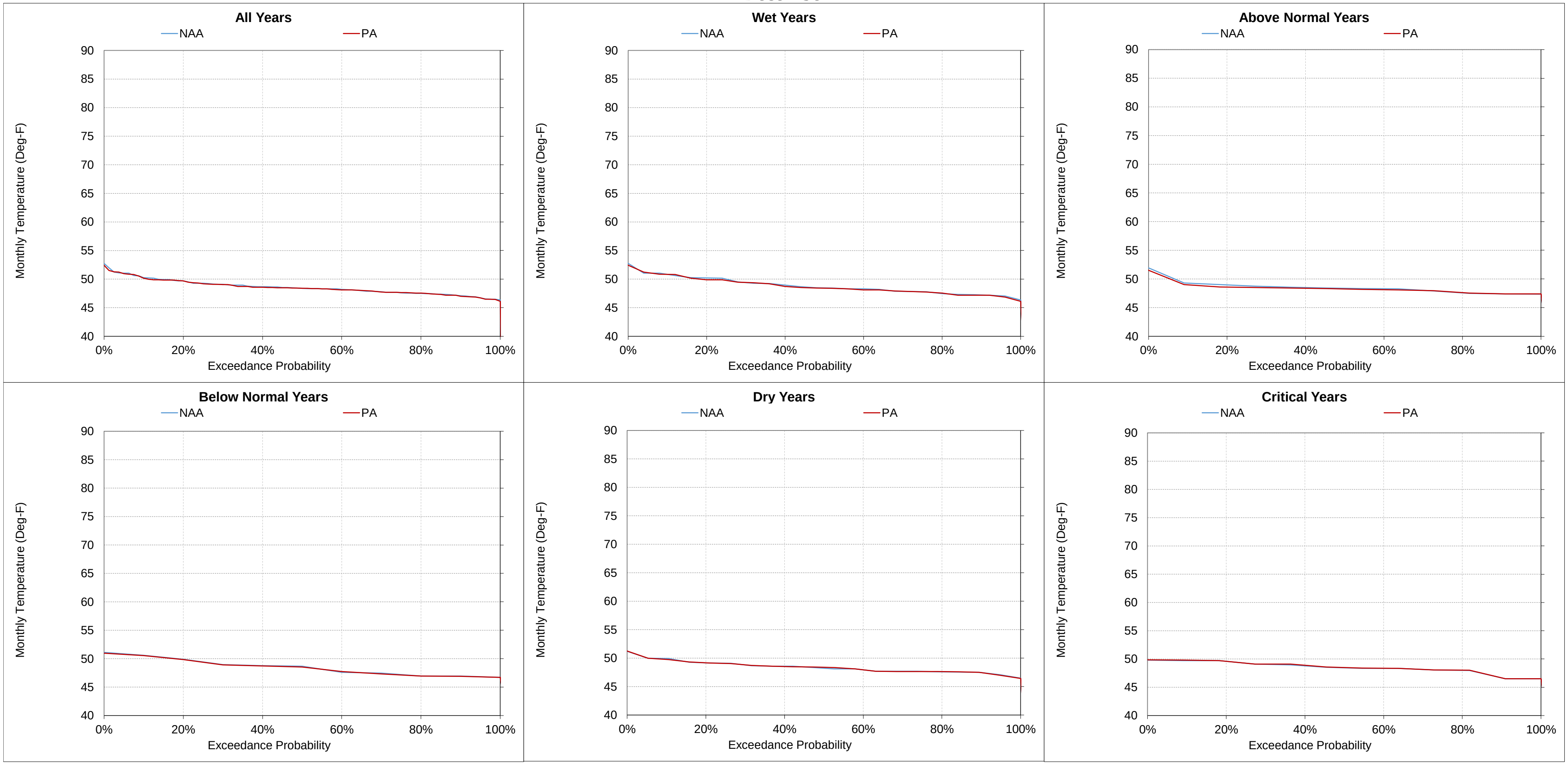
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-9. Sacramento River at Knights Landing, Monthly Temperature November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-10. Sacramento River at Knights Landing, Monthly Temperature December



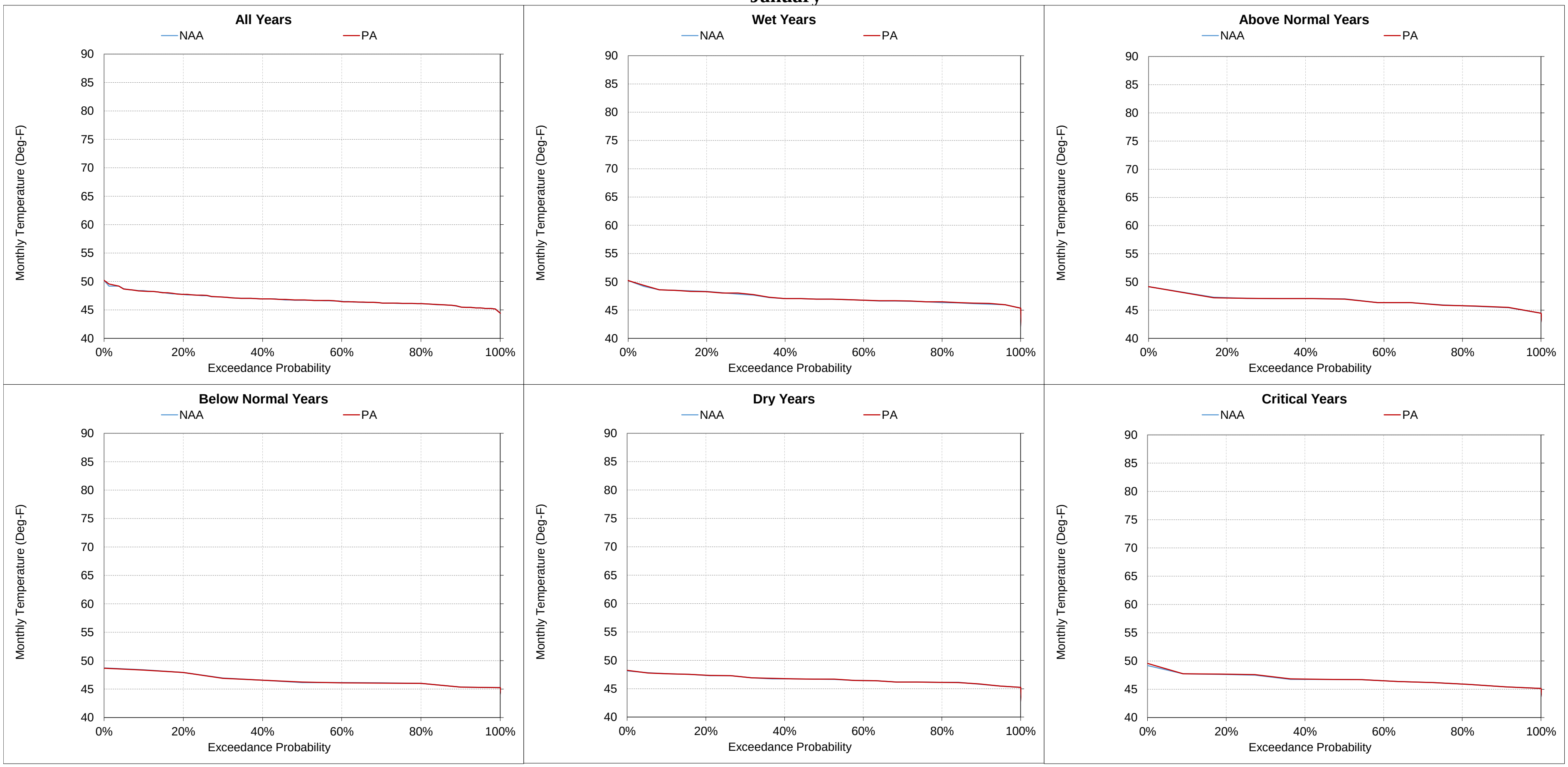
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

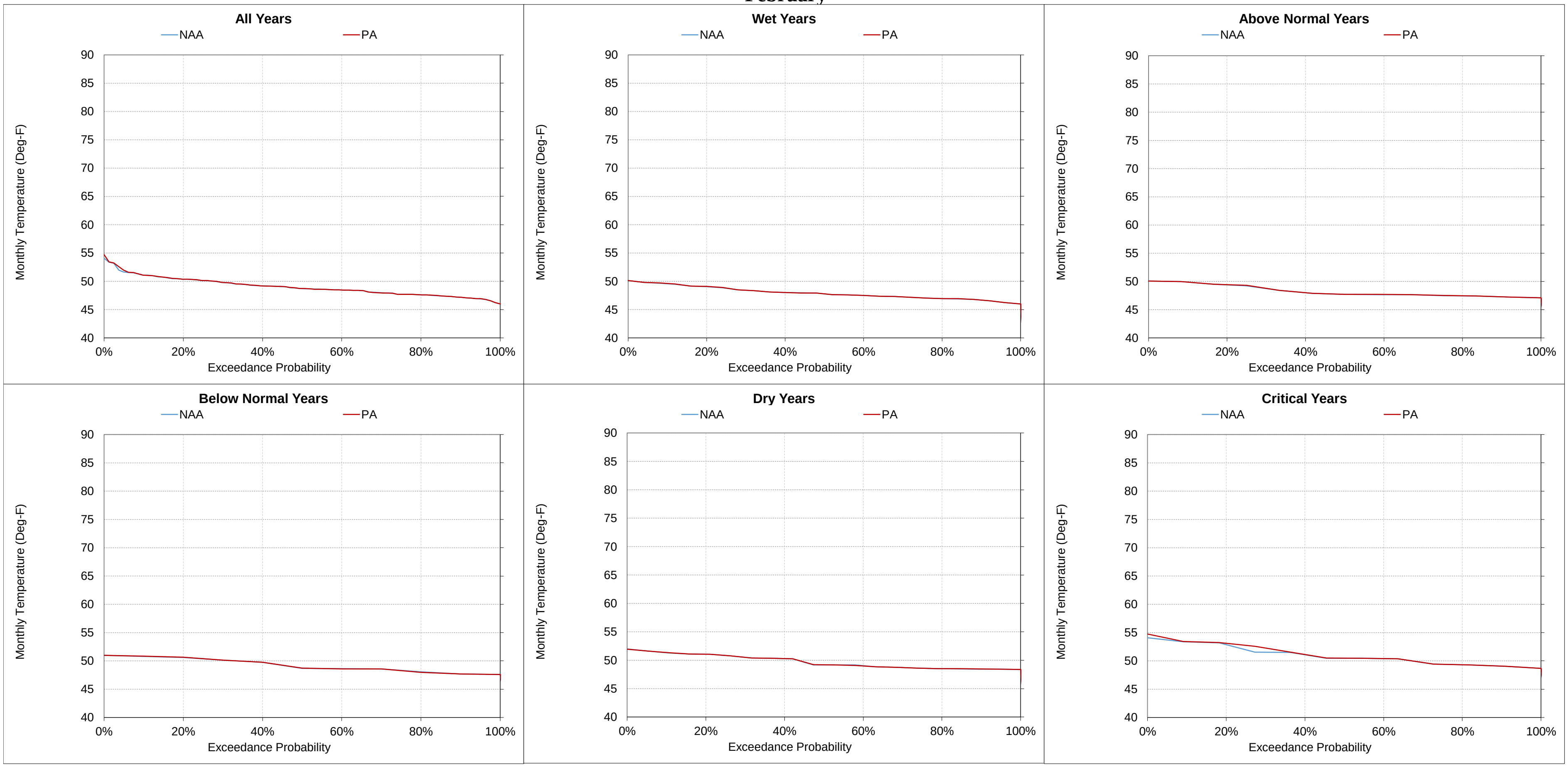
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-11. Sacramento River at Knights Landing, Monthly Temperature
January



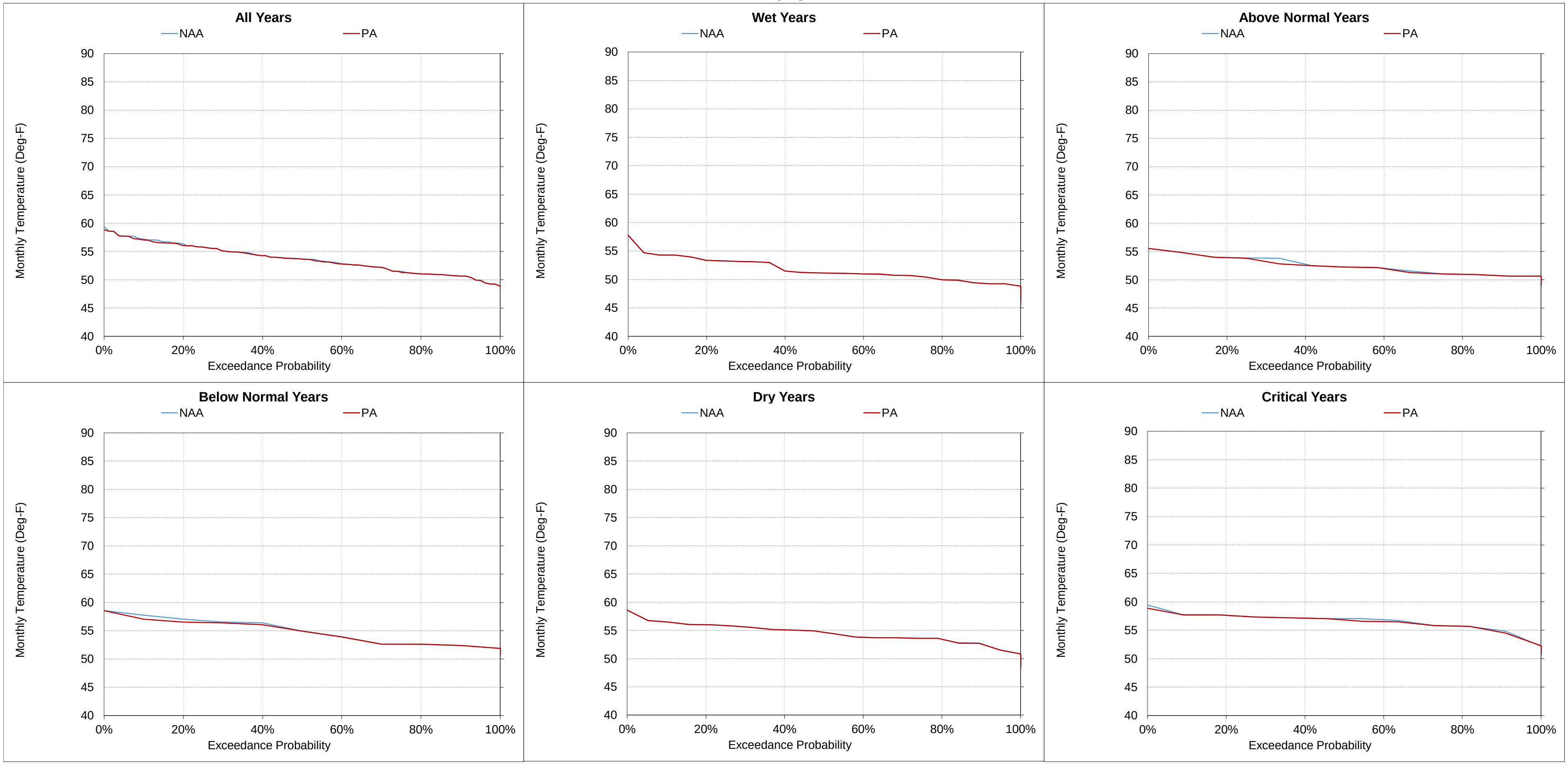
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-12. Sacramento River at Knights Landing, Monthly Temperature February



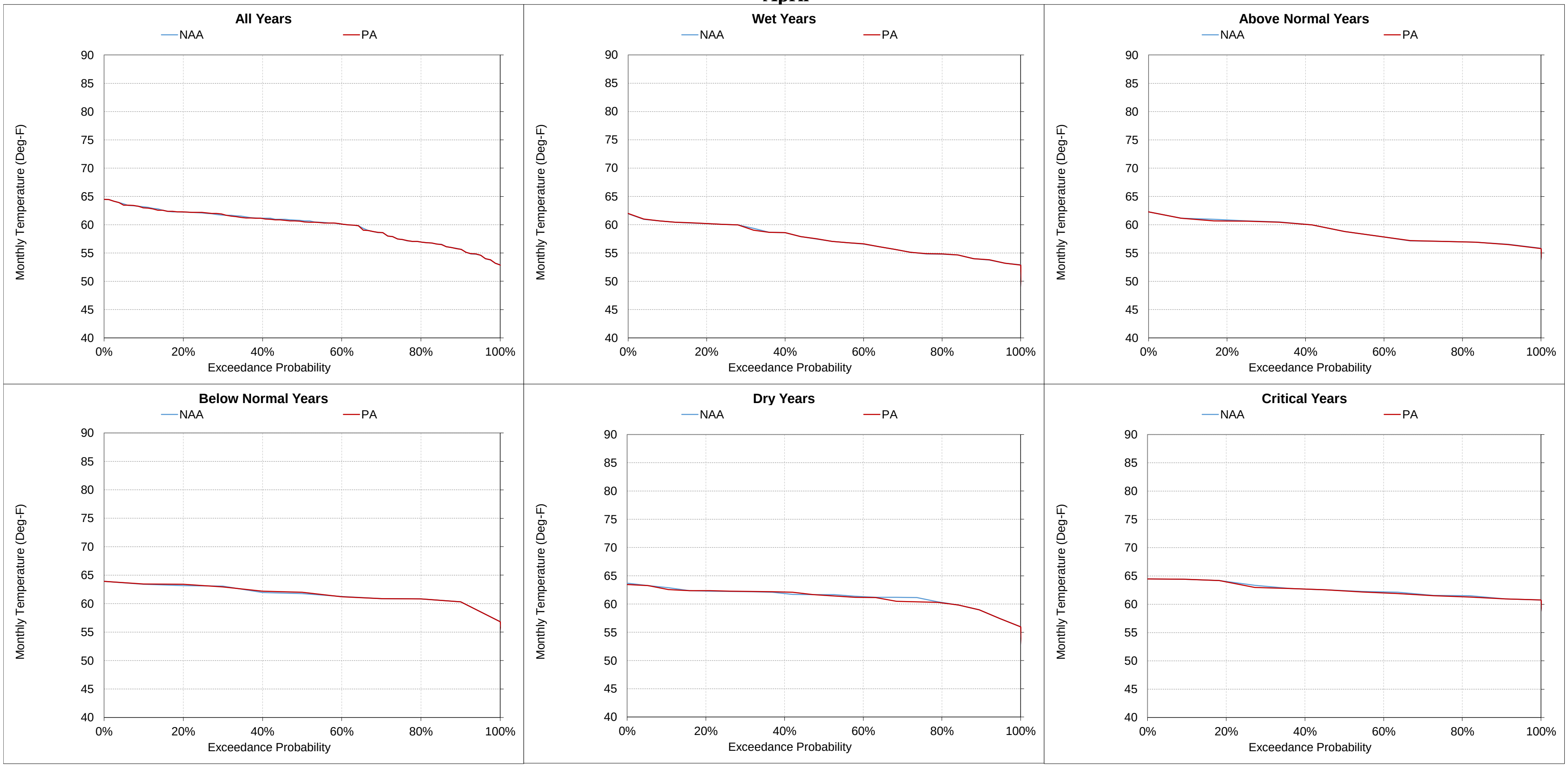
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-13. Sacramento River at Knights Landing, Monthly Temperature
March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-14. Sacramento River at Knights Landing, Monthly Temperature April



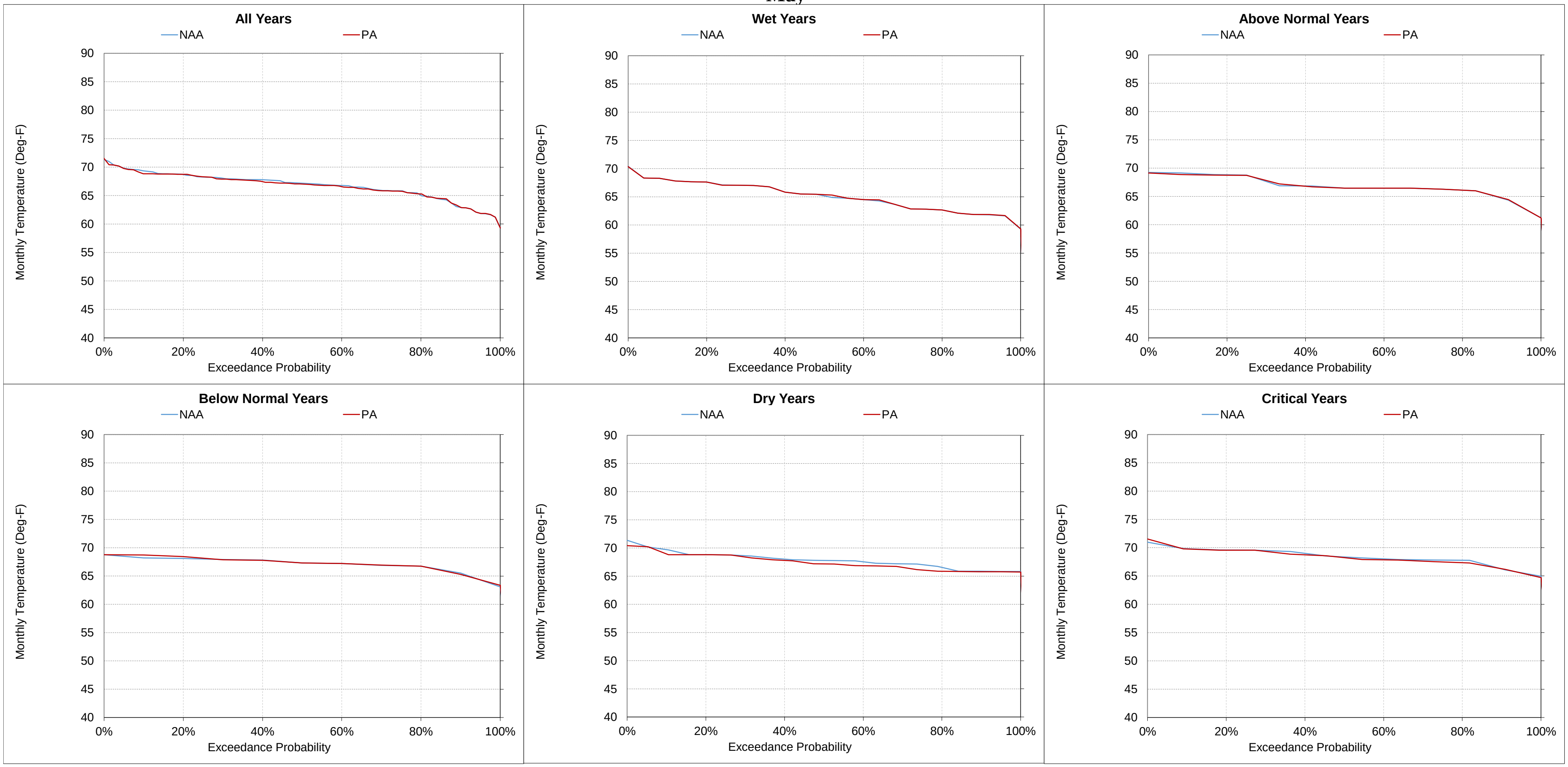
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

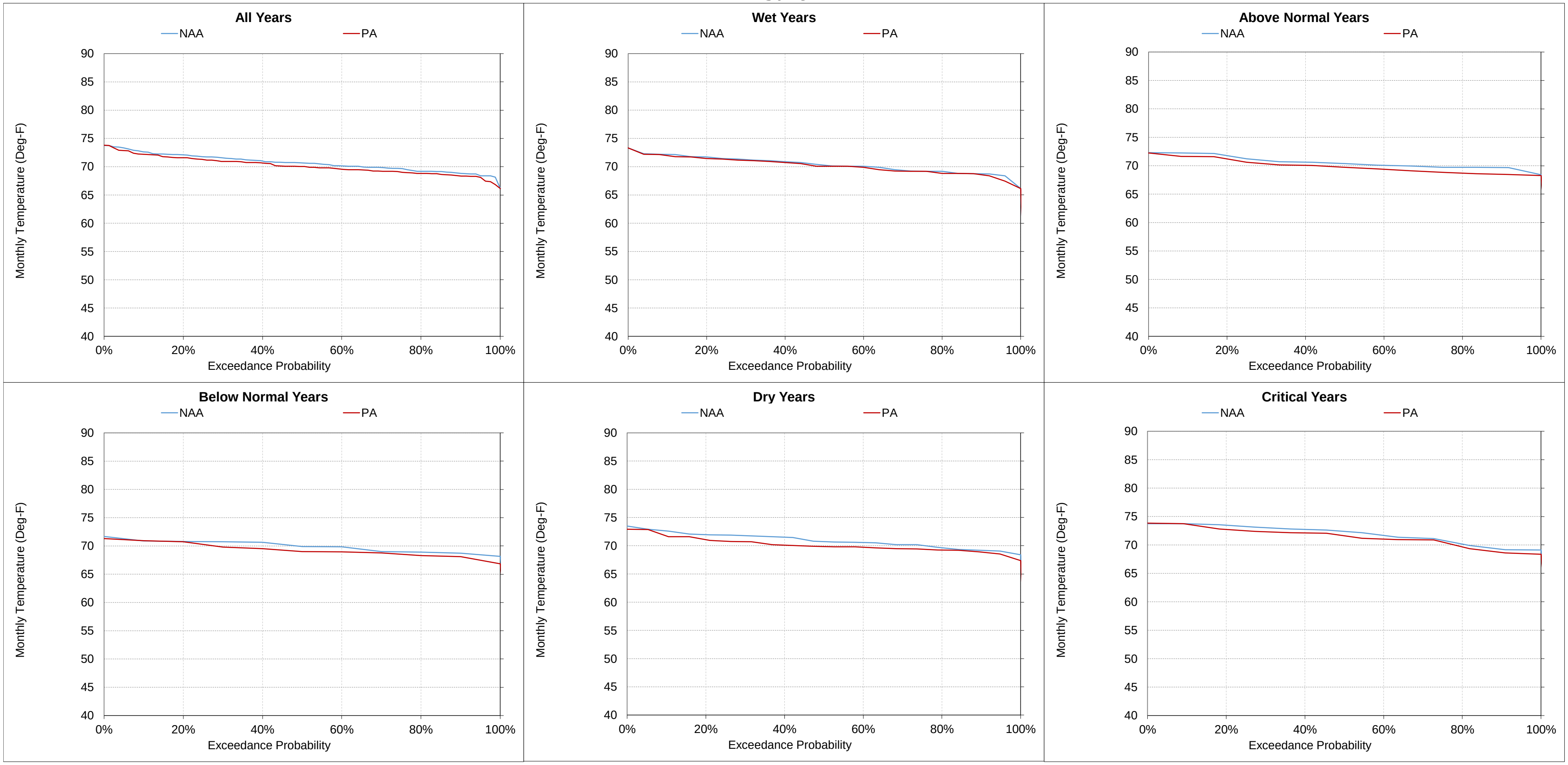
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-15. Sacramento River at Knights Landing, Monthly Temperature May



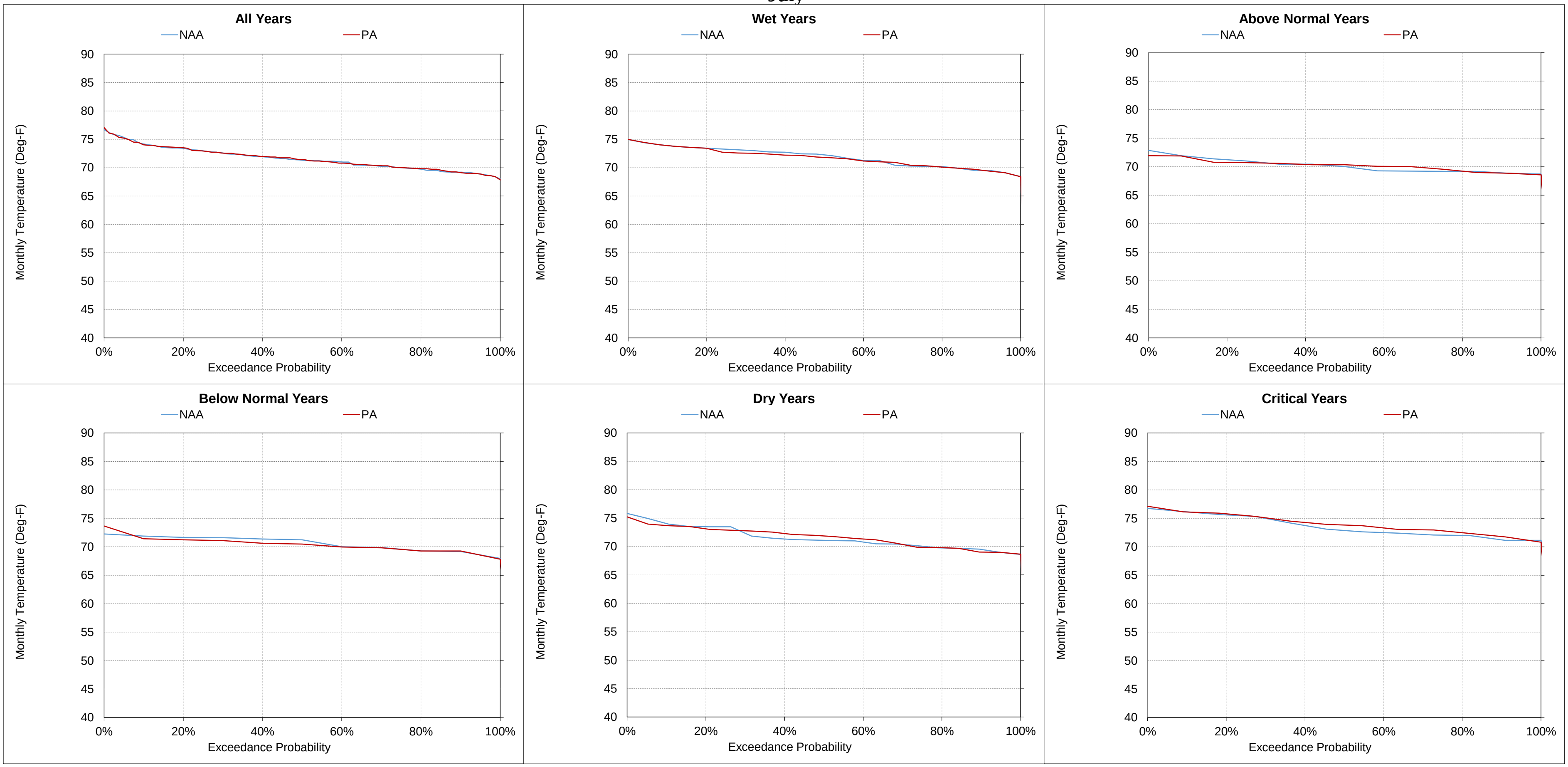
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-16. Sacramento River at Knights Landing, Monthly Temperature
June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-17. Sacramento River at Knights Landing, Monthly Temperature
July



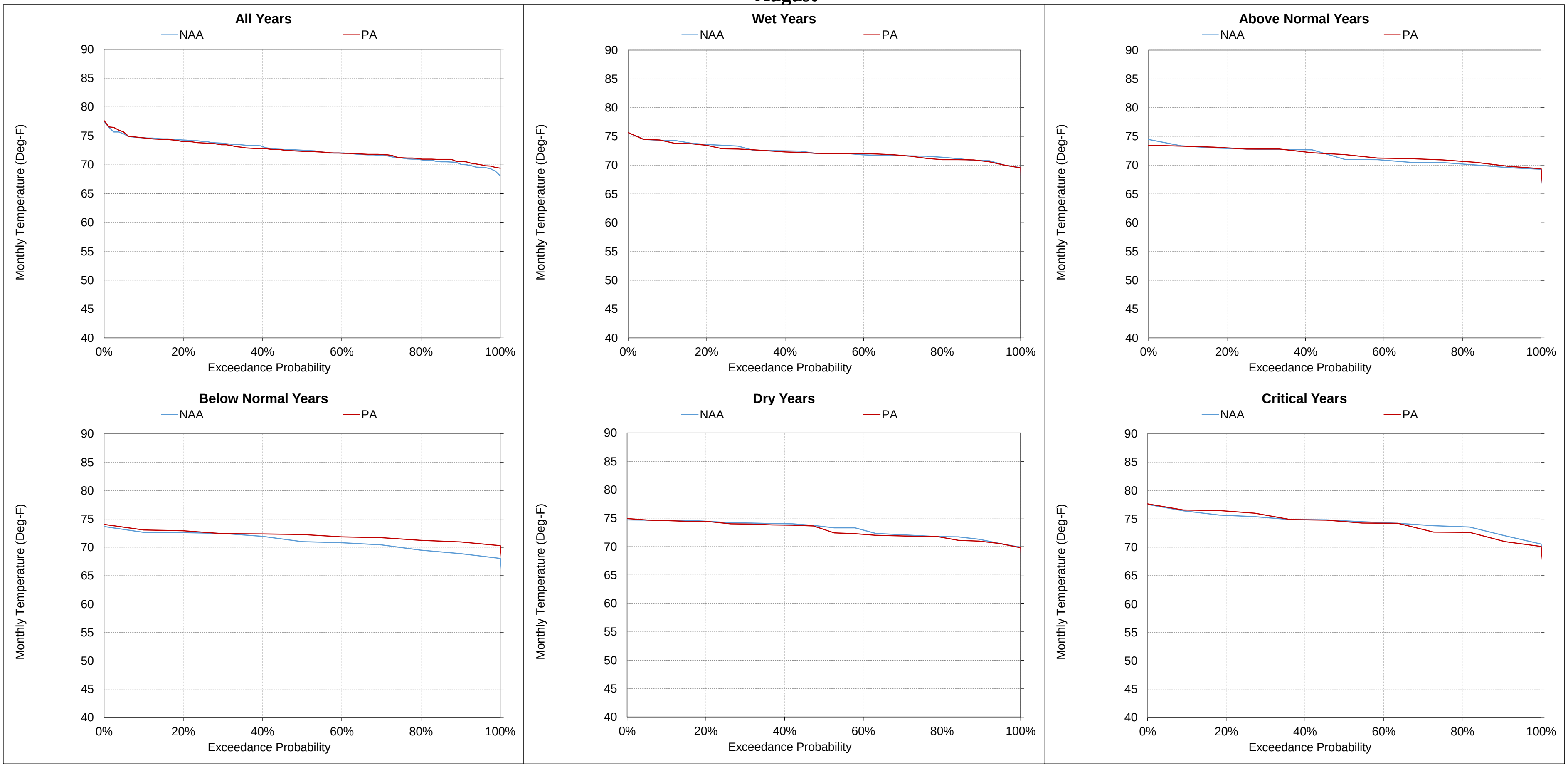
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

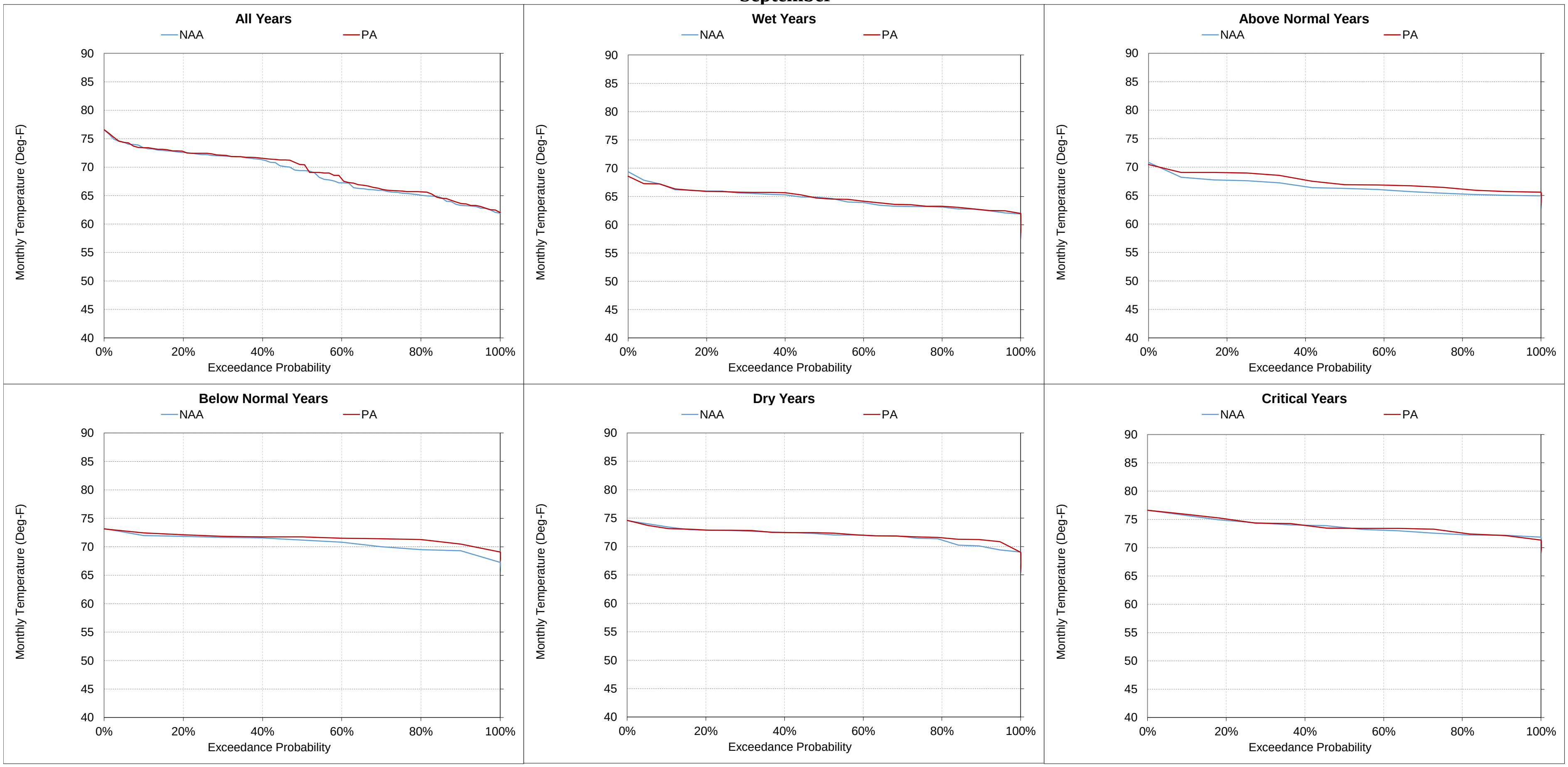
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-18. Sacramento River at Knights Landing, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-10-19. Sacramento River at Knights Landing, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-11. Feather River Low Flow Channel near Fish Dam, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	57.9	58.2	0.3	1%	58.9	58.9	0.0	0%	54.8	54.3	-0.5	-1%	51.4	51.5	0.1	0%	51.5	51.5	0.0	0%	53.4	53.4	0.0	0%
20%	56.0	55.6	-0.4	-1%	57.8	57.4	-0.4	-1%	54.0	53.4	-0.6	-1%	50.4	50.5	0.1	0%	50.9	51.1	0.2	0%	52.7	52.8	0.1	0%
30%	54.8	54.6	-0.2	0%	56.6	56.0	-0.6	-1%	53.1	53.0	-0.1	0%	49.8	49.9	0.1	0%	50.5	50.8	0.3	1%	51.7	51.9	0.2	0%
40%	54.1	54.0	-0.1	0%	56.0	55.2	-0.8	-1%	52.6	52.3	-0.3	-1%	49.4	49.4	0.0	0%	50.0	50.0	0.0	0%	51.4	51.3	-0.1	0%
50%	54.0	53.6	-0.4	-1%	55.4	54.8	-0.6	-1%	52.2	51.9	-0.3	-1%	49.2	49.3	0.1	0%	49.6	49.8	0.2	0%	50.8	50.8	0.0	0%
60%	53.7	53.4	-0.3	-1%	55.0	53.6	-1.4	-3%	51.6	51.5	-0.1	0%	48.8	48.8	0.0	0%	49.3	49.4	0.1	0%	50.1	50.2	0.1	0%
70%	53.3	53.2	-0.1	0%	54.2	52.8	-1.4	-3%	51.3	51.0	-0.3	-1%	48.1	48.2	0.1	0%	48.9	49.0	0.1	0%	49.6	49.7	0.1	0%
80%	53.2	53.1	-0.1	0%	52.8	52.5	-0.3	-1%	50.8	50.5	-0.3	-1%	47.5	47.7	0.2	0%	48.5	48.4	-0.1	0%	49.3	49.0	-0.3	-1%
90%	53.0	52.9	-0.1	0%	52.3	52.2	-0.1	0%	49.6	49.5	-0.1	0%	47.0	47.0	0.0	0%	47.6	47.7	0.1	0%	48.4	48.5	0.1	0%
Long Term																								
Full Simulation Period[b]	55.0	54.8	-0.2	0%	55.6	55.0	-0.6	-1%	52.2	52.0	-0.2	0%	49.1	49.2	0.1	0%	49.6	49.7	0.1	0%	50.9	50.9	0.0	0%
Water Year Types[c]																								
Wet (32%)	53.5	53.4	0.0	0%	54.7	54.3	-0.5	-1%	52.9	52.6	-0.4	-1%	50.1	50.1	0.0	0%	48.7	48.8	0.1	0%	49.4	49.4	0.0	0%
Above Normal (16%)	53.5	53.3	-0.1	0%	54.5	54.1	-0.5	-1%	51.9	51.8	-0.2	0%	48.8	49.0	0.1	0%	45.9	45.9	0.0	0%	46.1	46.0	0.0	0%
Below Normal (13%)	54.5	54.3	-0.2	0%	55.6	54.5	-1.1	-2%	52.2	51.5	-0.7	-1%	48.2	48.3	0.1	0%	50.2	50.3	0.1	0%	51.6	51.8	0.2	0%
Dry (24%)	55.5	54.9	-0.6	-1%	55.9	55.2	-0.7	-1%	52.1	52.0	-0.1	0%	46.5	46.6	0.1	0%	49.9	50.1	0.2	0%	52.3	52.2	-0.1	0%
Critical (15%)	59.5	59.3	-0.3	0%	57.8	57.4	-0.4	-1%	51.2	51.3	0.1	0%	48.1	48.2	0.1	0%	50.3	50.4	0.1	0%	52.1	52.0	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	53.8	53.6	-0.2	0%	56.9	56.9	0.0	0%	58.8	58.7	-0.1	0%	62.7	62.4	-0.3	0%	62.7	62.9	0.2	0%	59.8	58.3	-1.5	-3%
20%	53.1	52.8	-0.3	-1%	56.5	56.6	0.1	0%	58.5	58.4	-0.1	0%	61.9	62.0	0.1	0%	62.0	62.2	0.2	0%	57.1	57.3	0.2	0%
30%	52.4	52.4	0.0	0%	56.2	56.3	0.1	0%	58.3	58.2	-0.1	0%	61.4	61.5	0.1	0%	61.5	61.5	0.0	0%	56.8	56.7	-0.1	0%
40%	52.2	52.2	0.0	0%	56.0	56.0	0.0	0%	58.2	57.9	-0.3	-1%	61.2	61.3	0.1	0%	60.8	61.0	0.2	0%	55.5	56.4	0.9	2%
50%	51.9	51.9	0.0	0%	55.9	55.9	0.0	0%	58.0	57.8	-0.2	0%	61.1	61.1	0.0	0%	60.4	60.7	0.3	0%	54.9	56.1	1.2	2%
60%	51.7	51.7	0.0	0%	55.7	55.8	0.1	0%	57.8	57.5	-0.3	-1%	61.1	61.0	-0.1	0%	60.3	60.4	0.1	0%	54.7	55.3	0.6	1%
70%	51.3	51.3	0.0	0%	55.3	55.3	0.0	0%	57.6	57.4	-0.2	0%	60.9	61.0	0.1	0%	60.1	60.2	0.1	0%	54.6	55.0	0.4	1%
80%	50.6	50.7	0.1	0%	54.9	54.9	0.0	0%	57.5	57.3	-0.2	0%	60.9	60.9	0.0	0%	59.9	60.0	0.1	0%	54.5	54.8	0.3	1%
90%	50.2	50.2	0.0	0%	54.5	54.5	0.0	0%	57.2	57.0	-0.2	0%	60.8	60.7	-0.1	0%	59.7	59.7	0.0	0%	54.3	54.6	0.3	1%
Long Term																								
Full Simulation Period[b]	52.0	51.9	0.0	0%	55.8	55.8	0.0	0%	58.0	57.8	-0.2	0%	61.4	61.4	0.0	0%	61.0	61.0	0.0	0%	56.1	56.3	0.2	0%
Water Year Types[c]																								
Wet (32%)	50.9	51.0	0.0	0%	55.1	55.1	0.0	0%	57.8	57.5	-0.2	0%	61.3	61.2	-0.1	0%	60.5	60.6	0.2	0%	54.5	54.8	0.3	0%
Above Normal (16%)	48.0	47.9	-0.1	0%	51.9	51.9	0.0	0%	53.6	53.3	-0.4	-1%	56.2	56.2	0.0	0%	55.3	55.5	0.2	0%	50.3	50.7	0.4	1%
Below Normal (13%)	52.6	52.5	-0.1	0%	55.9	55.9	0.0	0%	58.1	57.8	-0.3	0%	61.0	61.0	0.0	0%	60.4	60.6	0.2	0%	56.0	57.0	1.0	2%
Dry (24%)	52.6	52.7	0.0	0%	56.0	56.0	0.0	0%	57.9	57.9	-0.1	0%	61.3	61.4	0.1	0%	61.5	61.3	-0.2	0%	56.8	57.0	0.2	0%
Critical (15%)	52.4	52.4	-0.1	0%	56.4	56.4	0.0	0%	58.6	58.6	0.1	0%	62.8	62.7	-0.1	0%	62.8	62.5	-0.2	0%	60.2	59.3	-0.9	-2%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-1. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, All Years

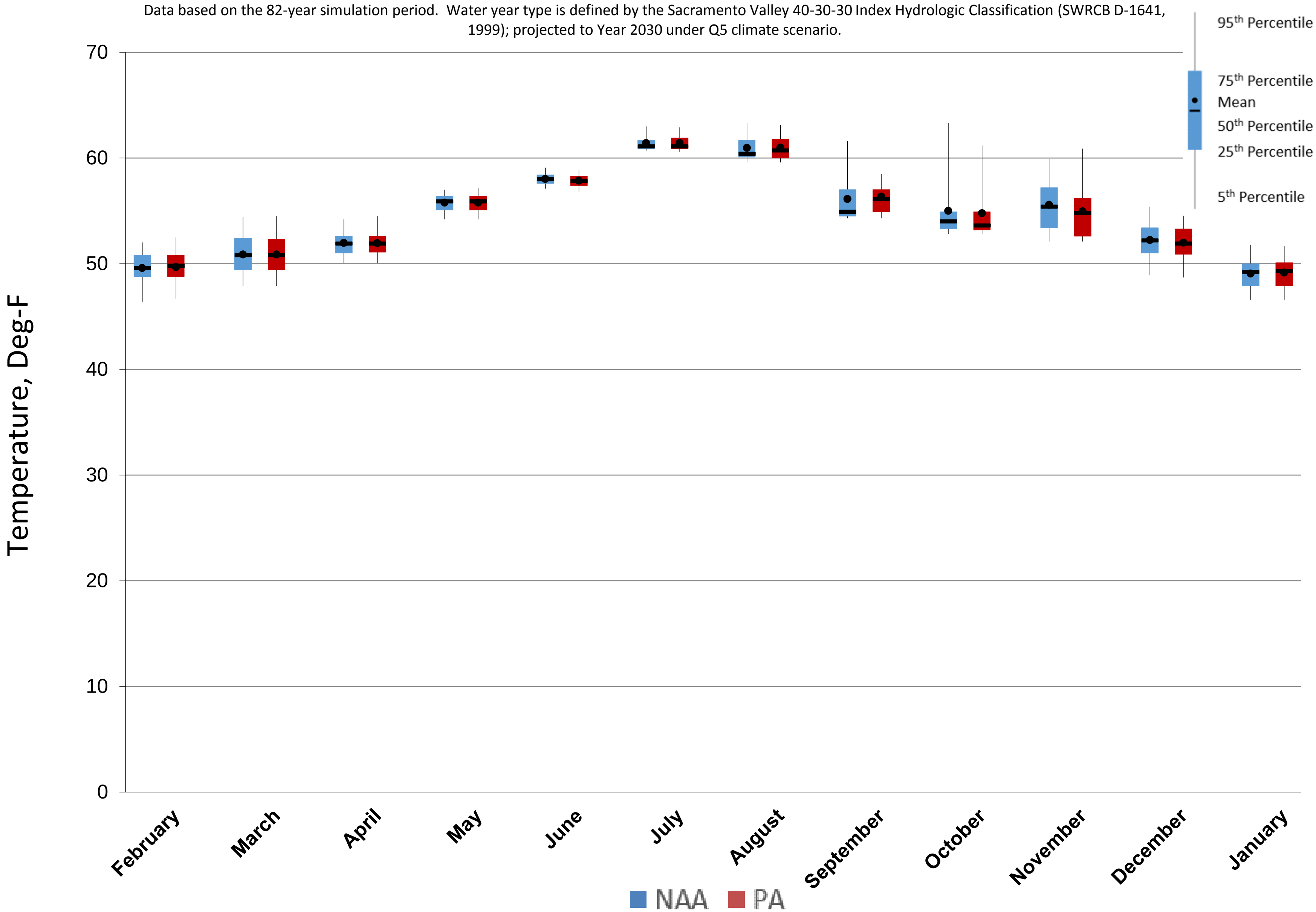
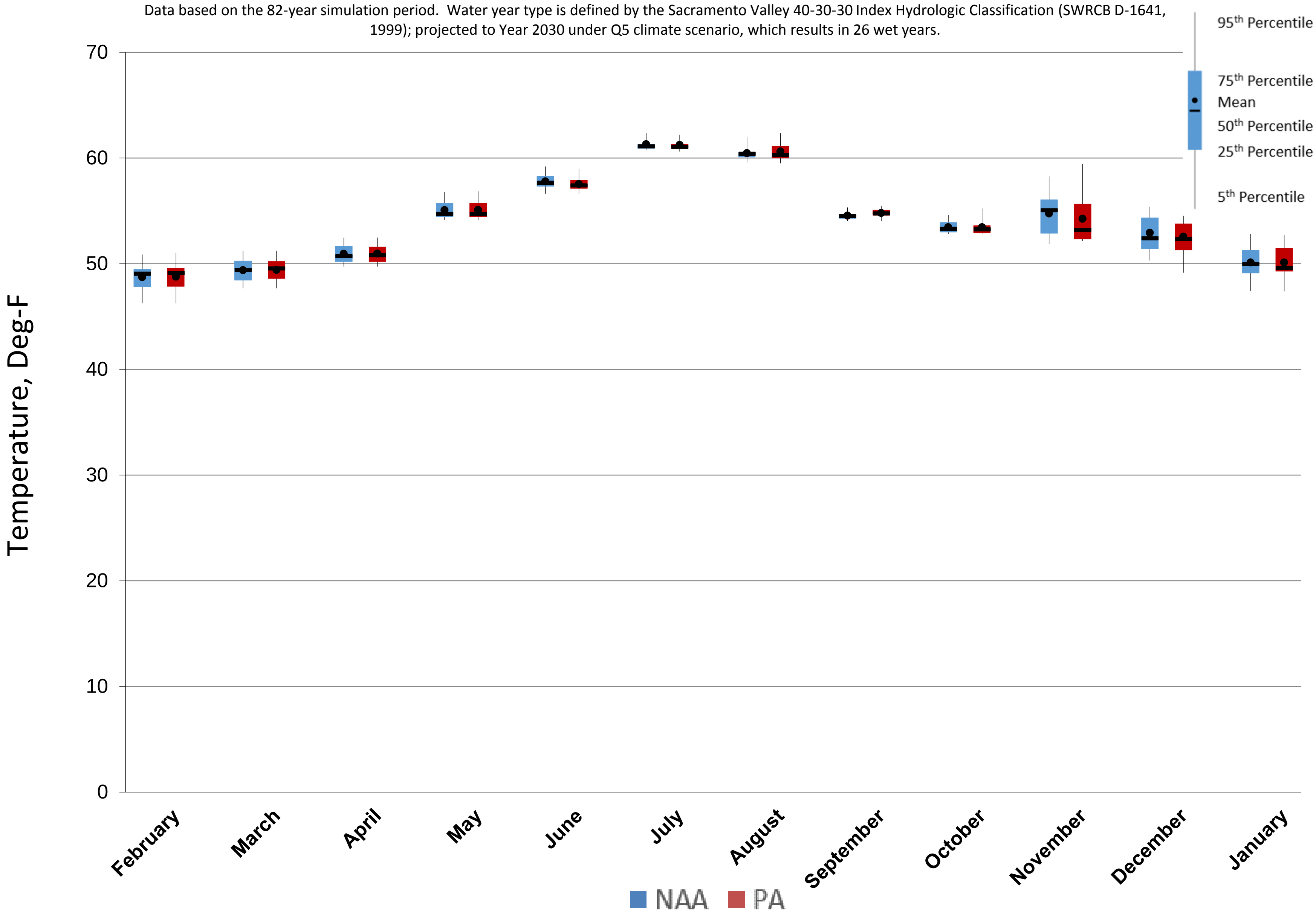


Figure 5.C.7-11-2. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, Wet Years



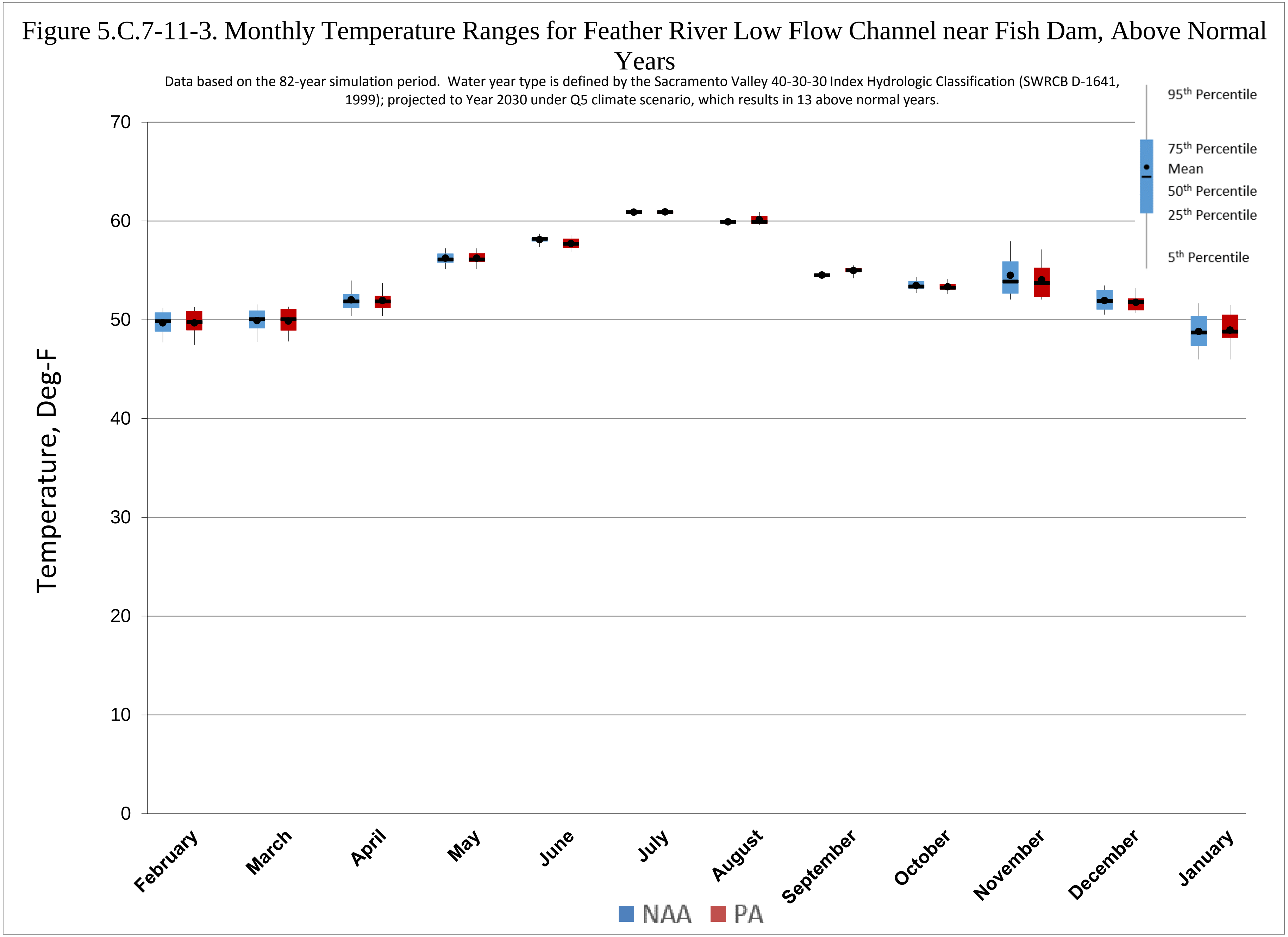


Figure 5.C.7-11-3. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, Above Normal Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

Figure 5.C.7-11-4. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, Below Normal Years

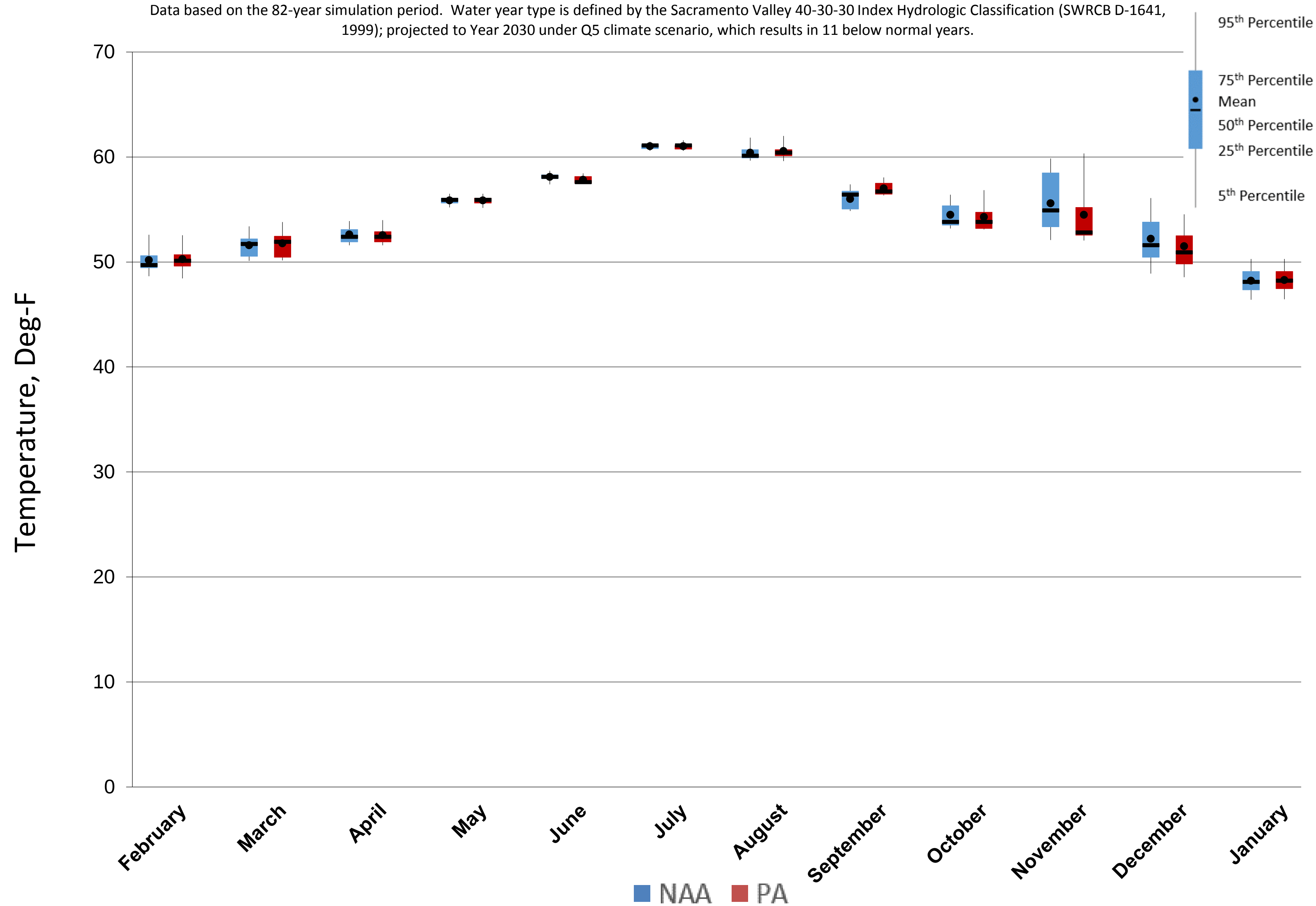


Figure 5.C.7-11-5. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, Dry Years

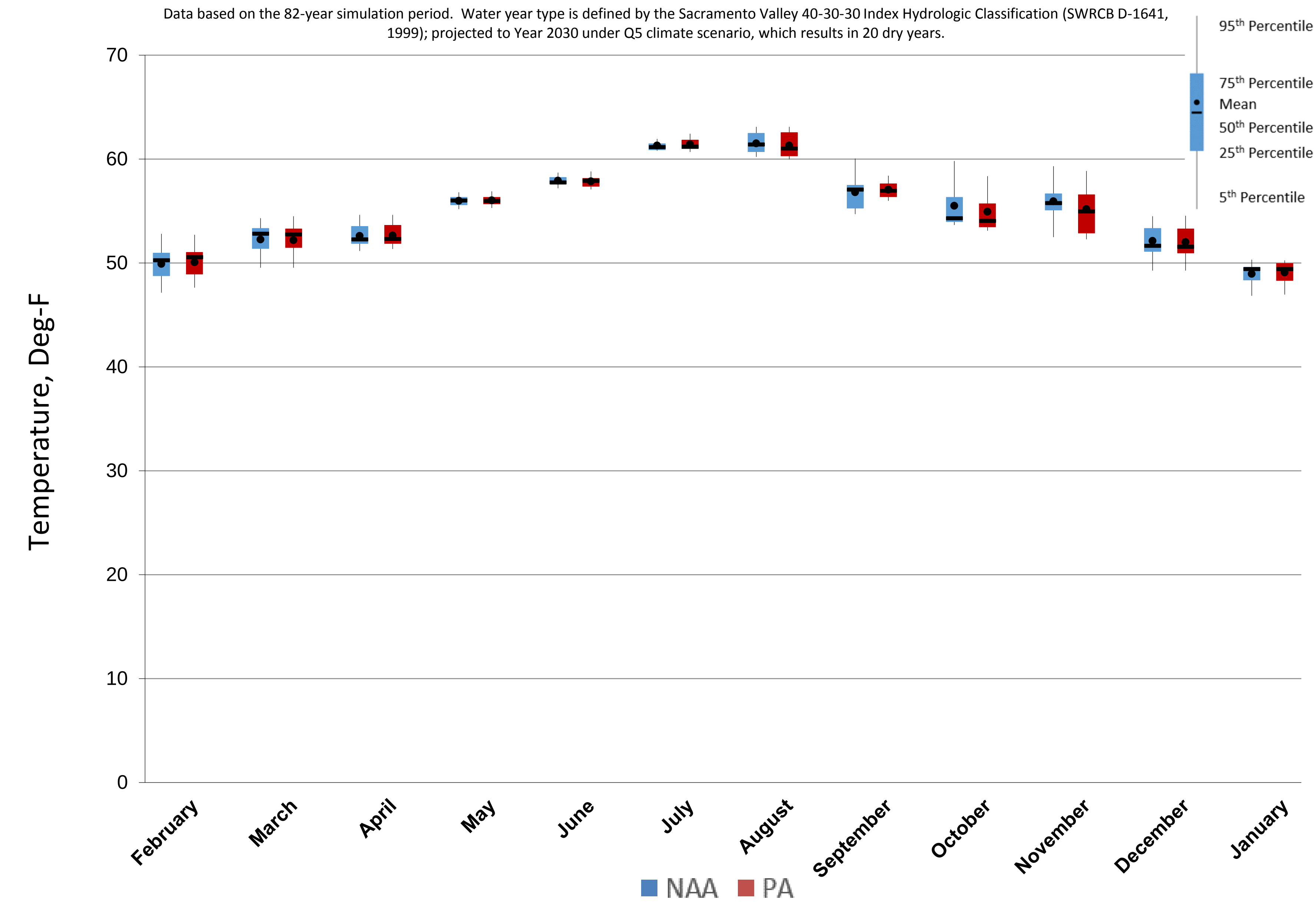


Figure 5.C.7-11-6. Monthly Temperature Ranges for Feather River Low Flow Channel near Fish Dam, Critical Years

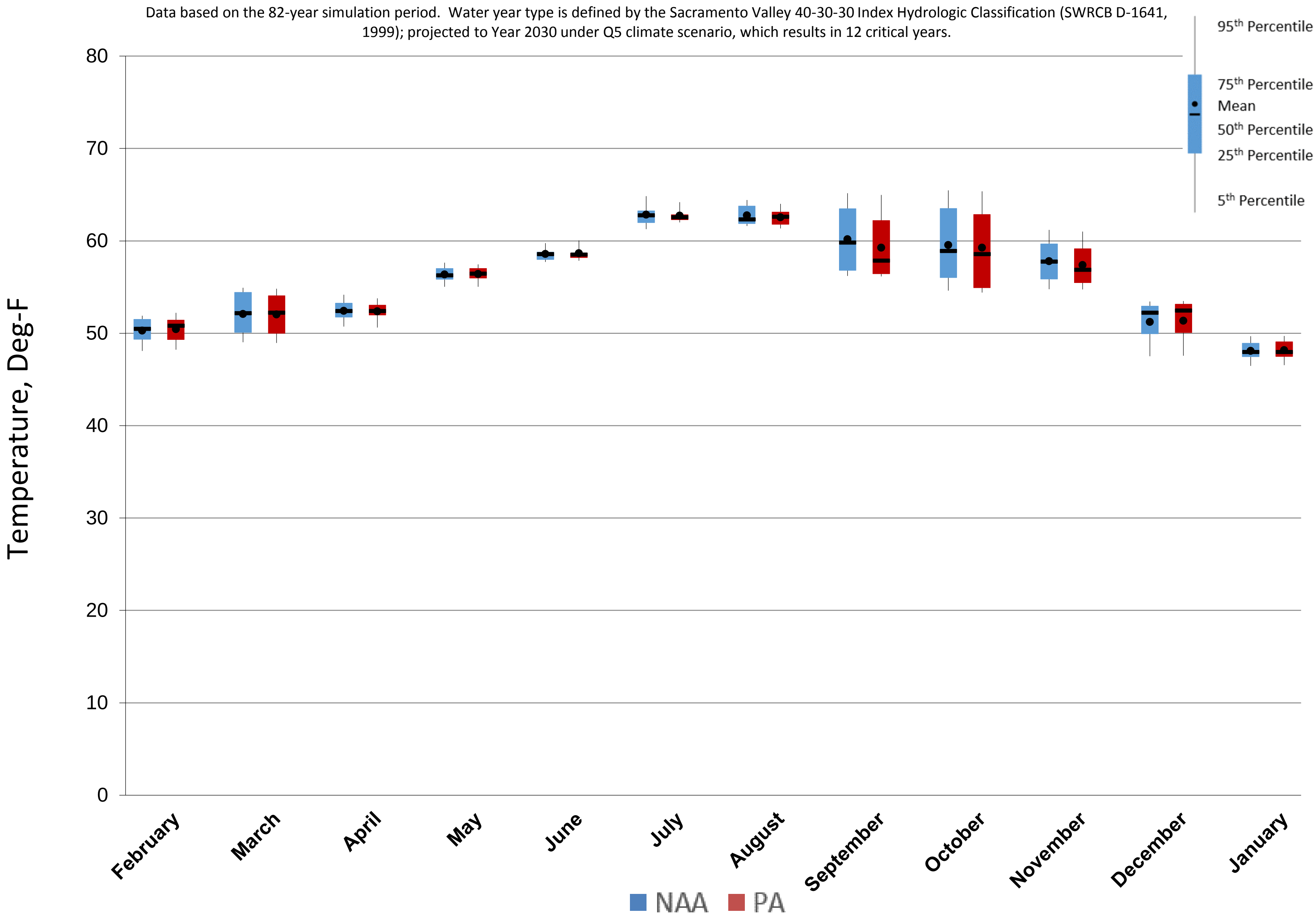
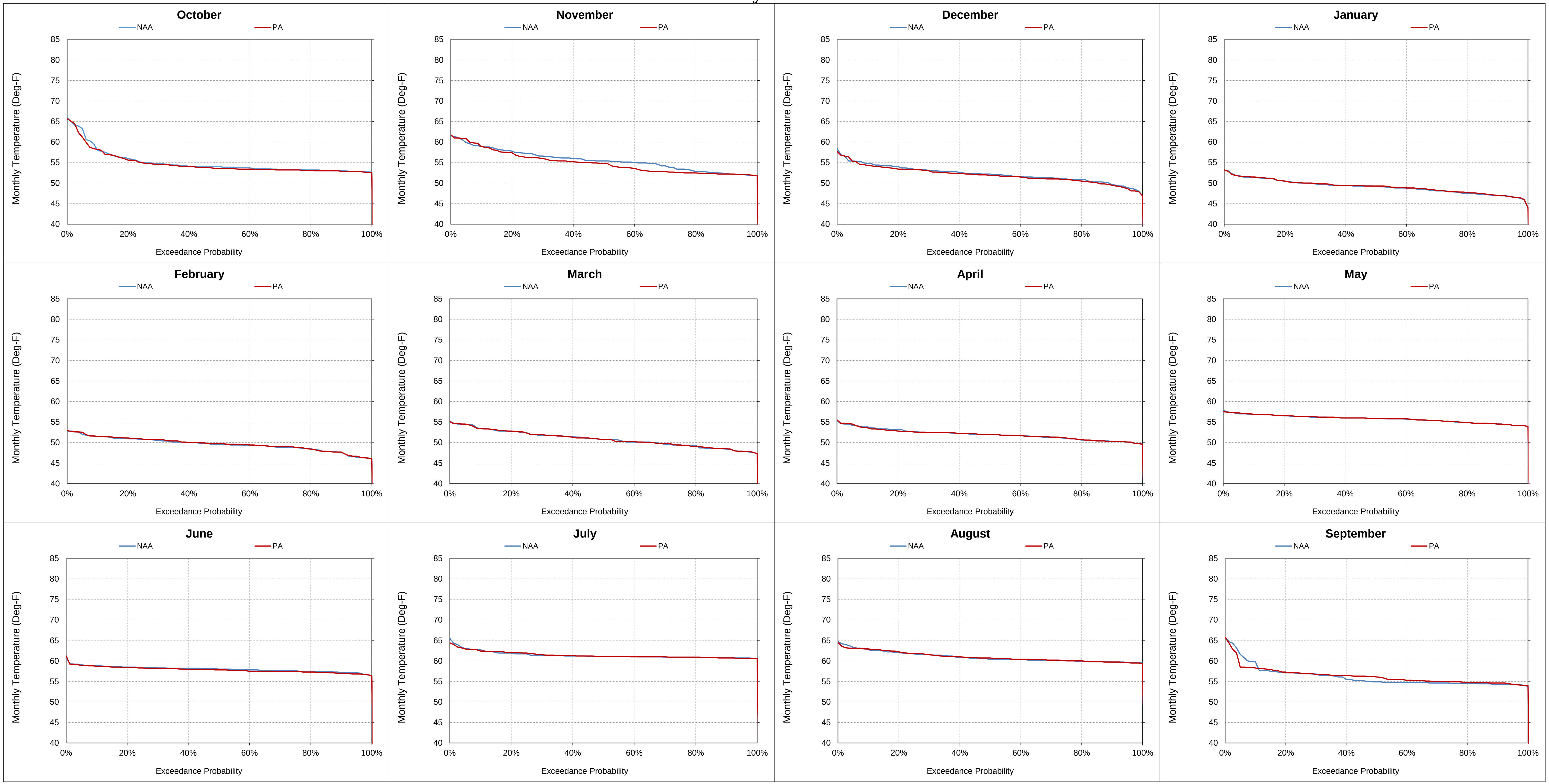
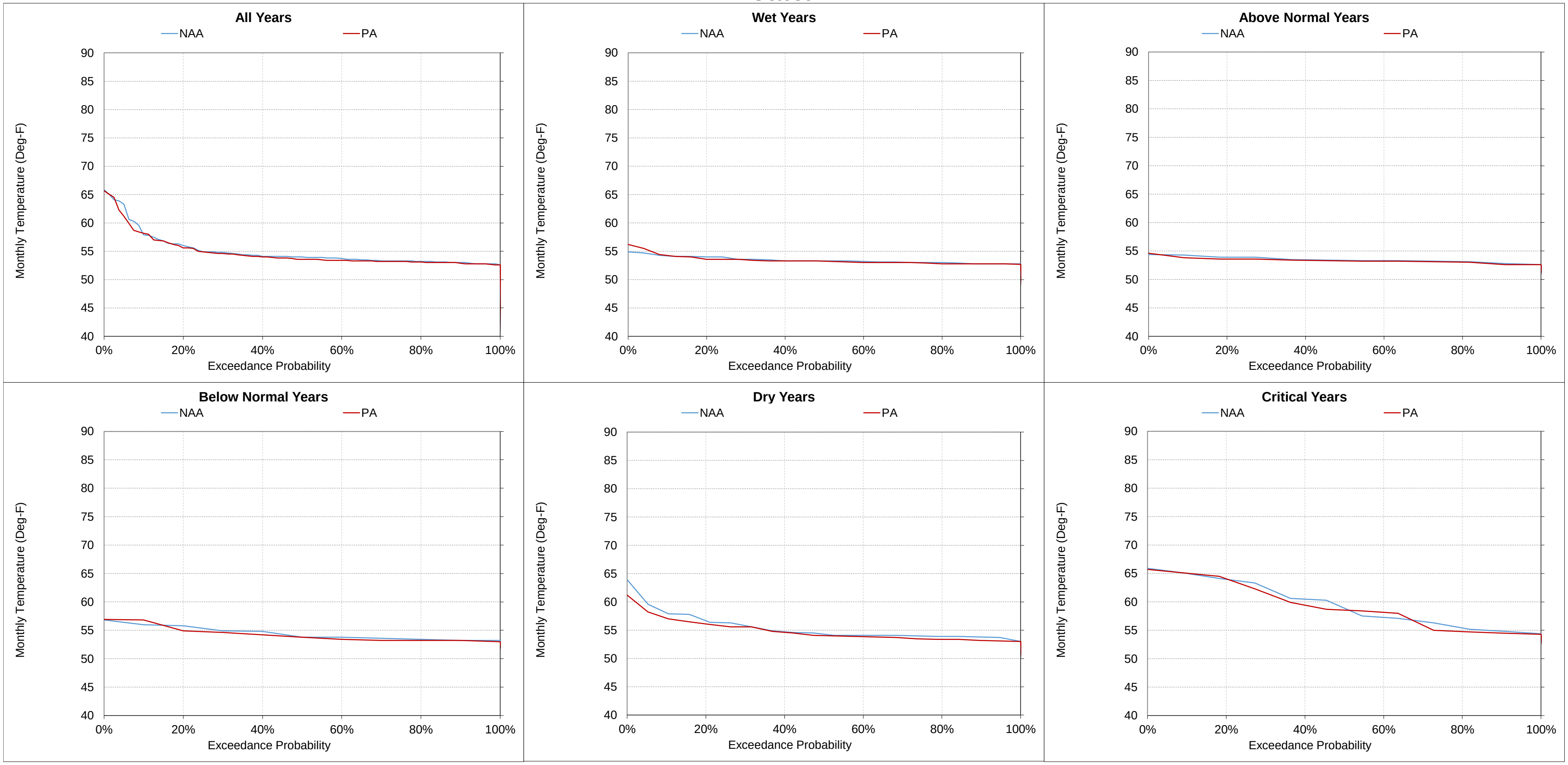


Figure 5.C.7-11-7. Feather River Low Flow Channel near Fish Dam, Monthly Temperature Probability of Exceedance



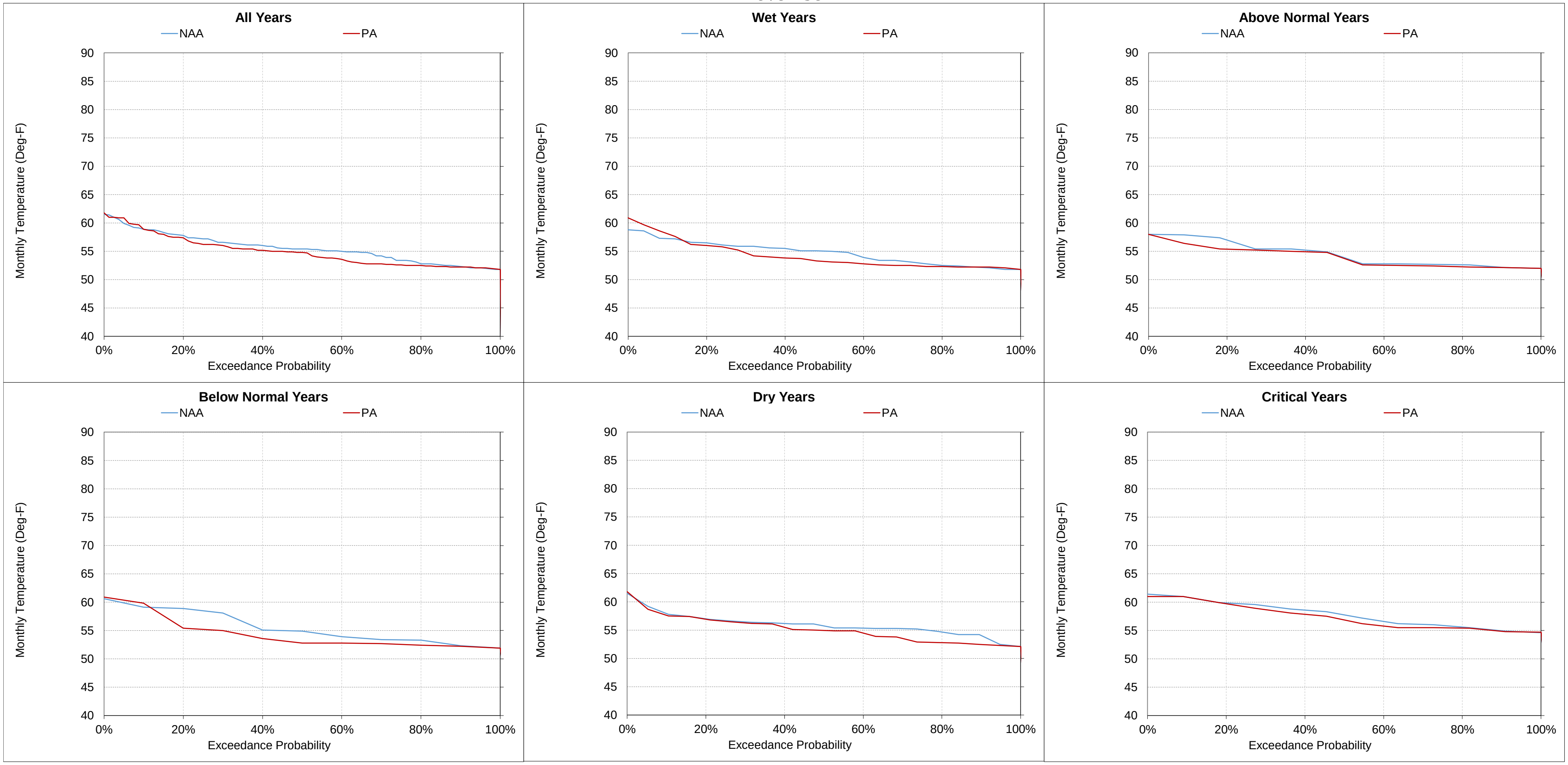
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-8. Feather River Low Flow Channel near Fish Dam, Monthly Temperature
October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-9. Feather River Low Flow Channel near Fish Dam, Monthly Temperature November



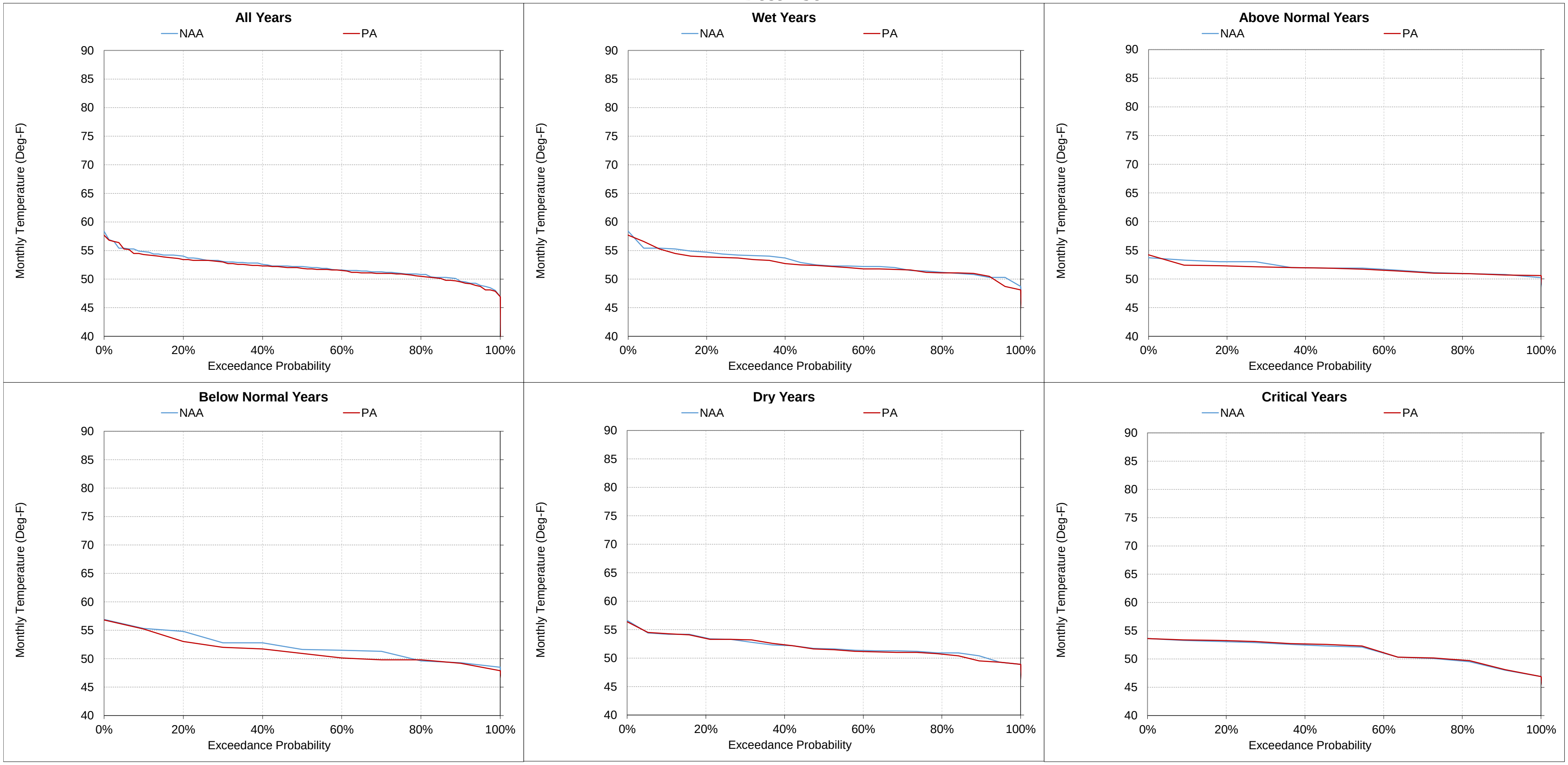
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-10. Feather River Low Flow Channel near Fish Dam, Monthly Temperature December



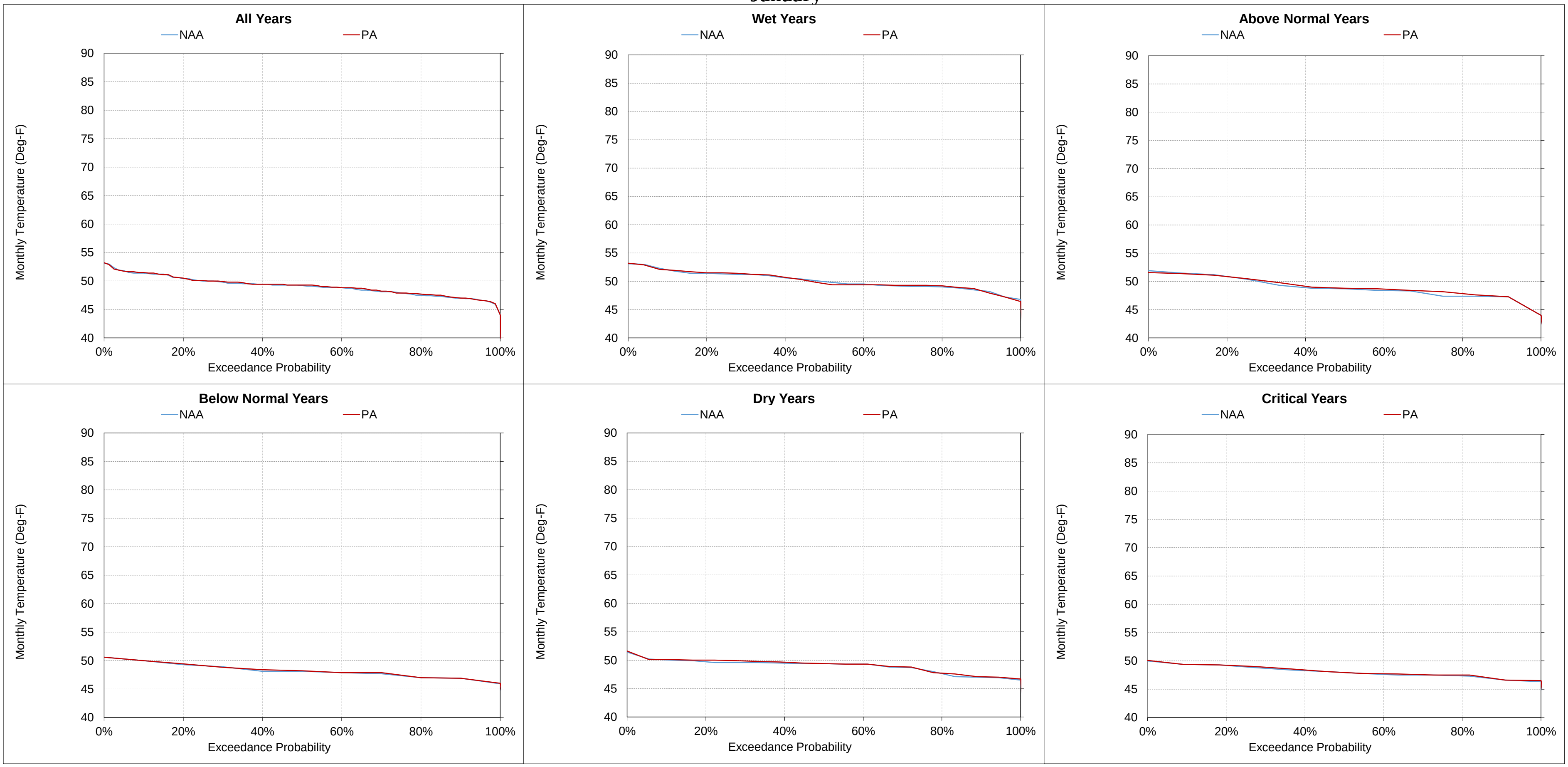
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

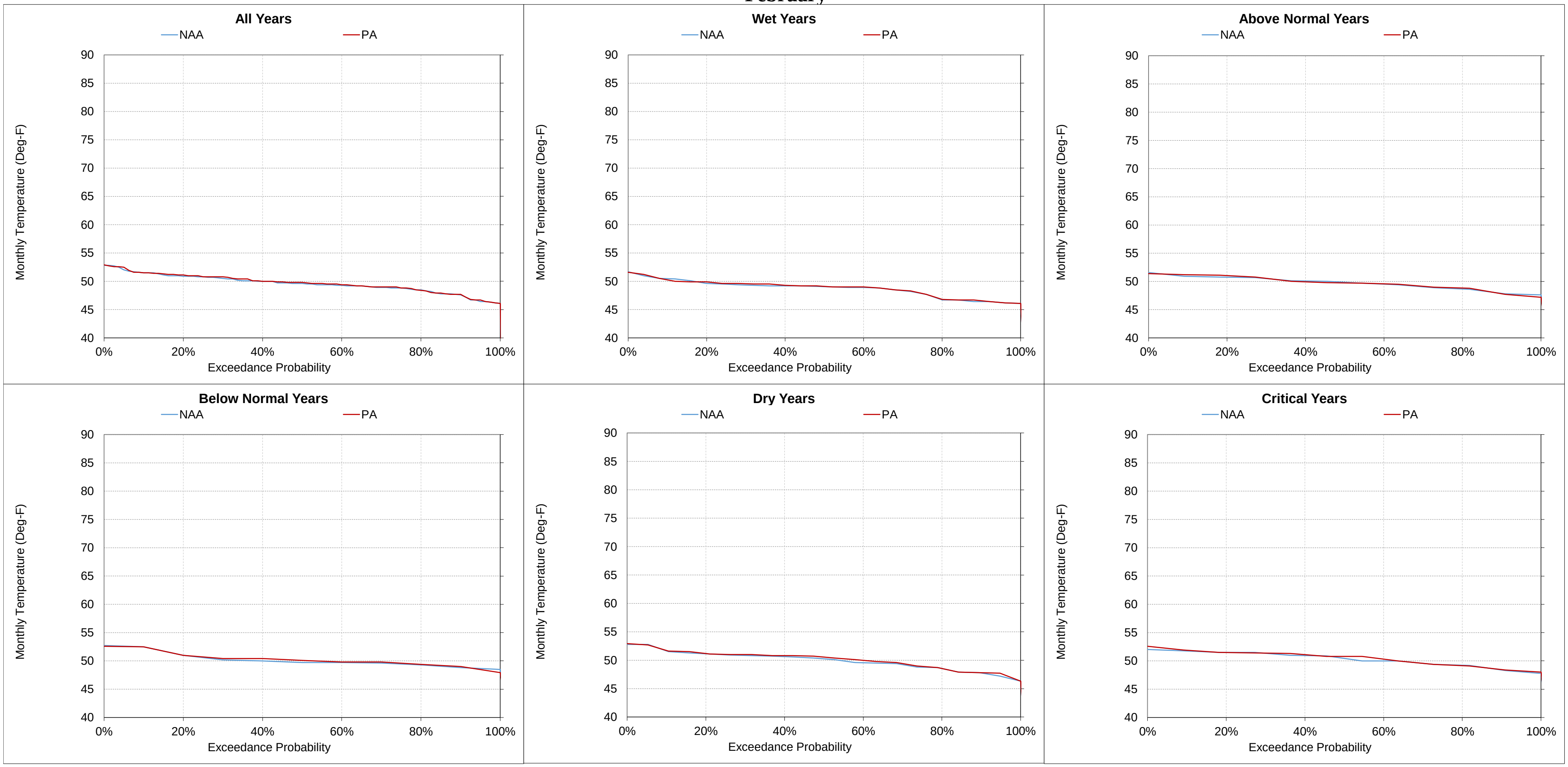
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-11. Feather River Low Flow Channel near Fish Dam, Monthly Temperature
January



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-12. Feather River Low Flow Channel near Fish Dam, Monthly Temperature February



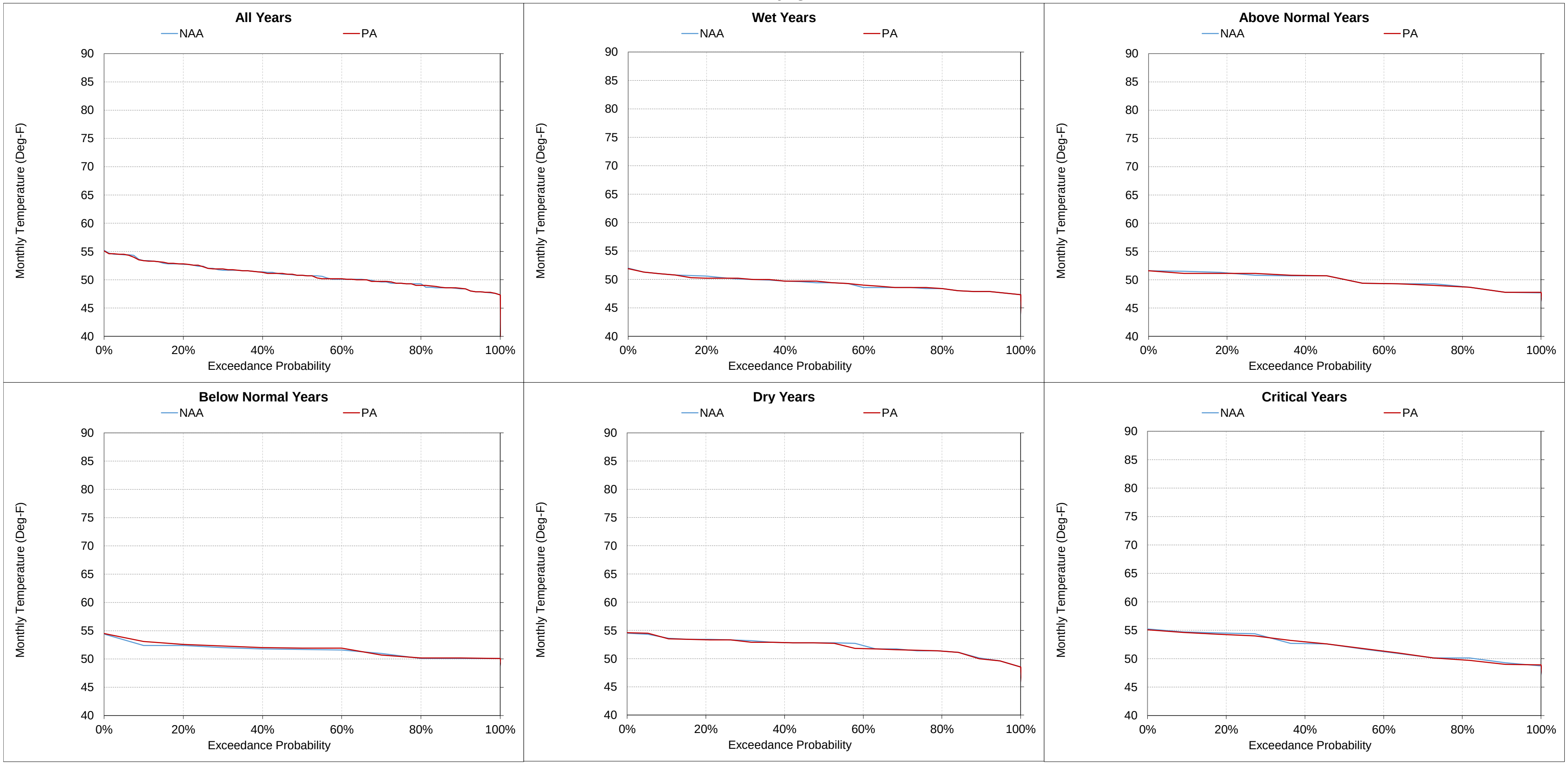
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

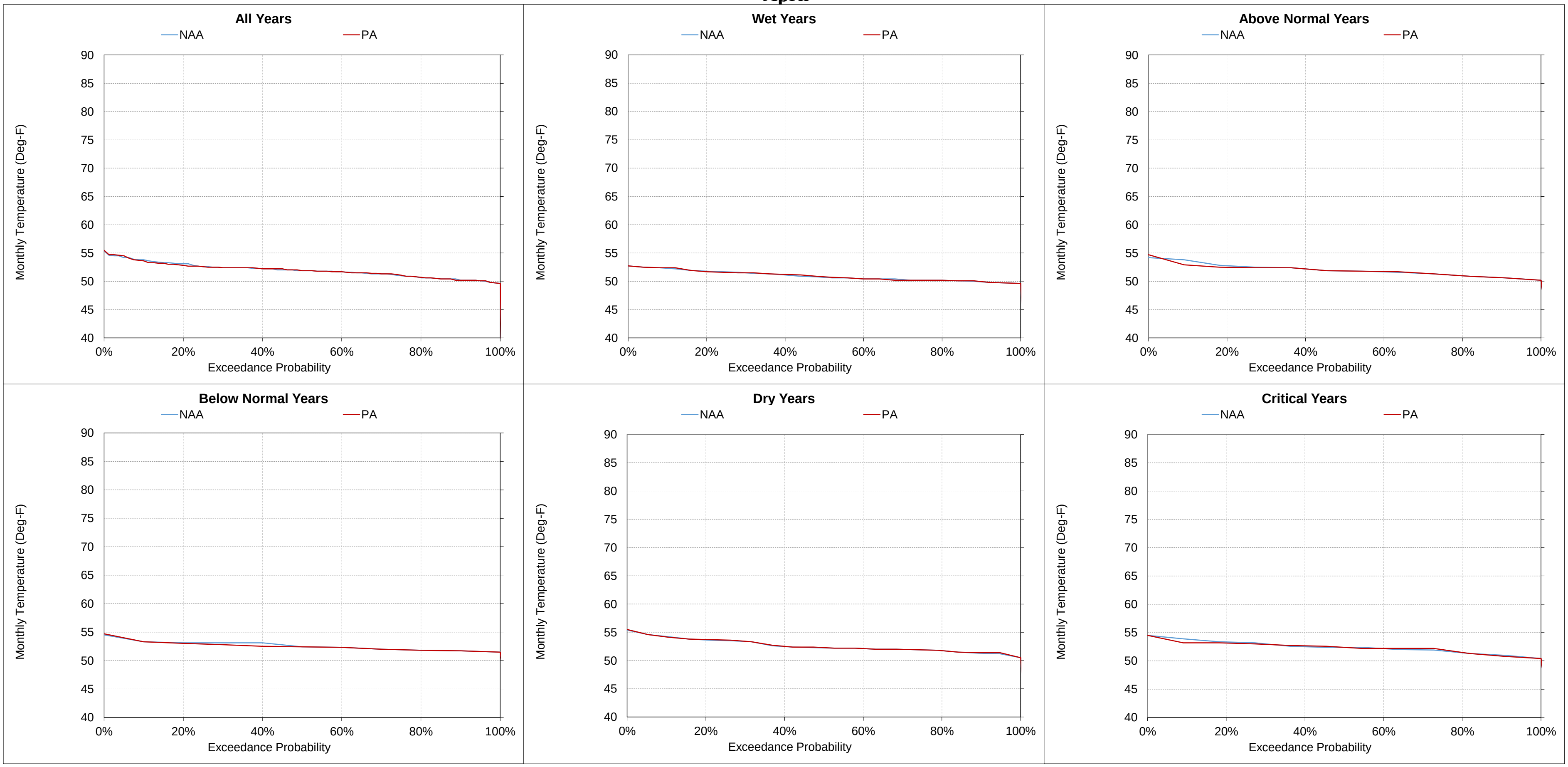
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-13. Feather River Low Flow Channel near Fish Dam, Monthly Temperature
March



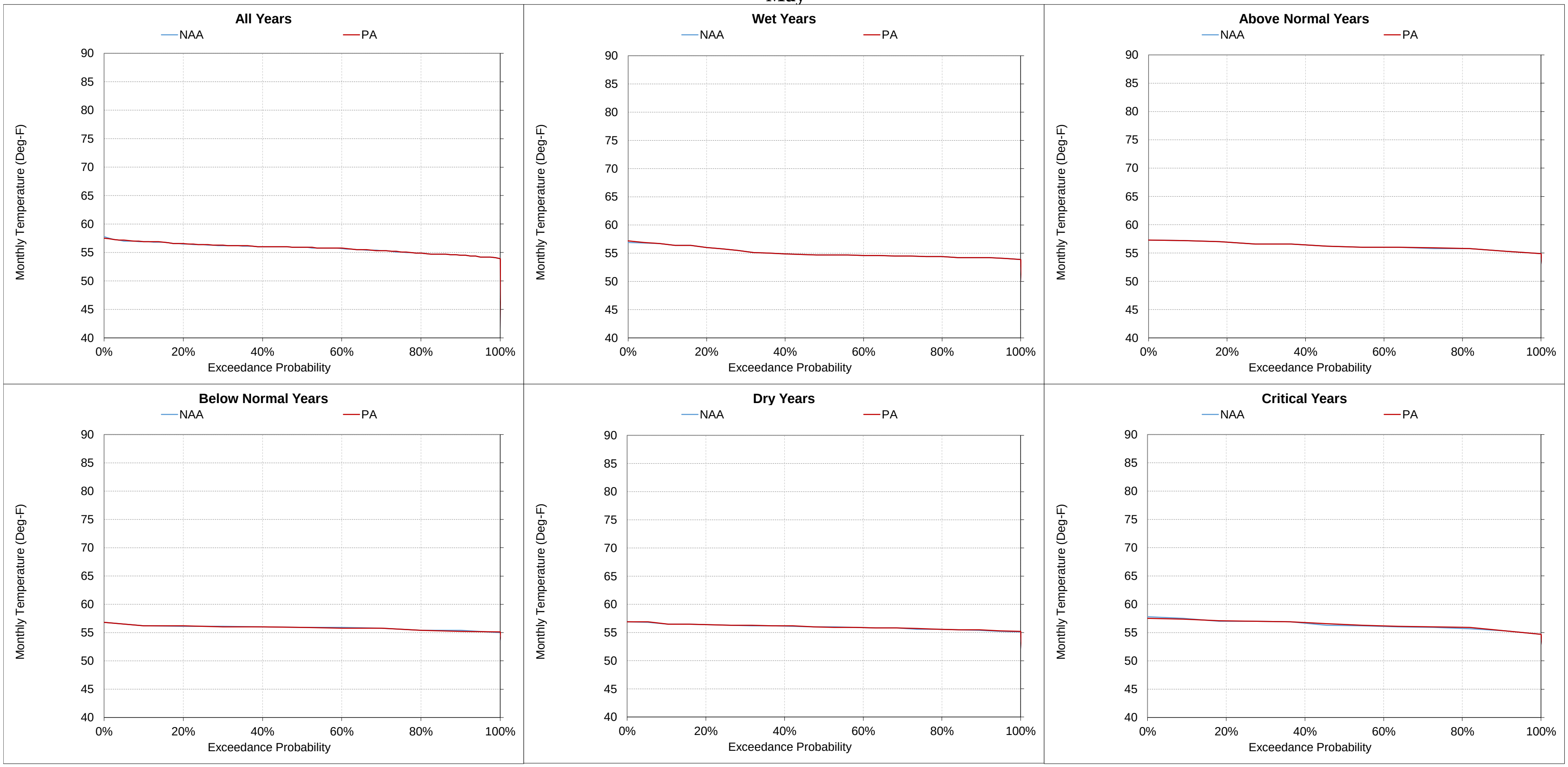
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-14. Feather River Low Flow Channel near Fish Dam, Monthly Temperature April



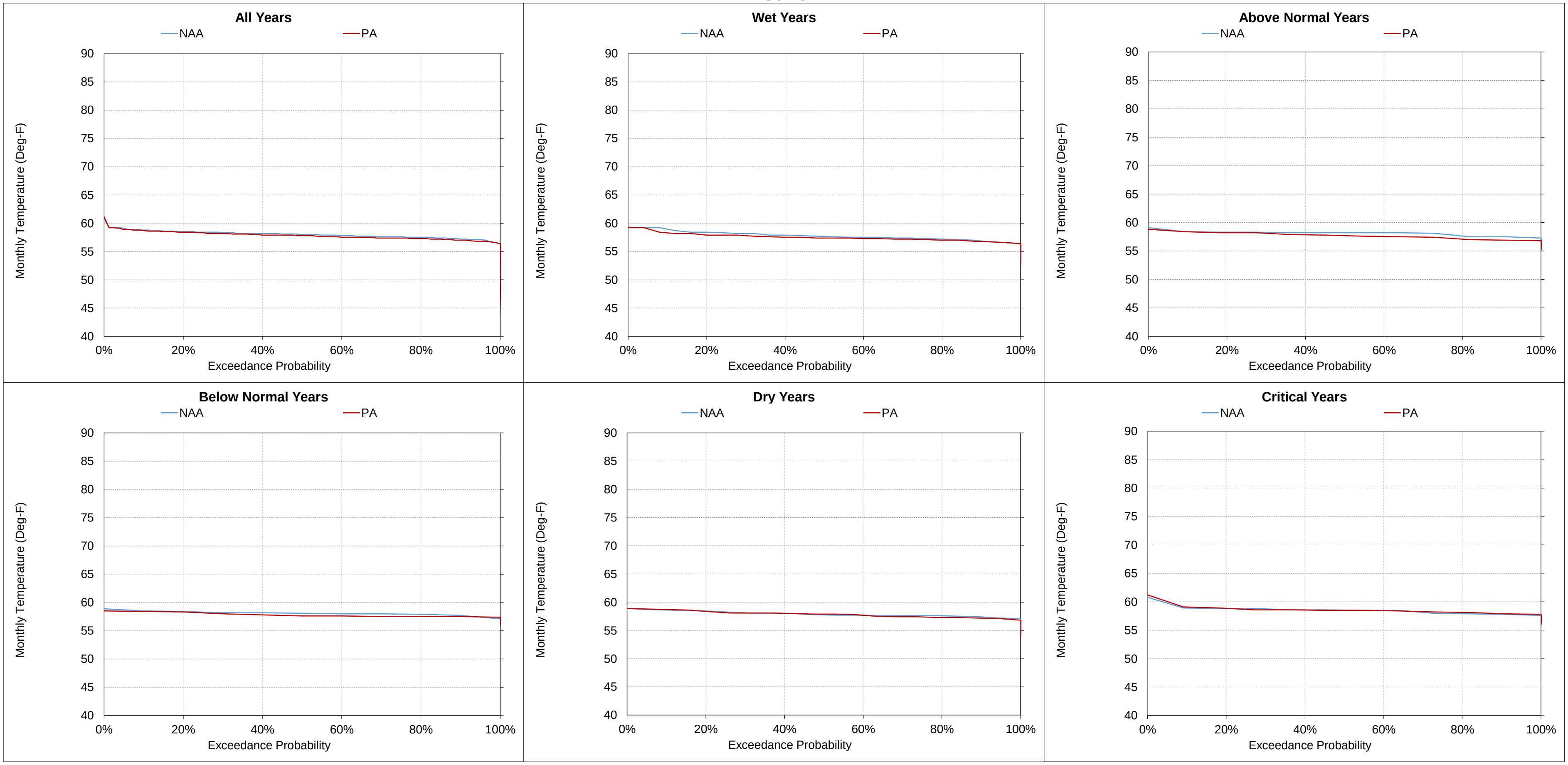
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-15. Feather River Low Flow Channel near Fish Dam, Monthly Temperature May



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-16. Feather River Low Flow Channel near Fish Dam, Monthly Temperature June



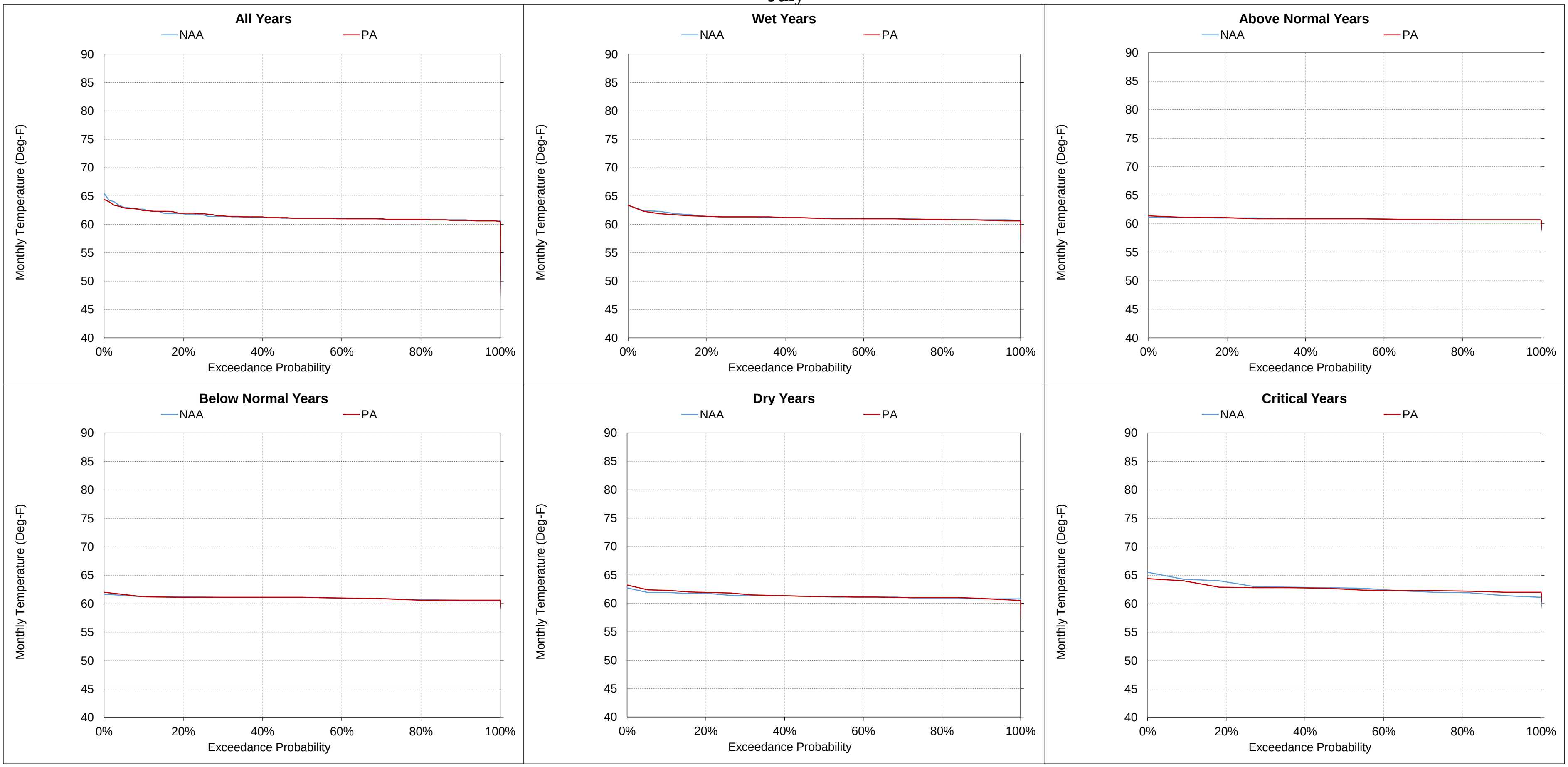
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-17. Feather River Low Flow Channel near Fish Dam, Monthly Temperature July



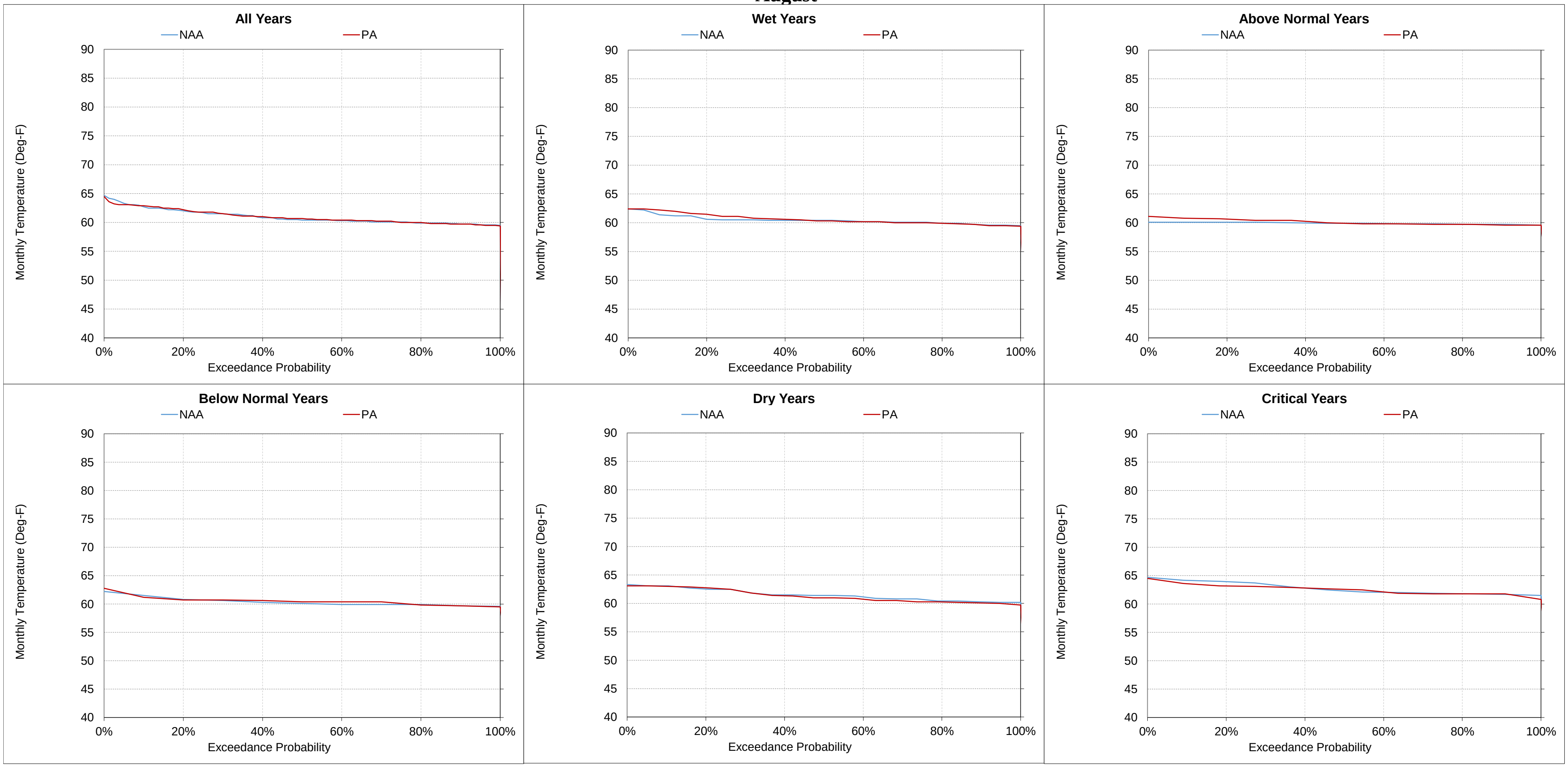
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-18. Feather River Low Flow Channel near Fish Dam, Monthly Temperature August



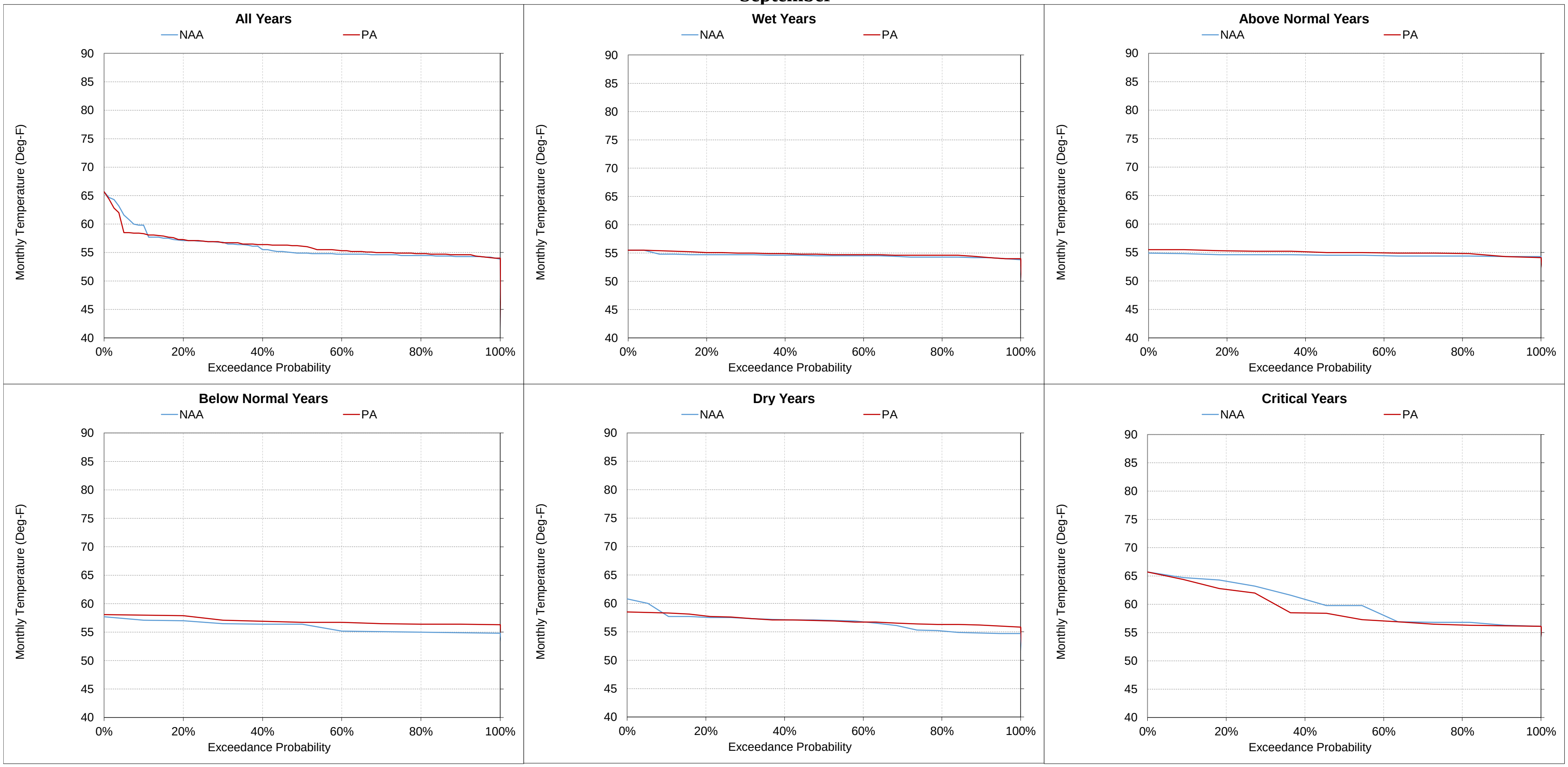
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-11-19. Feather River Low Flow Channel near Fish Dam, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-12. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	59.7	59.6	-0.1	0%	58.3	58.2	-0.1	0%	53.3	53.1	-0.2	0%	50.7	50.7	0.0	0%	52.4	52.3	-0.1	0%	54.9	54.8	-0.1	0%
20%	58.1	58.2	0.1	0%	57.1	56.8	-0.3	-1%	52.9	52.4	-0.5	-1%	50.0	49.9	-0.1	0%	51.5	51.5	0.0	0%	54.1	54.2	0.1	0%
30%	56.9	56.8	-0.1	0%	56.3	55.8	-0.5	-1%	52.1	51.9	-0.2	0%	49.5	49.7	0.2	0%	51.0	51.2	0.2	0%	53.5	53.5	0.0	0%
40%	56.6	56.6	0.0	0%	55.8	54.8	-1.0	-2%	51.7	51.3	-0.4	-1%	49.0	49.1	0.1	0%	50.7	50.7	0.0	0%	52.8	52.8	0.0	0%
50%	56.3	56.1	-0.2	0%	55.2	54.6	-0.6	-1%	51.1	51.1	0.0	0%	48.7	48.8	0.1	0%	50.3	50.5	0.2	0%	52.1	52.2	0.1	0%
60%	56.0	55.9	-0.1	0%	54.8	53.8	-1.0	-2%	50.6	50.5	-0.1	0%	48.2	48.3	0.1	0%	50.0	50.1	0.1	0%	51.9	51.8	-0.1	0%
70%	55.7	55.5	-0.2	0%	54.4	53.5	-0.9	-2%	50.4	50.2	-0.2	0%	47.8	47.8	0.0	0%	49.7	49.8	0.1	0%	51.4	51.3	-0.1	0%
80%	55.2	55.1	-0.1	0%	53.5	52.9	-0.6	-1%	50.1	49.8	-0.3	-1%	47.4	47.5	0.1	0%	49.0	49.0	0.0	0%	50.9	50.9	0.0	0%
90%	54.8	54.8	0.0	0%	52.6	52.3	-0.3	-1%	49.1	48.9	-0.2	0%	46.3	46.6	0.3	1%	48.2	48.2	0.0	0%	50.1	50.1	0.0	0%
Long Term Full Simulation Period[b]	57.0	56.8	-0.2	0%	55.4	54.9	-0.5	-1%	51.3	51.1	-0.2	0%	48.6	48.7	0.1	0%	50.3	50.3	0.1	0%	52.5	52.5	0.0	0%
Water Year Types[c]																								
Wet (32%)	55.6	55.6	0.0	0%	54.7	54.3	-0.4	-1%	51.9	51.6	-0.3	-1%	49.6	49.6	0.0	0%	49.6	49.6	0.1	0%	51.2	51.2	0.0	0%
Above Normal (16%)	55.7	55.5	-0.1	0%	54.3	53.9	-0.4	-1%	50.9	50.8	-0.1	0%	48.3	48.4	0.1	0%	46.5	46.5	0.0	0%	47.8	47.8	0.0	0%
Below Normal (13%)	56.6	56.5	-0.2	0%	55.5	54.6	-0.9	-2%	51.1	50.5	-0.6	-1%	47.7	47.8	0.1	0%	50.6	50.7	0.1	0%	53.0	53.1	0.1	0%
Dry (24%)	57.5	57.0	-0.5	-1%	55.8	55.2	-0.6	-1%	51.3	51.3	-0.1	0%	46.1	46.2	0.1	0%	50.5	50.6	0.1	0%	53.6	53.5	0.0	0%
Critical (15%)	60.7	60.5	-0.2	0%	57.3	56.9	-0.3	-1%	50.2	50.3	0.1	0%	47.8	47.8	0.1	0%	50.9	51.1	0.1	0%	53.6	53.5	0.0	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	57.6	57.4	-0.2	0%	62.1	62.1	0.0	0%	66.1	65.9	-0.2	0%	69.6	69.5	-0.1	0%	68.8	68.7	-0.1	0%	63.0	62.5	-0.5	-1%
20%	56.5	56.3	-0.2	0%	61.6	61.6	0.0	0%	65.8	65.6	-0.2	0%	69.1	69.0	-0.1	0%	68.0	68.1	0.1	0%	61.6	62.0	0.4	1%
30%	56.0	56.0	0.0	0%	61.2	61.2	0.0	0%	65.4	65.2	-0.2	0%	68.7	68.8	0.1	0%	67.6	67.7	0.1	0%	61.1	61.5	0.4	1%
40%	55.5	55.6	0.1	0%	60.8	60.8	0.0	0%	65.1	64.9	-0.2	0%	68.6	68.5	-0.1	0%	67.1	67.2	0.1	0%	60.7	61.0	0.3	0%
50%	55.0	55.0	0.0	0%	60.6	60.6	0.0	0%	64.6	64.3	-0.3	0%	68.2	68.3	0.1	0%	66.6	66.9	0.3	0%	60.4	60.7	0.3	0%
60%	54.6	54.7	0.1	0%	60.3	60.4	0.1	0%	64.2	64.0	-0.2	0%	68.0	68.1	0.1	0%	66.3	66.4	0.1	0%	60.1	60.4	0.3	0%
70%	54.4	54.4	0.0	0%	60.0	60.0	0.0	0%	63.8	63.8	0.0	0%	67.8	67.7	-0.1	0%	66.1	66.1	0.0	0%	59.6	60.0	0.4	1%
80%	54.0	53.9	-0.1	0%	59.8	59.8	0.0	0%	63.4	63.3	-0.1	0%	67.3	67.4	0.1	0%	65.8	65.7	-0.1	0%	59.4	59.6	0.2	0%
90%	53.4	53.3	-0.1	0%	59.1	59.1	0.0	0%	62.8	62.9	0.1	0%	67.0	66.9	-0.1	0%	65.3	65.3	0.0	0%	58.8	59.1	0.3	1%
Long Term Full Simulation Period[b]	55.3	55.3	0.0	0%	60.7	60.7	0.0	0%	64.5	64.4	-0.1	0%	68.4	68.4	0.0	0%	66.9	66.9	0.0	0%	60.7	60.9	0.1	0%
Water Year Types[c]																								
Wet (32%)	54.0	54.0	0.0	0%	60.2	60.2	0.0	0%	64.0	63.8	-0.2	0%	68.4	68.4	0.0	0%	66.7	66.9	0.1	0%	59.8	59.9	0.2	0%
Above Normal (16%)	51.2	51.2	0.0	0%	56.4	56.5	0.0	0%	59.9	59.6	-0.2	0%	62.6	62.6	0.0	0%	60.9	61.1	0.1	0%	54.8	55.1	0.3	1%
Below Normal (13%)	56.2	56.2	0.0	0%	60.5	60.5	0.0	0%	64.9	64.7	-0.2	0%	68.3	68.3	0.0	0%	66.7	66.8	0.1	0%	60.8	61.5	0.7	1%
Dry (24%)	55.9	55.9	0.0	0%	60.9	61.0	0.0	0%	64.9	64.8	0.0	0%	68.1	68.1	0.1	0%	67.1	67.0	-0.1	0%	61.1	61.3	0.2	0%
Critical (15%)	55.9	55.8	0.0	0%	60.9	60.9	0.0	0%	64.6	64.7	0.1	0%	69.4	69.3	-0.1	0%	68.1	68.0	-0.1	0%	63.5	62.9	-0.7	-1%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-1. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, All Years

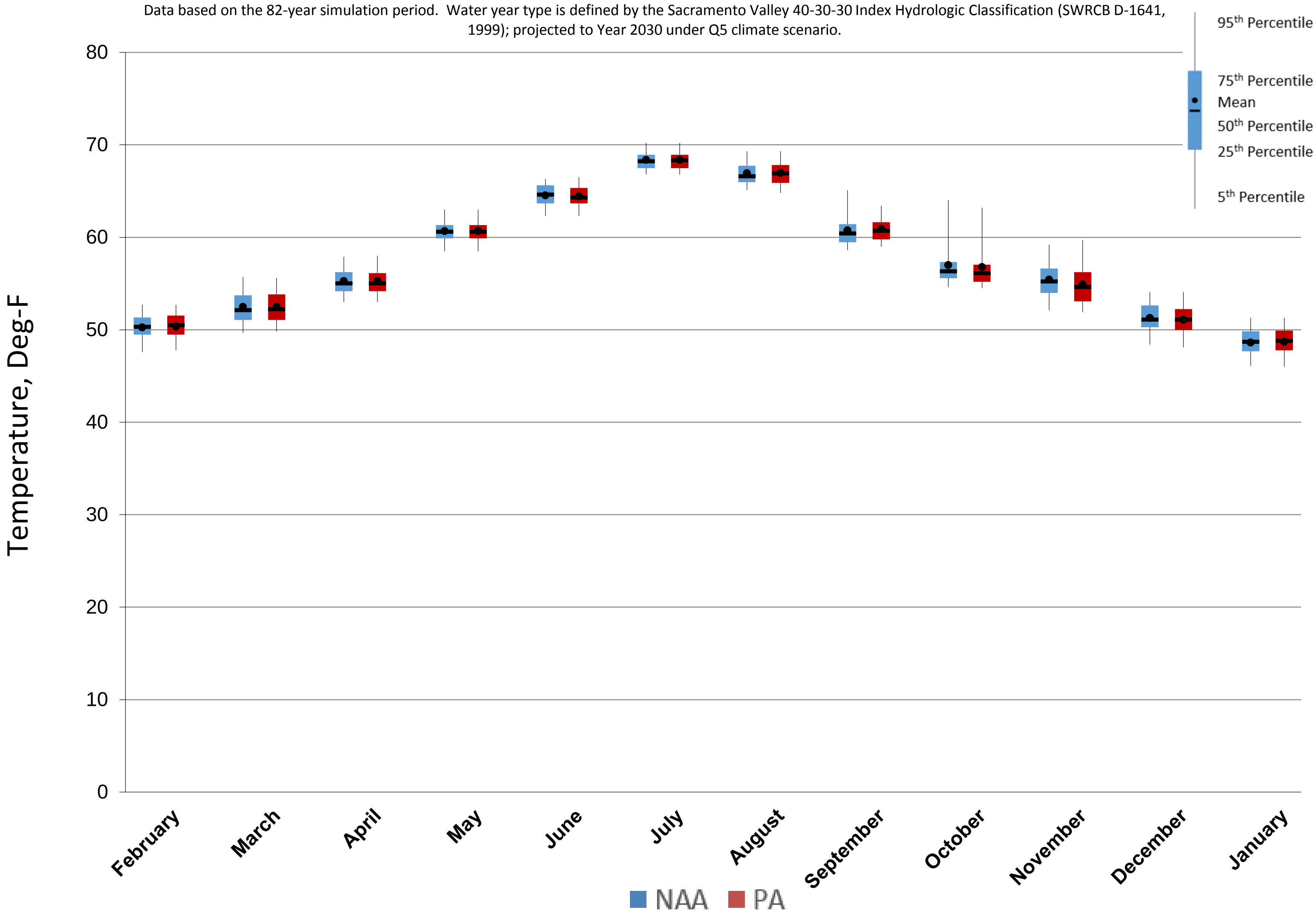


Figure 5.C.7-12-2. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, Wet Years

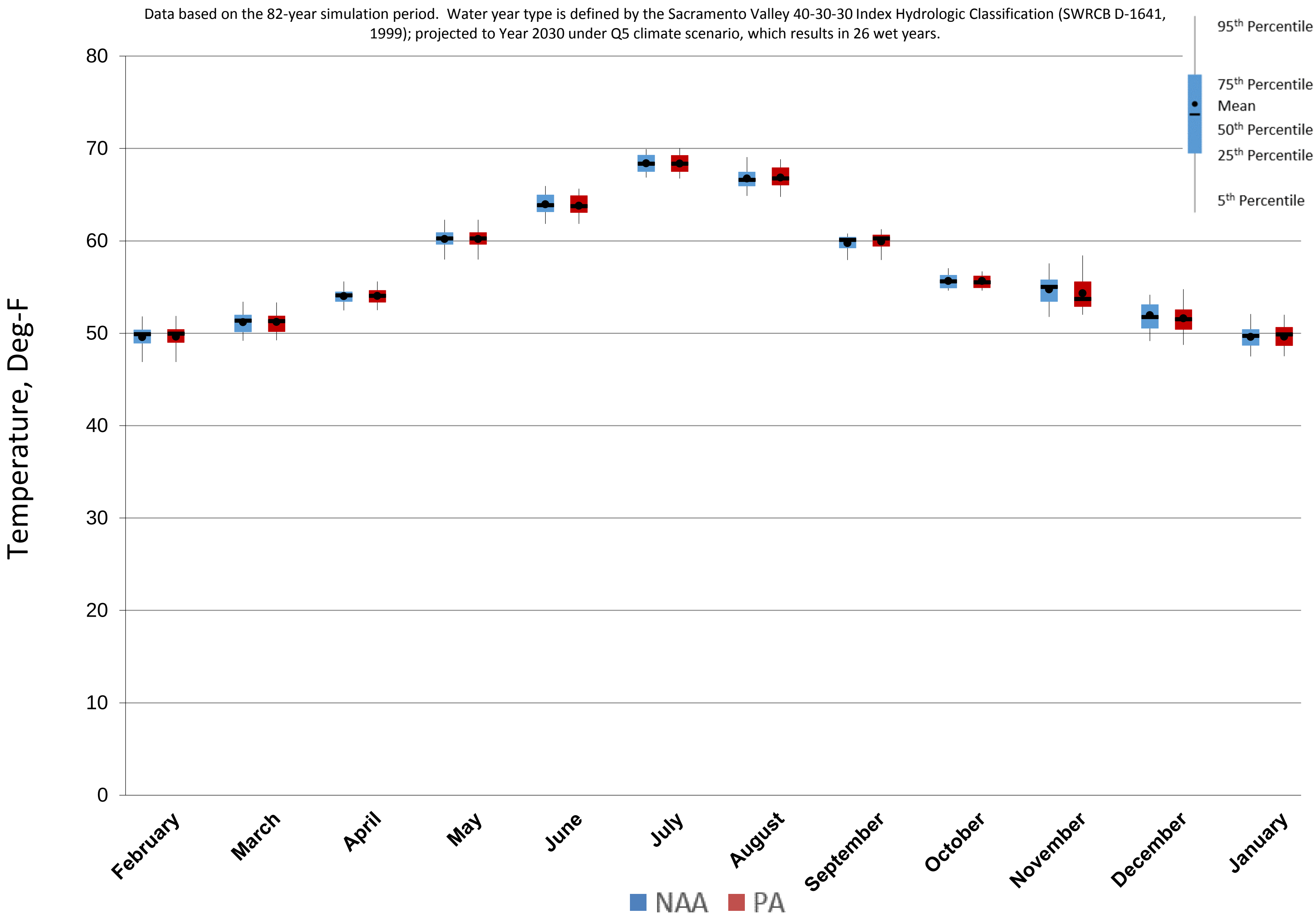


Figure 5.C.7-12-3. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

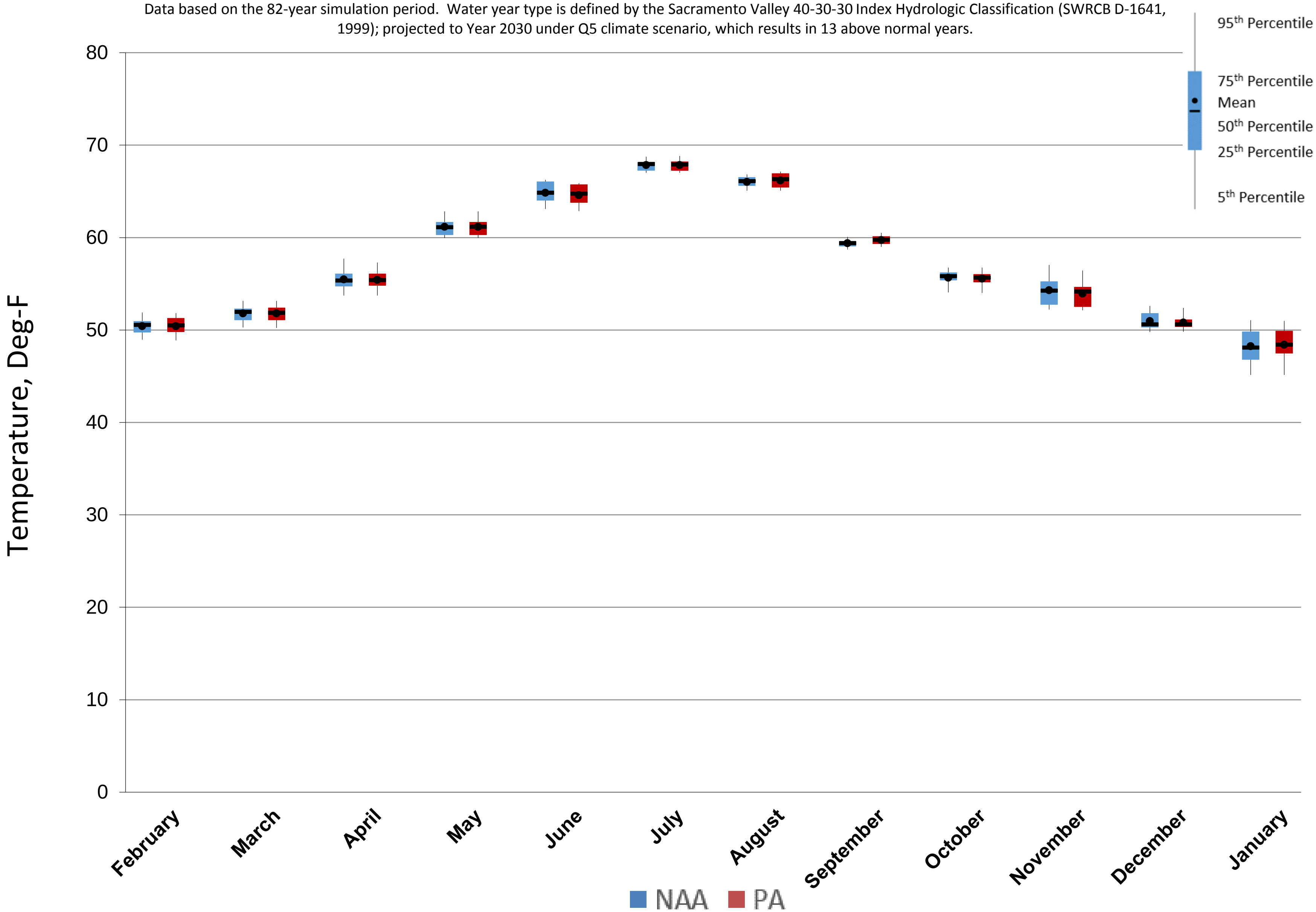


Figure 5.C.7-12-4. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 11 below normal years.

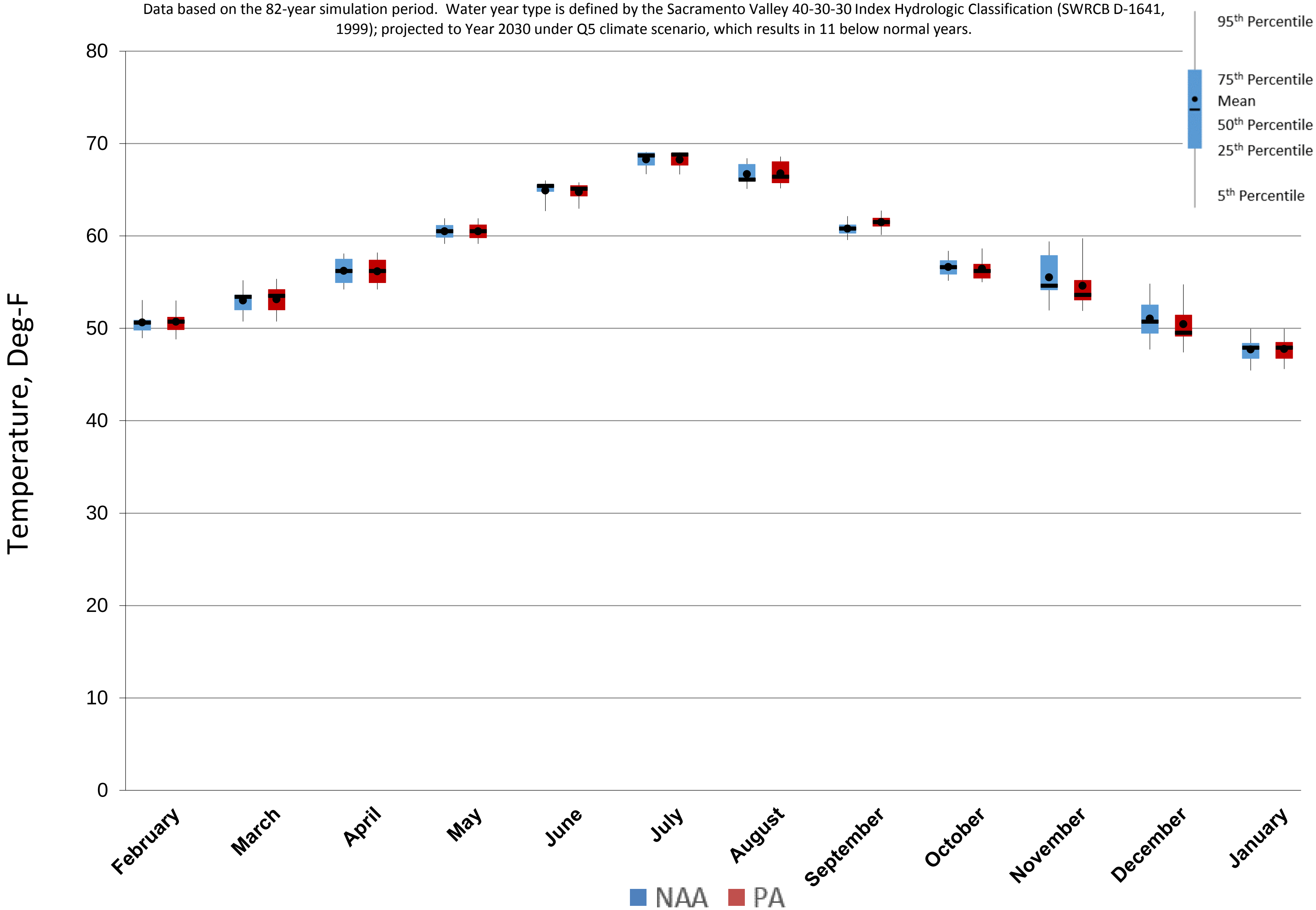


Figure 5.C.7-12-5. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, Dry Years

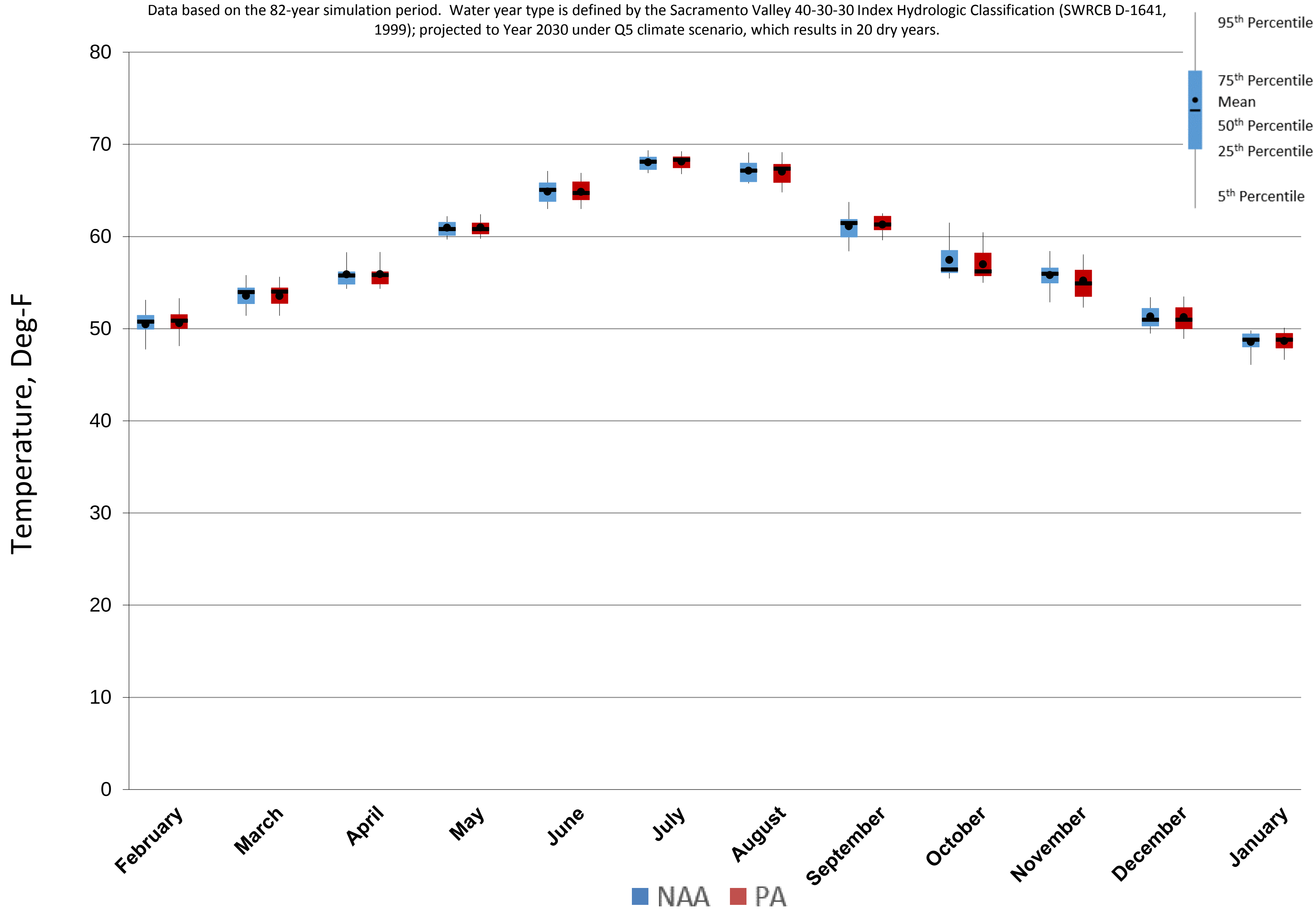


Figure 5.C.7-12-6. Monthly Temperature Ranges for Feather River Low Flow Channel at Robinson Riffle, Critical Years

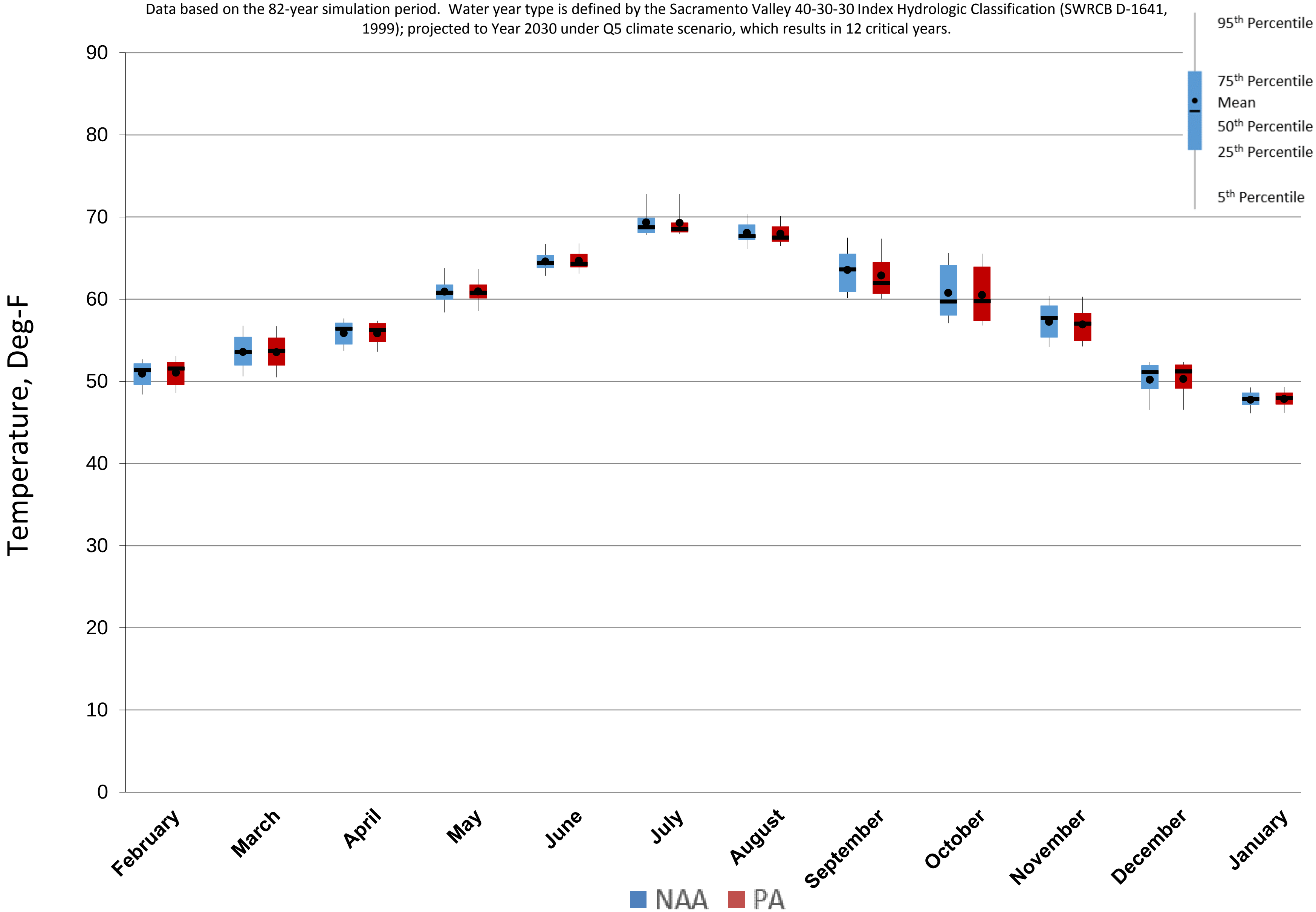
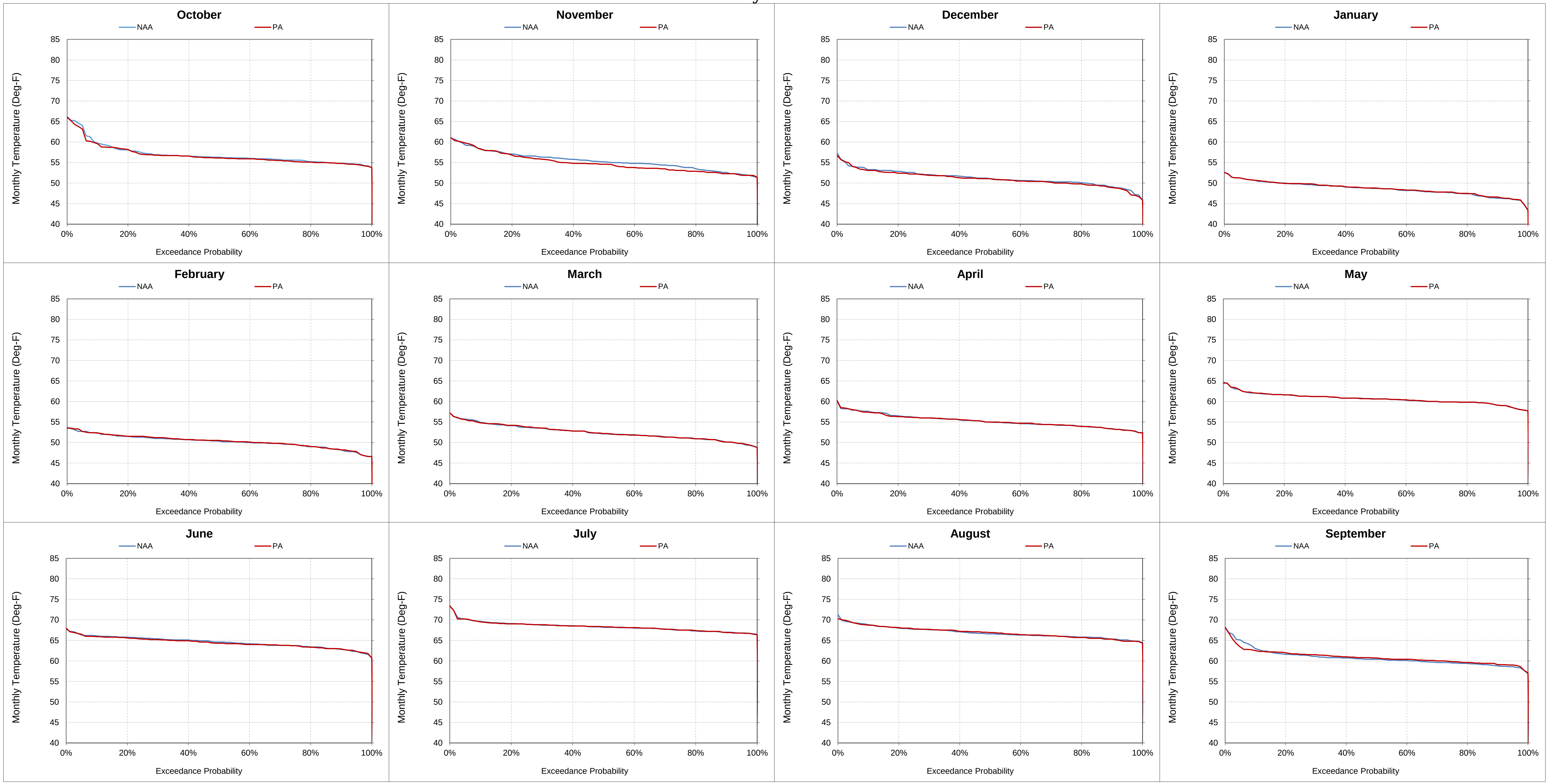
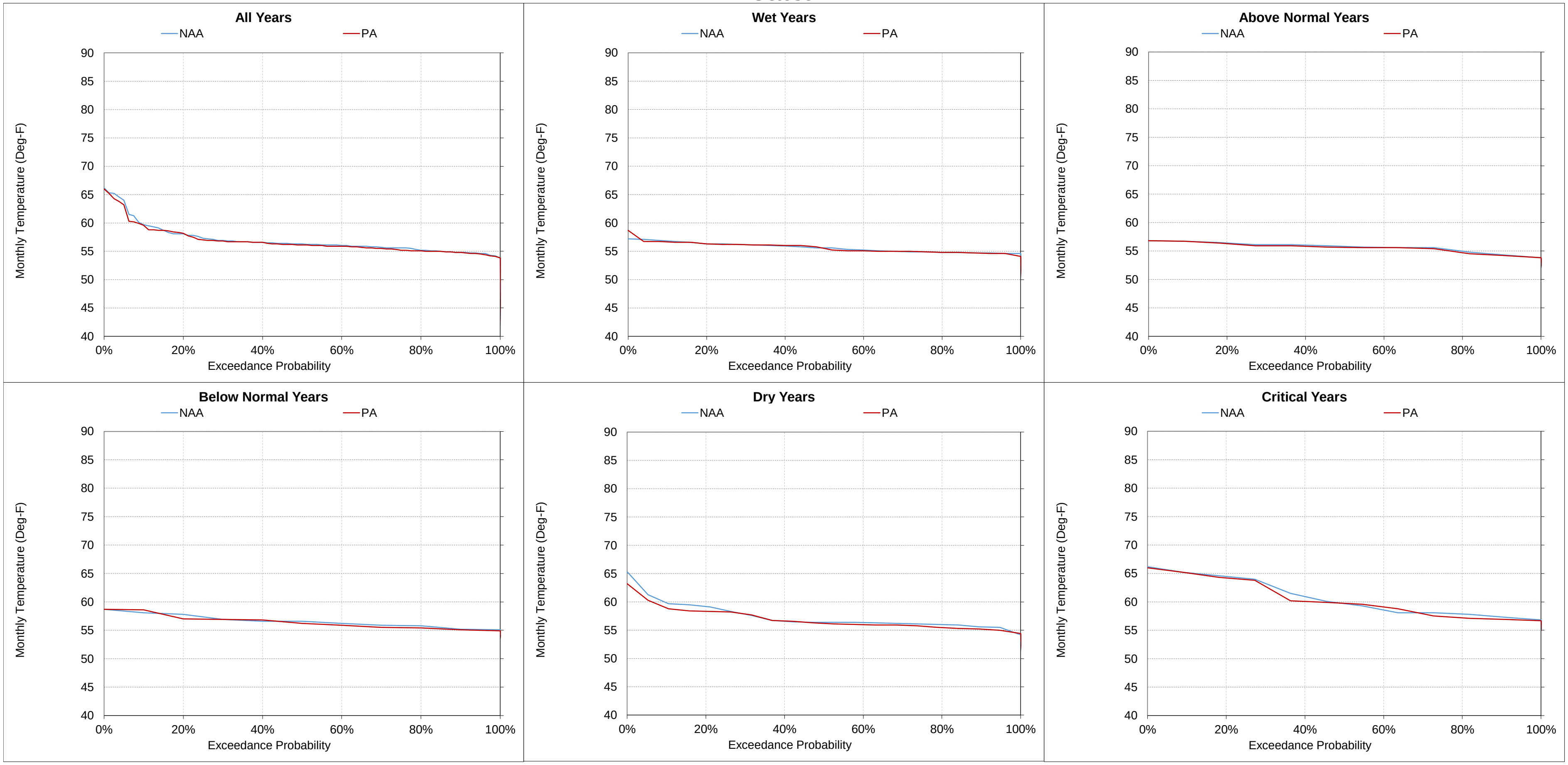


Figure 5.C.7-12-7. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature Probability of Exceedance



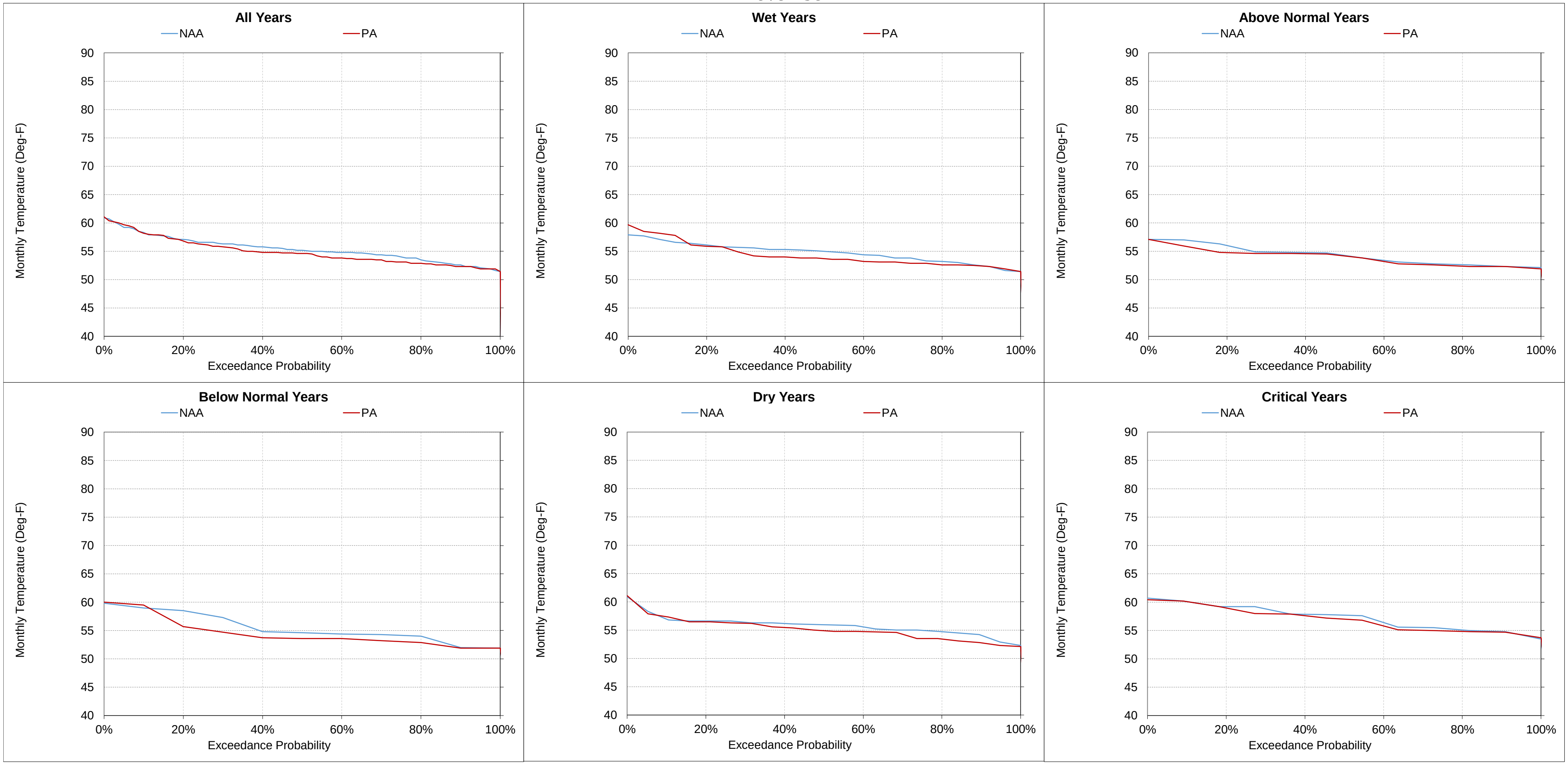
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-8. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature
October



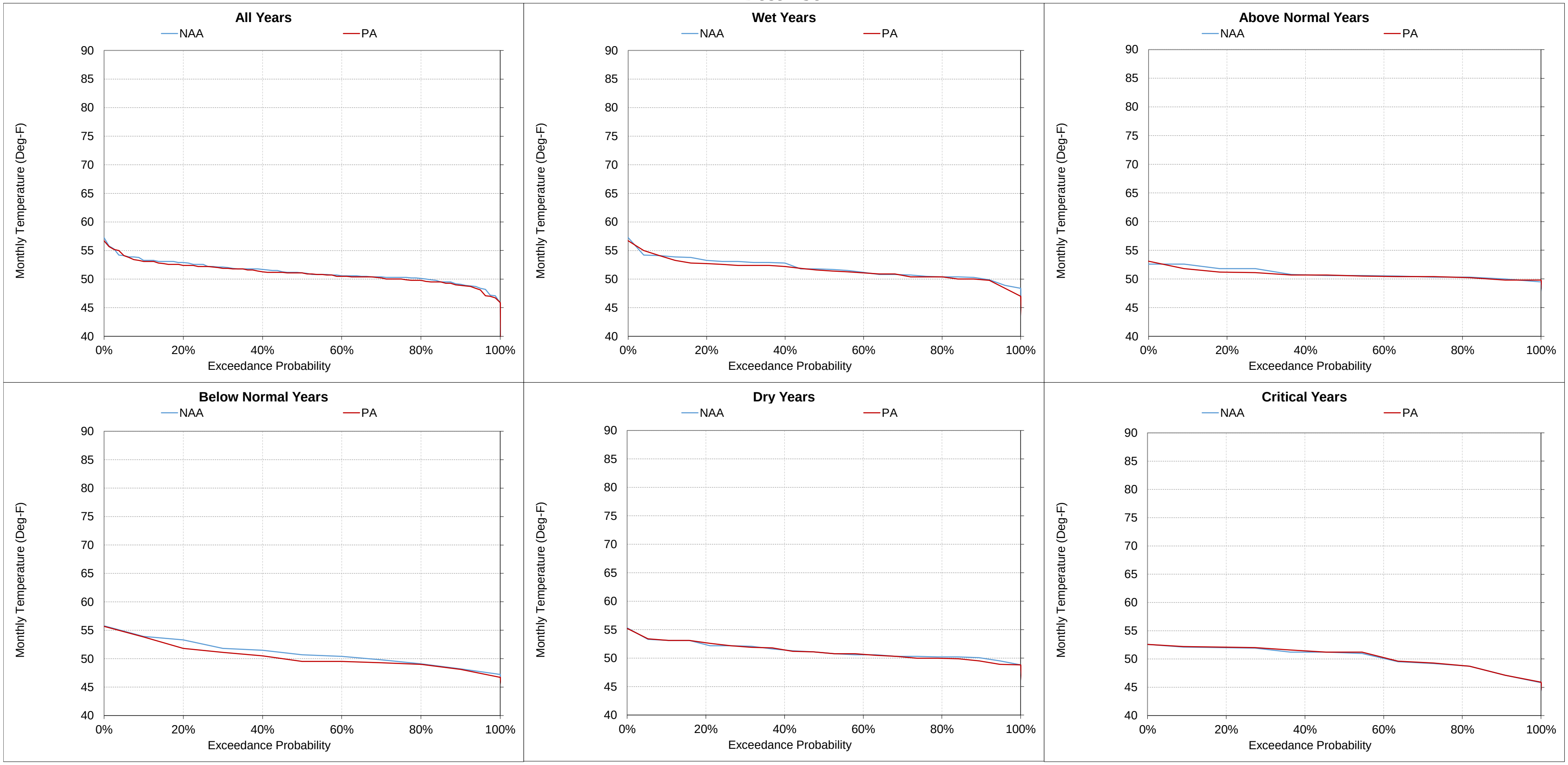
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-9. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature November



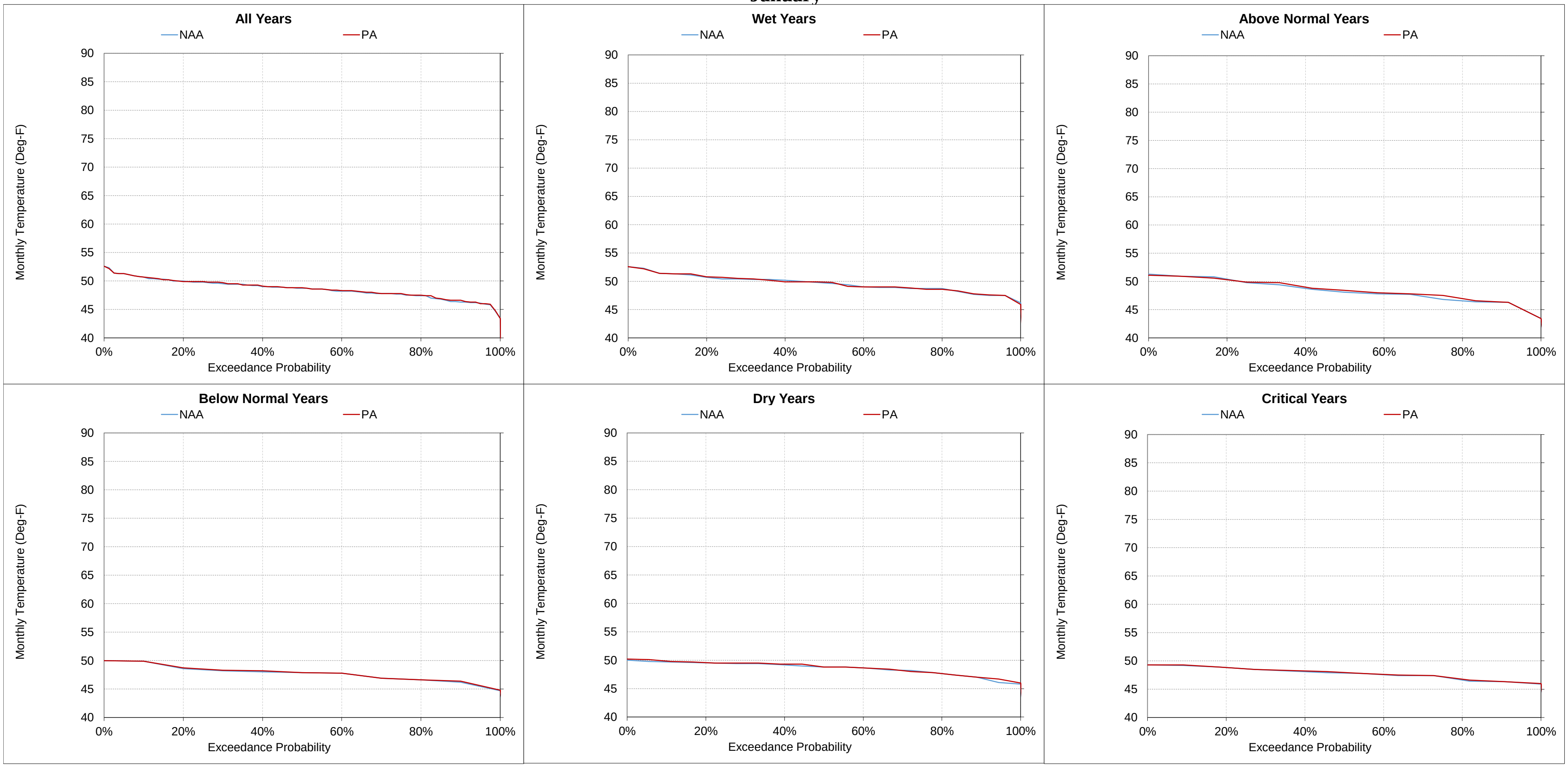
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-10. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature
December



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-11. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature January



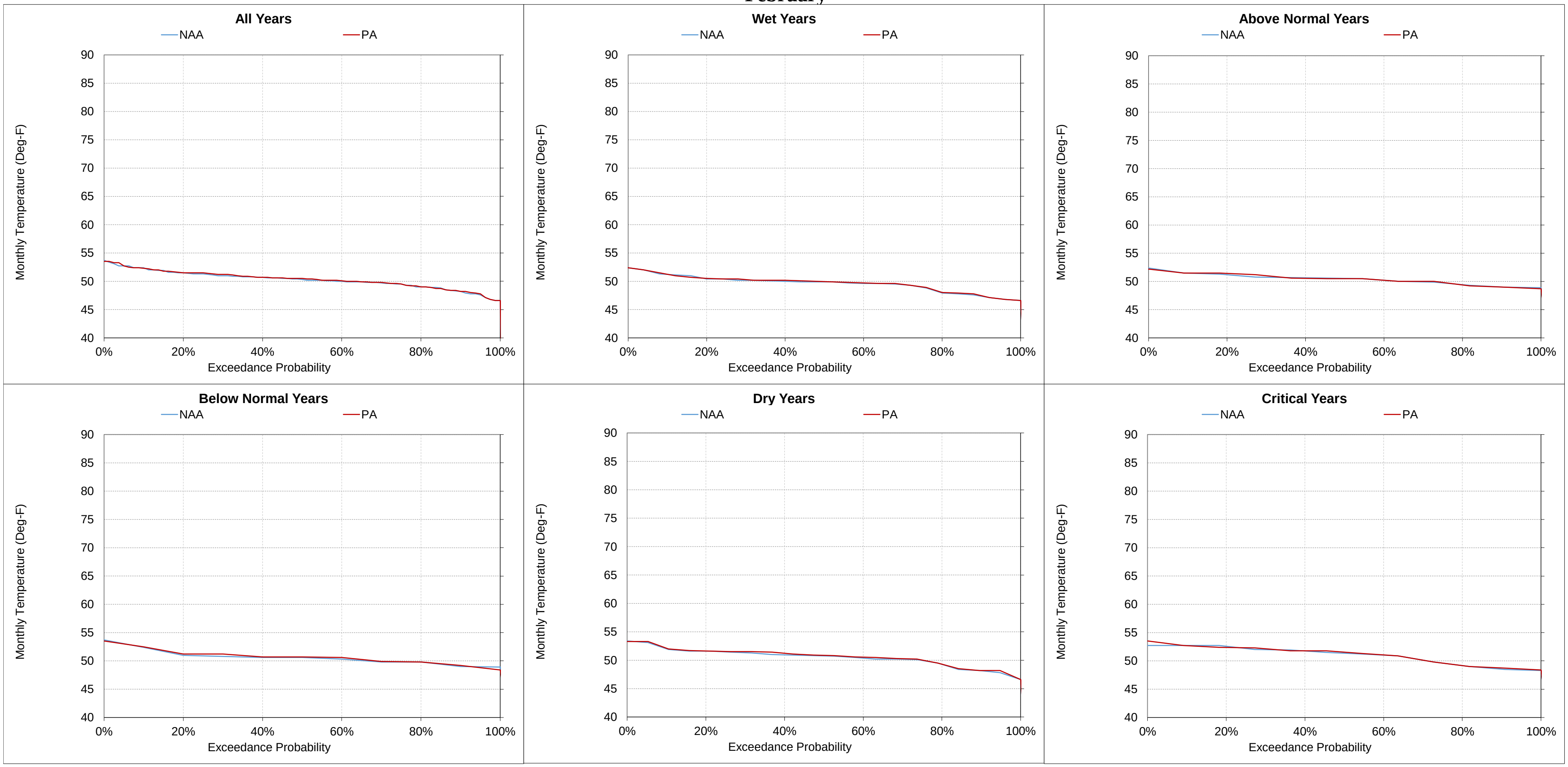
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

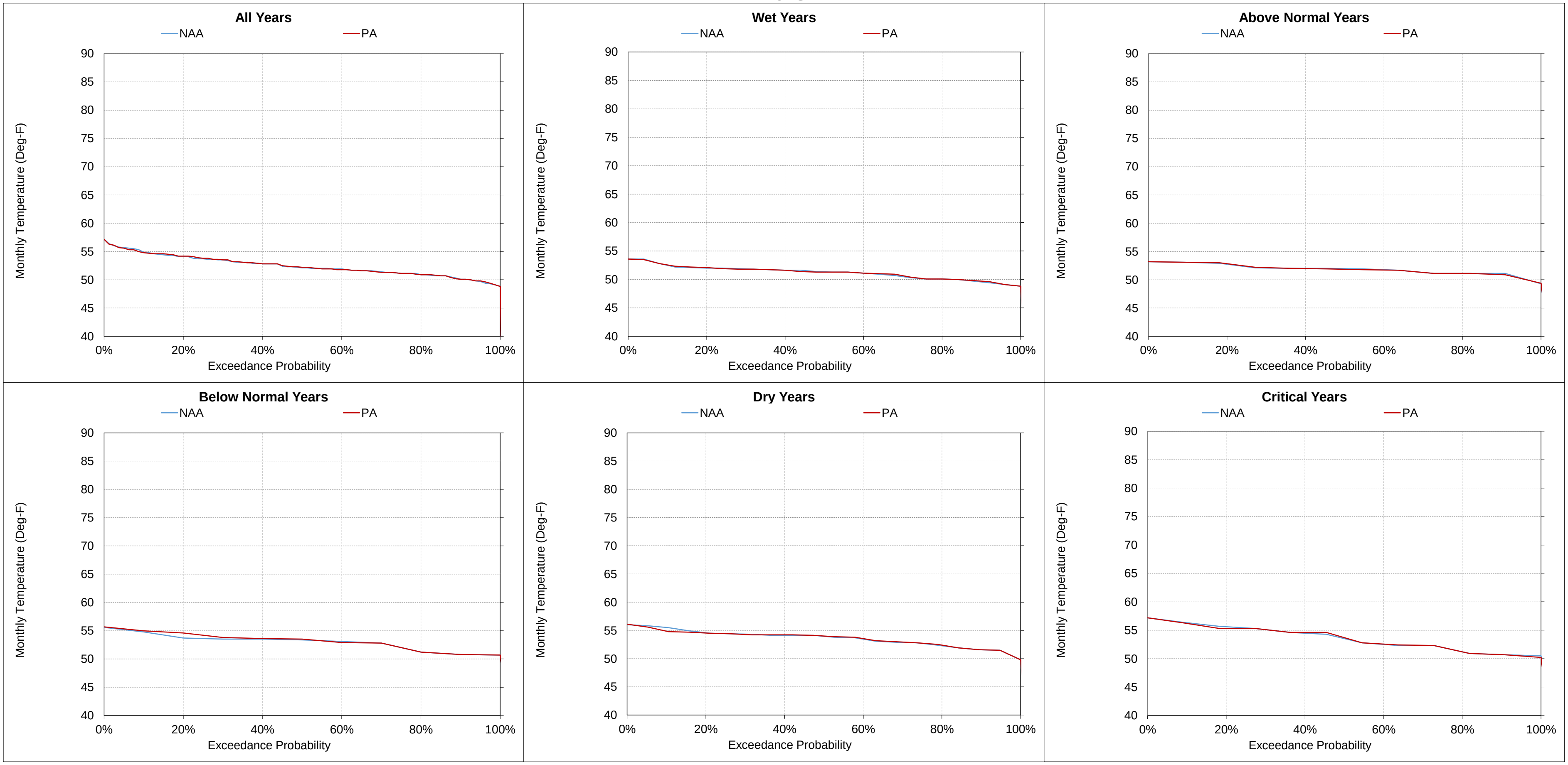
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-12. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature February



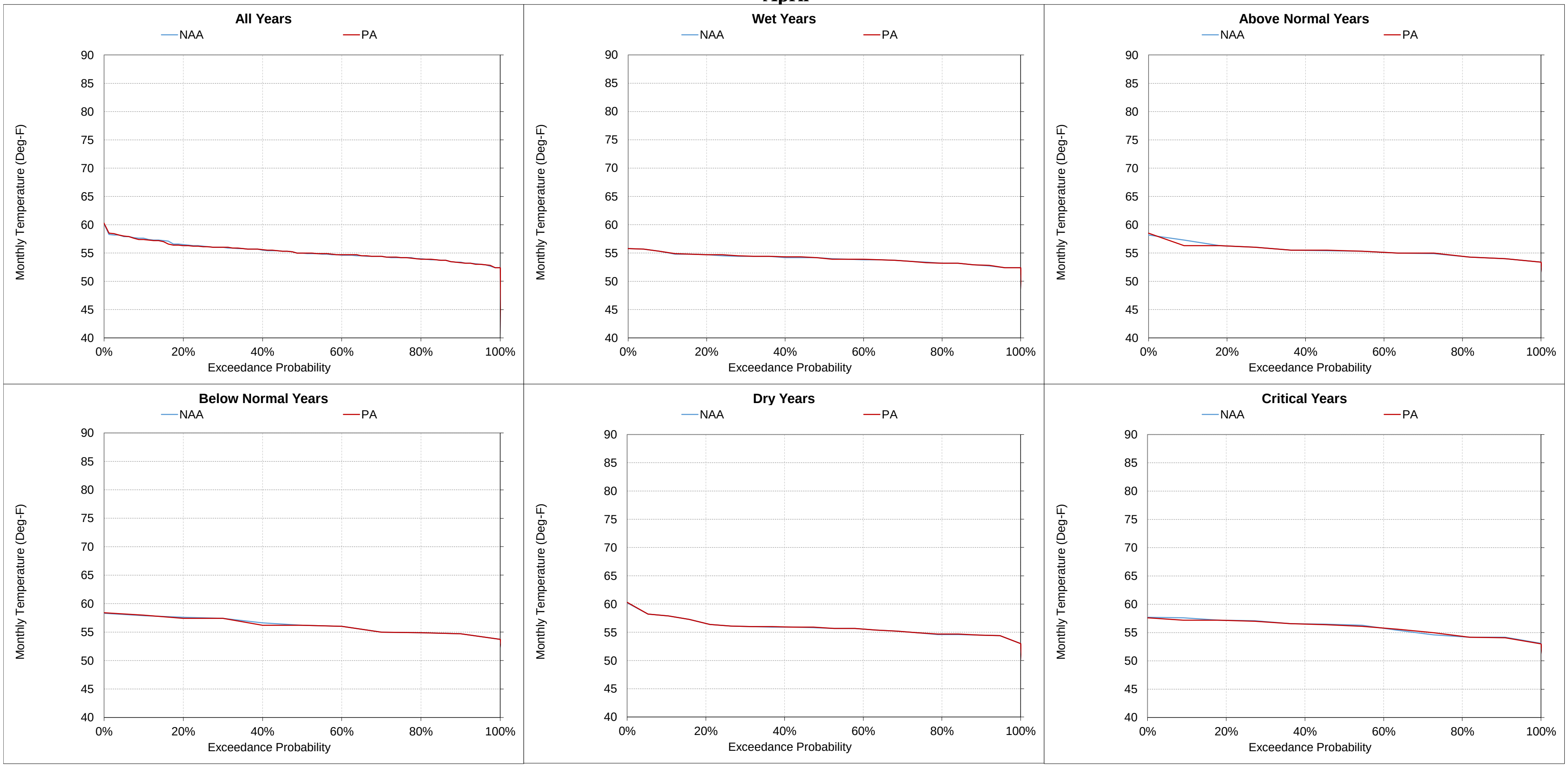
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-13. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature March



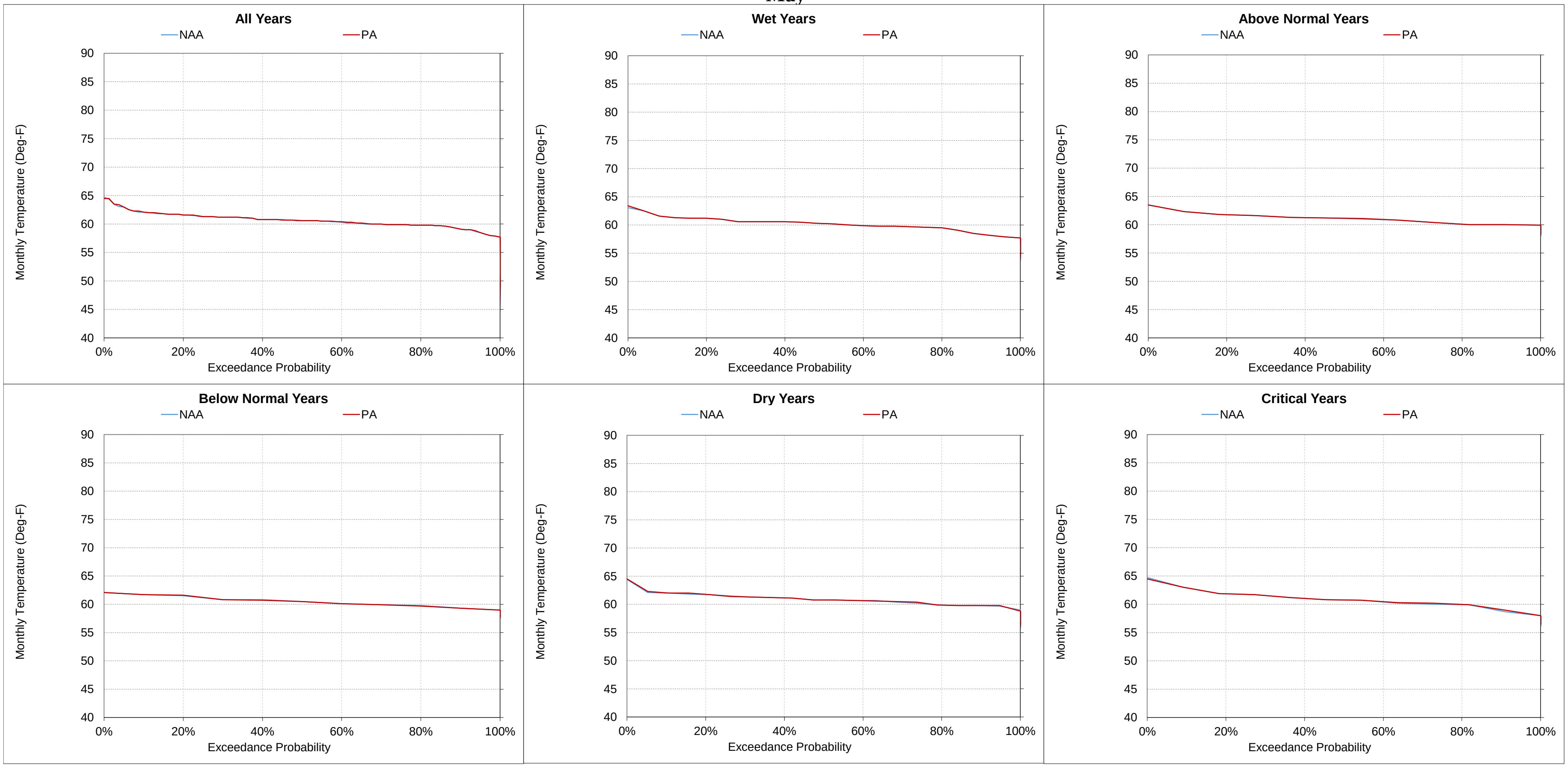
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-14. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature
April



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-15. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature May



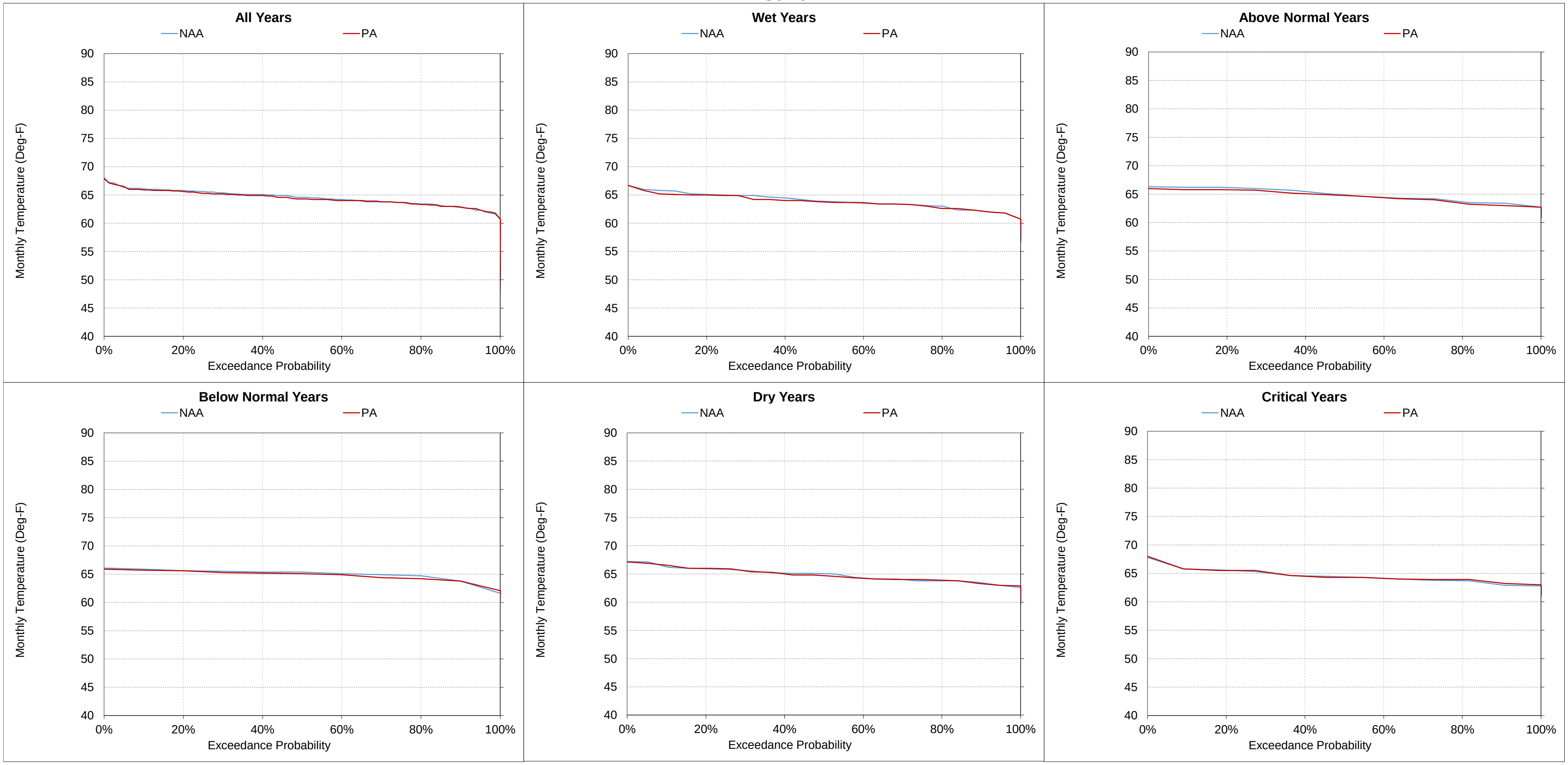
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

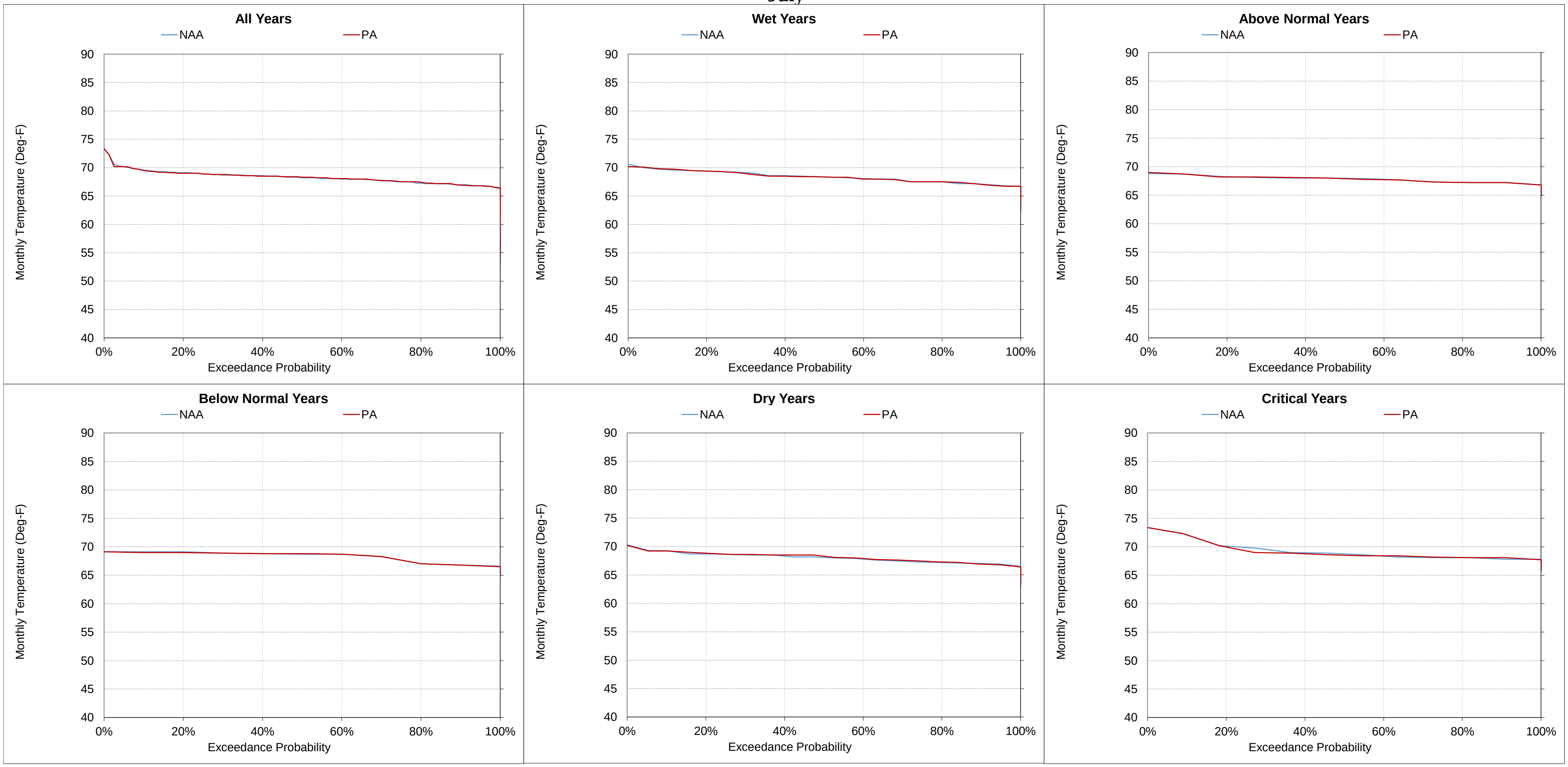
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-16. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature
June



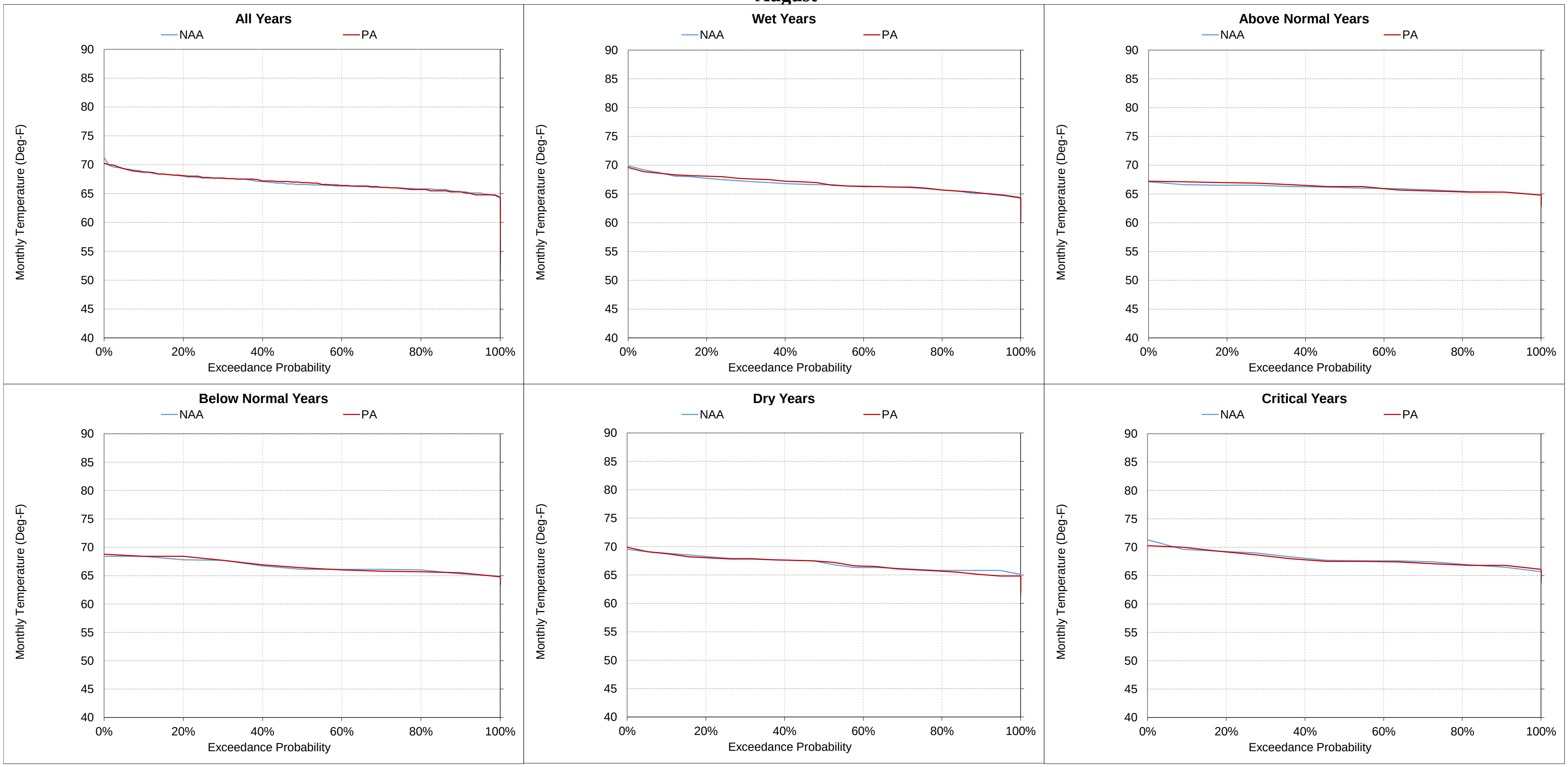
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-17. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature July



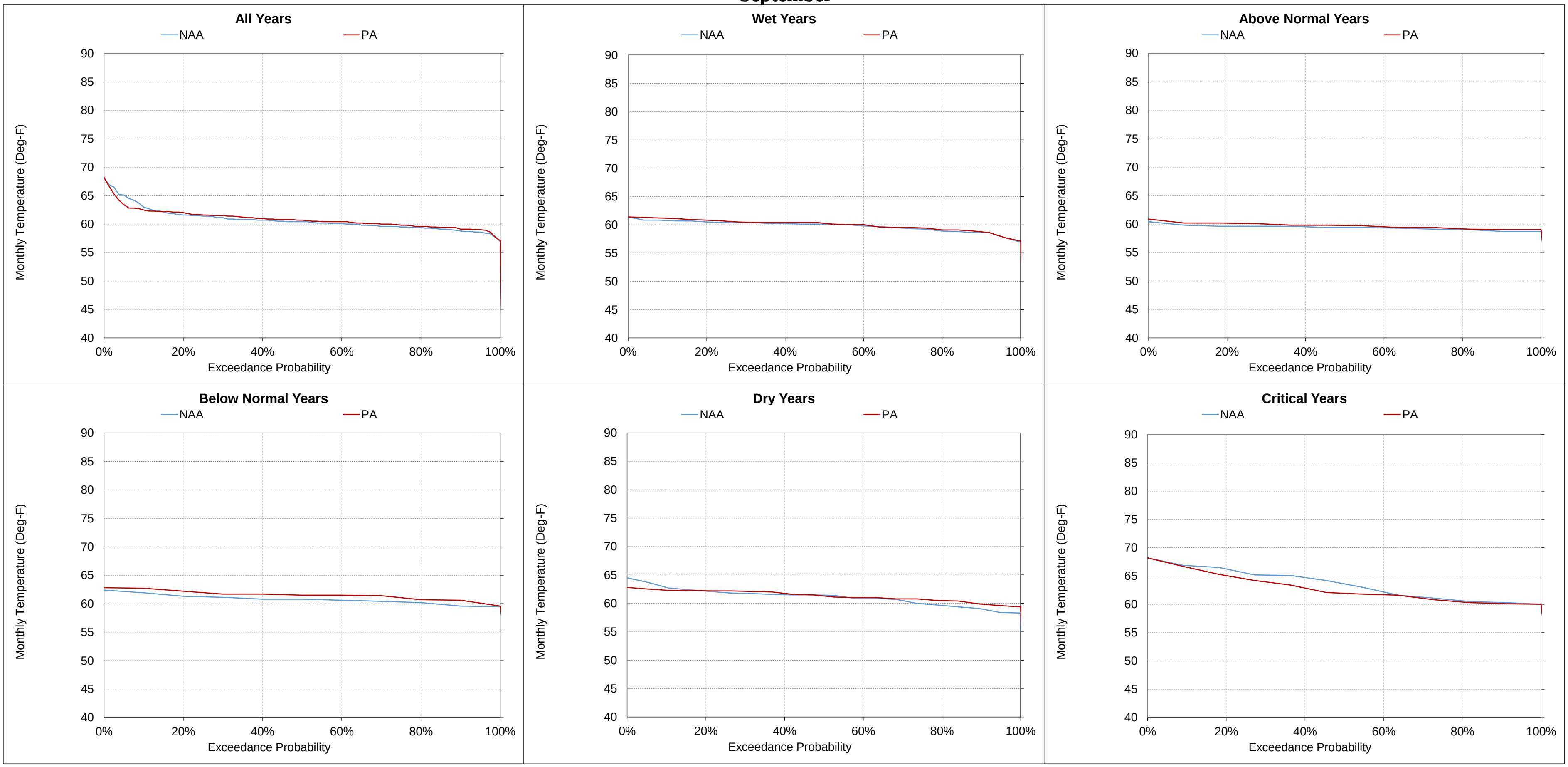
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-18. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-12-19. Feather River Low Flow Channel at Robinson Riffle, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-13. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	62.2	61.7	-0.5	-1%	57.9	57.8	-0.1	0%	52.0	51.9	-0.1	0%	50.0	49.9	-0.1	0%	53.0	52.8	-0.2	0%	56.5	56.8	0.3	1%
20%	60.2	60.4	0.2	0%	56.4	56.5	0.1	0%	51.3	51.4	0.1	0%	49.6	49.6	0.0	0%	52.5	52.5	0.0	0%	55.9	55.9	0.0	0%
30%	59.8	59.6	-0.2	0%	55.7	55.4	-0.3	-1%	50.7	50.9	0.2	0%	49.0	49.0	0.0	0%	52.2	52.1	-0.1	0%	55.3	55.2	-0.1	0%
40%	59.2	59.2	0.0	0%	55.4	55.1	-0.3	-1%	50.4	50.4	0.0	0%	48.6	48.7	0.1	0%	51.6	51.4	-0.2	0%	54.8	54.7	-0.1	0%
50%	59.0	58.7	-0.3	-1%	55.3	54.4	-0.9	-2%	50.0	49.9	-0.1	0%	48.3	48.2	-0.1	0%	51.0	51.0	0.0	0%	54.1	53.9	-0.2	0%
60%	58.6	58.3	-0.3	-1%	54.7	54.1	-0.6	-1%	49.7	49.2	-0.5	-1%	47.6	47.7	0.1	0%	50.5	50.3	-0.2	0%	53.3	52.8	-0.5	-1%
70%	58.0	58.0	0.0	0%	54.3	53.5	-0.8	-1%	49.0	48.8	-0.2	0%	47.2	47.3	0.1	0%	49.8	49.7	-0.1	0%	52.4	52.5	0.1	0%
80%	57.3	57.4	0.1	0%	53.8	53.1	-0.7	-1%	48.5	48.3	-0.2	0%	46.4	46.4	0.0	0%	49.4	49.4	0.0	0%	51.6	51.7	0.1	0%
90%	56.8	56.8	0.0	0%	52.4	52.4	0.0	0%	47.7	47.5	-0.2	0%	45.4	45.6	0.2	0%	48.8	48.8	0.0	0%	50.5	50.3	-0.2	0%
Long Term Full Simulation Period[b]	59.3	59.1	-0.1	0%	55.2	54.8	-0.4	-1%	49.9	49.7	-0.2	0%	47.9	47.9	0.0	0%	51.0	51.0	0.0	0%	53.8	53.8	0.0	0%
Water Year Types[c]																								
Wet (32%)	58.2	58.2	0.0	0%	54.7	54.4	-0.3	-1%	50.5	50.2	-0.3	-1%	48.6	48.6	0.0	0%	50.0	49.9	-0.1	0%	52.1	52.0	-0.1	0%
Above Normal (16%)	58.3	58.1	-0.2	0%	53.9	53.7	-0.2	0%	49.4	49.3	0.0	0%	47.1	47.2	0.1	0%	47.4	47.2	-0.2	0%	49.3	49.0	-0.3	-1%
Below Normal (13%)	59.4	59.3	-0.2	0%	55.4	54.7	-0.6	-1%	49.1	48.8	-0.4	-1%	46.8	46.8	0.0	0%	51.5	51.6	0.1	0%	55.1	55.2	0.2	0%
Dry (24%)	59.8	59.6	-0.2	0%	55.5	55.0	-0.5	-1%	50.3	50.3	0.0	0%	45.7	45.8	0.1	0%	51.2	51.4	0.1	0%	55.0	55.1	0.1	0%
Critical (15%)	61.7	61.5	-0.2	0%	56.7	56.5	-0.2	0%	49.0	49.1	0.1	0%	47.7	47.7	0.0	0%	52.0	51.8	-0.2	0%	54.9	54.9	-0.1	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	60.2	60.2	0.0	0%	66.7	66.7	0.0	0%	71.0	70.9	-0.1	0%	73.6	73.4	-0.2	0%	73.5	73.6	0.1	0%	66.7	66.8	0.1	0%
20%	58.5	58.7	0.2	0%	65.1	65.1	0.0	0%	70.5	69.8	-0.7	-1%	72.2	72.7	0.5	1%	71.9	72.6	0.7	1%	65.3	65.8	0.5	1%
30%	58.2	58.2	0.0	0%	64.3	64.3	0.0	0%	69.8	68.9	-0.9	-1%	70.7	71.1	0.4	1%	70.8	71.8	1.0	1%	64.6	65.3	0.7	1%
40%	57.8	57.8	0.0	0%	63.8	63.8	0.0	0%	69.2	68.2	-1.0	-1%	70.0	70.1	0.1	0%	70.3	71.0	0.7	1%	63.7	64.7	1.0	2%
50%	57.5	57.5	0.0	0%	63.5	63.5	0.0	0%	68.6	67.4	-1.2	-2%	69.5	69.5	0.0	0%	69.9	70.3	0.4	1%	62.9	64.2	1.3	2%
60%	56.9	56.9	0.0	0%	63.0	62.9	-0.1	0%	68.1	67.0	-1.1	-2%	69.2	69.2	0.0	0%	69.3	70.0	0.7	1%	62.1	63.7	1.6	3%
70%	56.7	56.5	-0.2	0%	62.3	62.2	-0.1	0%	67.4	66.7	-0.7	-1%	68.9	68.7	-0.2	0%	68.5	69.1	0.6	1%	61.6	63.0	1.4	2%
80%	55.7	55.7	0.0	0%	61.4	61.5	0.1	0%	66.7	66.0	-0.7	-1%	68.2	68.1	-0.1	0%	67.8	67.8	0.0	0%	61.1	62.0	0.9	1%
90%	54.9	54.9	0.0	0%	60.4	60.6	0.2	0%	65.8	64.7	-1.1	-2%	67.6	67.4	-0.2	0%	67.1	66.7	-0.4	-1%	60.5	61.1	0.6	1%
Long Term Full Simulation Period[b]	57.3	57.4	0.0	0%	63.4	63.4	0.0	0%	68.5	67.8	-0.7	-1%	70.2	70.2	0.0	0%	70.0	70.3	0.3	0%	63.2	64.1	0.9	1%
Water Year Types[c]																								
Wet (32%)	55.6	55.6	0.0	0%	61.7	61.7	0.0	0%	67.3	66.5	-0.8	-1%	69.6	69.3	-0.3	0%	69.4	69.5	0.1	0%	61.2	62.6	1.4	2%
Above Normal (16%)	53.6	53.5	-0.1	0%	59.1	59.1	0.0	0%	63.3	61.9	-1.4	-2%	63.0	63.1	0.1	0%	62.5	63.3	0.8	1%	56.7	58.7	2.0	3%
Below Normal (13%)	58.5	58.5	0.0	0%	63.9	63.9	0.0	0%	69.1	68.1	-1.0	-1%	69.2	69.1	-0.1	0%	69.4	70.0	0.6	1%	64.6	65.0	0.4	1%
Dry (24%)	58.1	58.1	0.0	0%	64.5	64.6	0.1	0%	69.1	68.6	-0.5	-1%	70.3	70.5	0.2	0%	71.2	71.2	0.1	0%	64.4	64.3	0.0	0%
Critical (15%)	58.0	58.3	0.3	0%	64.3	64.4	0.0	0%	69.6	69.7	0.2	0%	74.3	74.7	0.4	1%	72.5	72.6	0.2	0%	66.2	66.8	0.5	1%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-1. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, All Years

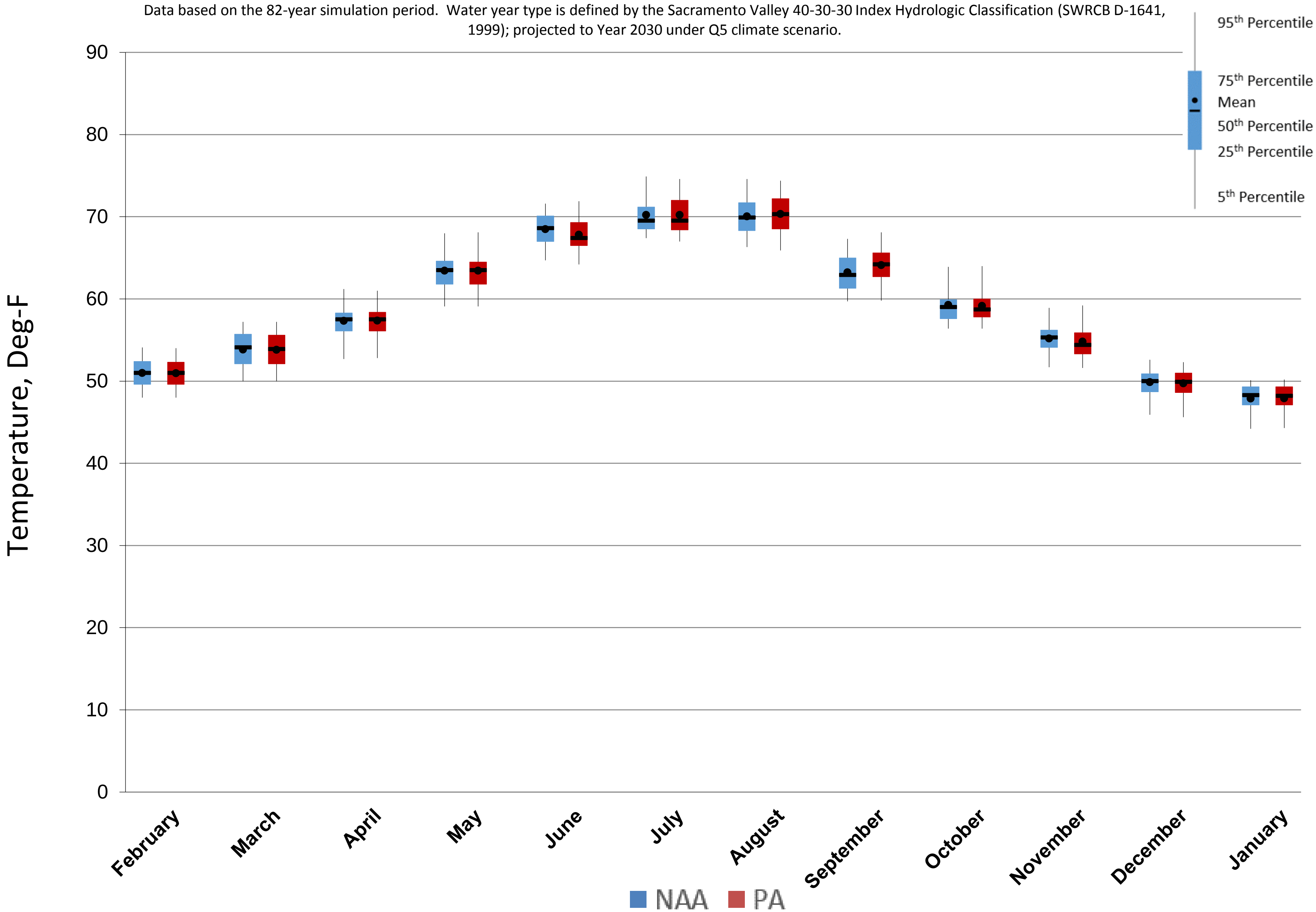


Figure 5.C.7-13-2. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, Wet Years

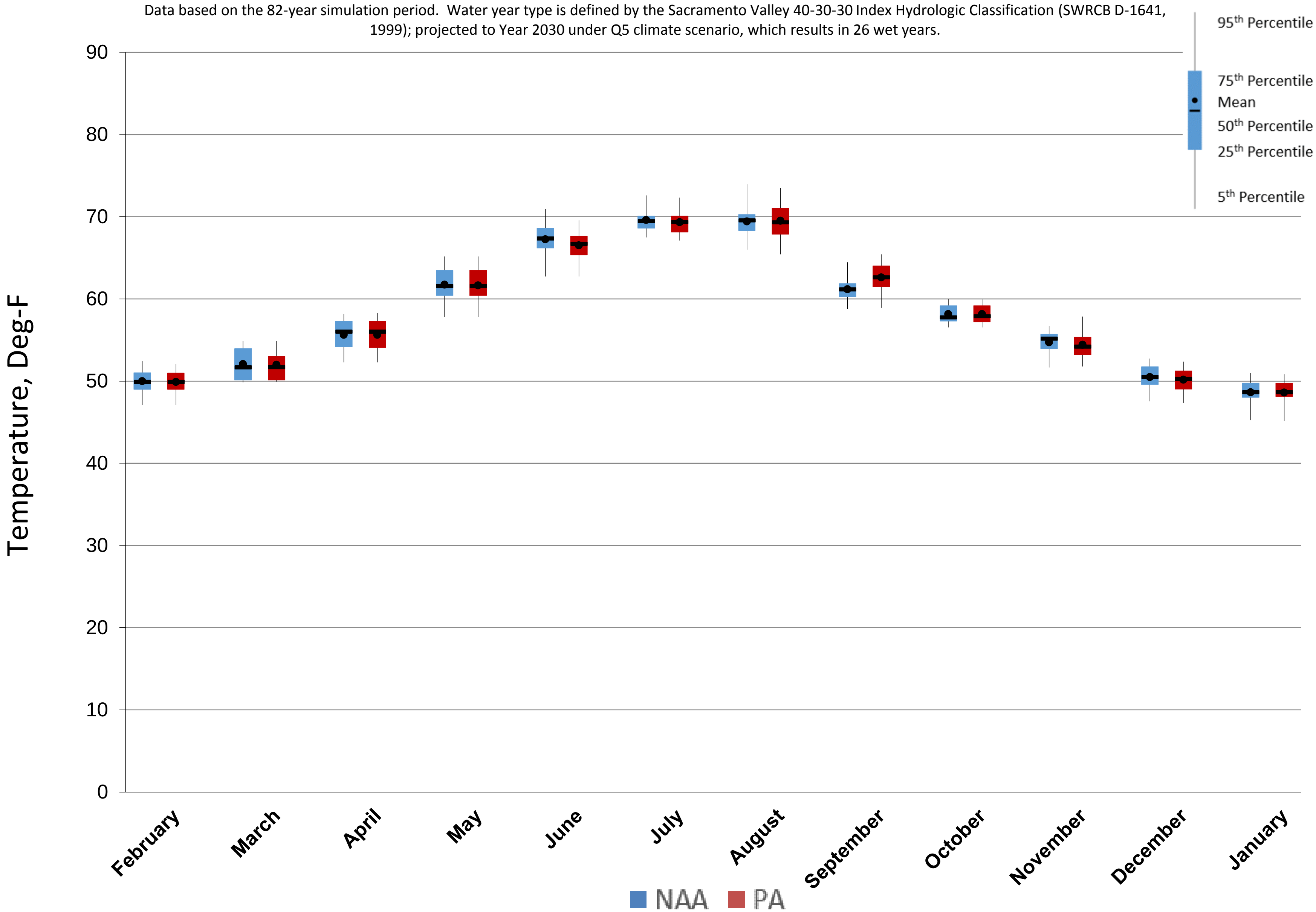


Figure 5.C.7-13-3. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

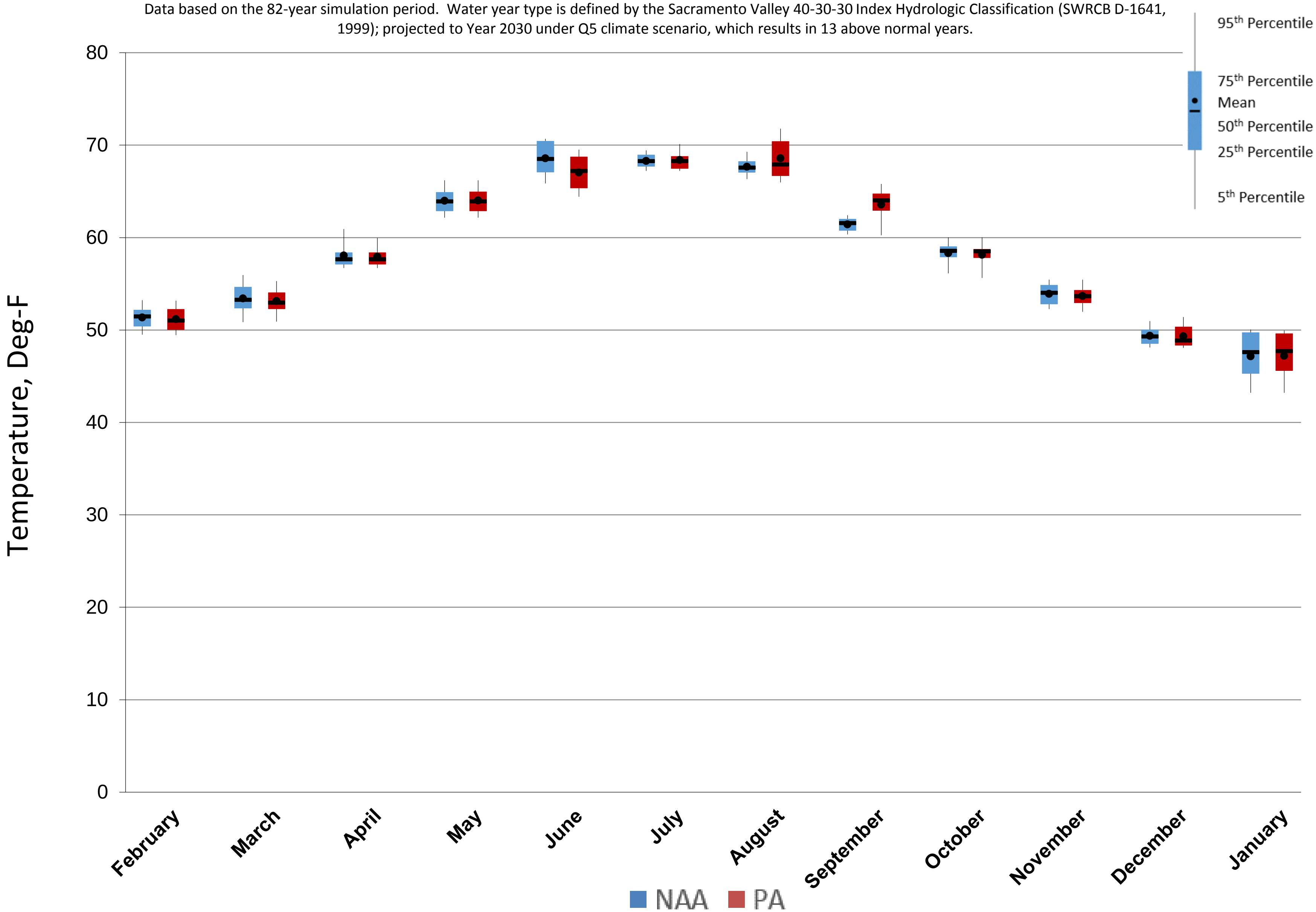


Figure 5.C.7-13-4. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 11 below normal years.

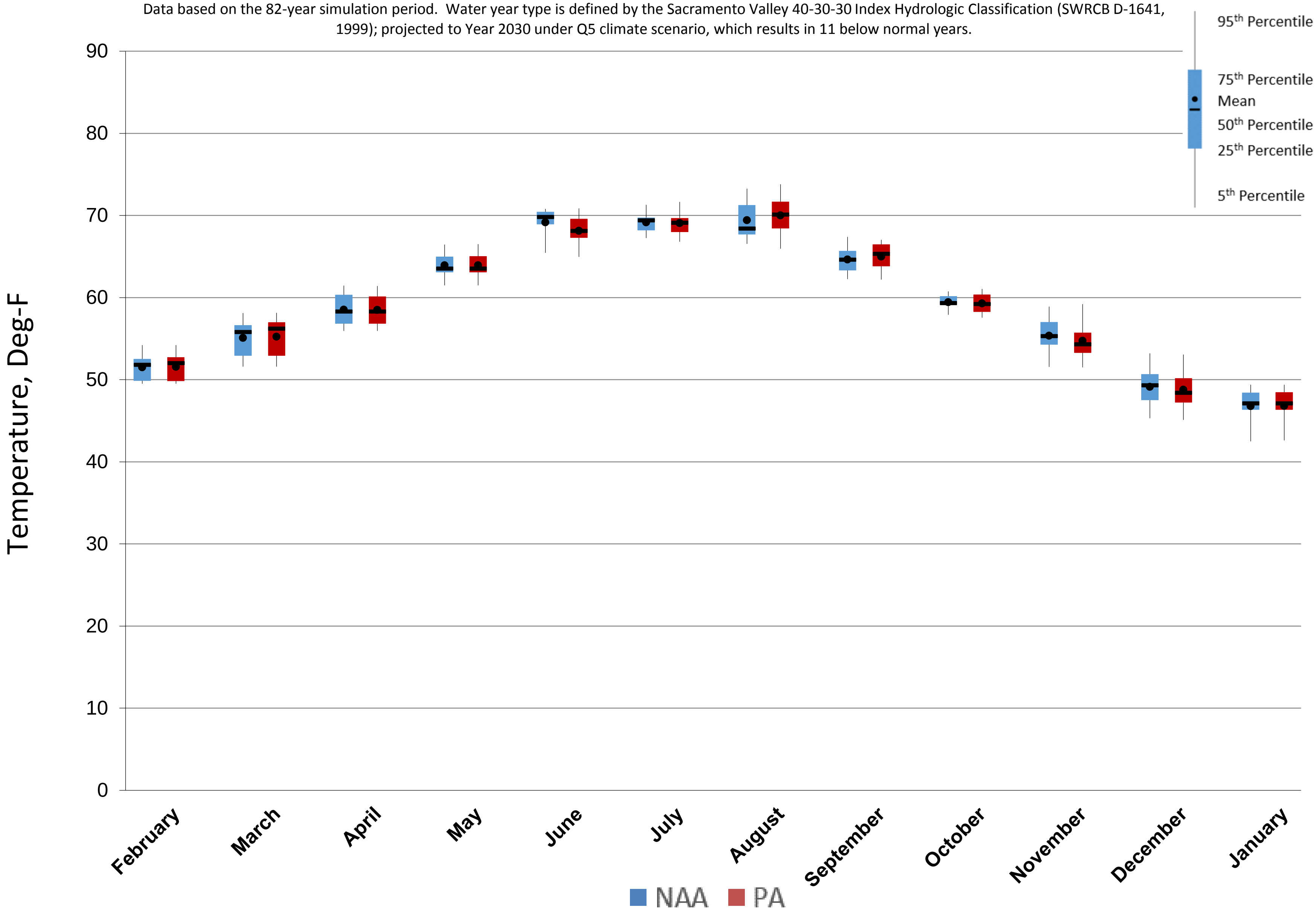


Figure 5.C.7-13-5. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.

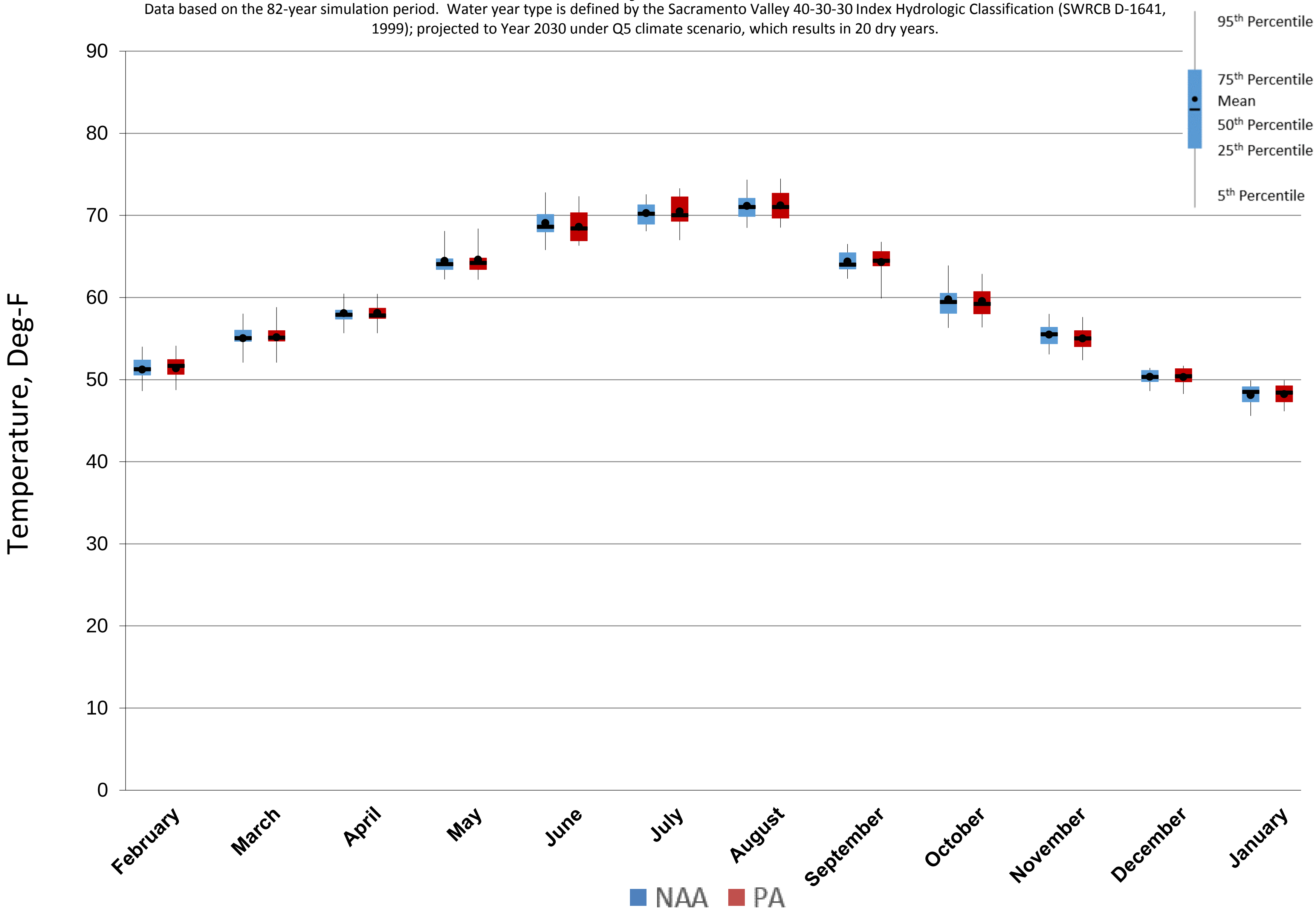


Figure 5.C.7-13-6. Monthly Temperature Ranges for Feather River High Flow Channel below Thermalito Afterbay, Critical Years

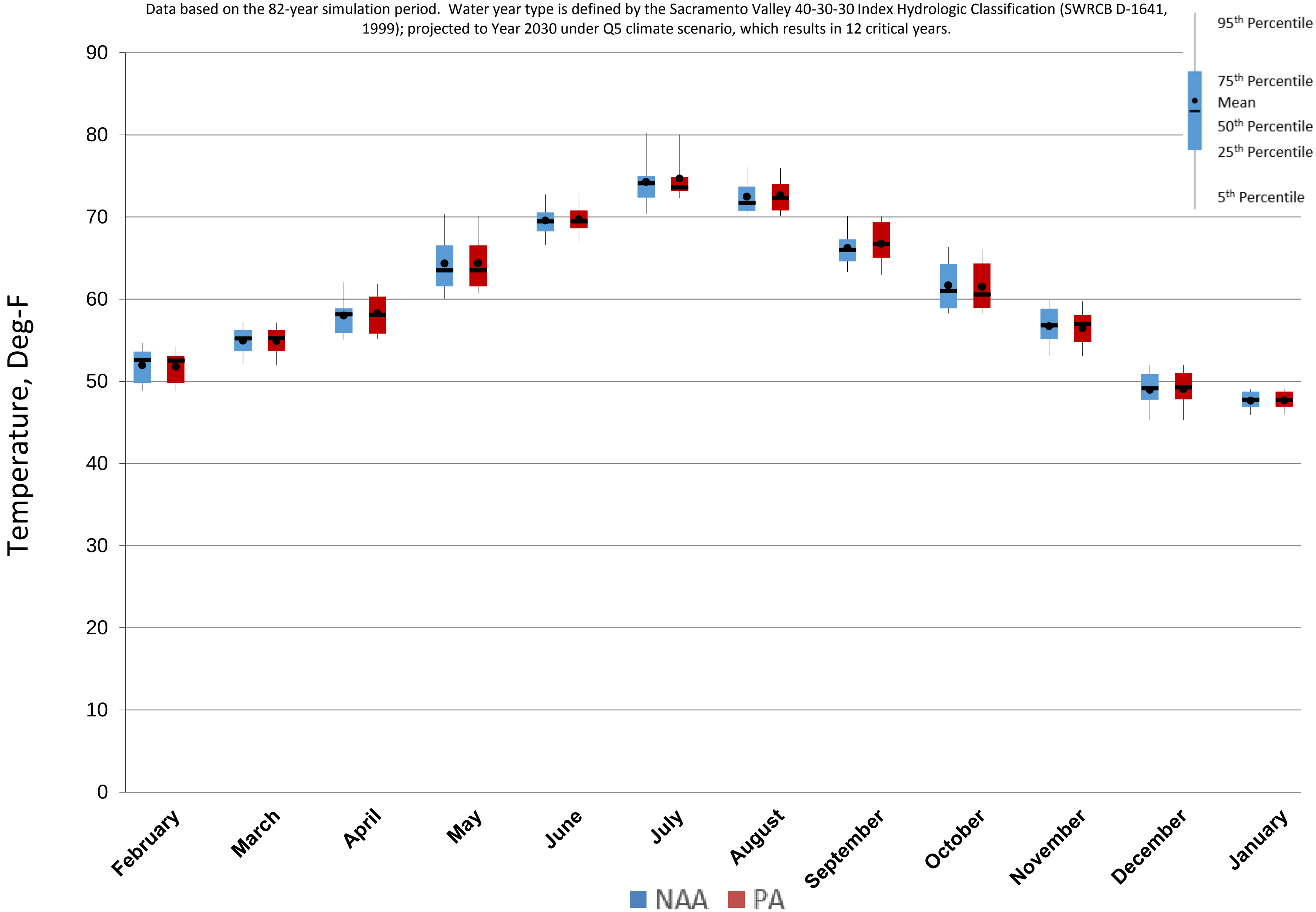
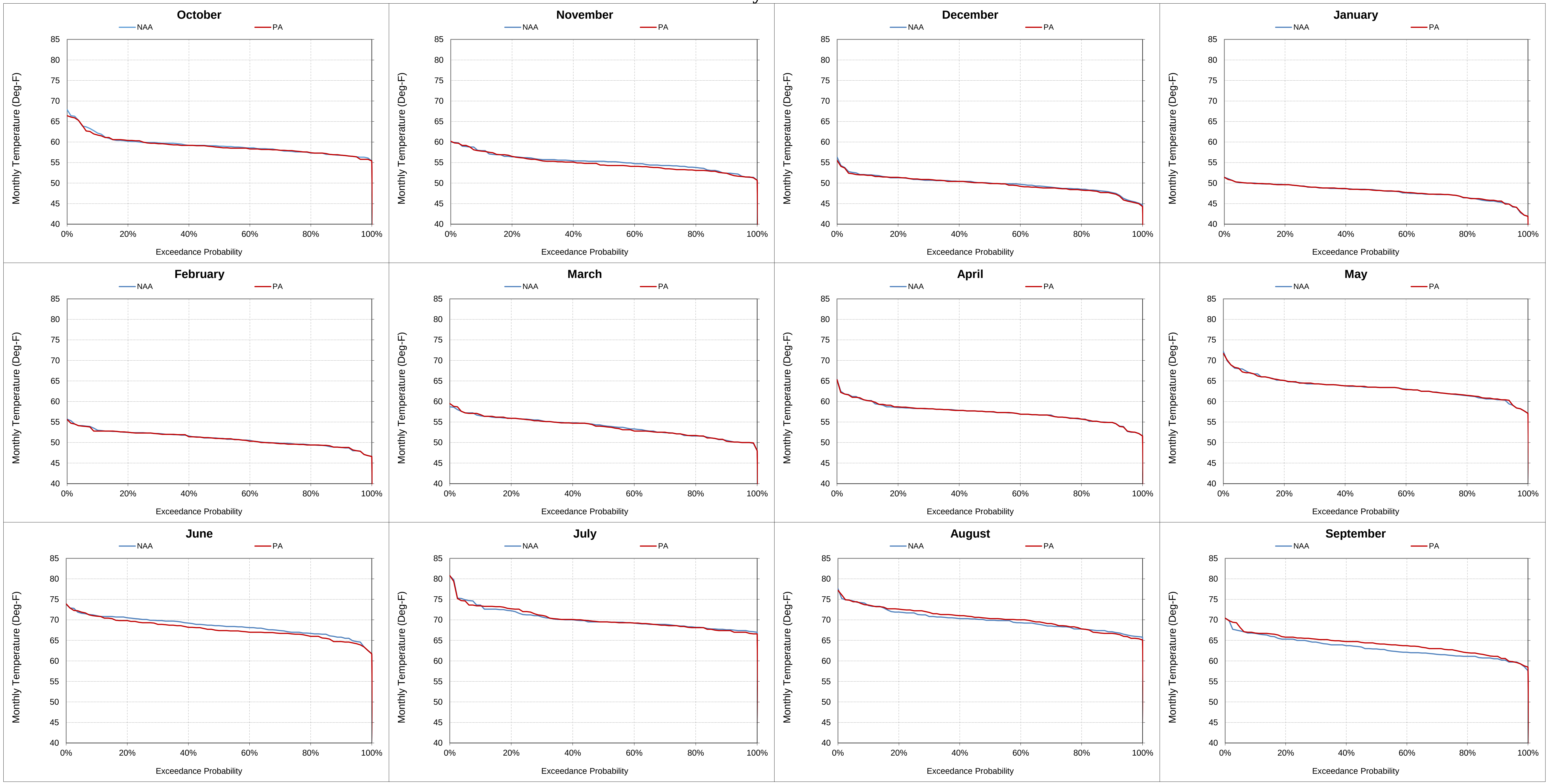
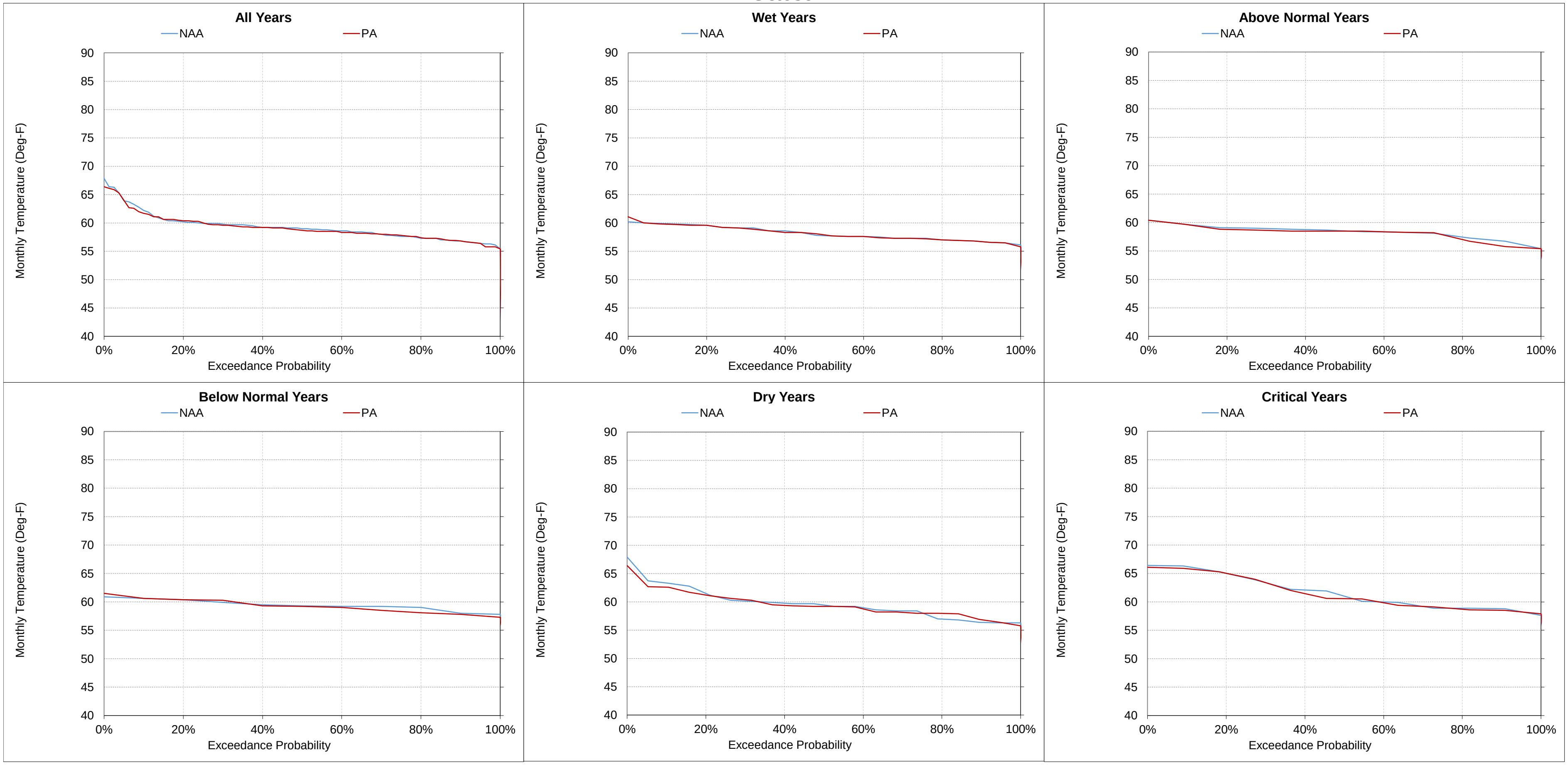


Figure 5.C.7-13-7. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-8. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature October



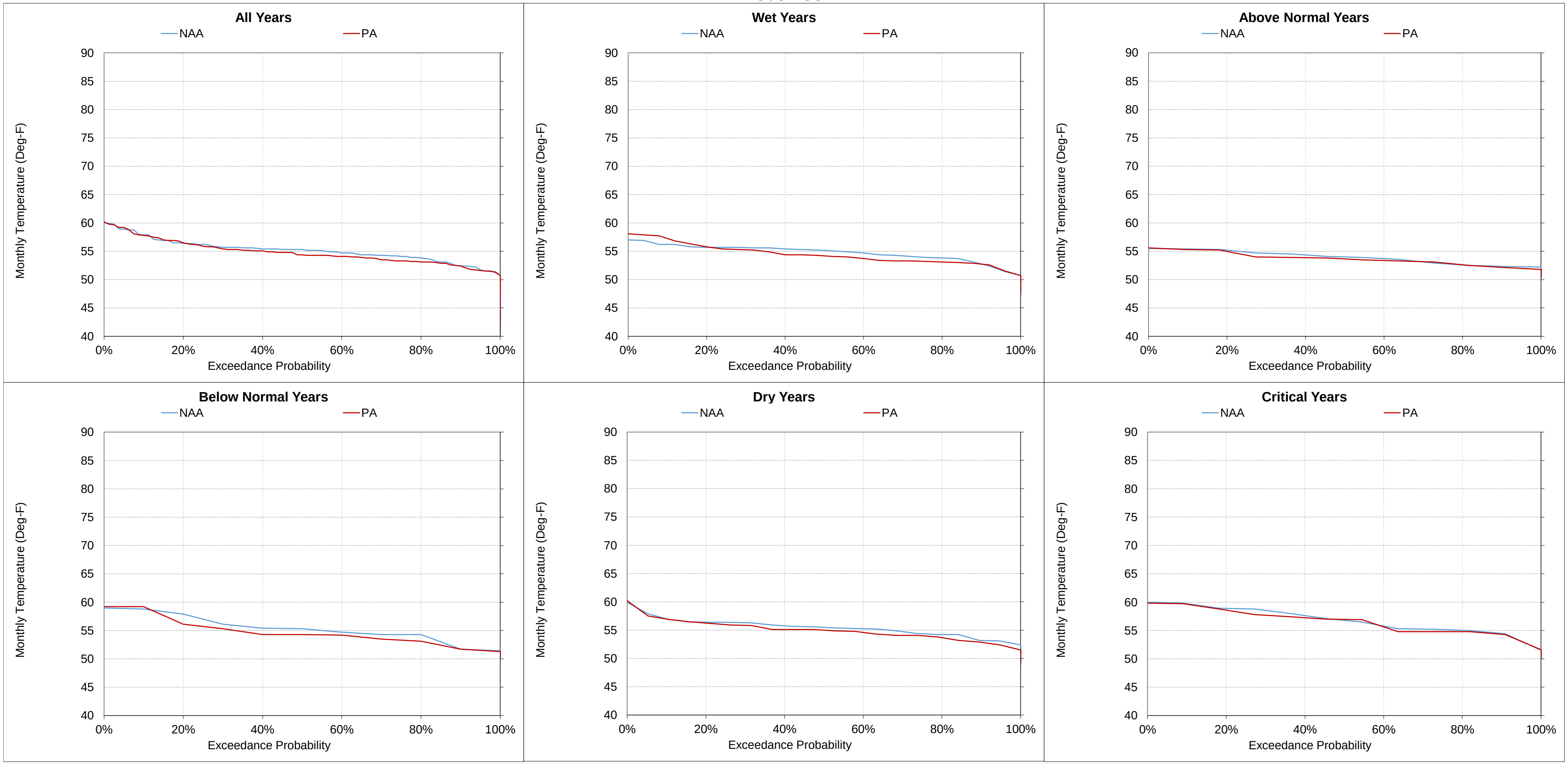
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

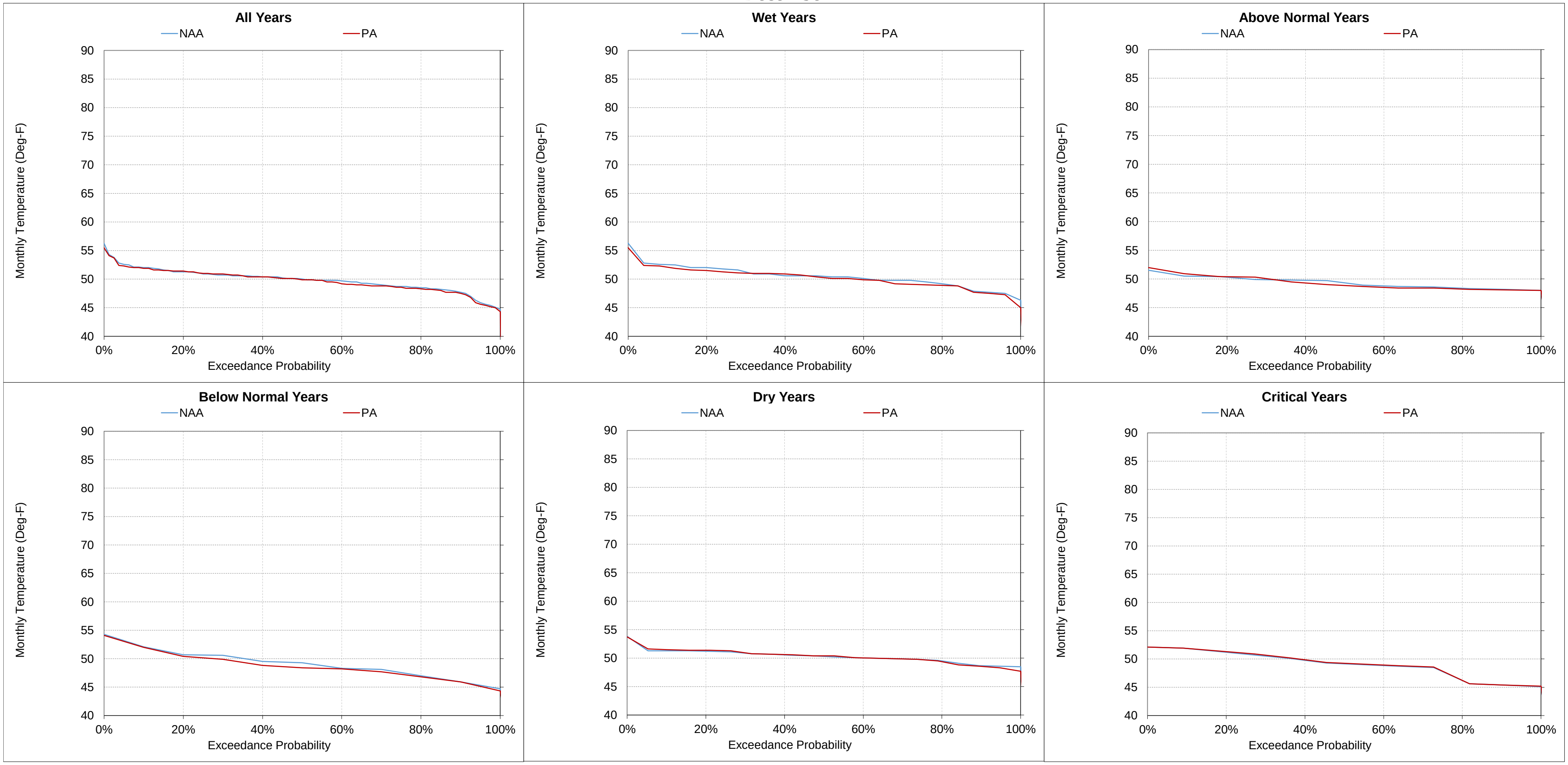
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-9. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature November



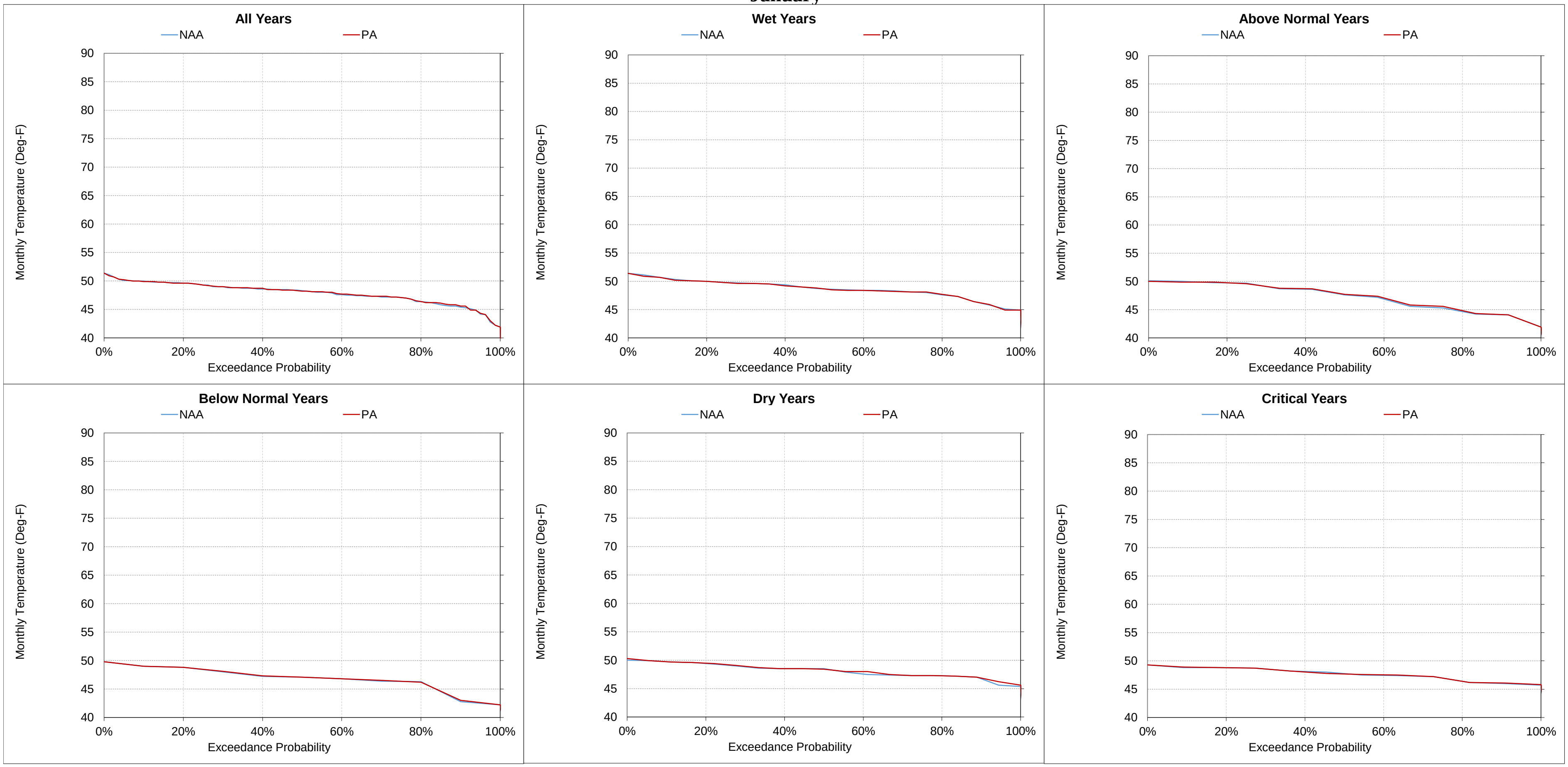
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-10. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature December



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-11. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature
January



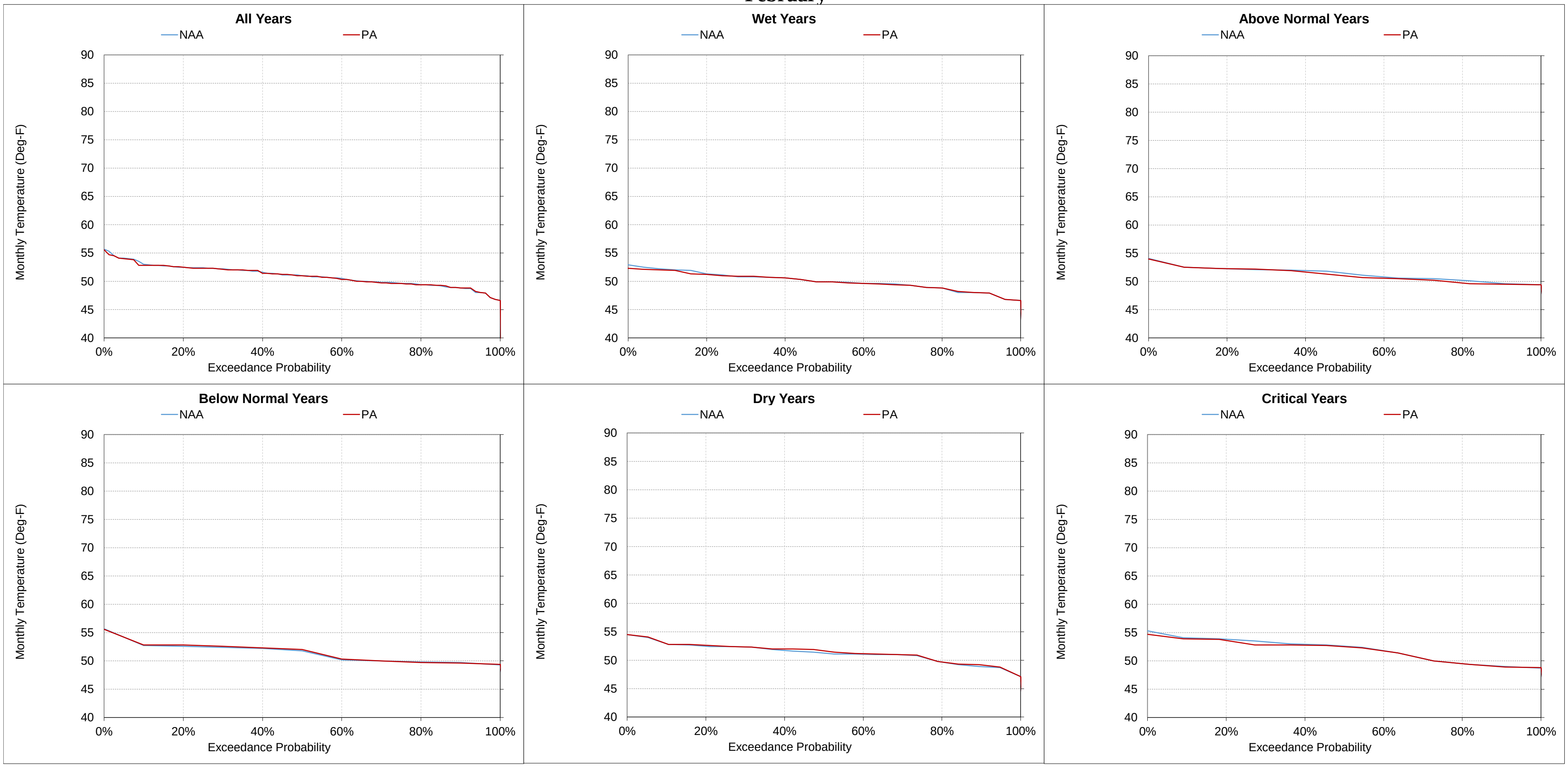
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-12. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature
February



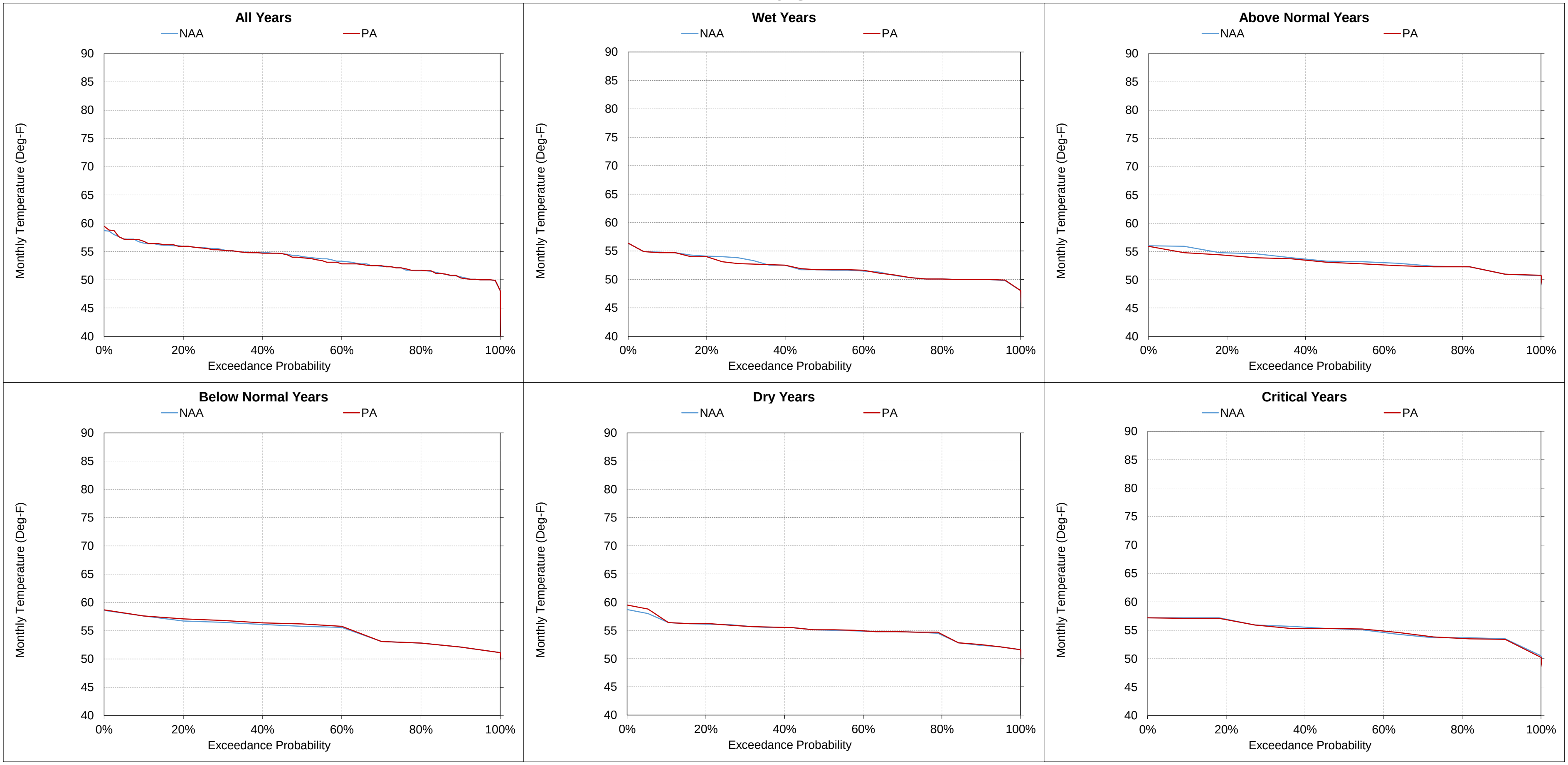
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

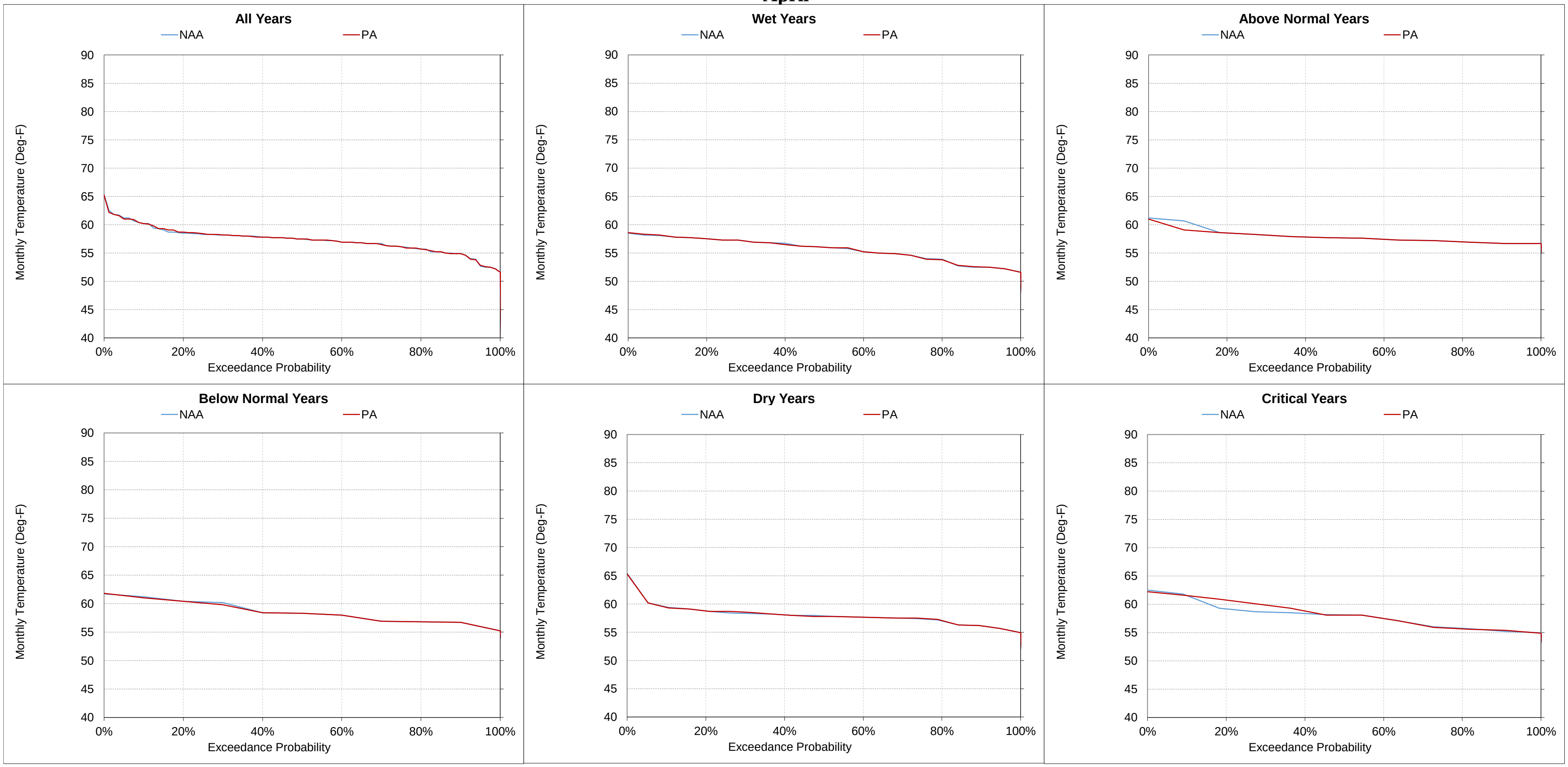
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-13. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature March



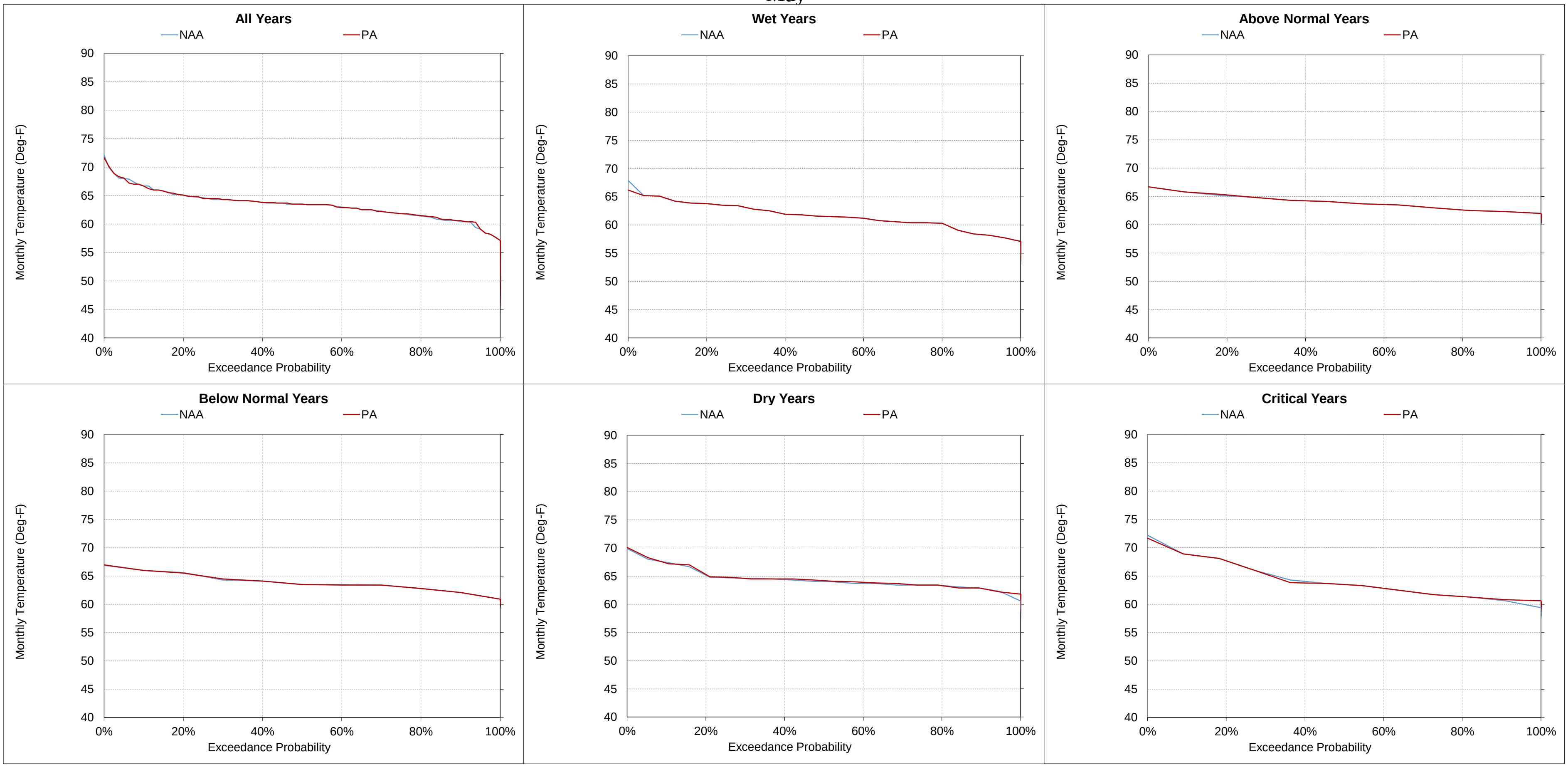
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-14. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature April



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

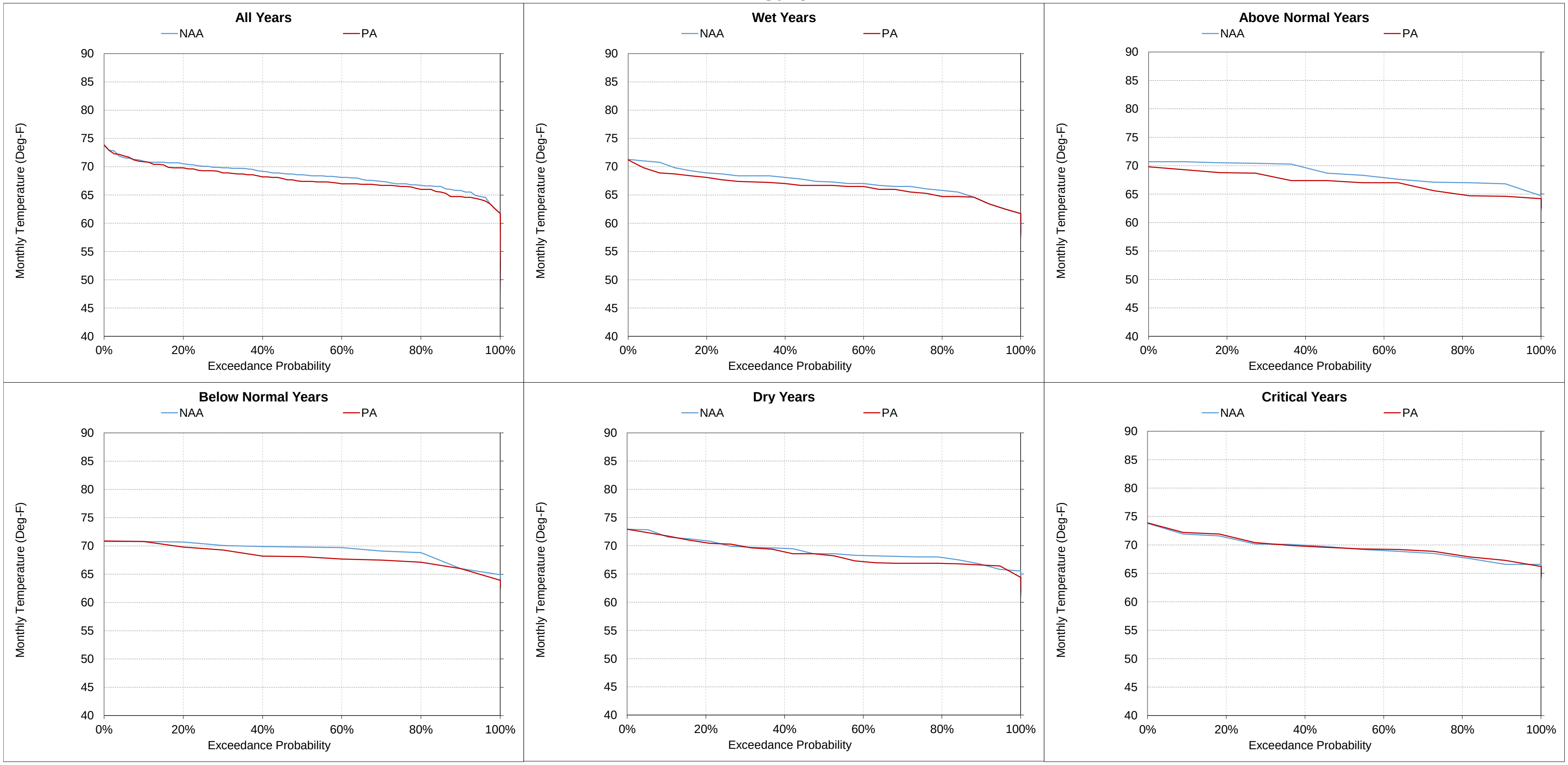
Figure 5.C.7-13-15. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature May



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-16. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature

June



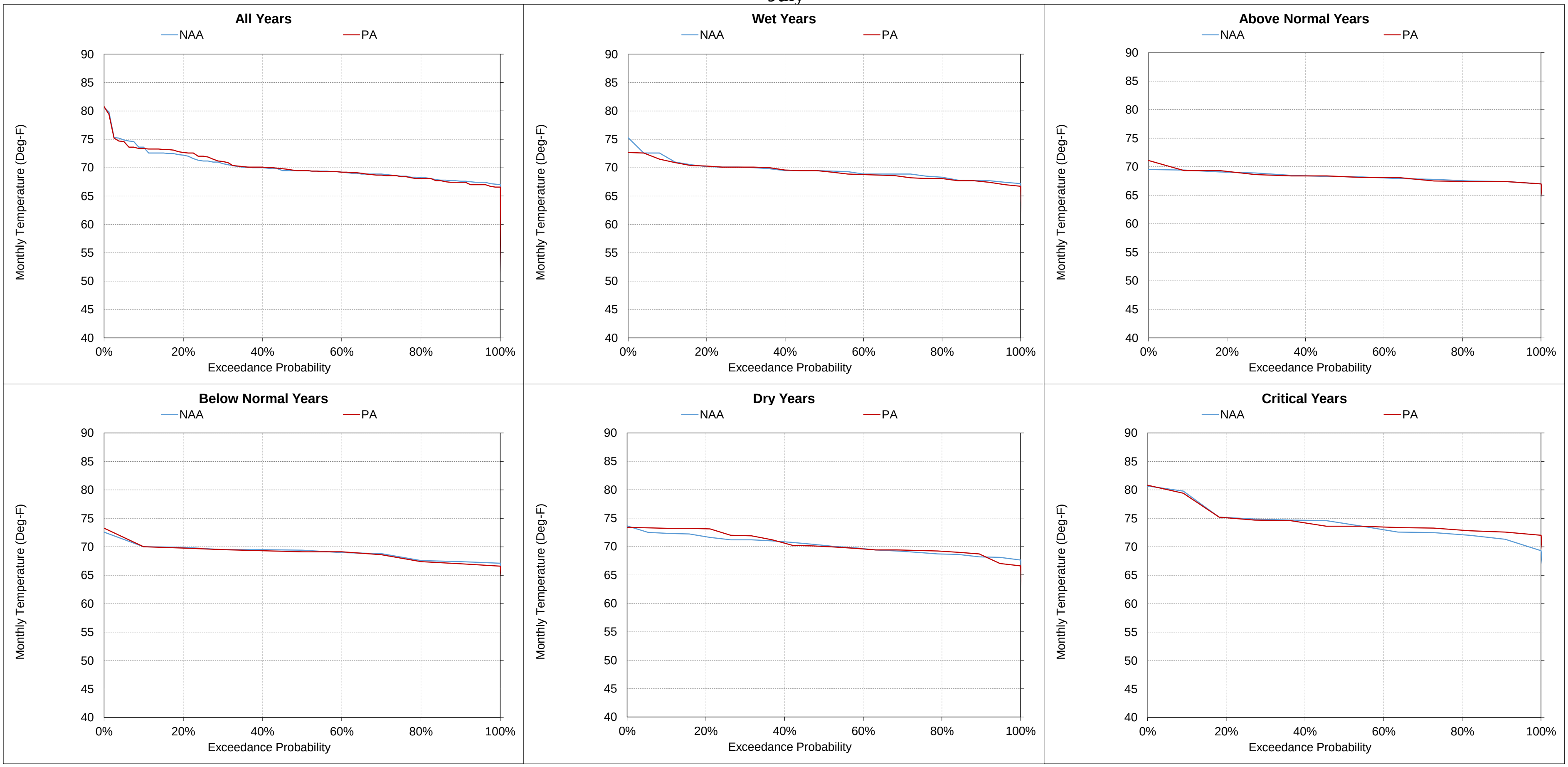
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

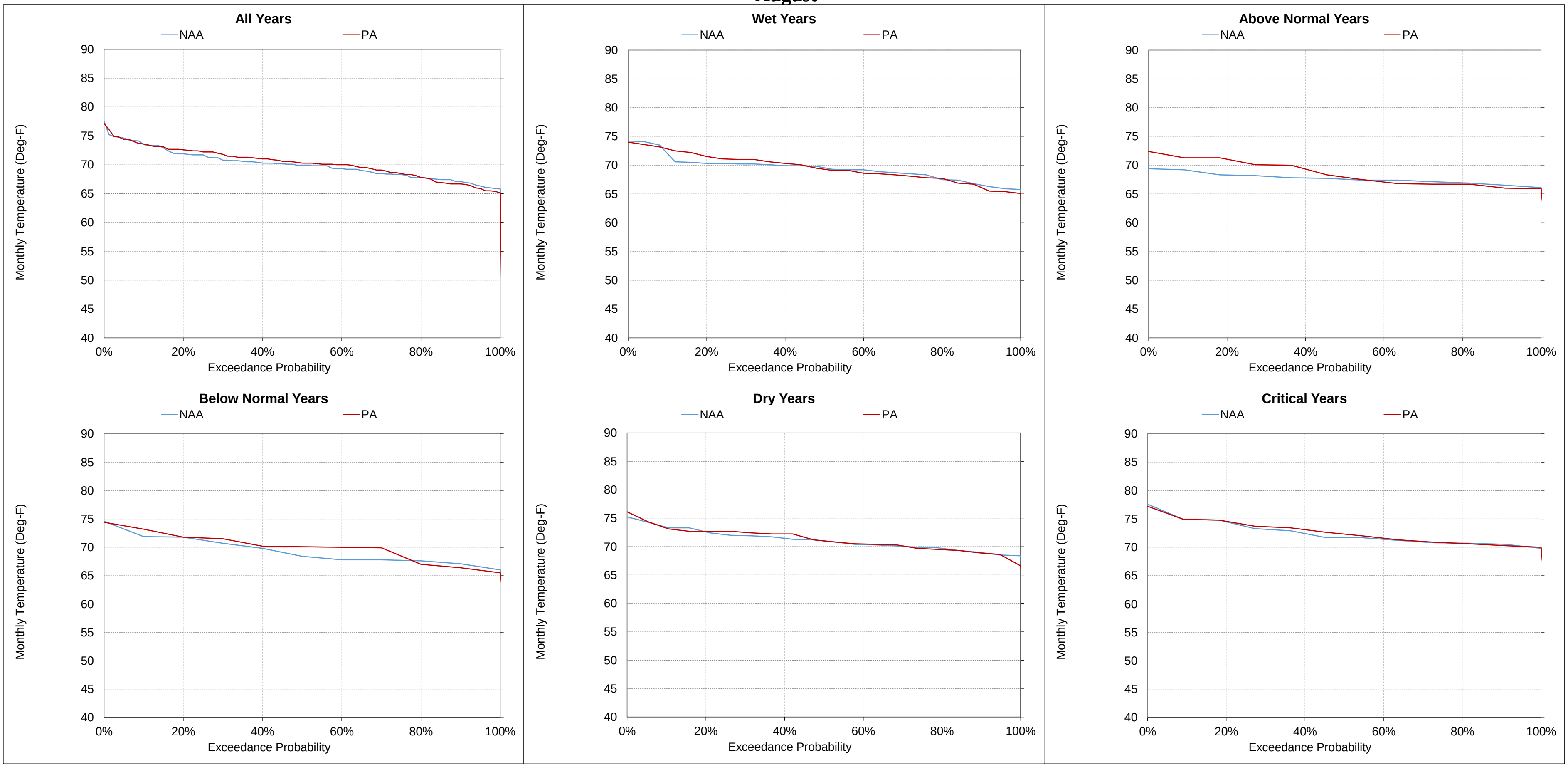
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-17. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature
July



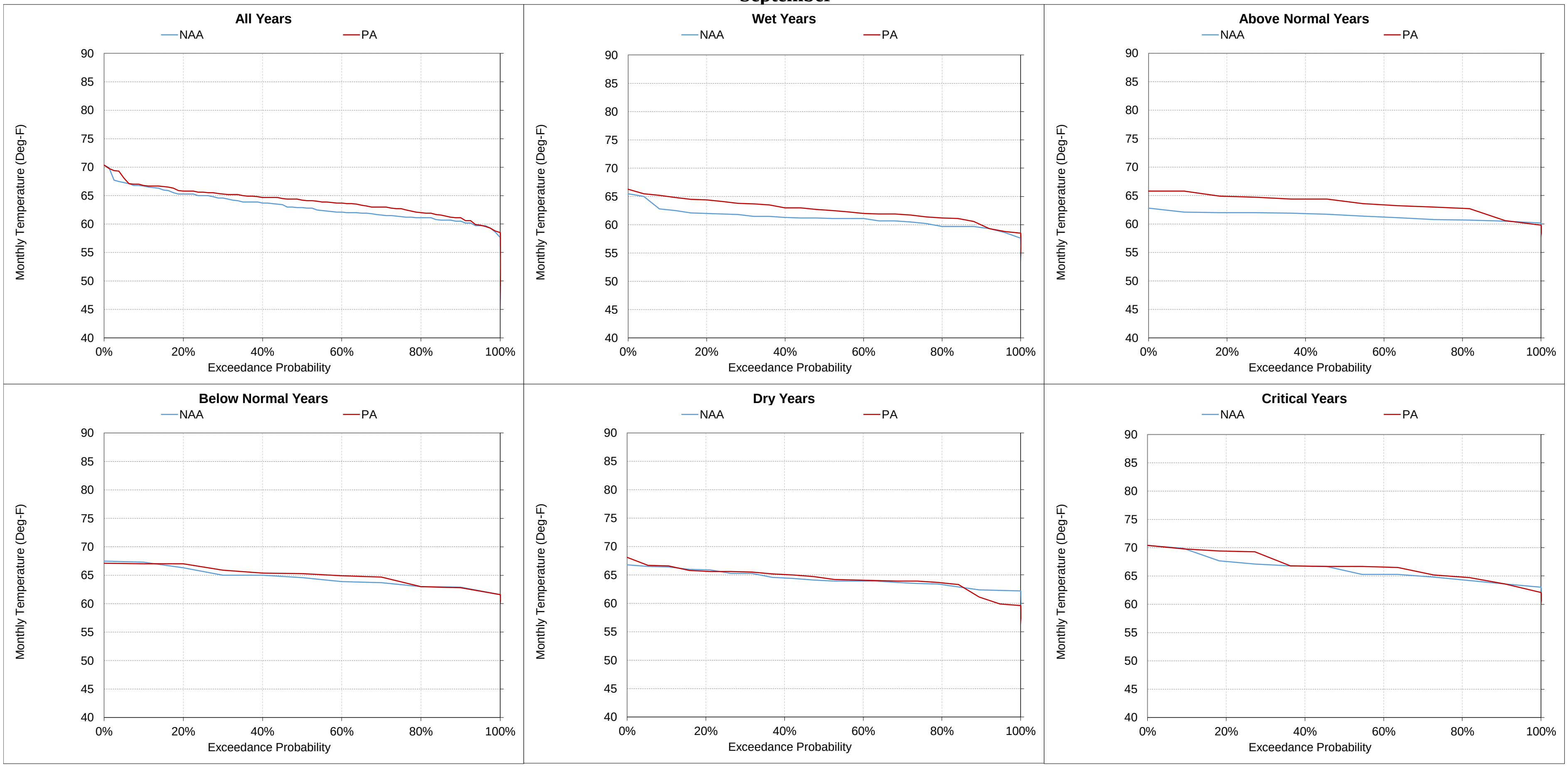
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-18. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-13-19. Feather River High Flow Channel below Thermalito Afterbay, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-14. American River at Hazel Ave, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	66.3	66.1	-0.2	0%	58.2	58.0	-0.2	0%	53.3	52.7	-0.6	-1%	47.9	48.1	0.1	0%	48.4	48.7	0.2	0%	52.3	52.4	0.0	0%
20%	65.4	65.1	-0.3	0%	57.9	57.8	-0.1	0%	51.9	51.7	-0.2	0%	47.3	47.3	0.0	0%	47.8	47.8	0.0	0%	51.6	51.8	0.2	0%
30%	64.4	64.2	-0.2	0%	57.7	57.6	-0.1	0%	51.2	51.1	0.0	0%	46.9	47.0	0.1	0%	47.4	47.5	0.1	0%	50.6	50.6	0.0	0%
40%	63.8	63.4	-0.3	-1%	57.3	57.3	0.0	0%	50.7	50.7	0.0	0%	46.8	46.8	0.0	0%	46.9	46.9	0.0	0%	49.8	49.8	-0.1	0%
50%	63.3	63.1	-0.1	0%	57.1	57.0	-0.1	0%	50.3	50.1	-0.2	0%	46.1	46.2	0.1	0%	46.6	46.5	-0.1	0%	49.4	49.4	0.0	0%
60%	63.1	63.0	-0.1	0%	56.9	56.8	-0.1	0%	49.0	49.5	0.4	1%	45.8	45.8	0.0	0%	46.3	46.2	-0.1	0%	49.0	49.0	0.0	0%
70%	62.8	62.8	0.0	0%	56.7	56.6	-0.1	0%	48.5	48.6	0.2	0%	45.3	45.4	0.0	0%	46.0	46.0	0.0	0%	48.7	48.6	-0.1	0%
80%	62.7	62.7	0.0	0%	56.1	56.2	0.0	0%	48.1	48.3	0.2	0%	44.9	45.0	0.1	0%	45.8	45.7	0.0	0%	48.3	48.3	0.0	0%
90%	59.2	59.3	0.2	0%	55.7	55.4	-0.3	-1%	46.9	46.9	0.0	0%	44.5	44.4	-0.1	0%	45.4	45.4	0.0	0%	48.0	48.0	0.0	0%
Long Term Full Simulation Period[b]	63.4	63.3	-0.1	0%	57.0	56.9	-0.1	0%	50.0	50.0	-0.1	0%	46.2	46.2	0.0	0%	46.8	46.8	0.0	0%	49.9	49.8	0.0	0%
Water Year Types[c]																								
Wet (32%)	61.6	61.6	0.0	0%	57.0	56.9	-0.1	0%	50.7	50.8	0.0	0%	46.5	46.5	0.0	0%	46.0	45.9	-0.1	0%	48.6	48.5	-0.1	0%
Above Normal (16%)	63.1	63.3	0.2	0%	56.7	56.7	0.0	0%	50.0	50.1	0.1	0%	46.4	46.6	0.1	0%	46.5	46.5	0.0	0%	49.0	48.9	0.0	0%
Below Normal (13%)	63.8	63.8	-0.1	0%	57.3	57.0	-0.3	0%	50.4	50.1	-0.3	-1%	46.2	46.0	-0.2	0%	46.7	46.7	0.0	0%	50.0	50.0	0.0	0%
Dry (24%)	64.4	64.1	-0.3	0%	56.9	56.7	-0.3	0%	49.5	49.3	-0.2	0%	46.1	46.0	-0.1	0%	47.3	47.3	0.0	0%	50.6	50.6	0.0	0%
Critical (15%)	65.6	65.2	-0.4	-1%	57.5	57.4	-0.1	0%	49.0	49.1	0.1	0%	45.6	45.6	0.0	0%	48.0	48.0	0.0	0%	52.3	52.3	0.0	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	57.8	57.7	-0.1	0%	63.1	63.0	-0.1	0%	67.5	67.0	-0.5	-1%	68.9	68.7	-0.3	0%	67.2	67.3	0.1	0%	68.4	68.5	0.1	0%
20%	57.0	56.8	-0.2	0%	61.7	61.8	0.0	0%	65.7	65.8	0.1	0%	66.8	67.0	0.2	0%	66.7	66.8	0.1	0%	67.6	67.7	0.1	0%
30%	56.0	56.1	0.1	0%	60.8	60.6	-0.2	0%	64.5	64.7	0.2	0%	65.3	65.2	-0.1	0%	65.7	65.7	0.0	0%	66.4	66.6	0.2	0%
40%	55.3	55.3	0.0	0%	59.6	59.5	-0.1	0%	63.0	63.0	0.1	0%	64.9	64.7	-0.2	0%	65.0	65.1	0.1	0%	65.8	65.8	0.0	0%
50%	54.5	54.5	0.0	0%	58.3	58.3	0.0	0%	61.7	62.3	0.7	1%	64.6	64.5	-0.1	0%	64.3	64.3	0.0	0%	65.2	65.3	0.0	0%
60%	54.0	54.0	0.0	0%	57.8	57.8	0.0	0%	60.7	61.0	0.3	1%	64.5	64.2	-0.3	-1%	64.0	63.9	-0.1	0%	64.9	64.9	0.0	0%
70%	53.4	53.4	0.0	0%	57.0	57.0	0.0	0%	59.7	59.9	0.2	0%	64.4	63.8	-0.6	-1%	63.4	63.4	0.0	0%	64.3	64.3	0.0	0%
80%	52.4	52.4	0.0	0%	56.5	56.5	0.0	0%	59.3	59.3	0.0	0%	63.8	63.6	-0.2	0%	63.1	62.8	-0.2	0%	64.1	64.0	0.0	0%
90%	51.9	51.7	-0.2	0%	54.9	54.9	0.1	0%	59.0	59.0	0.0	0%	63.5	63.4	-0.1	0%	62.2	62.3	0.0	0%	63.1	63.1	0.0	0%
Long Term Full Simulation Period[b]	54.7	54.7	-0.1	0%	59.0	58.9	-0.1	0%	62.5	62.4	0.0	0%	65.3	65.2	-0.1	0%	64.6	64.7	0.1	0%	65.5	65.5	0.0	0%
Water Year Types[c]																								
Wet (32%)	52.8	52.7	-0.1	0%	56.6	56.6	0.0	0%	59.9	59.8	-0.1	0%	63.8	63.8	-0.1	0%	62.8	62.9	0.1	0%	63.8	63.7	-0.1	0%
Above Normal (16%)	54.2	54.2	0.0	0%	58.3	58.3	0.0	0%	61.8	62.1	0.4	1%	64.5	64.2	-0.3	0%	64.1	64.1	-0.1	0%	64.9	65.0	0.1	0%
Below Normal (13%)	56.1	56.1	0.0	0%	60.2	60.1	0.0	0%	63.7	63.0	-0.7	-1%	65.1	64.9	-0.2	0%	65.2	64.9	-0.3	0%	65.6	65.8	0.3	0%
Dry (24%)	55.5	55.3	-0.1	0%	60.2	60.0	-0.2	0%	63.7	63.9	0.1	0%	65.9	65.8	-0.1	0%	65.5	65.6	0.1	0%	66.4	66.5	0.1	0%
Critical (15%)	57.1	57.0	-0.1	0%	62.0	62.0	0.0	0%	65.6	65.6	0.0	0%	68.8	68.9	0.1	0%	66.8	67.8	0.9	1%	68.1	67.9	-0.2	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-1. Monthly Temperature Ranges for American River at Hazel Ave, All Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.

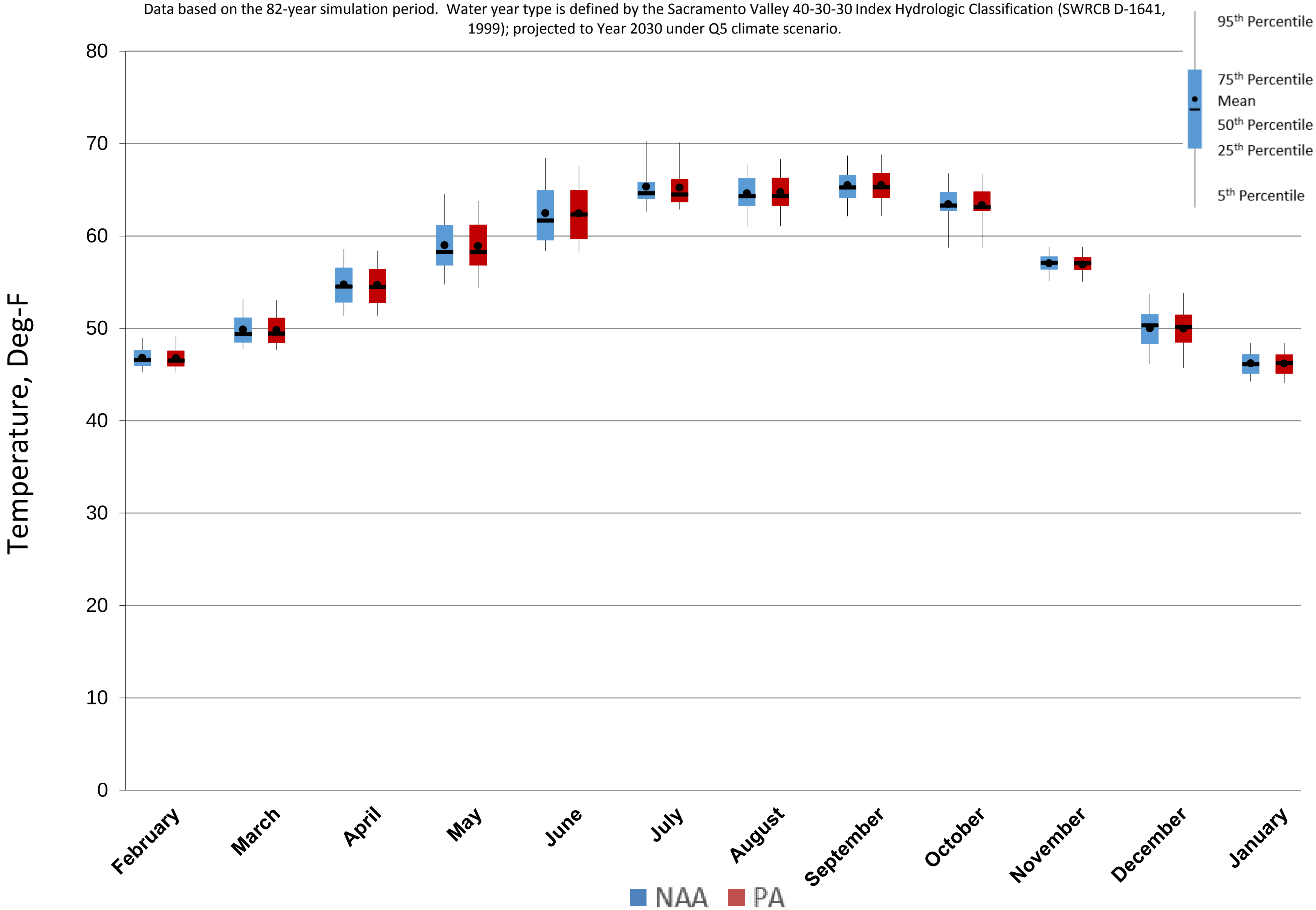


Figure 5.C.7-14-2. Monthly Temperature Ranges for American River at Hazel Ave, Wet Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 26 wet years.

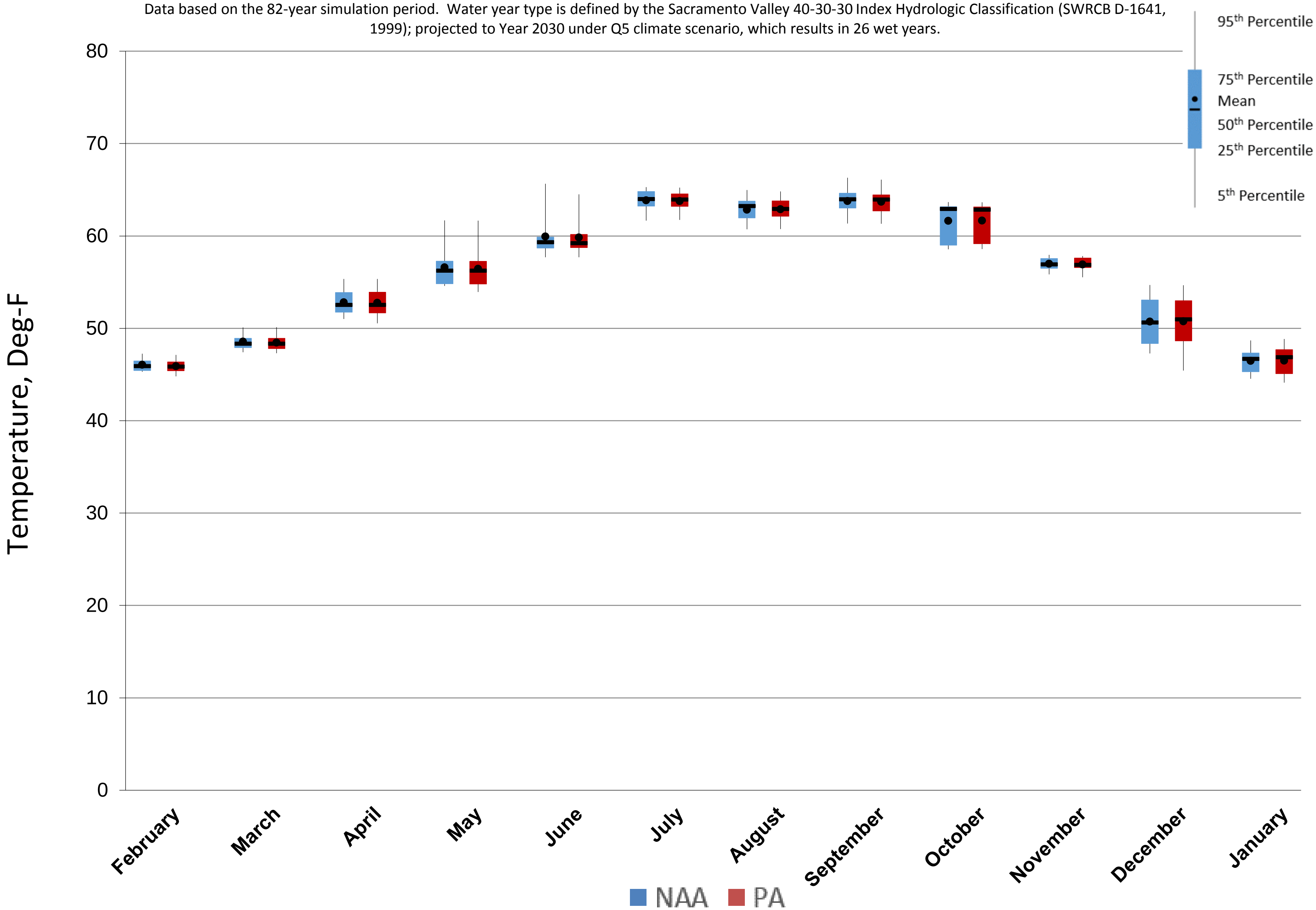


Figure 5.C.7-14-3. Monthly Temperature Ranges for American River at Hazel Ave, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 above normal years.

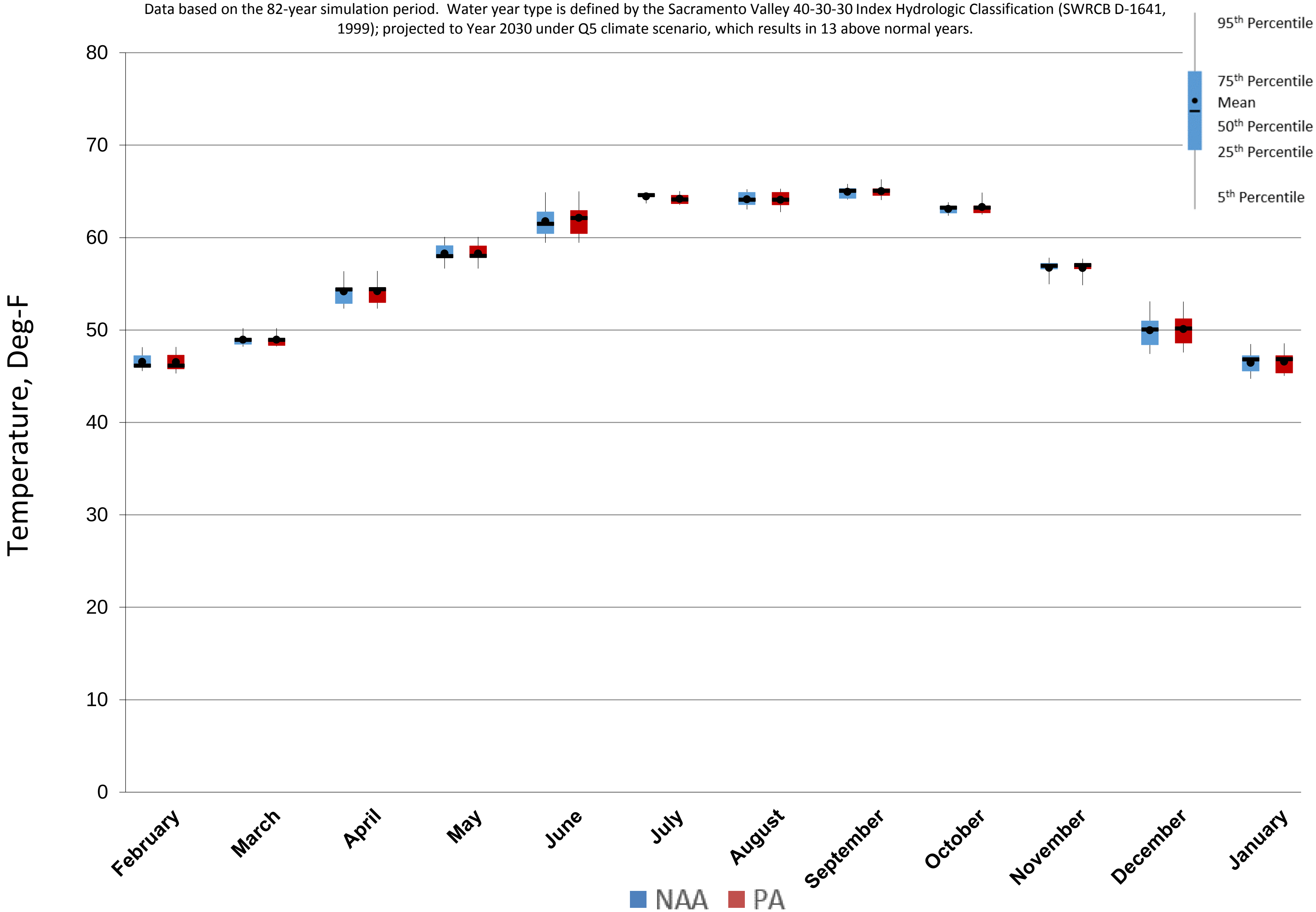
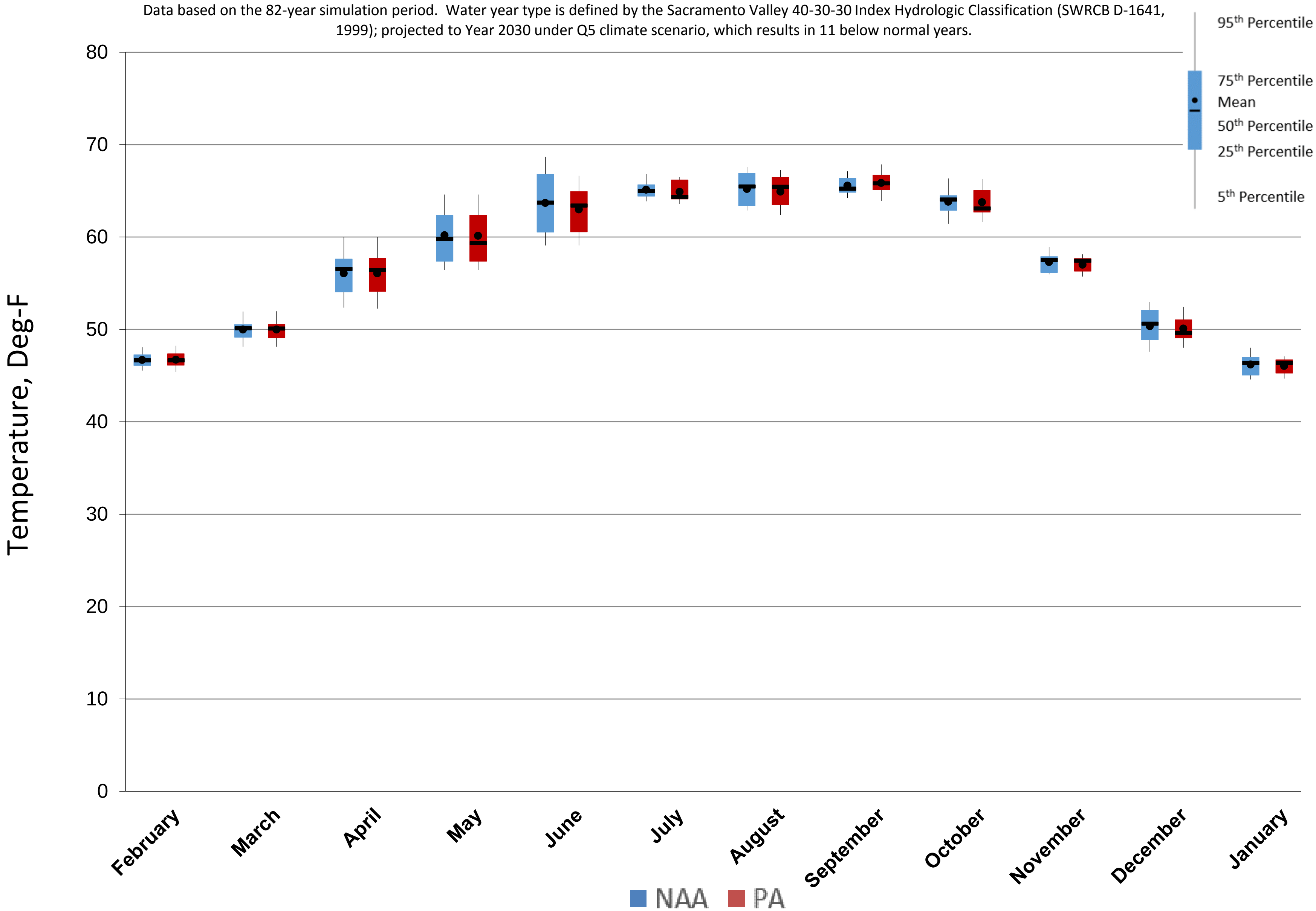


Figure 5.C.7-14-4. Monthly Temperature Ranges for American River at Hazel Ave, Below Normal Years



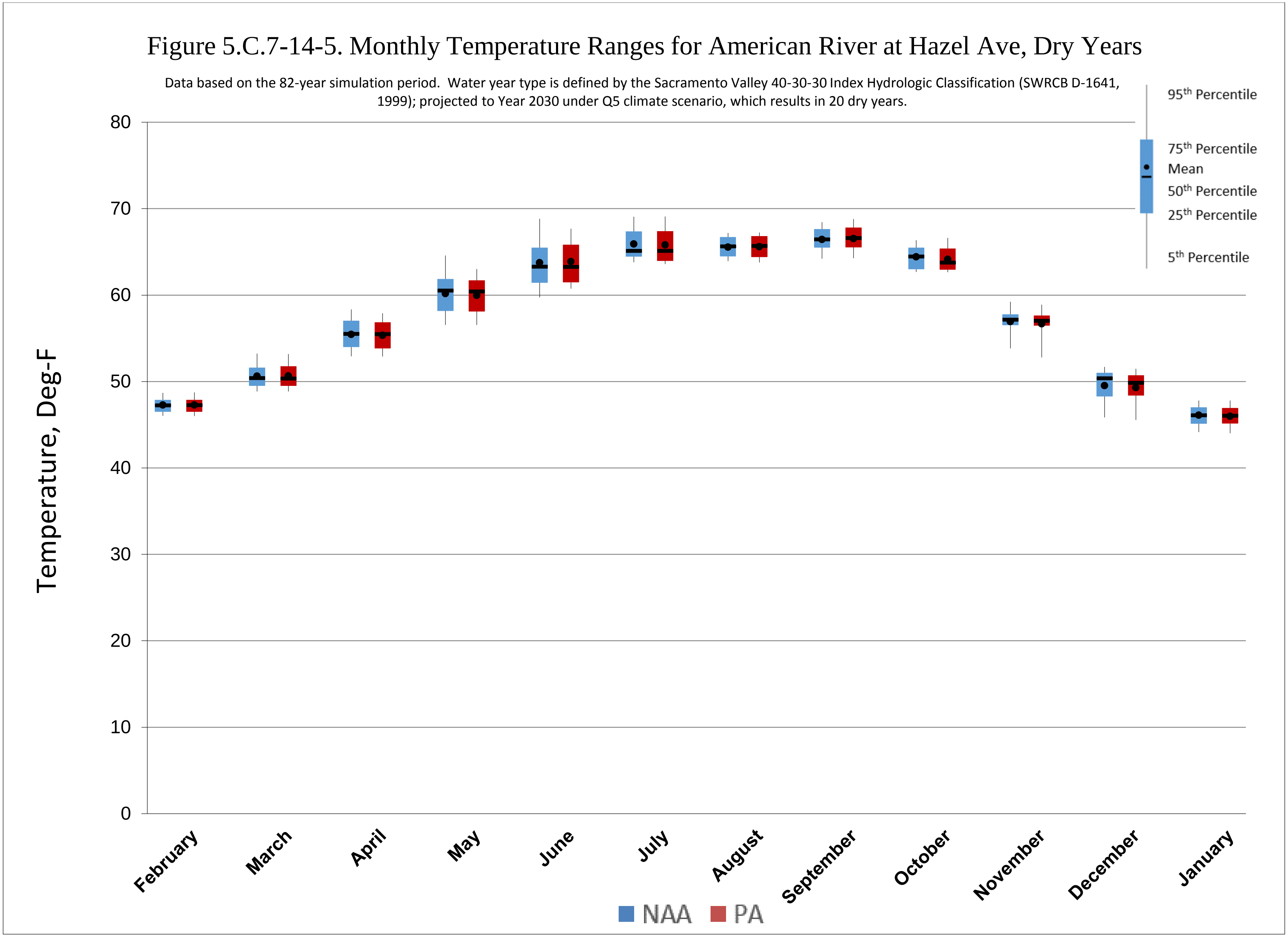


Figure 5.C.7-14-5. Monthly Temperature Ranges for American River at Hazel Ave, Dry Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 dry years.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
80
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

Figure 5.C.7-14-6. Monthly Temperature Ranges for American River at Hazel Ave, Critical Years

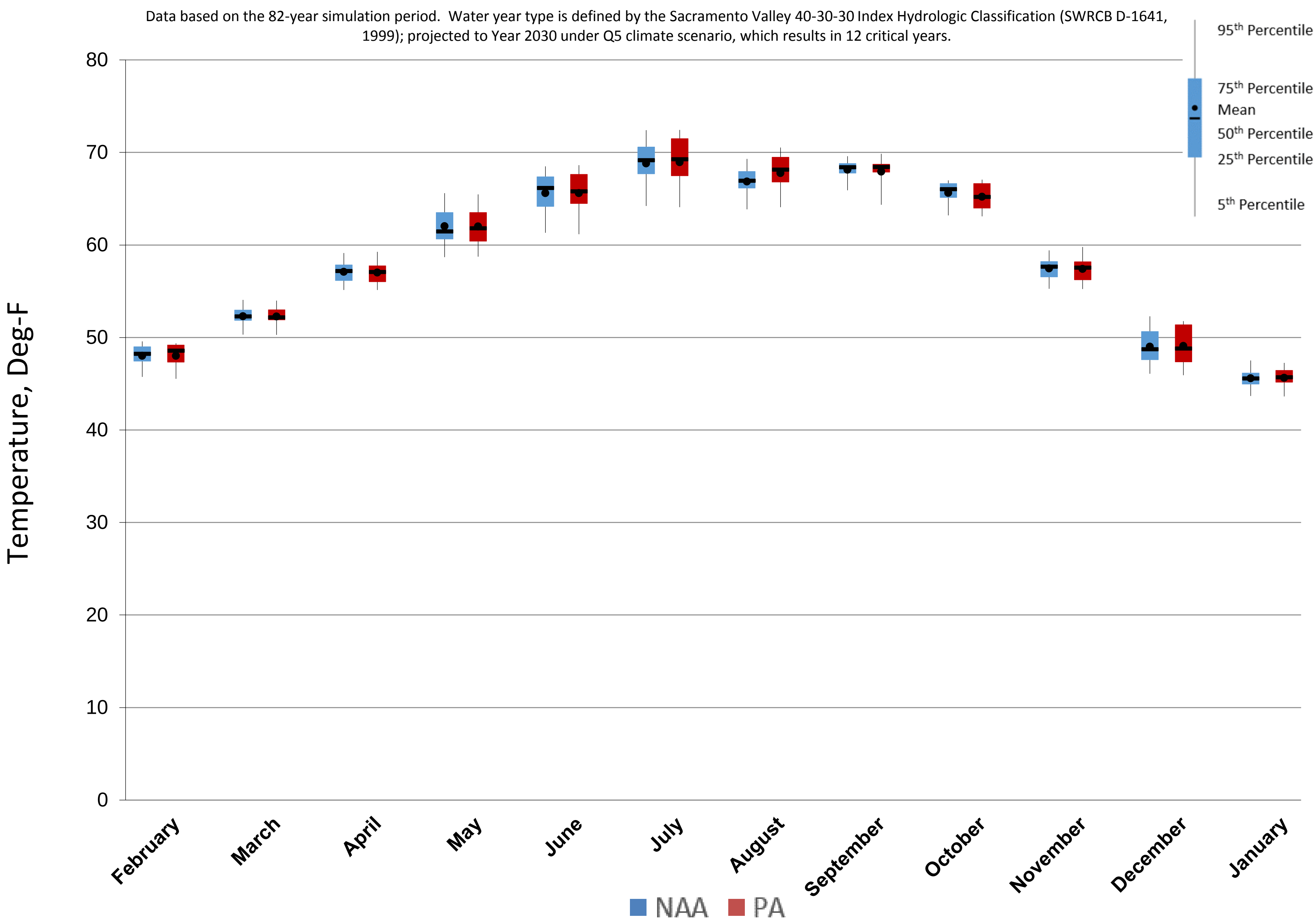
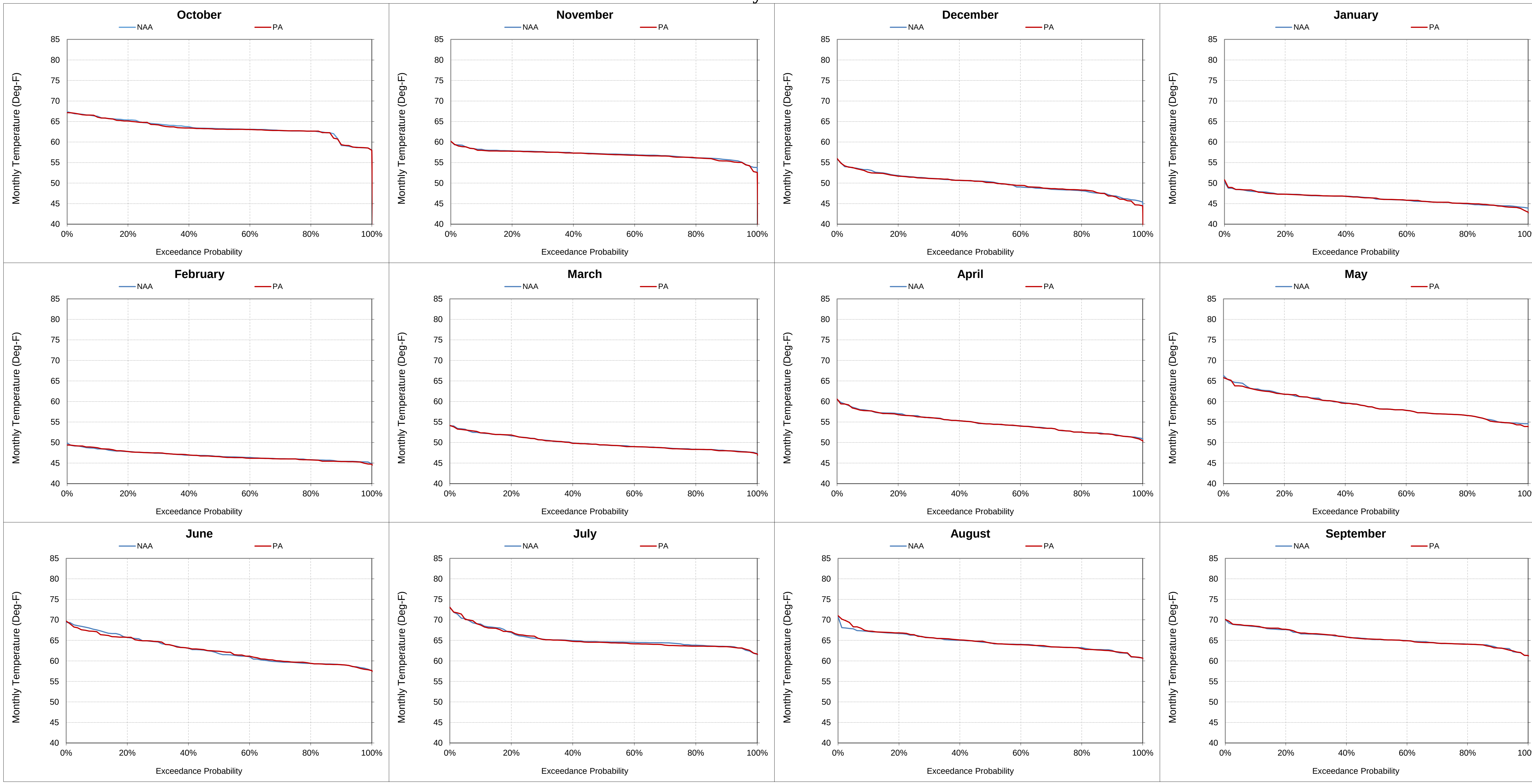
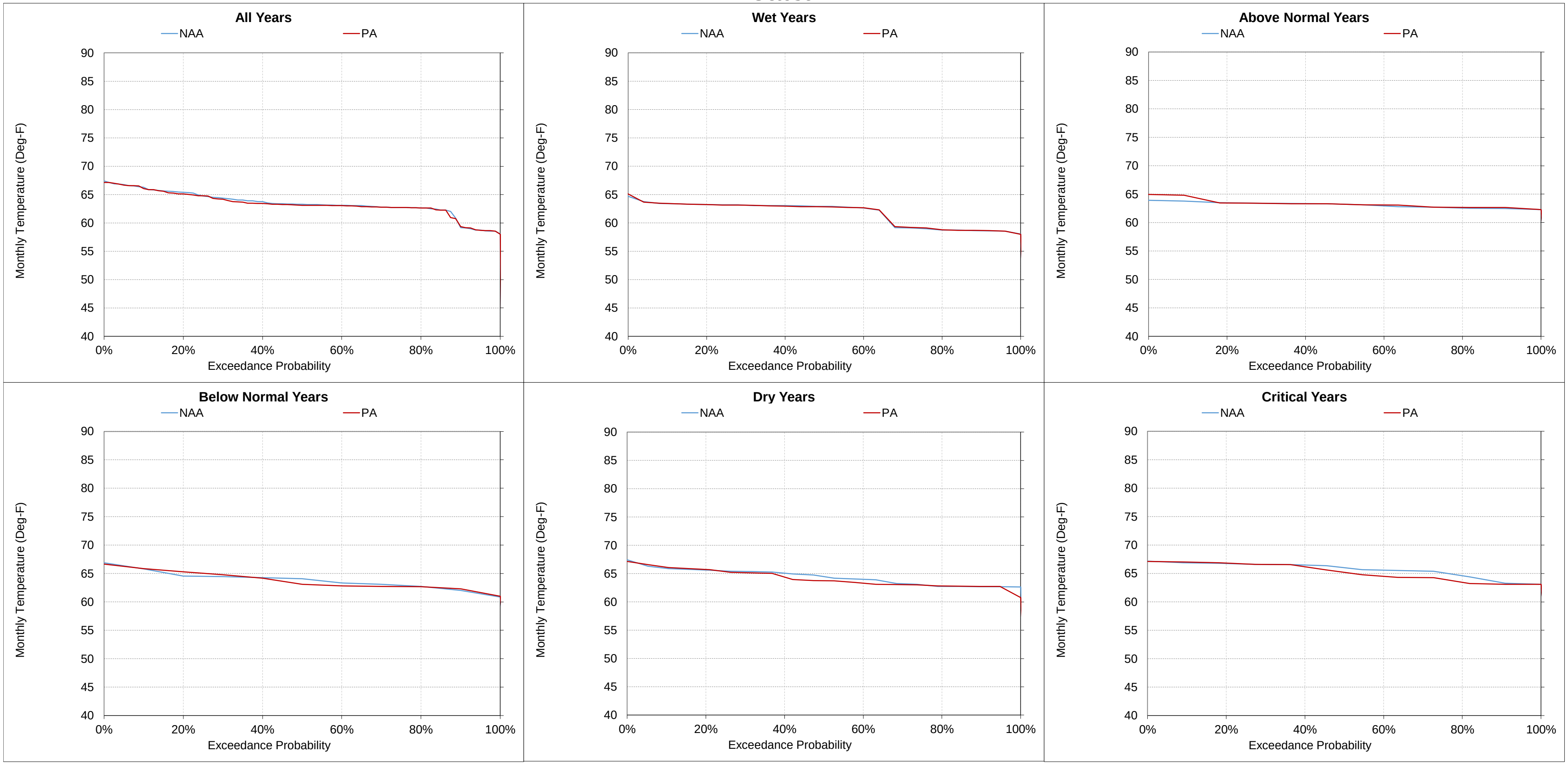


Figure 5.C.7-14-7. American River at Hazel Ave, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-8. American River at Hazel Ave, Monthly Temperature October



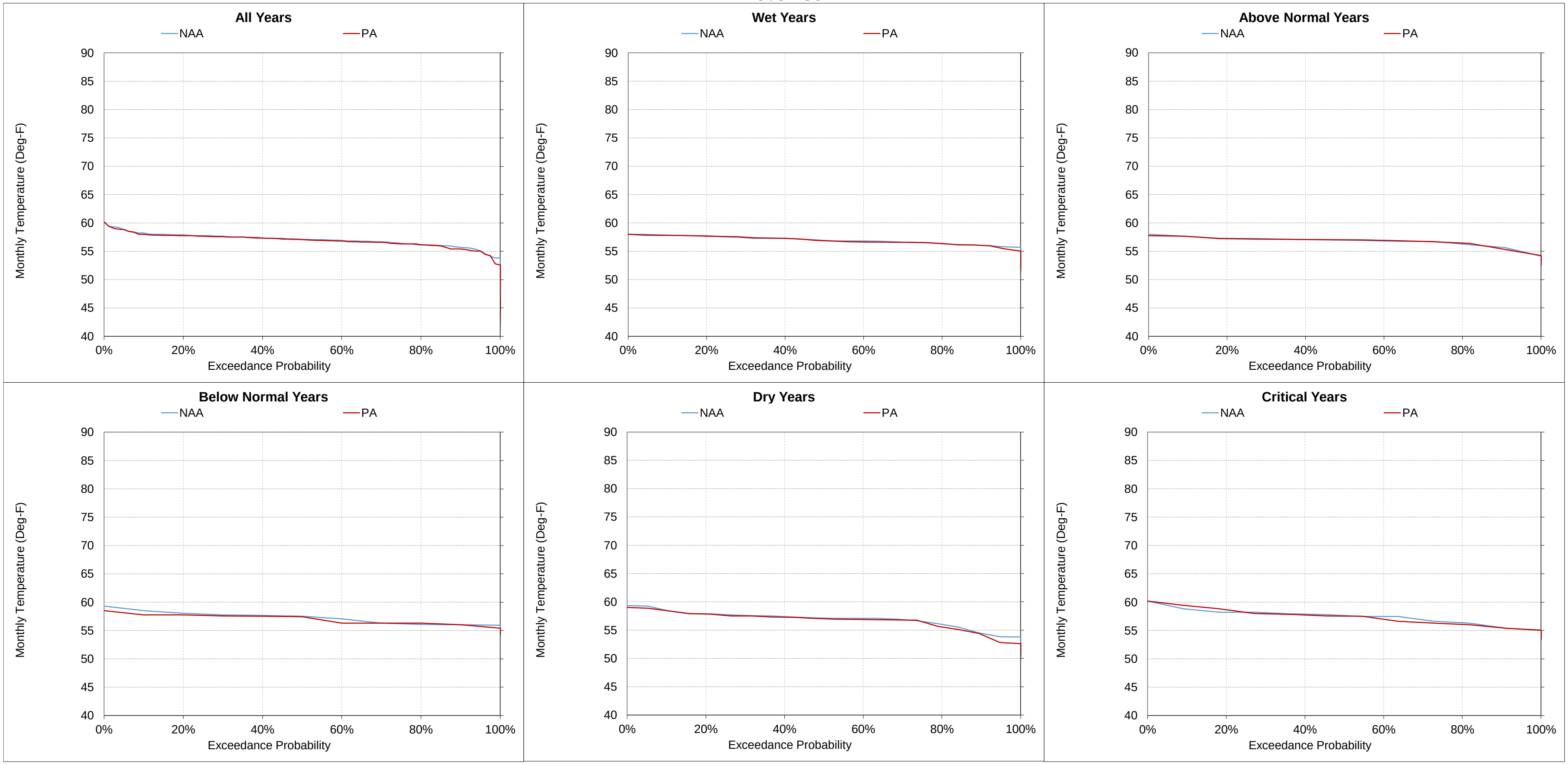
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

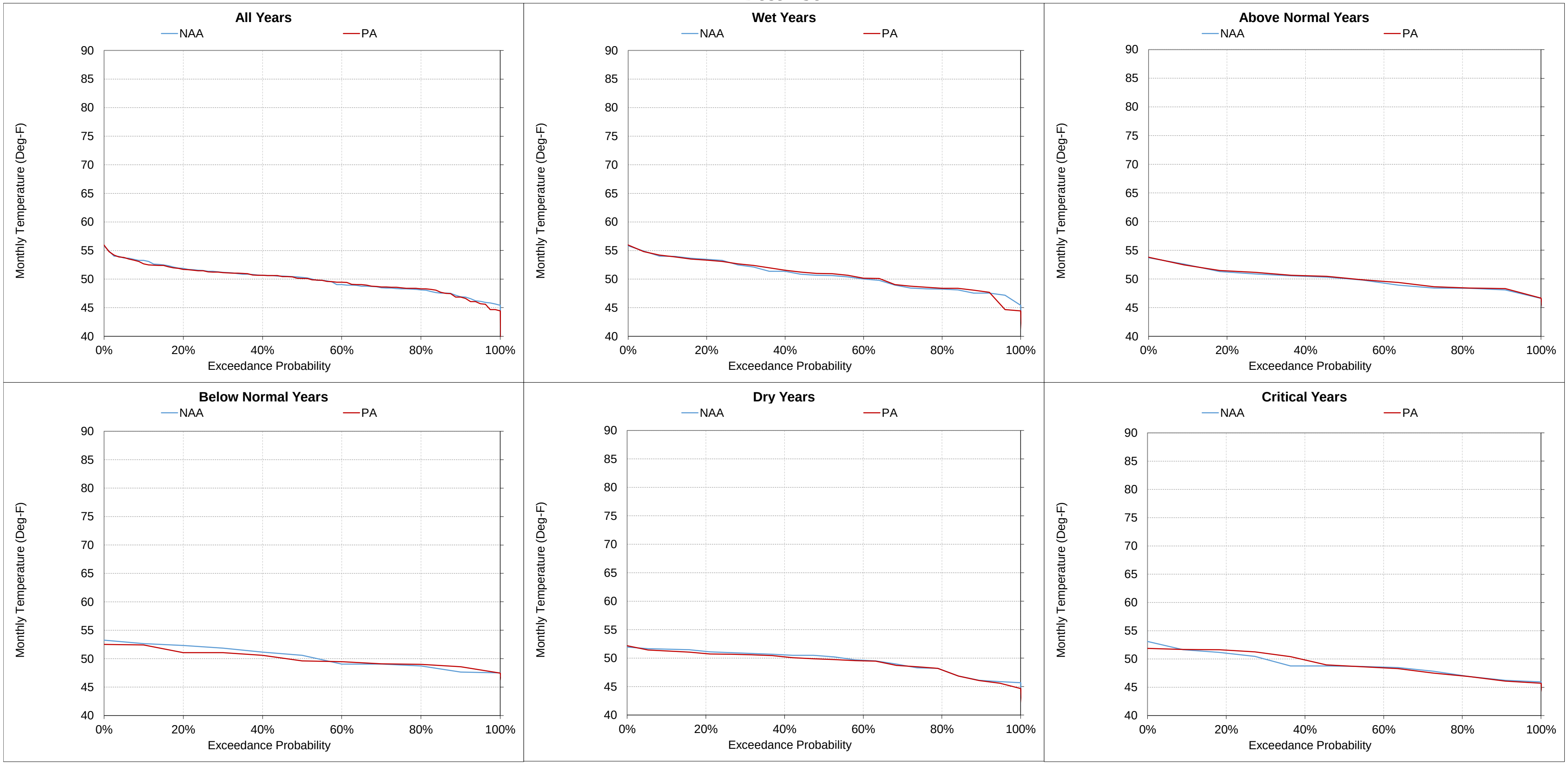
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-9. American River at Hazel Ave, Monthly Temperature
November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-10. American River at Hazel Ave, Monthly Temperature December



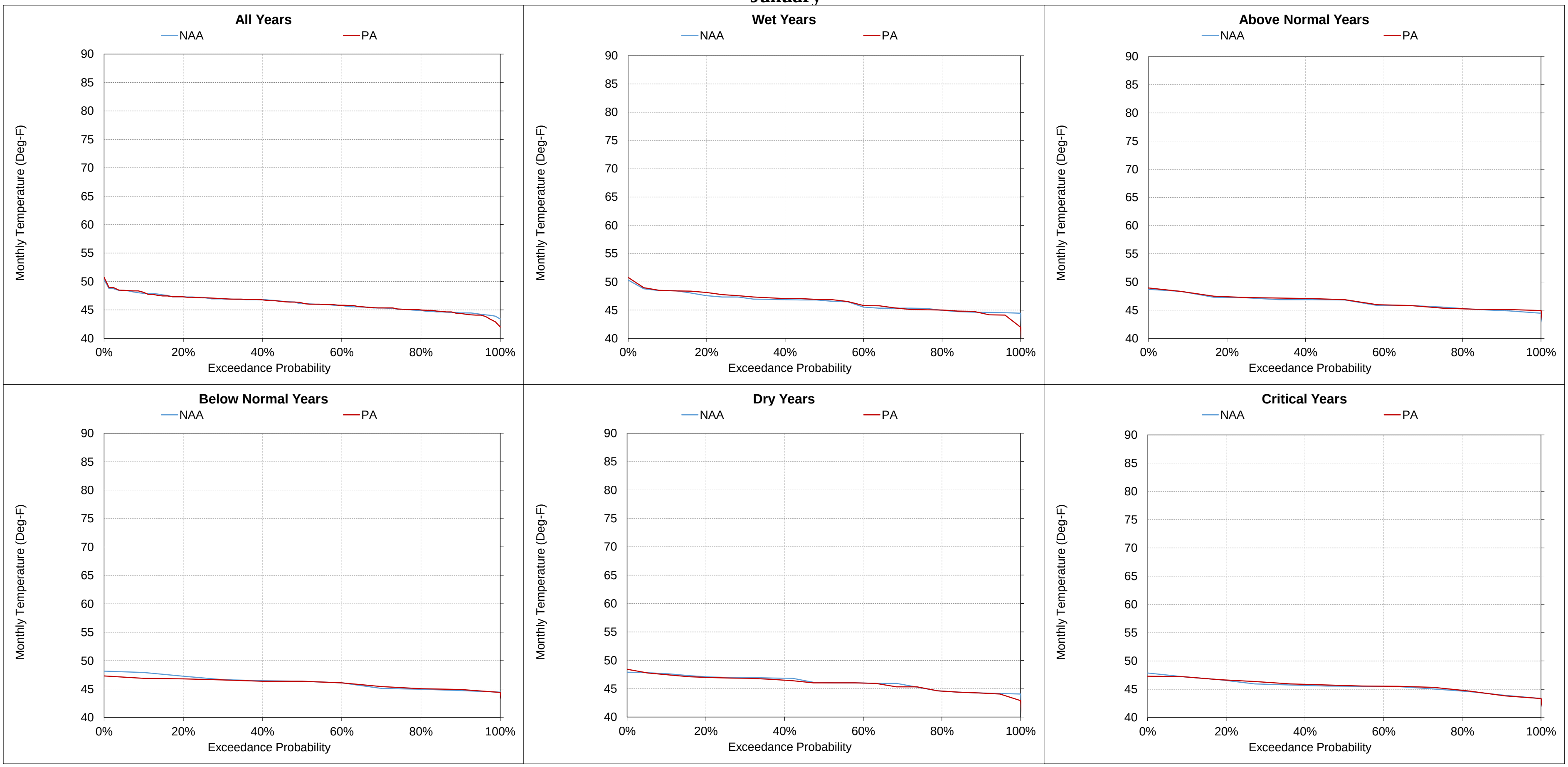
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-11. American River at Hazel Ave, Monthly Temperature January



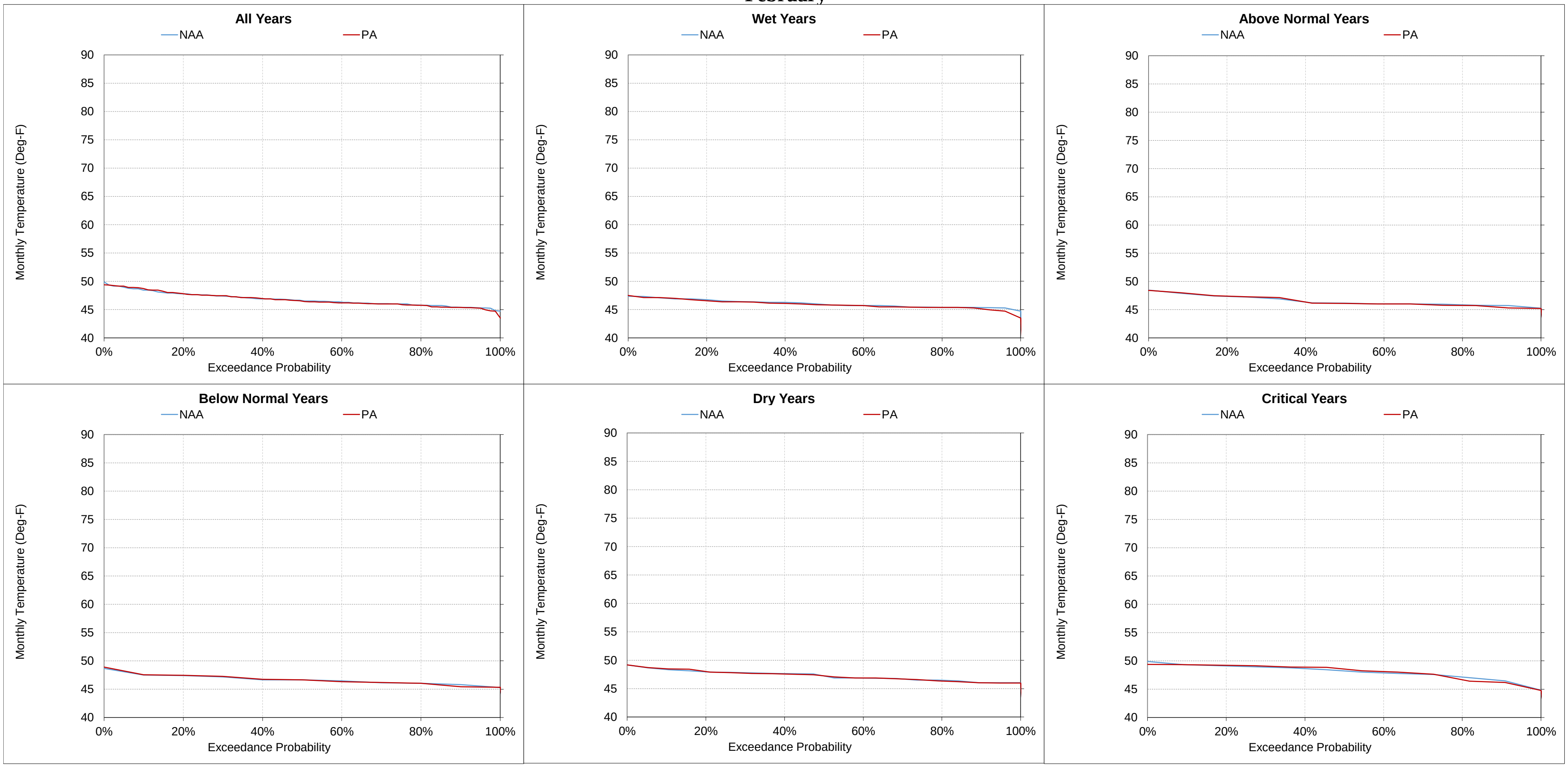
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

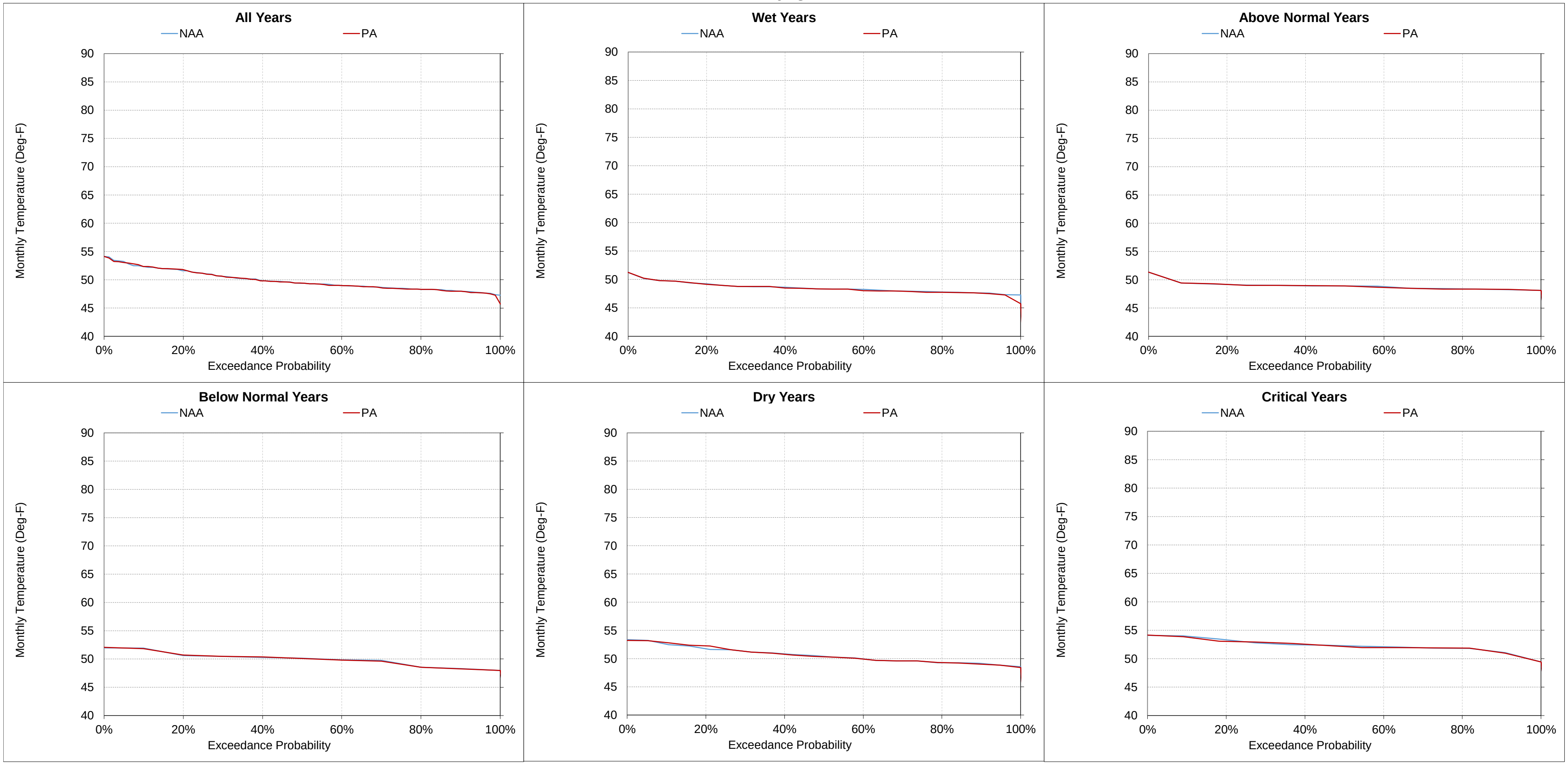
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-12. American River at Hazel Ave, Monthly Temperature February



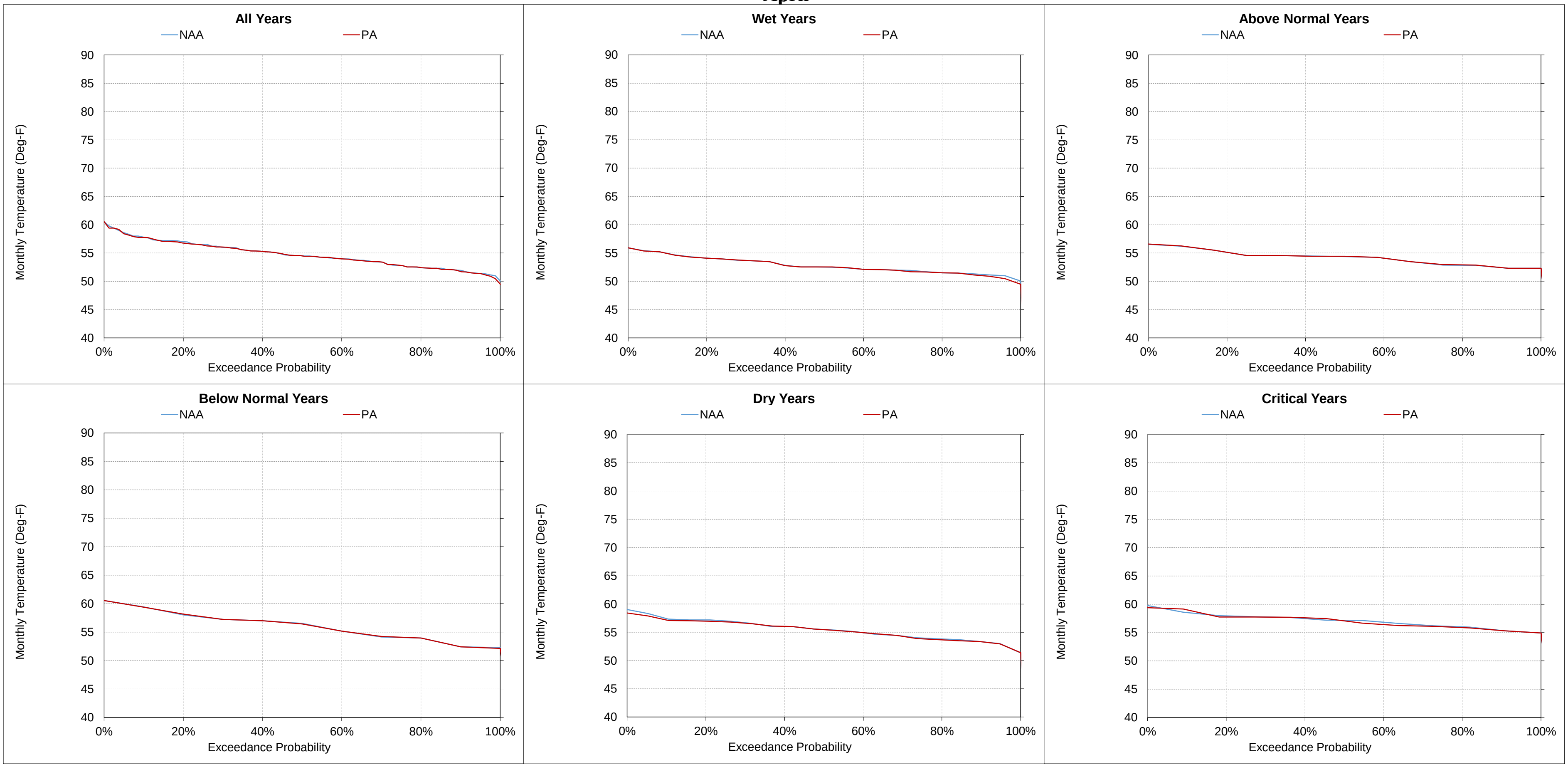
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-13. American River at Hazel Ave, Monthly Temperature March



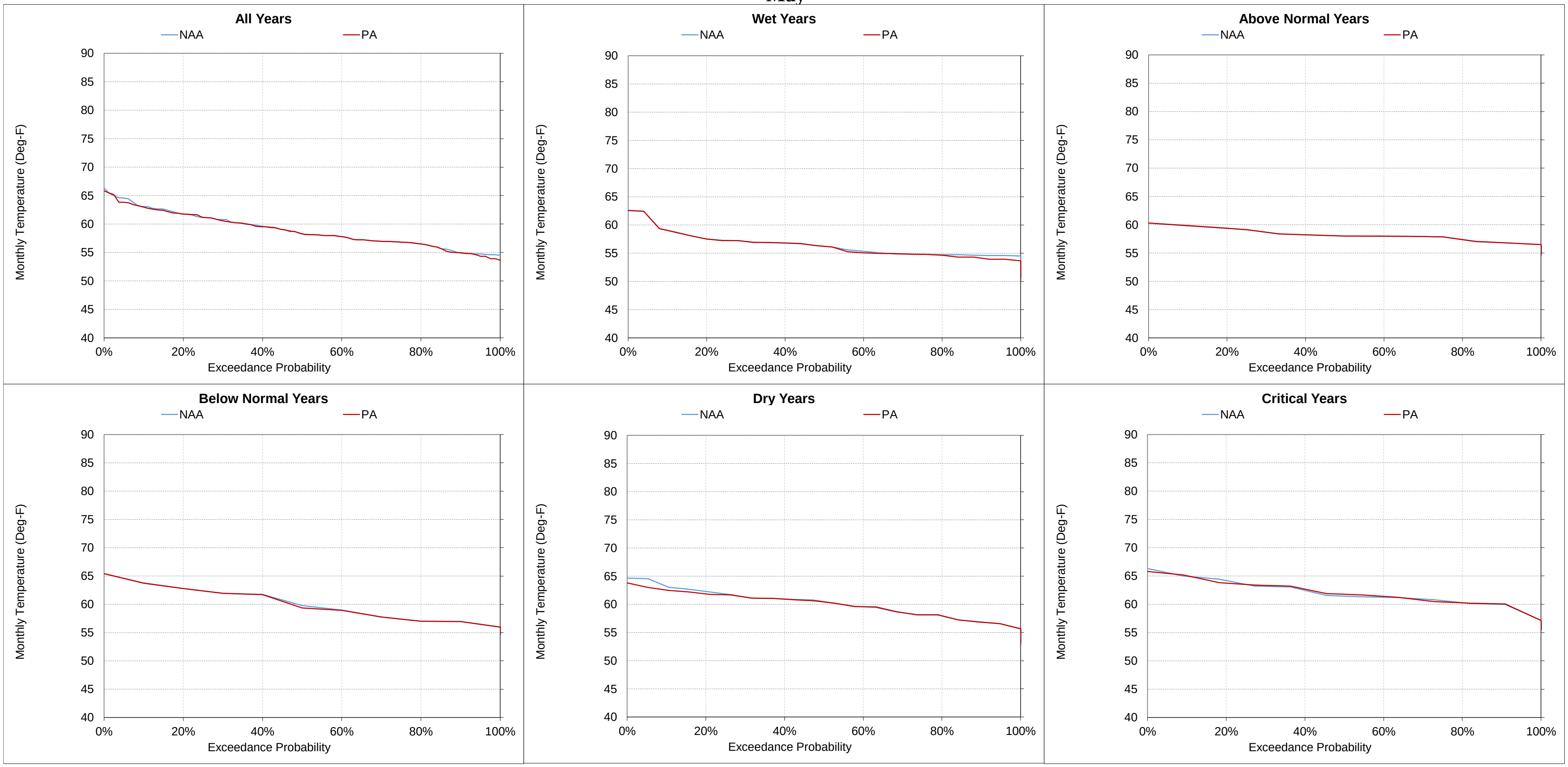
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-14. American River at Hazel Ave, Monthly Temperature April



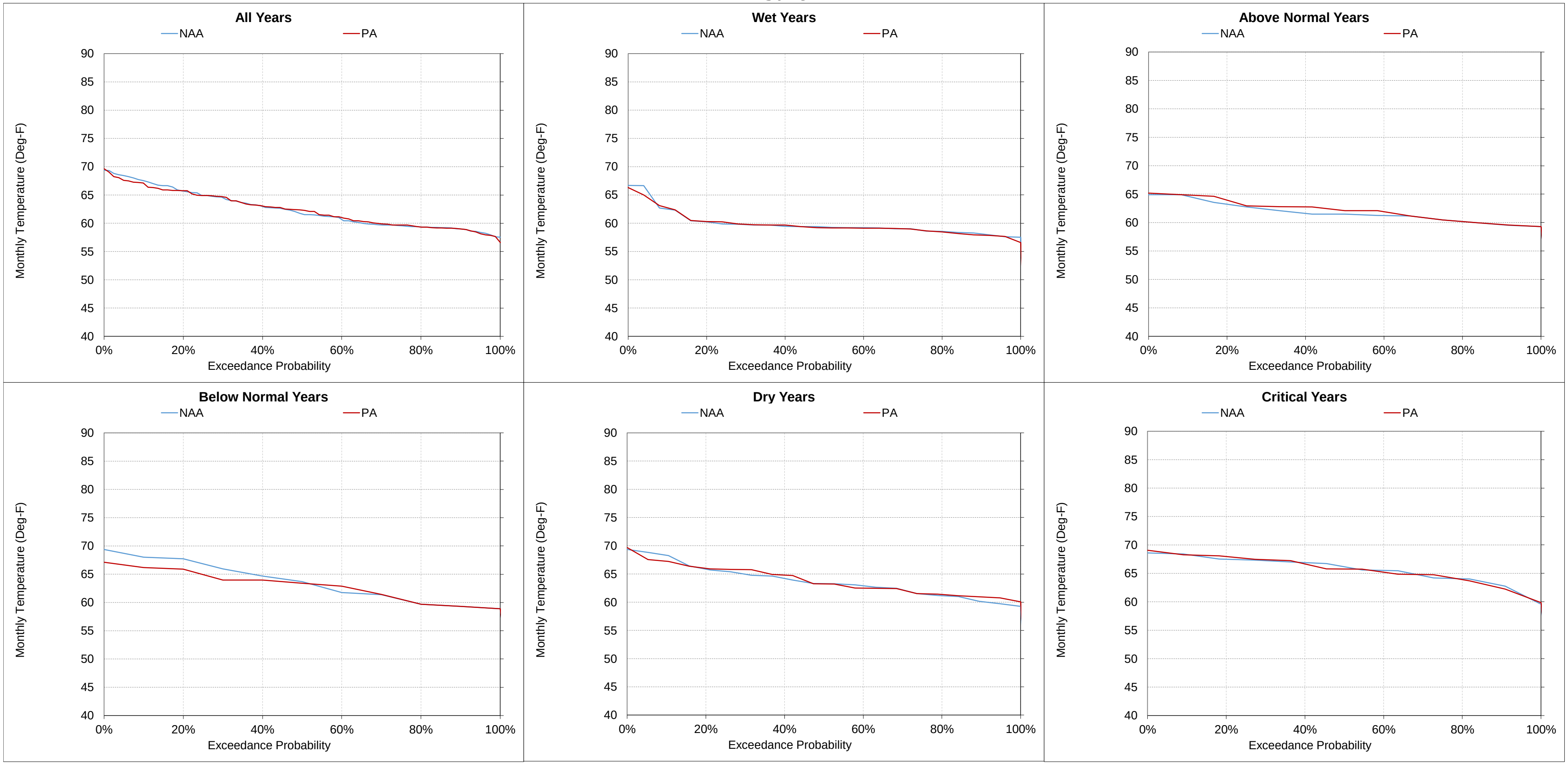
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-15. American River at Hazel Ave, Monthly Temperature
May



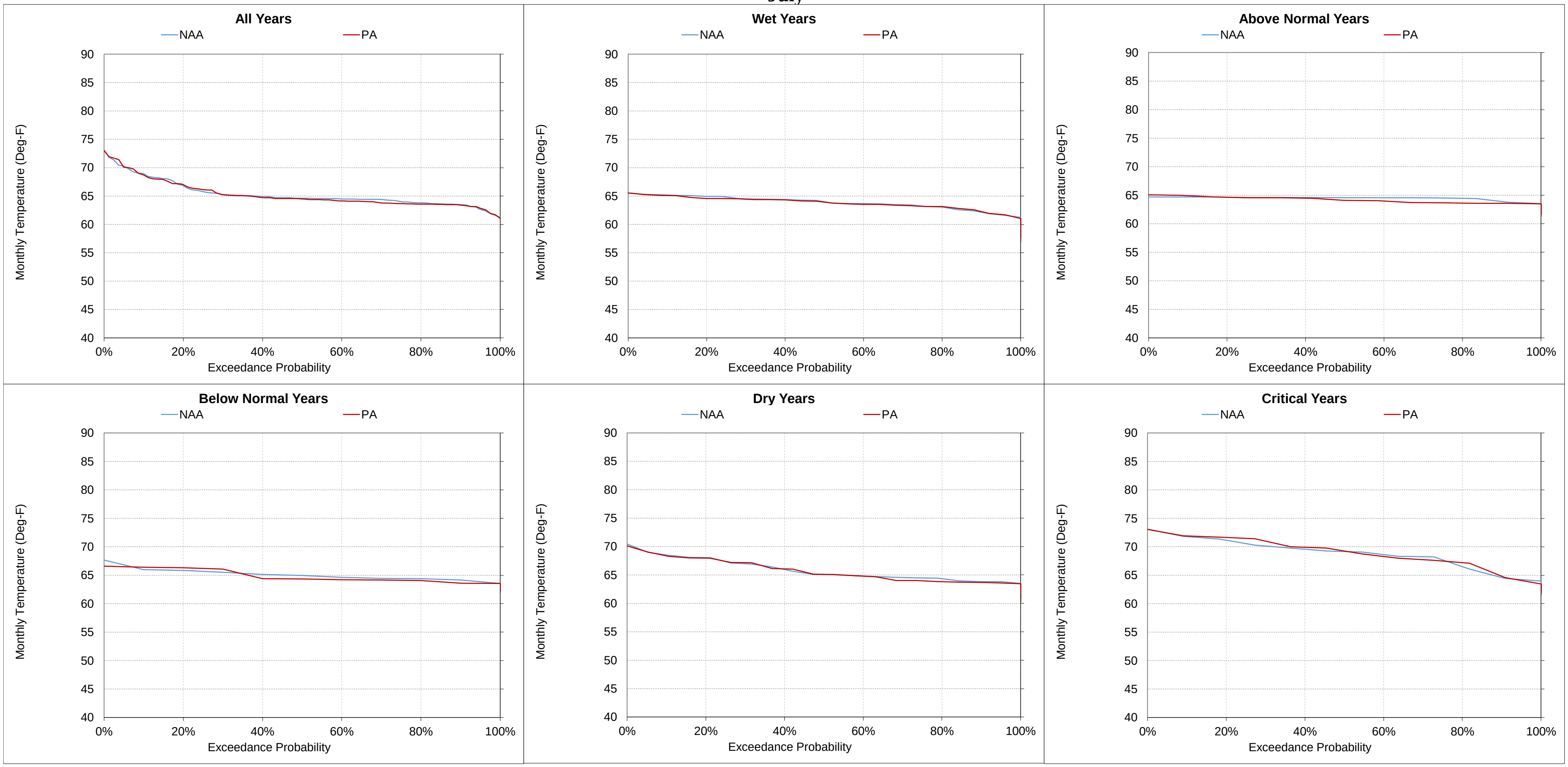
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-16. American River at Hazel Ave, Monthly Temperature
June



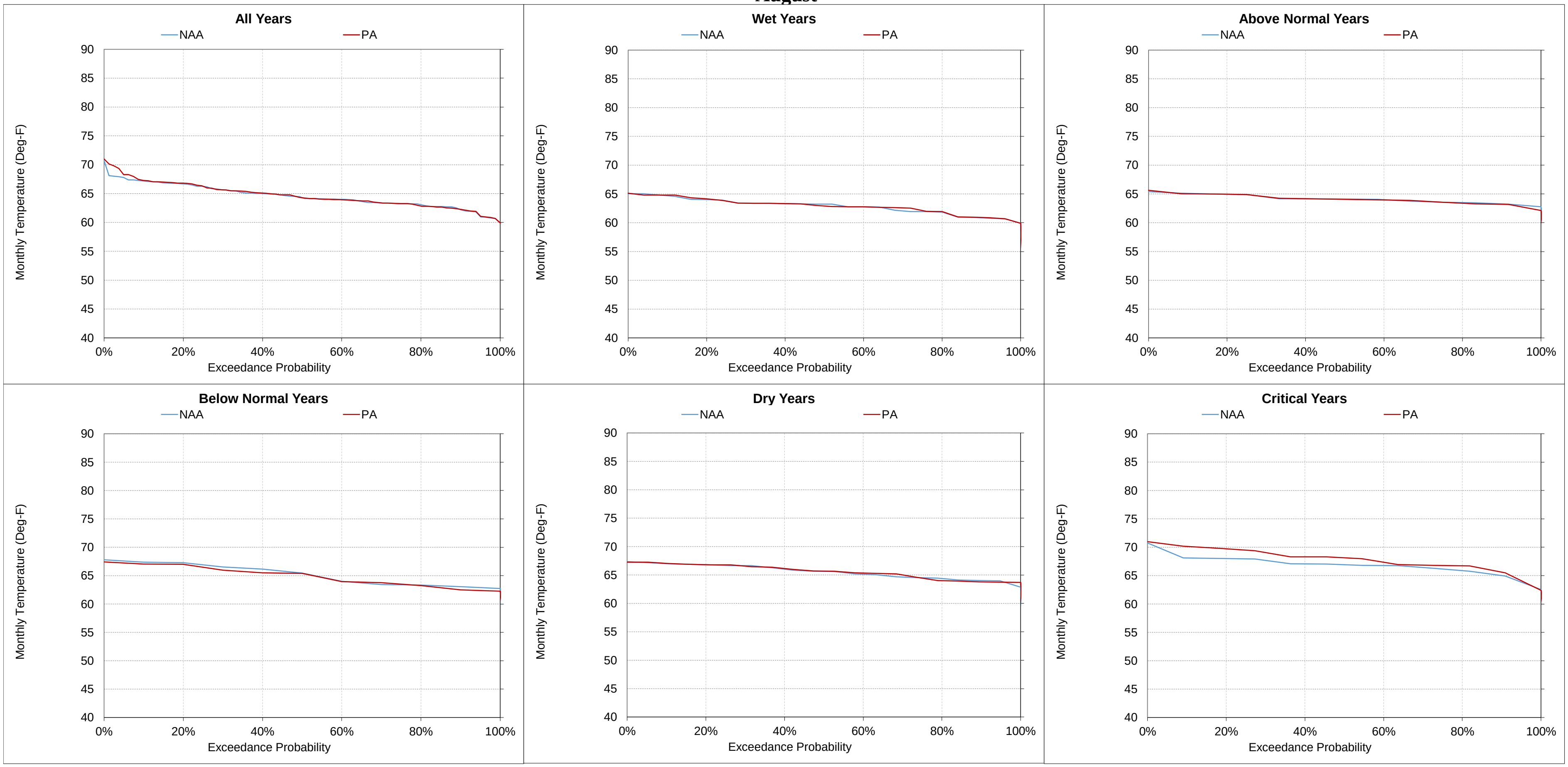
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-17. American River at Hazel Ave, Monthly Temperature
July



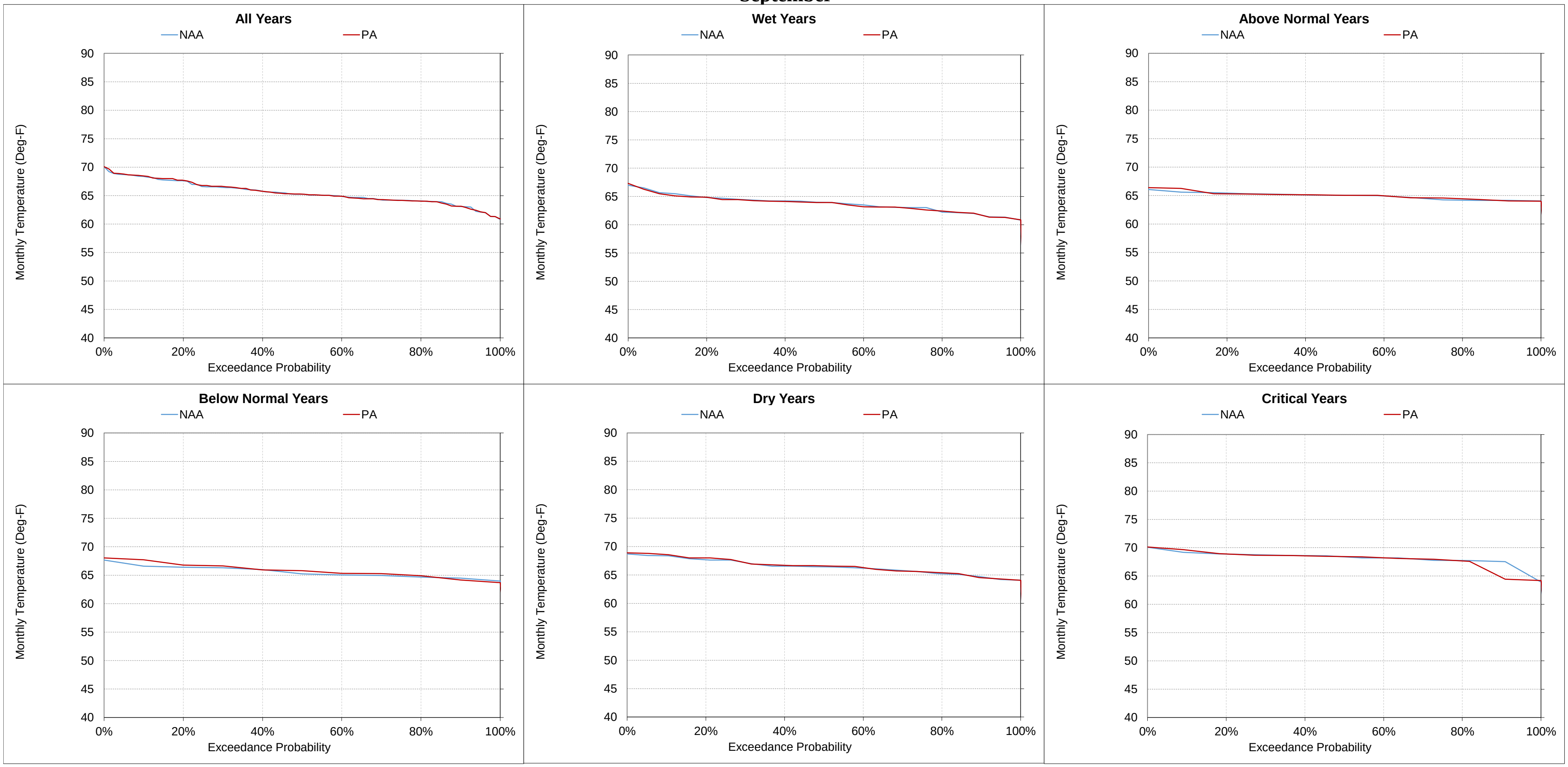
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-18. American River at Hazel Ave, Monthly Temperature August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-14-19. American River at Hazel Ave, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-15. American River at Watt Ave, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	67.2	66.9	-0.3	0%	58.3	58.3	0.0	0%	52.5	52.1	-0.5	-1%	48.3	48.5	0.1	0%	50.0	50.1	0.1	0%	56.2	56.3	0.1	0%
20%	65.7	65.6	-0.2	0%	58.0	57.9	-0.1	0%	51.6	51.3	-0.3	-1%	47.8	47.8	0.0	0%	49.5	49.5	0.0	0%	54.7	55.0	0.3	0%
30%	64.9	64.8	-0.1	0%	57.6	57.5	-0.1	0%	50.8	50.8	0.1	0%	47.4	47.5	0.1	0%	48.6	48.6	0.0	0%	52.9	52.9	0.0	0%
40%	64.5	64.5	0.0	0%	57.3	57.3	0.0	0%	50.5	50.4	0.0	0%	47.1	47.2	0.0	0%	48.3	48.2	-0.1	0%	51.9	51.9	0.0	0%
50%	64.1	64.0	-0.1	0%	57.1	57.1	0.0	0%	50.0	49.9	-0.1	0%	46.7	46.7	0.0	0%	47.8	47.7	-0.1	0%	51.3	51.3	0.0	0%
60%	63.8	63.6	-0.2	0%	56.8	56.7	-0.1	0%	49.0	49.5	0.5	1%	46.3	46.3	0.0	0%	47.2	47.3	0.1	0%	50.4	50.4	0.0	0%
70%	63.3	63.3	0.0	0%	56.5	56.4	-0.1	0%	48.5	48.7	0.1	0%	45.7	45.7	-0.1	0%	46.9	46.8	-0.1	0%	50.0	49.9	-0.1	0%
80%	63.1	63.0	-0.1	0%	56.1	56.1	0.0	0%	48.0	48.3	0.2	0%	45.2	45.3	0.1	0%	46.5	46.4	0.0	0%	49.7	49.6	0.0	0%
90%	61.0	61.3	0.3	1%	55.8	55.5	-0.3	-1%	47.3	47.1	-0.2	0%	44.9	44.7	-0.2	-1%	46.1	45.9	-0.2	0%	49.2	49.0	-0.2	0%
Long Term																								
Full Simulation Period[b]	64.1	64.1	-0.1	0%	57.0	56.9	-0.1	0%	49.8	49.8	0.0	0%	46.7	46.6	0.0	0%	48.0	48.0	-0.1	0%	52.0	51.9	0.0	0%
Water Year Types[c]																								
Wet (32%)	62.5	62.6	0.1	0%	57.0	56.9	-0.1	0%	50.5	50.5	0.0	0%	46.8	46.8	0.0	0%	46.7	46.6	-0.1	0%	49.9	49.8	-0.1	0%
Above Normal (16%)	63.8	63.9	0.2	0%	56.6	56.6	0.0	0%	49.8	49.9	0.1	0%	46.8	46.9	0.1	0%	47.5	47.4	-0.1	0%	50.4	50.4	0.0	0%
Below Normal (13%)	64.4	64.3	0.0	0%	57.2	57.0	-0.2	0%	50.0	49.8	-0.2	0%	46.5	46.3	-0.1	0%	47.8	47.7	-0.1	0%	52.5	52.5	0.0	0%
Dry (24%)	65.0	64.8	-0.2	0%	56.9	56.7	-0.2	0%	49.4	49.2	-0.2	0%	46.6	46.4	-0.1	0%	48.8	48.8	0.0	0%	53.2	53.1	-0.1	0%
Critical (15%)	66.4	66.0	-0.4	-1%	57.5	57.5	0.0	0%	49.1	49.1	0.1	0%	46.6	46.5	0.0	0%	50.5	50.5	0.0	0%	55.5	55.7	0.2	0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	62.7	62.3	-0.4	-1%	67.6	67.9	0.2	0%	72.8	71.5	-1.3	-2%	73.2	73.9	0.8	1%	73.0	73.5	0.5	1%	71.3	72.0	0.6	1%
20%	60.2	60.4	0.2	0%	66.5	66.1	-0.4	-1%	70.1	69.2	-1.0	-1%	69.8	70.1	0.2	0%	71.8	71.8	0.1	0%	70.3	70.5	0.2	0%
30%	59.0	59.1	0.1	0%	65.3	65.2	-0.1	0%	68.7	68.0	-0.7	-1%	68.7	69.0	0.3	0%	69.7	69.7	0.0	0%	68.9	69.2	0.4	1%
40%	57.7	57.6	-0.2	0%	63.8	63.8	0.0	0%	66.7	66.6	-0.1	0%	68.2	68.1	-0.2	0%	69.2	69.3	0.1	0%	68.5	68.3	-0.2	0%
50%	57.0	57.0	0.0	0%	62.3	62.3	0.1	0%	66.0	65.8	-0.2	0%	67.8	67.6	-0.3	0%	68.6	68.7	0.1	0%	67.7	67.8	0.1	0%
60%	56.4	56.5	0.0	0%	61.0	61.0	0.0	0%	64.8	64.3	-0.5	-1%	67.6	67.4	-0.2	0%	68.0	68.1	0.1	0%	67.2	67.2	0.0	0%
70%	55.0	55.0	0.0	0%	59.7	59.8	0.0	0%	63.7	63.7	0.0	0%	67.4	67.1	-0.2	0%	67.7	67.7	0.0	0%	66.4	66.6	0.1	0%
80%	54.2	54.2	0.0	0%	59.1	59.1	0.0	0%	62.9	62.9	0.0	0%	67.0	66.7	-0.3	0%	66.8	66.7	-0.1	0%	65.9	66.0	0.0	0%
90%	53.4	53.0	-0.4	-1%	57.1	57.0	-0.1	0%	61.9	62.0	0.1	0%	66.5	66.4	-0.1	0%	65.7	65.6	-0.1	0%	65.0	65.0	0.0	0%
Long Term																								
Full Simulation Period[b]	57.4	57.4	0.0	0%	62.6	62.5	-0.1	0%	66.5	66.1	-0.3	0%	68.9	68.9	0.0	0%	69.1	69.2	0.2	0%	68.0	68.1	0.1	0%
Water Year Types[c]																								
Wet (32%)	54.7	54.6	-0.1	0%	59.3	59.3	0.0	0%	63.4	63.1	-0.3	0%	67.4	67.2	-0.2	0%	66.9	66.9	0.1	0%	65.7	65.7	0.0	0%
Above Normal (16%)	56.3	56.4	0.0	0%	61.9	62.0	0.0	0%	65.9	65.8	-0.1	0%	67.2	67.2	0.0	0%	68.2	68.1	-0.1	0%	67.1	67.3	0.2	0%
Below Normal (13%)	59.1	59.1	0.0	0%	64.0	63.9	-0.1	0%	67.9	66.6	-1.3	-2%	67.9	68.1	0.2	0%	70.1	69.5	-0.5	-1%	68.7	68.9	0.2	0%
Dry (24%)	58.5	58.4	-0.1	0%	64.2	64.1	-0.2	0%	67.8	67.4	-0.4	-1%	69.5	69.5	0.0	0%	70.3	70.6	0.3	0%	69.3	69.4	0.1	0%
Critical (15%)	61.4	61.4	0.0	0%	66.6	66.6	0.0	0%	70.2	70.6	0.4	1%	74.2	74.2	0.0	0%	72.0	73.0	1.0	1%	71.5	71.5	0.0	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

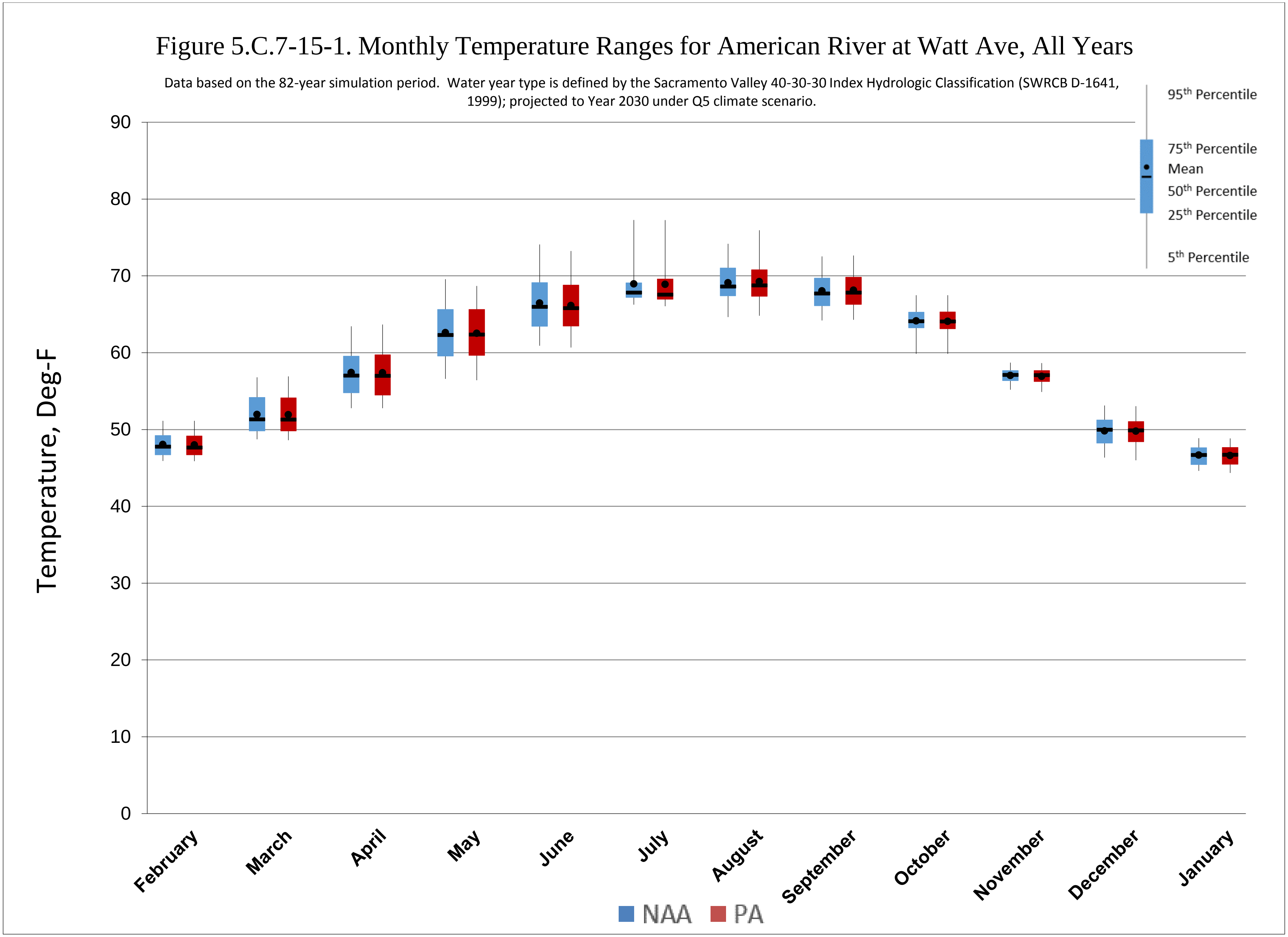


Figure 5.C.7-15-1. Monthly Temperature Ranges for American River at Watt Ave, All Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
90
80
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

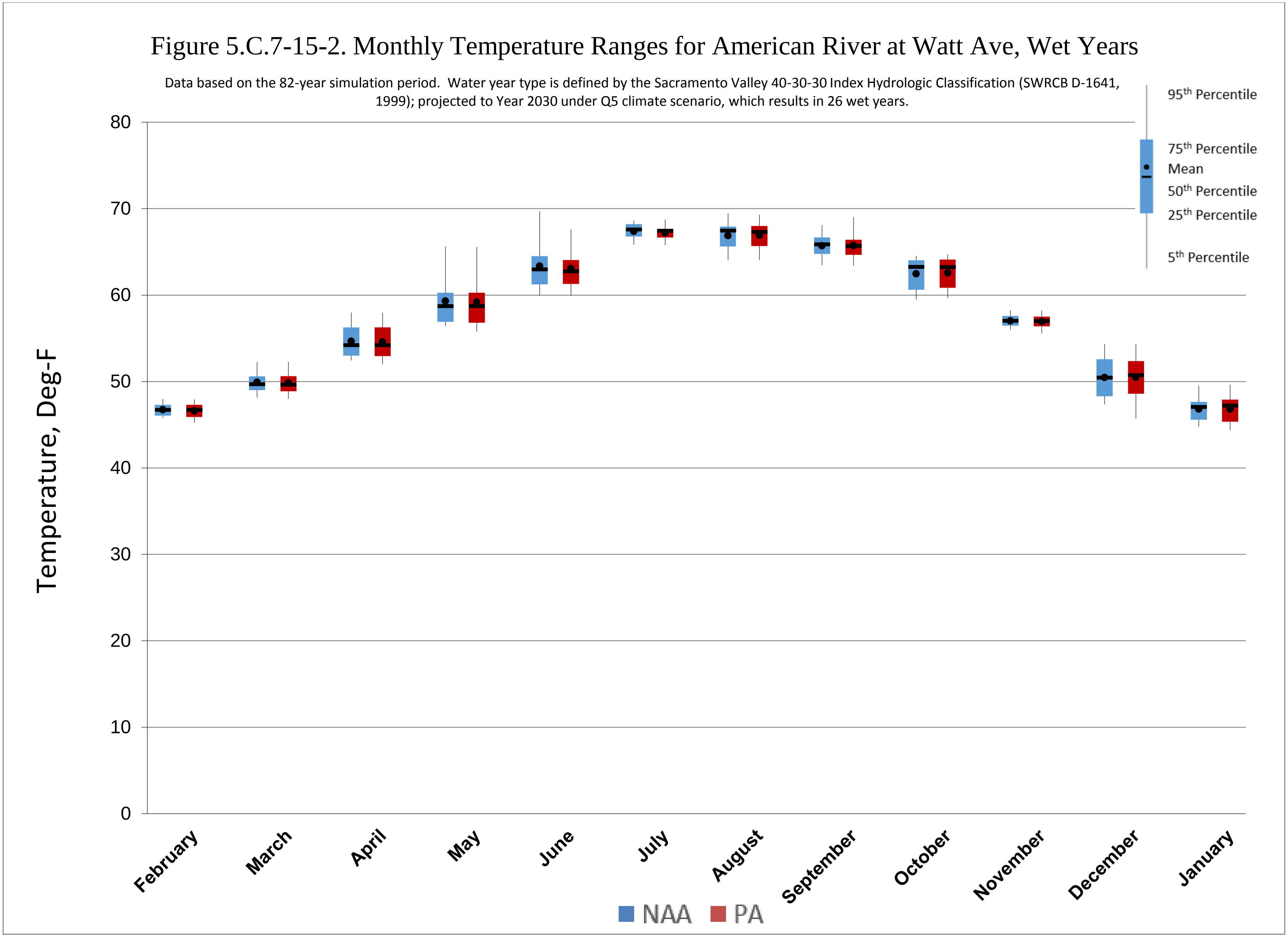


Figure 5.C.7-15-2. Monthly Temperature Ranges for American River at Watt Ave, Wet Years
Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 26 wet years.
95th Percentile
75th Percentile
Mean
50th Percentile
25th Percentile
5th Percentile
Temperature, Deg-F
80
70
60
50
40
30
20
10
0
February
March
April
May
June
July
August
September
October
November
December
January
NAA
PA

Figure 5.C.7-15-3. Monthly Temperature Ranges for American River at Watt Ave, Above Normal Years

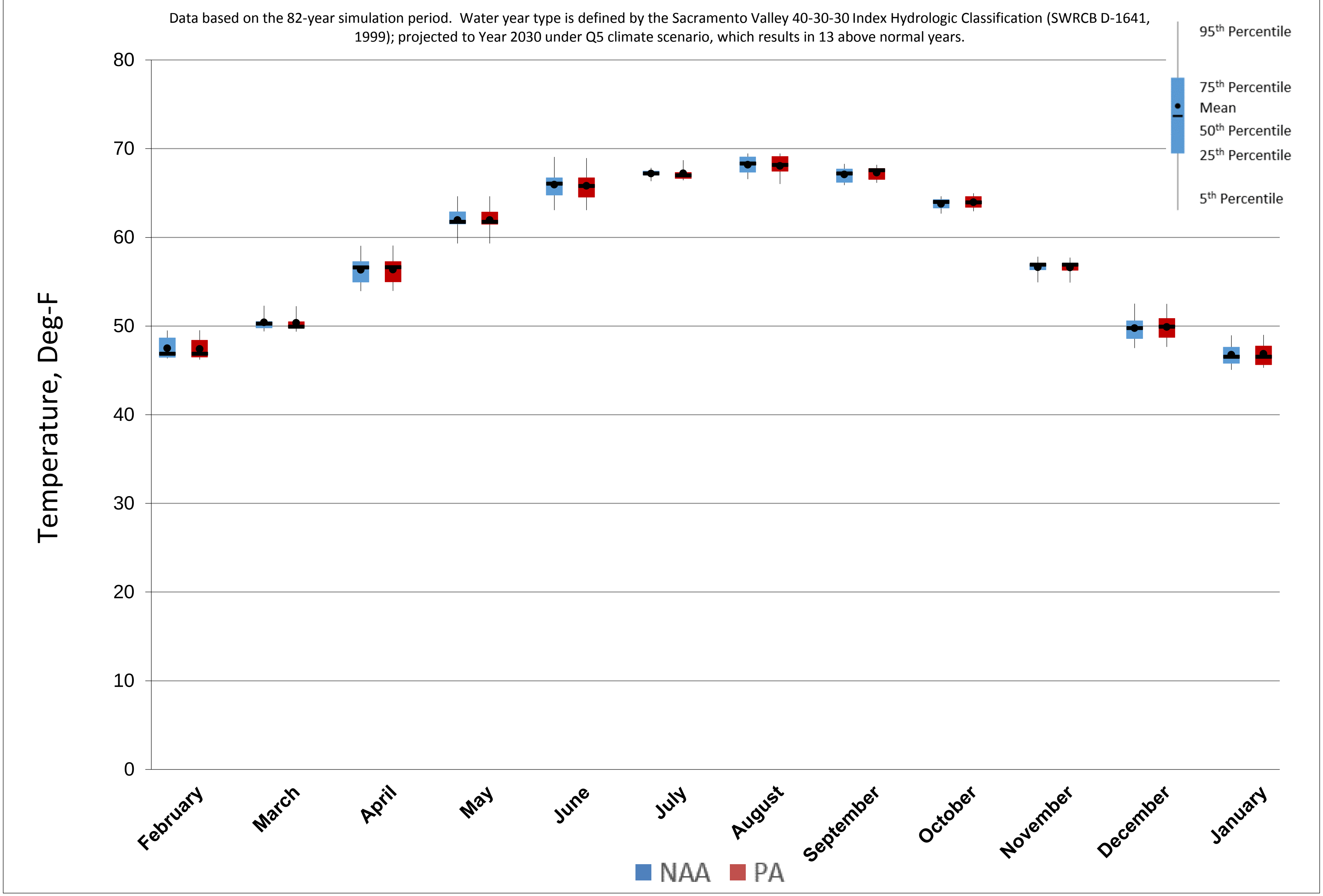


Figure 5.C.7-15-4. Monthly Temperature Ranges for American River at Watt Ave, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 11 below normal years.

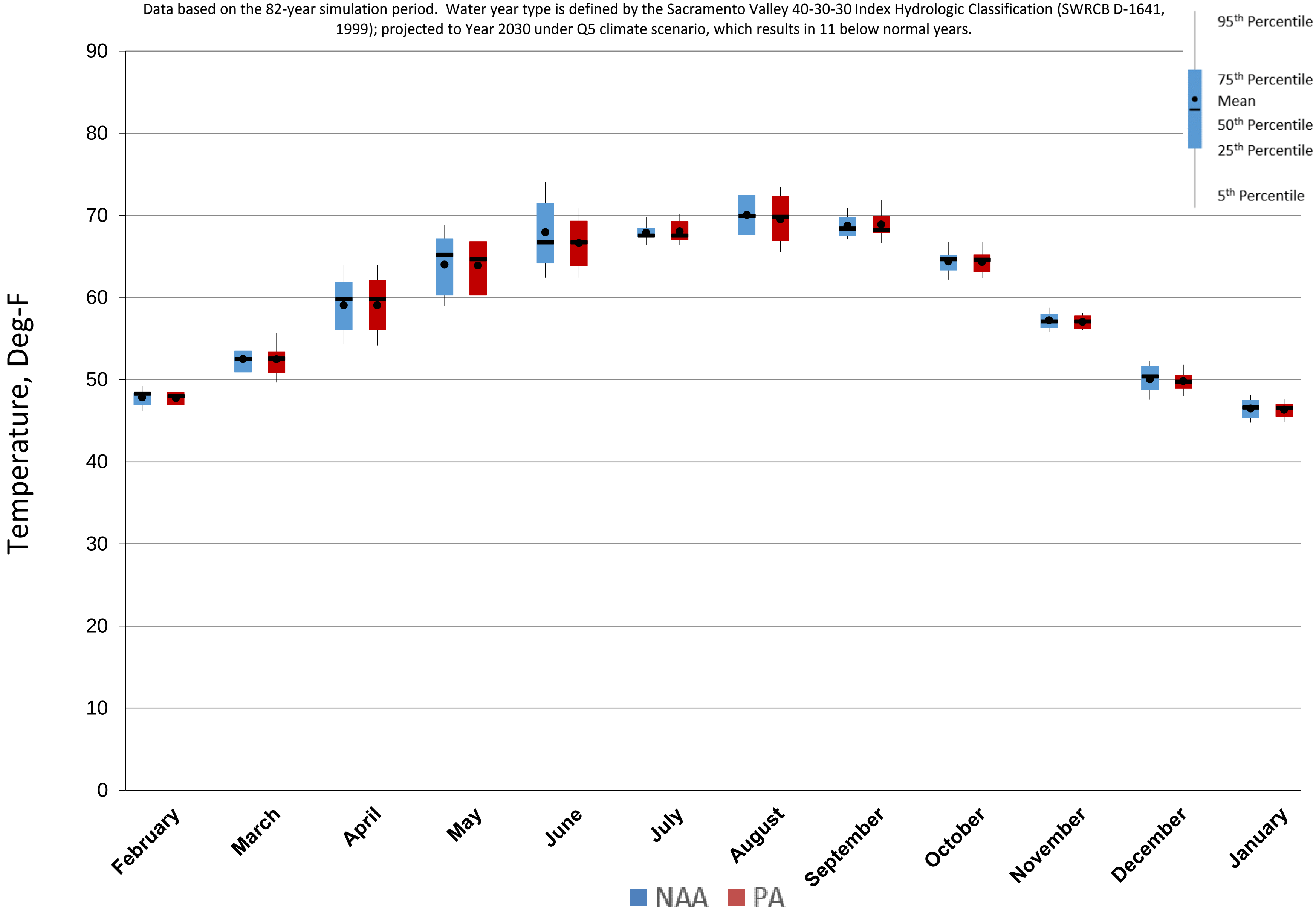


Figure 5.C.7-15-5. Monthly Temperature Ranges for American River at Watt Ave, Dry Years

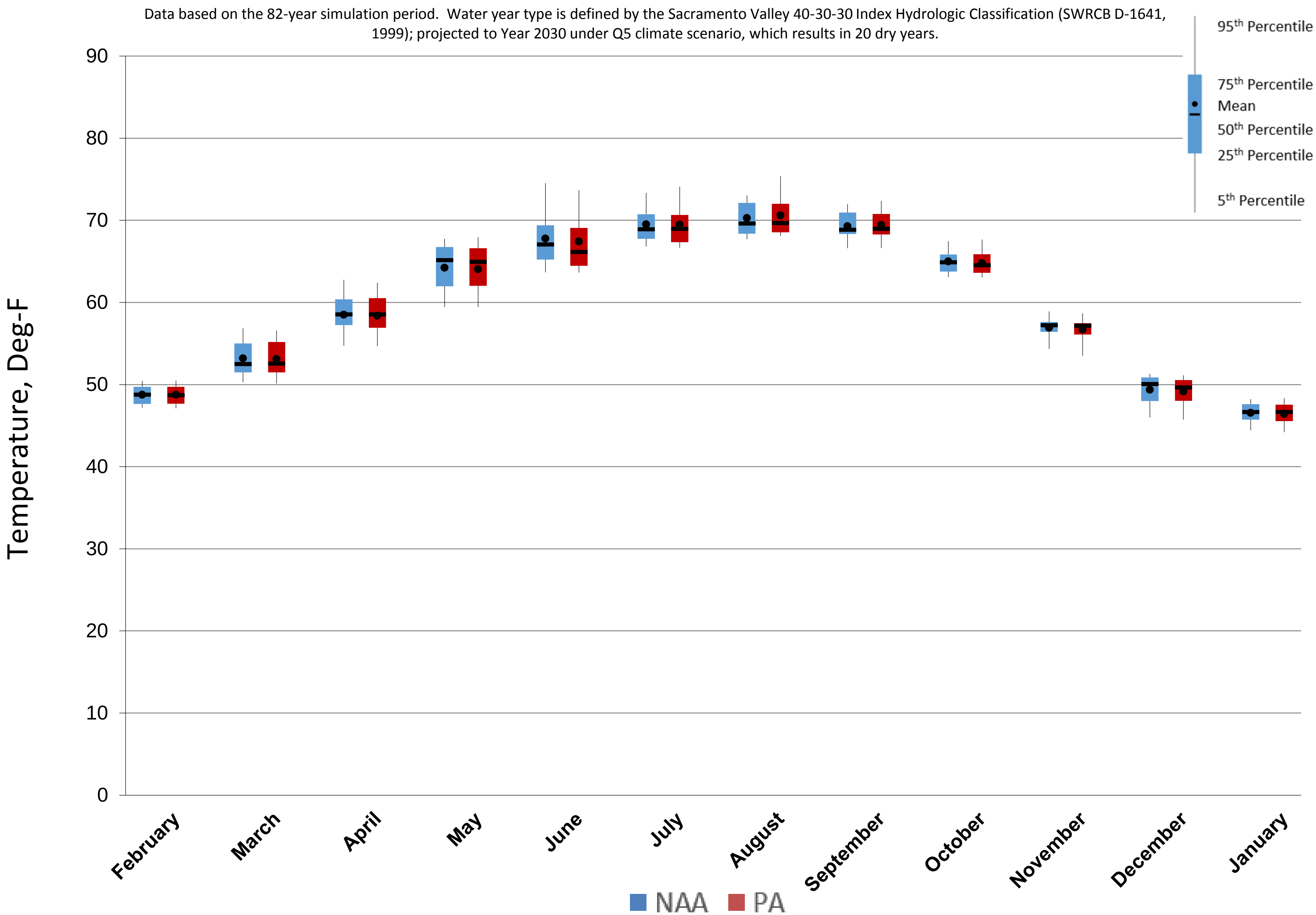


Figure 5.C.7-15-6. Monthly Temperature Ranges for American River at Watt Ave, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 12 critical years.

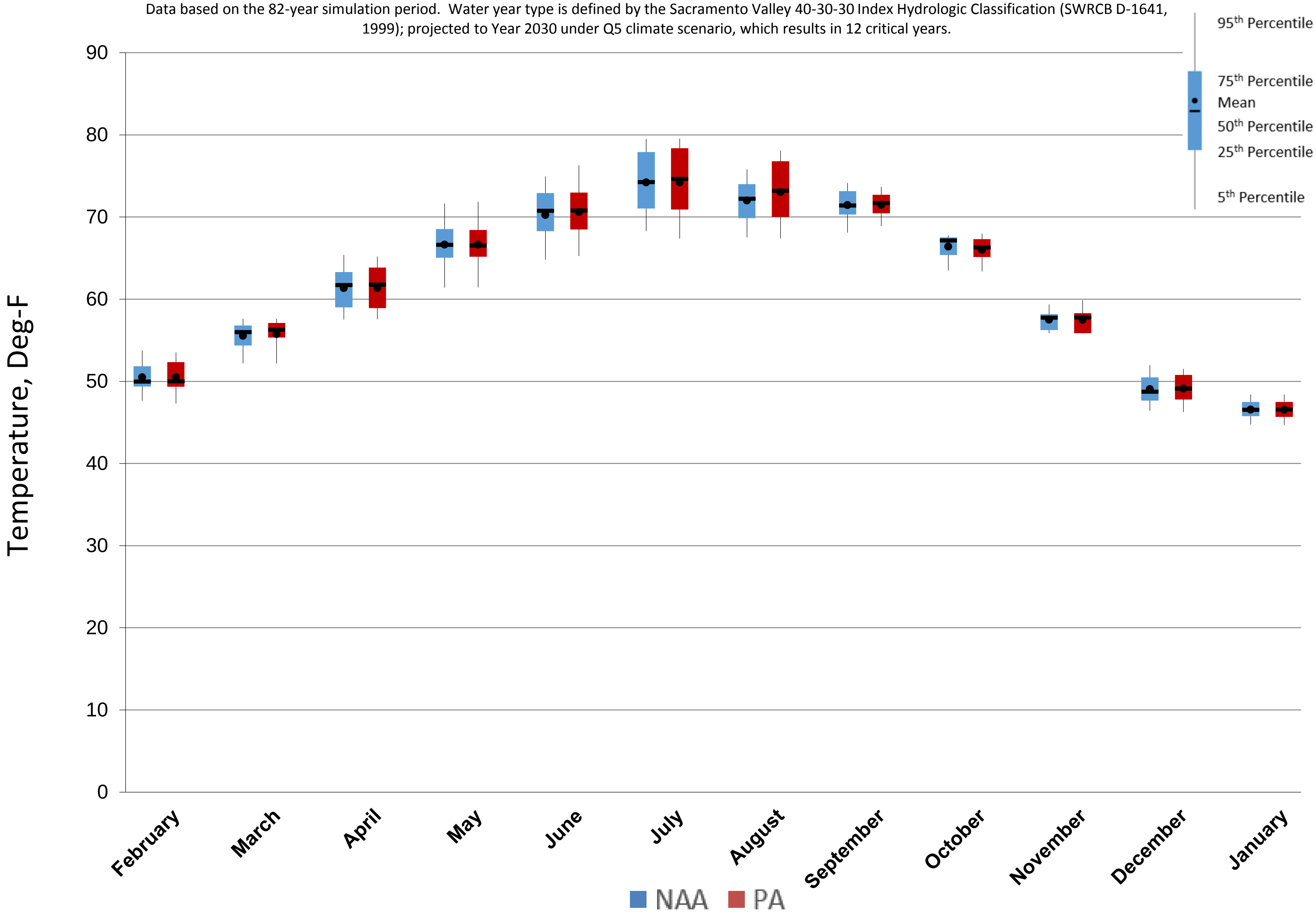
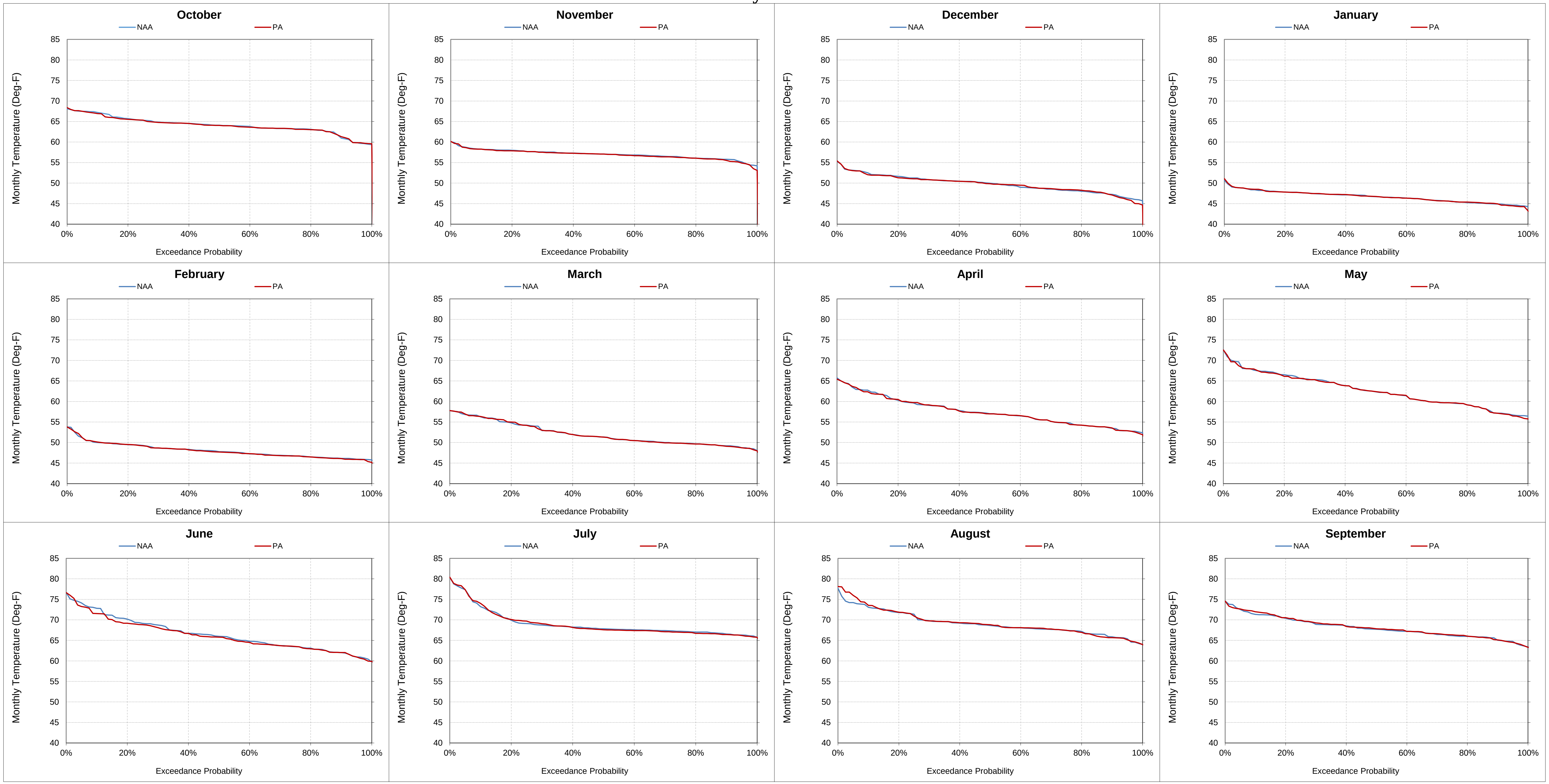
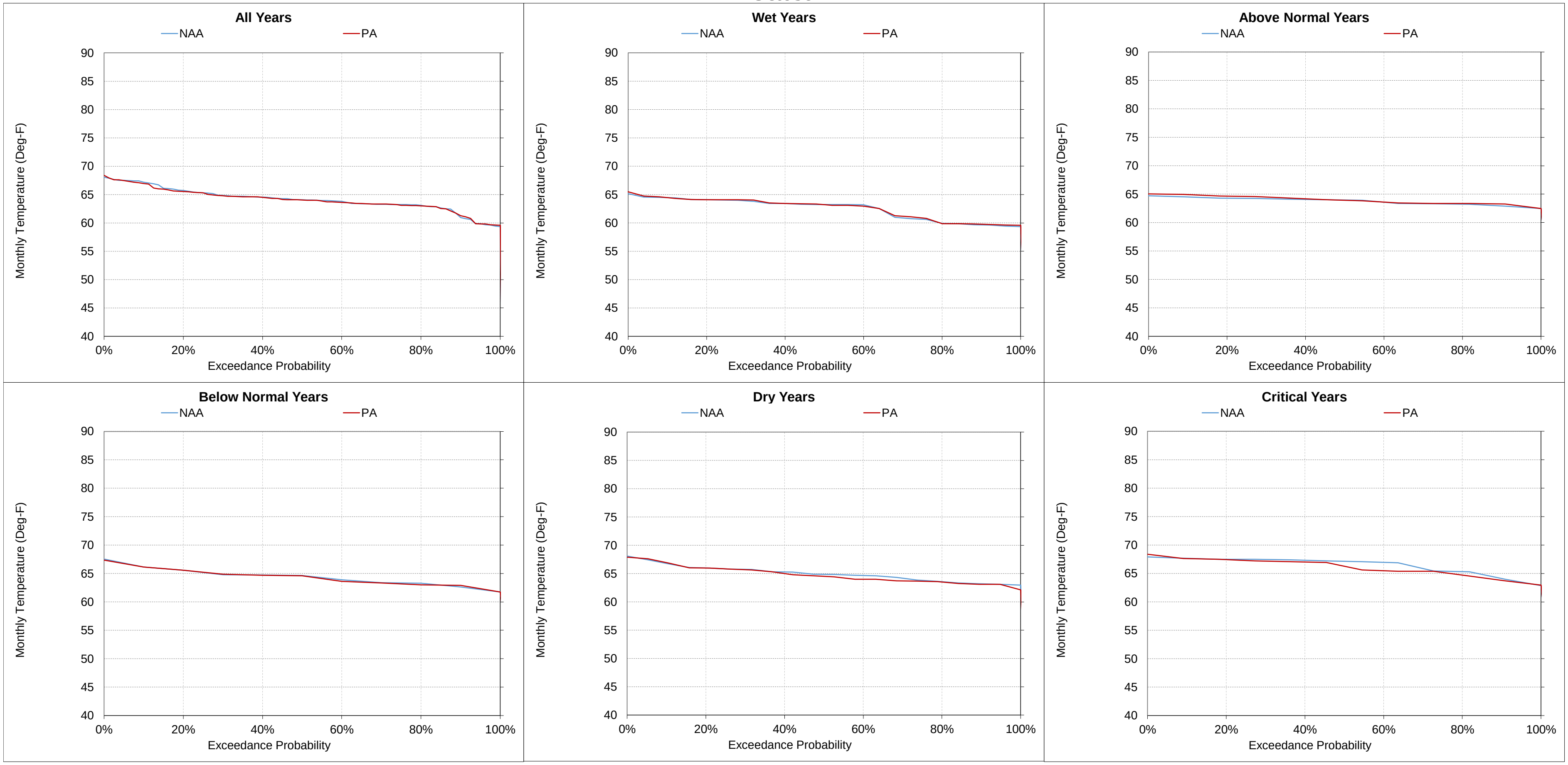


Figure 5.C.7-15-7. American River at Watt Ave, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-8. American River at Watt Ave, Monthly Temperature October



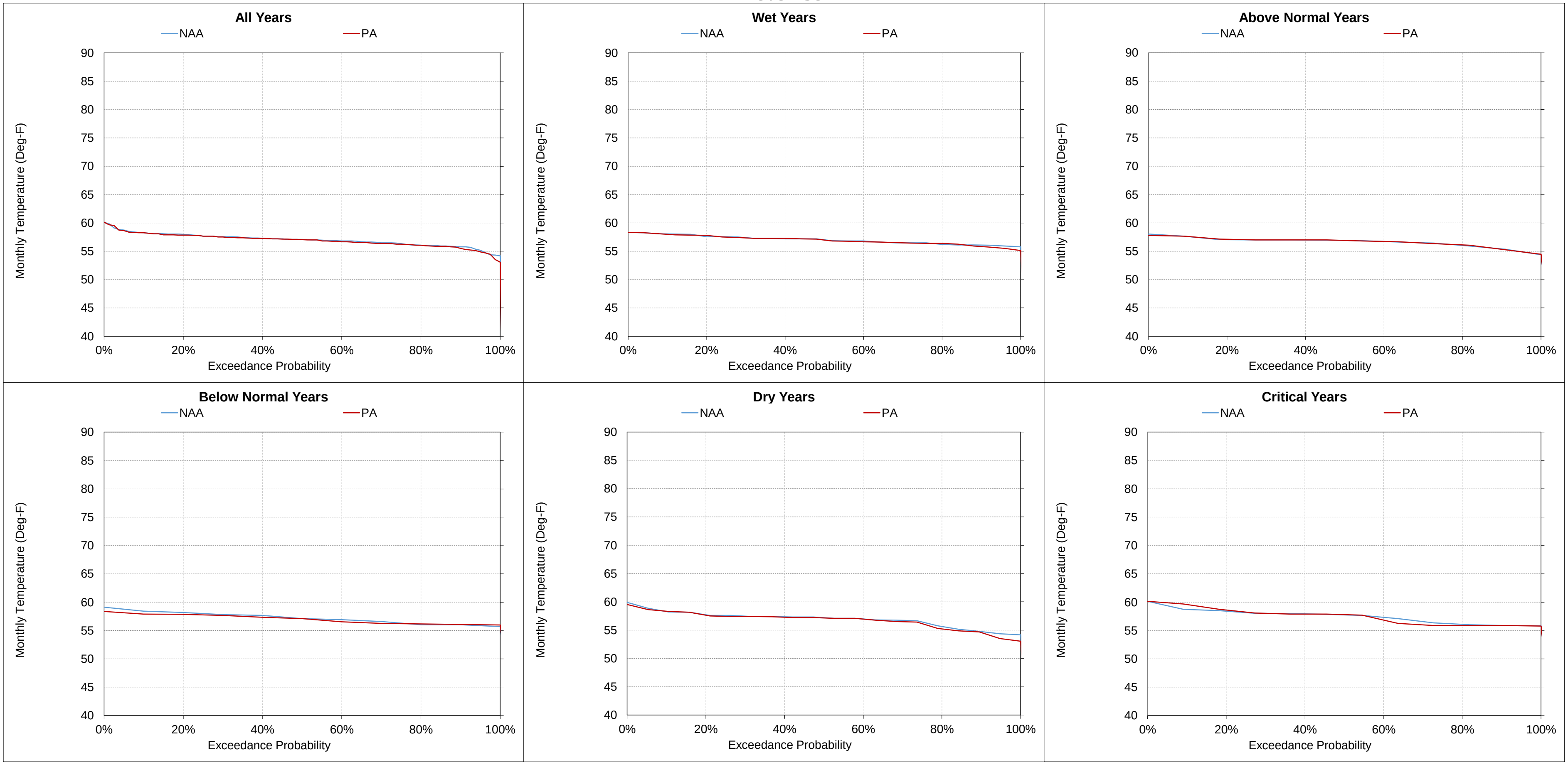
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

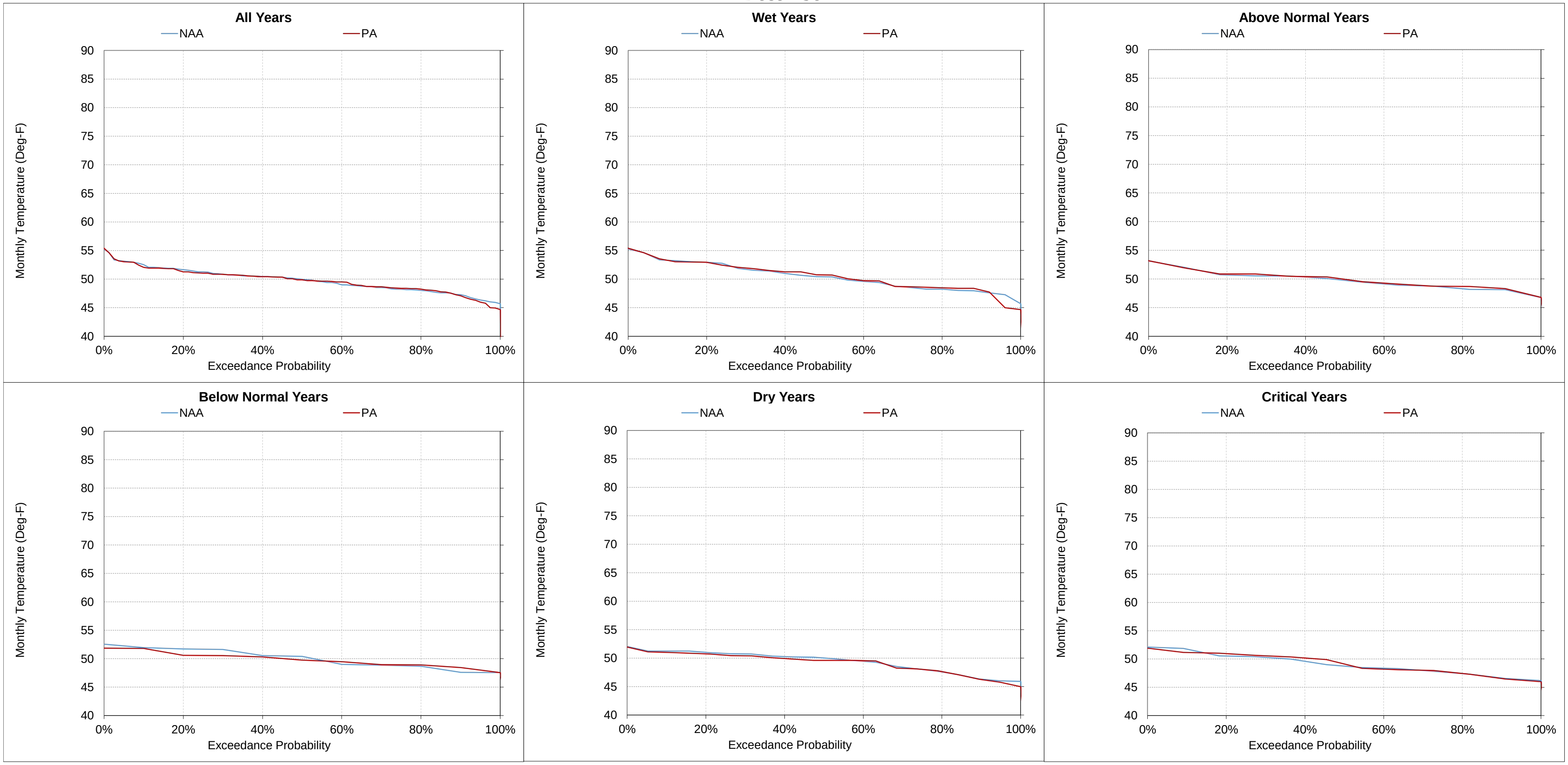
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-9. American River at Watt Ave, Monthly Temperature November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-10. American River at Watt Ave, Monthly Temperature December



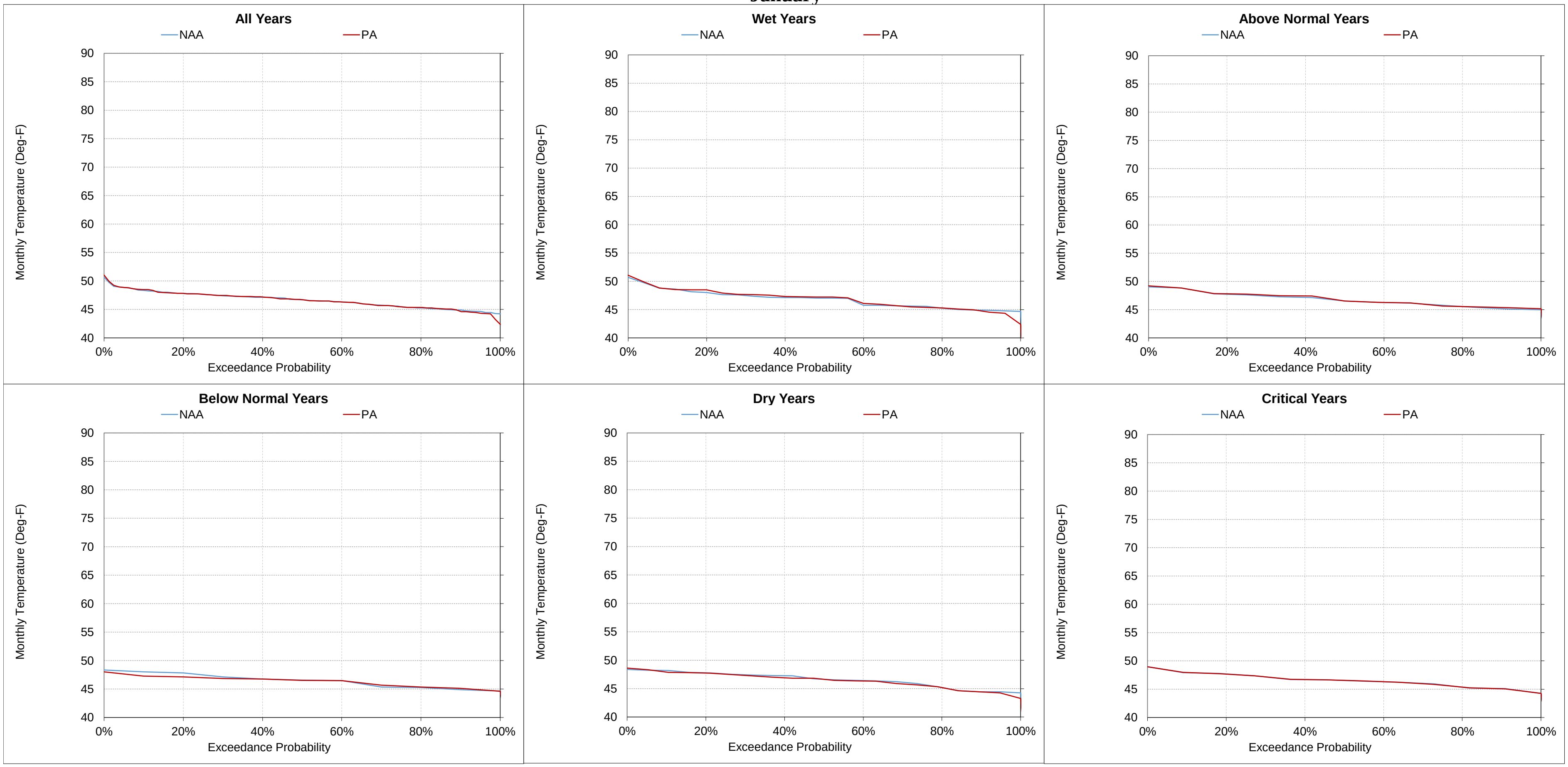
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

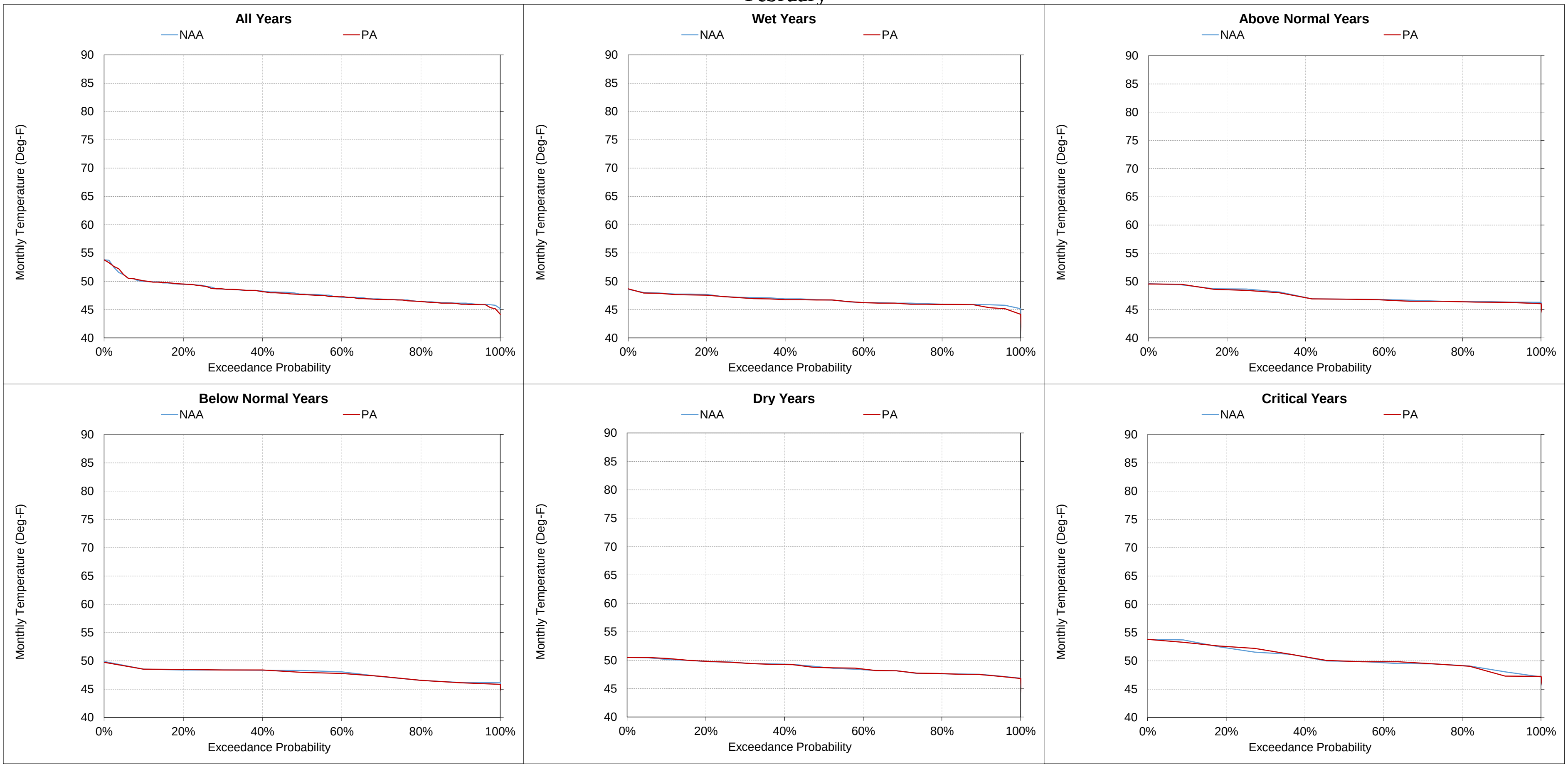
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-11. American River at Watt Ave, Monthly Temperature
January



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-12. American River at Watt Ave, Monthly Temperature February



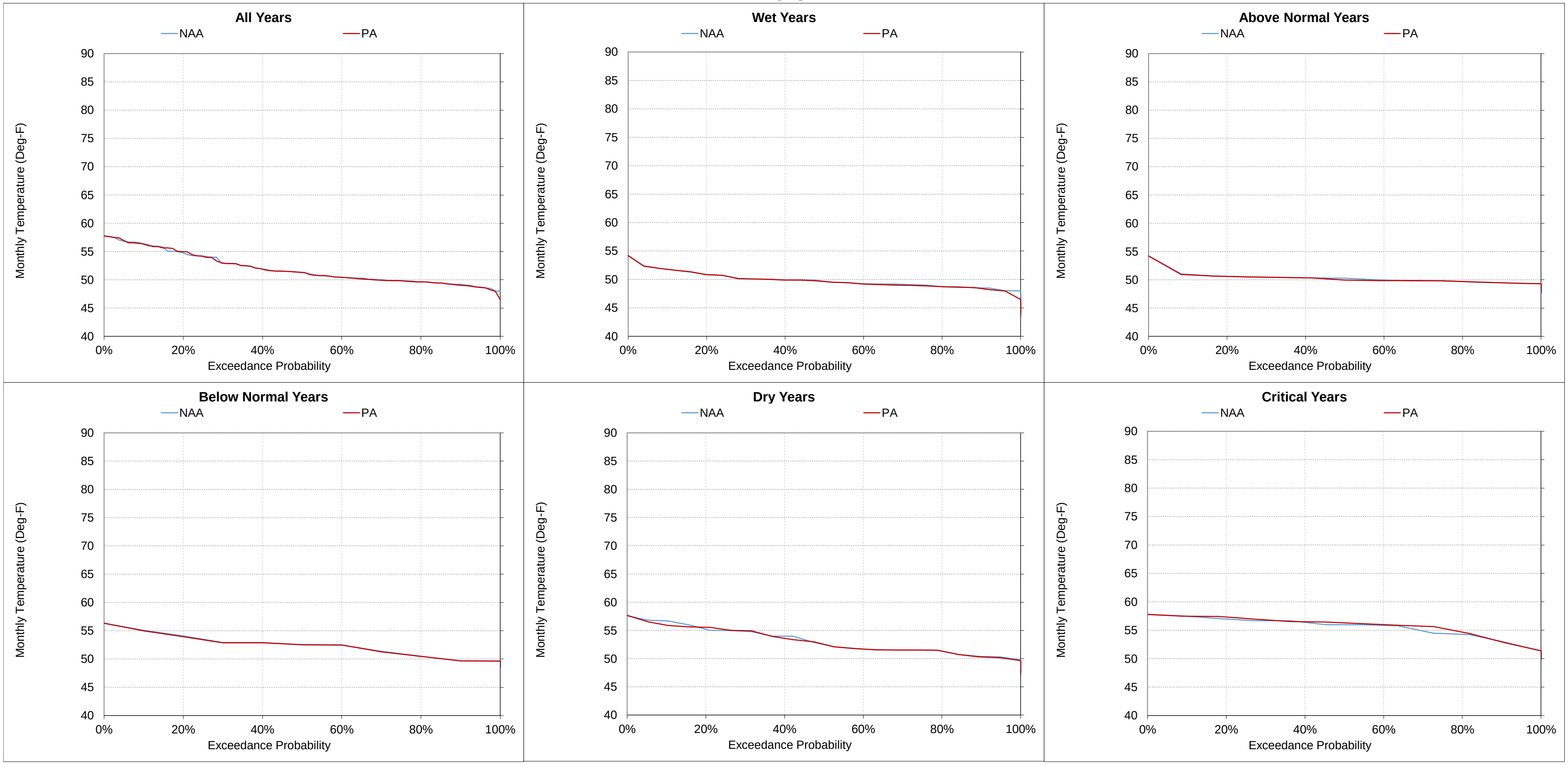
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

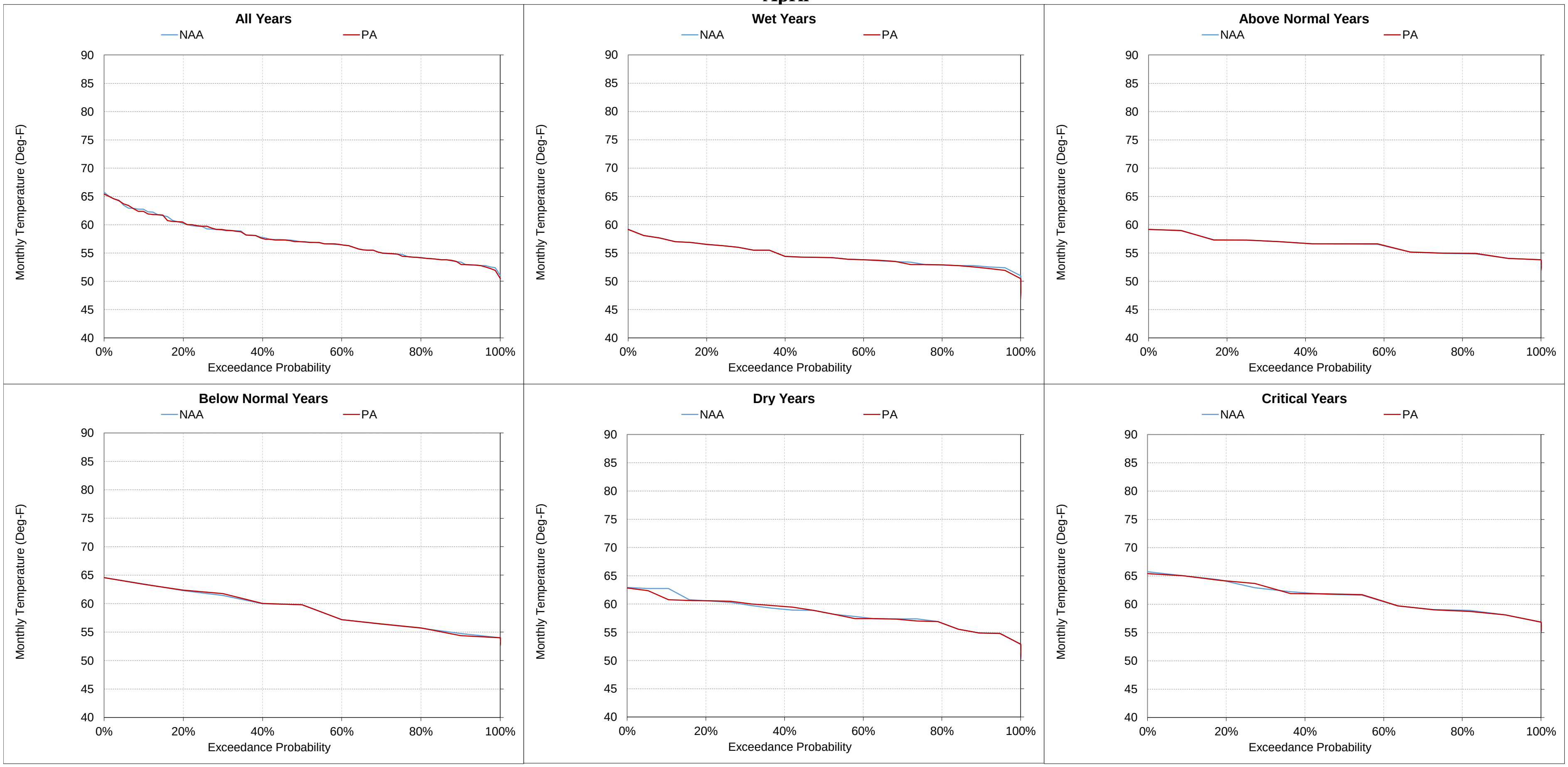
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-13. American River at Watt Ave, Monthly Temperature
March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-14. American River at Watt Ave, Monthly Temperature April



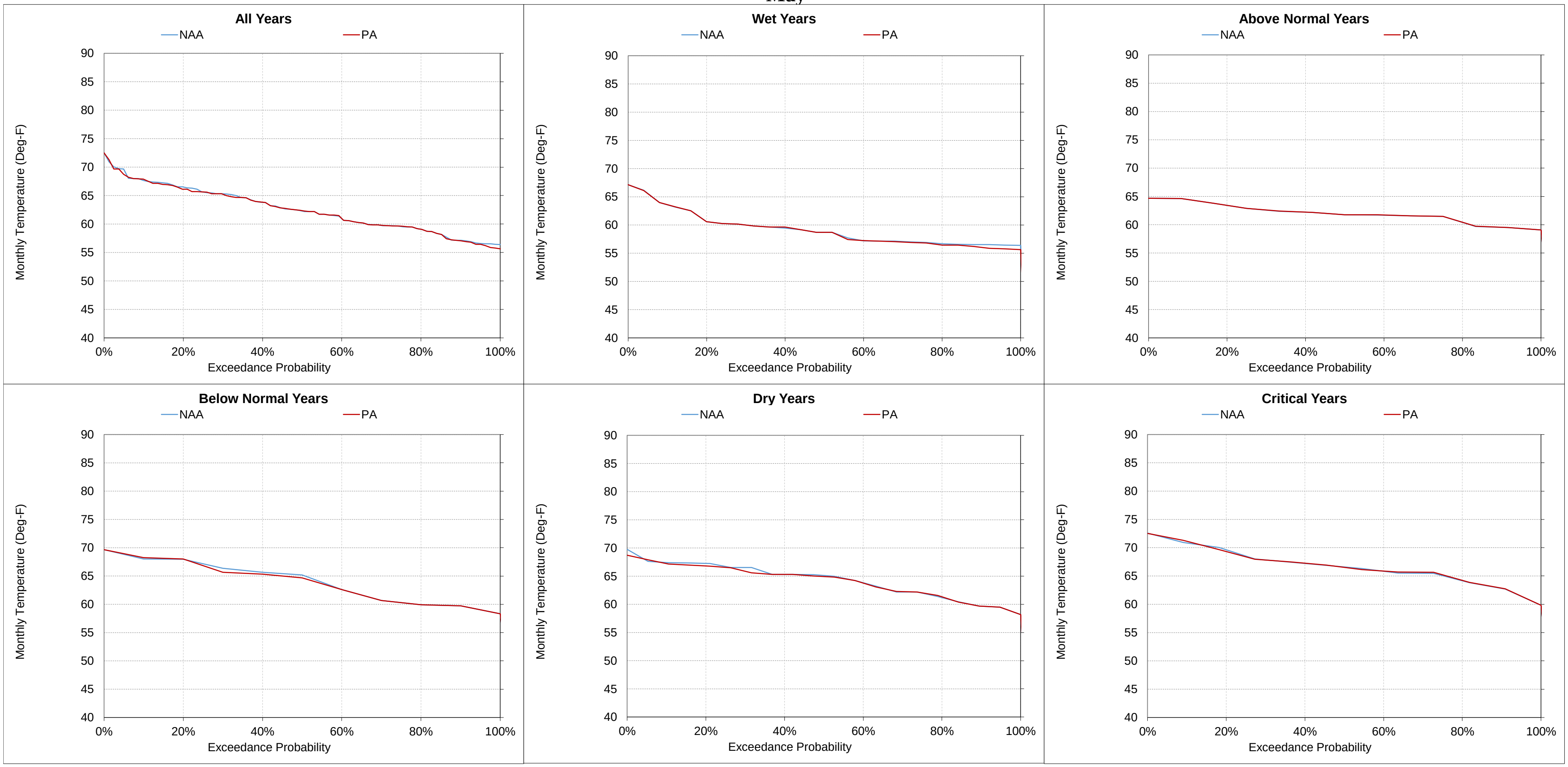
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

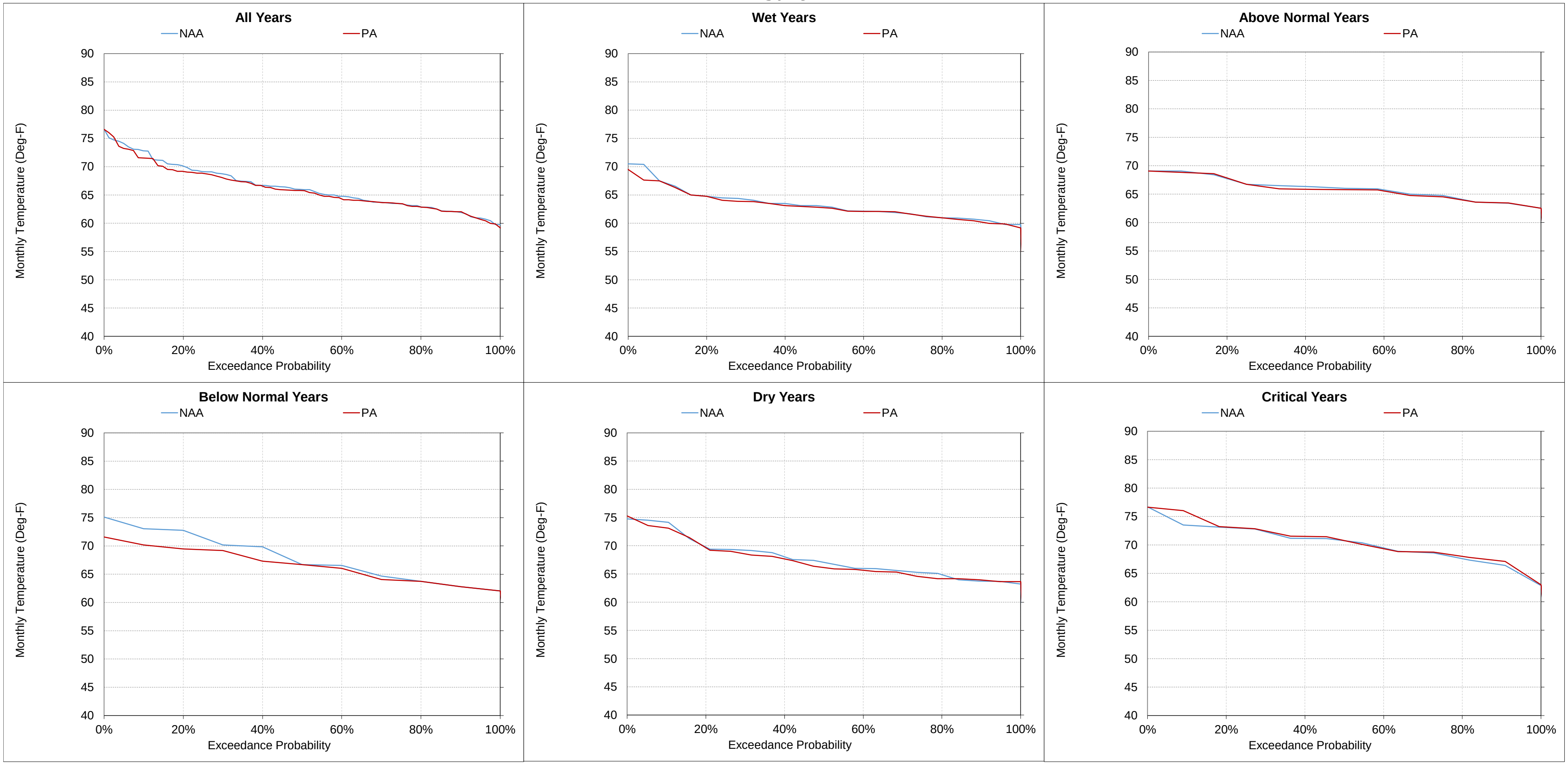
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-15. American River at Watt Ave, Monthly Temperature
May



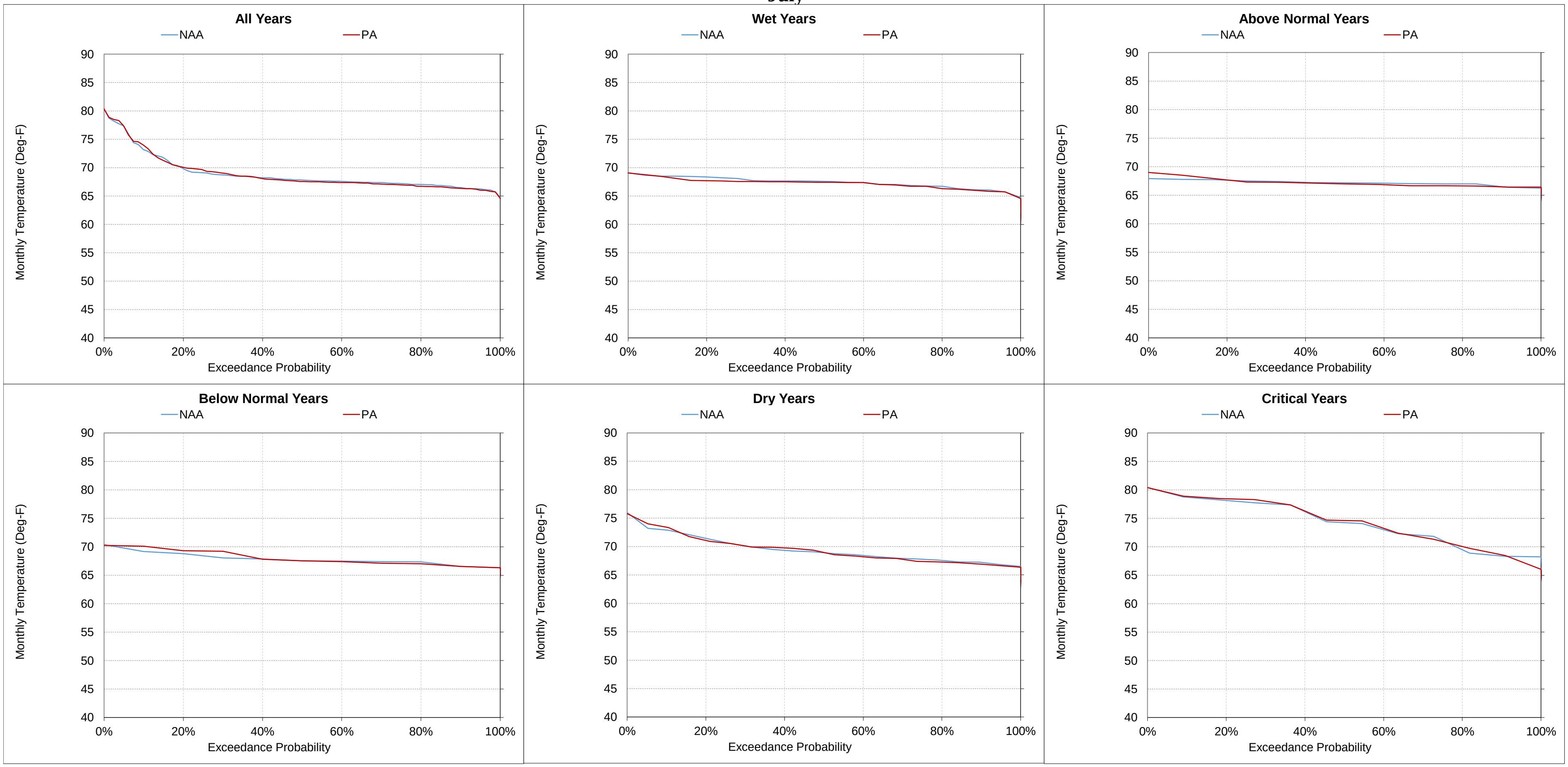
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-16. American River at Watt Ave, Monthly Temperature
June



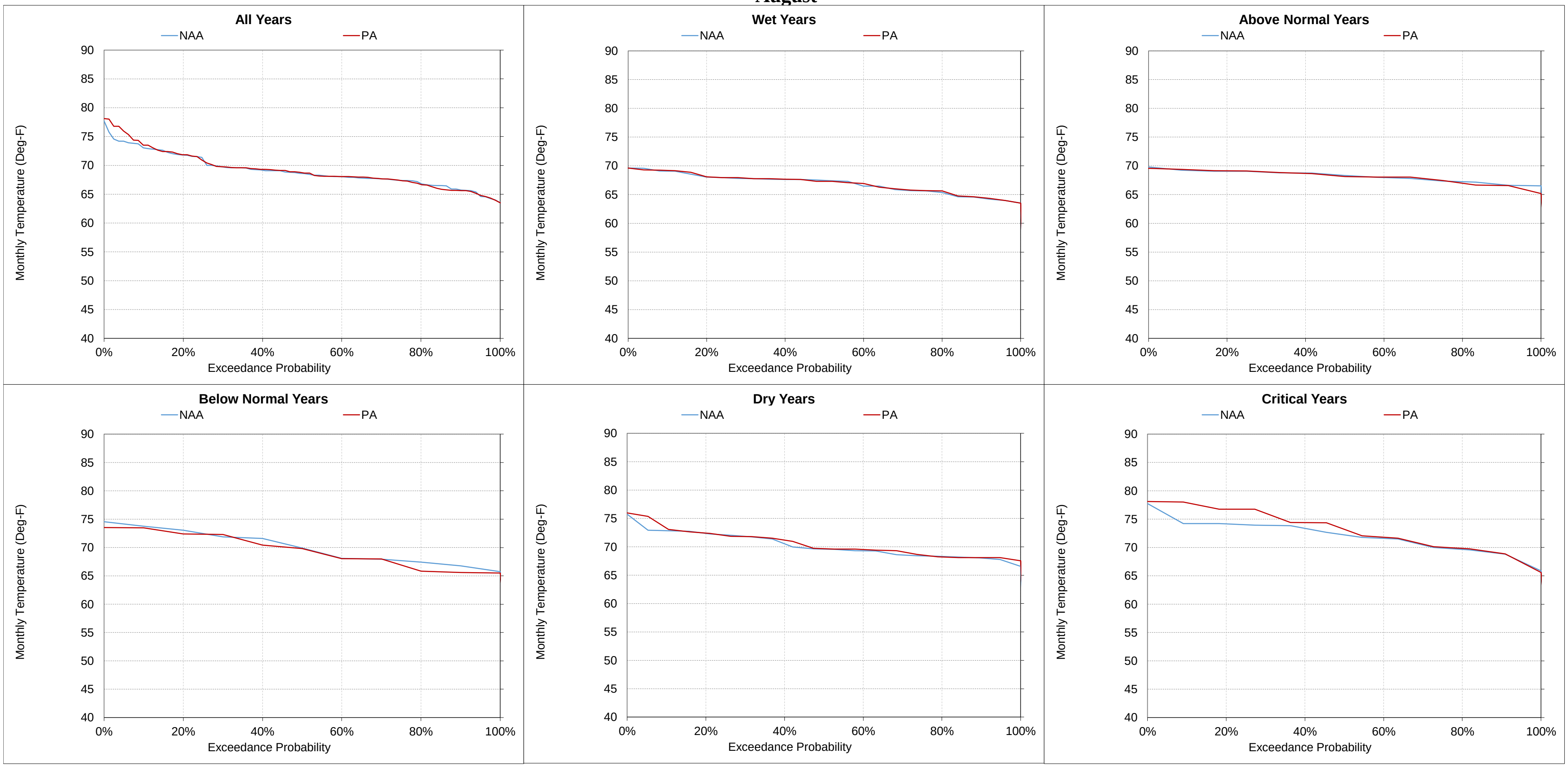
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-17. American River at Watt Ave, Monthly Temperature
July



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-18. American River at Watt Ave, Monthly Temperature
August



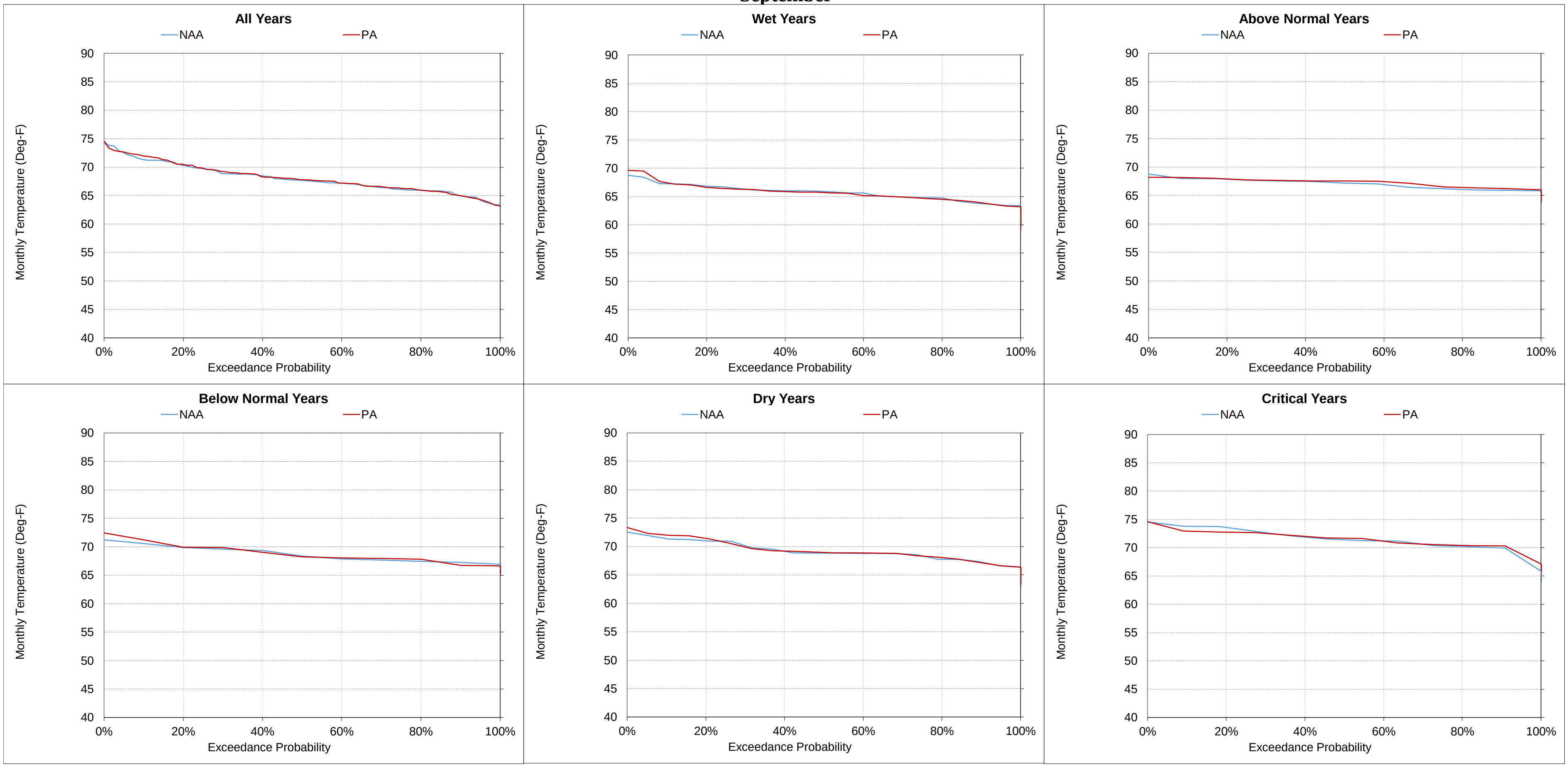
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-15-19. American River at Watt Ave, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-16. American River at Sacramento River Confluence, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	67.9	67.6	-0.3	0%	58.4	58.5	0.1	0%	52.3	52.1	-0.2	0%	48.7	48.7	0.0	0%	51.5	51.5	0.0	0%	59.0	59.0	0.0	0%
20%	66.5	66.4	-0.1	0%	58.1	57.9	-0.2	0%	51.3	51.2	-0.2	0%	48.3	48.1	-0.1	0%	50.7	50.6	-0.1	0%	56.9	57.3	0.3	1%
30%	65.5	65.6	0.1	0%	57.6	57.6	0.0	0%	50.7	50.6	-0.1	0%	47.7	47.7	0.1	0%	49.7	49.7	0.0	0%	55.1	55.0	-0.1	0%
40%	65.1	65.1	0.0	0%	57.4	57.3	-0.1	0%	50.3	50.3	0.0	0%	47.5	47.5	0.0	0%	49.3	49.0	-0.2	0%	53.3	53.3	0.0	0%
50%	64.7	64.8	0.1	0%	57.0	57.0	0.1	0%	49.7	49.6	-0.1	0%	47.2	47.0	-0.2	0%	48.5	48.3	-0.2	0%	52.6	52.5	0.0	0%
60%	64.4	64.1	-0.3	-1%	56.8	56.8	0.0	0%	49.0	49.3	0.3	1%	46.5	46.5	0.0	0%	47.9	48.0	0.0	0%	51.4	51.3	-0.1	0%
70%	63.8	63.8	0.0	0%	56.6	56.4	-0.2	0%	48.7	48.7	0.1	0%	46.0	46.0	0.0	0%	47.3	47.3	0.0	0%	50.9	50.8	-0.1	0%
80%	63.3	63.3	0.0	0%	56.2	56.0	-0.2	0%	48.0	48.3	0.3	1%	45.5	45.6	0.0	0%	46.9	46.8	0.0	0%	50.4	50.4	0.0	0%
90%	62.4	62.6	0.2	0%	55.8	55.5	-0.3	-1%	47.2	47.3	0.0	0%	45.0	45.0	0.0	0%	46.5	46.3	-0.3	-1%	49.8	49.7	0.0	0%
Long Term																								
Full Simulation Period[b]	64.8	64.7	0.0	0%	57.1	57.0	-0.1	0%	49.7	49.7	0.0	0%	47.0	46.9	0.0	0%	48.9	48.8	-0.1	0%	53.4	53.4	0.0	0%
Water Year Types[c]																								
Wet (32%)	63.2	63.3	0.1	0%	57.1	57.0	-0.1	0%	50.3	50.3	0.0	0%	47.0	47.0	0.0	0%	47.2	47.0	-0.1	0%	50.8	50.7	-0.1	0%
Above Normal (16%)	64.4	64.5	0.1	0%	56.6	56.6	0.0	0%	49.6	49.8	0.1	0%	47.0	47.1	0.1	0%	48.1	48.0	-0.1	0%	51.4	51.3	-0.1	0%
Below Normal (13%)	64.9	64.9	0.0	0%	57.2	57.1	-0.1	0%	49.8	49.7	-0.2	0%	46.7	46.5	-0.1	0%	48.6	48.5	-0.2	0%	54.3	54.3	0.0	0%
Dry (24%)	65.5	65.4	-0.1	0%	57.0	56.8	-0.2	0%	49.3	49.1	-0.2	0%	46.9	46.7	-0.1	0%	49.8	49.8	0.0	0%	55.0	54.9	-0.2	0%
Critical (15%)	67.2	66.9	-0.3	-1%	57.7	57.7	0.0	0%	49.1	49.1	0.0	0%	47.2	47.2	-0.1	0%	52.2	52.2	0.0	0%	57.9	58.2	0.4	1%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	65.6	65.7	0.1	0%	71.4	71.4	0.0	0%	76.3	74.9	-1.4	-2%	76.0	77.4	1.4	2%	77.3	78.3	1.0	1%	74.4	74.9	0.5	1%
20%	62.4	62.4	0.0	0%	69.9	69.5	-0.4	-1%	73.2	71.8	-1.4	-2%	72.3	72.9	0.6	1%	75.5	75.7	0.2	0%	72.5	72.8	0.3	0%
30%	61.0	61.1	0.1	0%	68.2	67.8	-0.3	0%	71.1	70.5	-0.6	-1%	71.7	71.7	0.0	0%	73.1	72.8	-0.3	0%	71.0	71.3	0.3	0%
40%	60.0	59.8	-0.2	0%	66.8	66.7	-0.1	0%	69.8	69.1	-0.7	-1%	71.1	71.2	0.1	0%	72.3	72.4	0.1	0%	70.2	70.4	0.2	0%
50%	58.6	58.6	0.0	0%	64.9	64.9	0.0	0%	68.4	67.9	-0.5	-1%	70.3	69.9	-0.3	0%	71.6	71.7	0.1	0%	69.7	69.8	0.1	0%
60%	58.1	58.1	0.0	0%	63.2	63.3	0.1	0%	67.8	66.9	-0.9	-1%	69.8	69.6	-0.2	0%	71.0	71.0	0.0	0%	69.0	69.2	0.2	0%
70%	56.5	56.3	-0.2	0%	61.7	61.7	0.0	0%	66.3	66.0	-0.4	-1%	69.4	69.3	-0.1	0%	70.6	70.7	0.1	0%	68.2	68.2	0.0	0%
80%	55.2	55.2	0.0	0%	60.7	60.7	0.0	0%	65.4	65.3	-0.1	0%	69.0	69.0	-0.1	0%	69.7	69.5	-0.2	0%	67.3	67.4	0.0	0%
90%	54.2	53.9	-0.2	0%	58.4	58.4	0.0	0%	63.9	64.0	0.1	0%	68.6	68.4	-0.3	0%	68.5	68.0	-0.5	-1%	66.6	66.7	0.0	0%
Long Term																								
Full Simulation Period[b]	59.3	59.3	0.0	0%	65.1	65.0	-0.1	0%	69.2	68.7	-0.5	-1%	71.5	71.5	0.0	0%	72.3	72.5	0.1	0%	70.1	70.2	0.2	0%
Water Year Types[c]																								
Wet (32%)	55.9	55.8	-0.1	0%	61.1	61.1	0.0	0%	65.7	65.3	-0.4	-1%	70.0	69.7	-0.3	0%	69.9	69.9	0.1	0%	67.2	67.3	0.1	0%
Above Normal (16%)	57.8	57.9	0.0	0%	64.5	64.5	0.0	0%	68.9	68.4	-0.5	-1%	69.1	69.4	0.3	0%	71.2	71.0	-0.2	0%	68.8	69.1	0.3	0%
Below Normal (13%)	61.2	61.2	0.0	0%	66.7	66.5	-0.2	0%	71.0	69.2	-1.7	-2%	69.9	70.4	0.5	1%	73.6	72.9	-0.7	-1%	71.2	71.3	0.1	0%
Dry (24%)	60.7	60.6	-0.1	0%	67.1	66.9	-0.1	0%	70.6	69.9	-0.7	-1%	72.2	72.2	0.0	0%	73.7	74.1	0.5	1%	71.6	71.7	0.2	0%
Critical (15%)	64.3	64.4	0.1	0%	69.6	69.6	0.0	0%	73.3	73.8	0.5	1%	77.7	77.6	-0.1	0%	75.6	76.5	0.9	1%	74.0	74.3	0.3	0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-1. Monthly Temperature Ranges for American River at Sacramento River Confluence, All Years

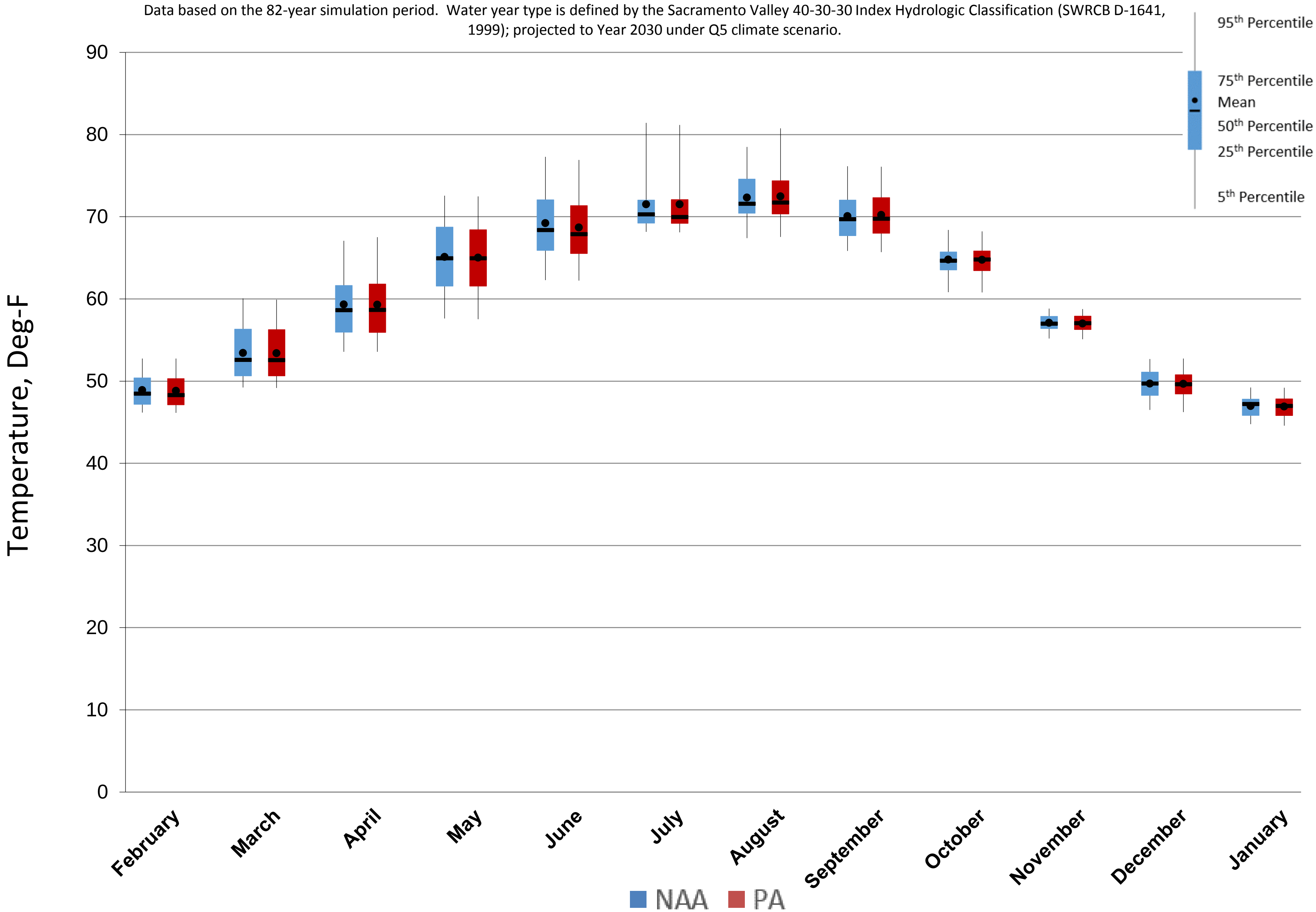


Figure 5.C.7-16-2. Monthly Temperature Ranges for American River at Sacramento River Confluence, Wet Years

Data based on the 82-year simulation period. Water year type is defined by the Sacramento Valley 40-30-30 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 26 wet years.

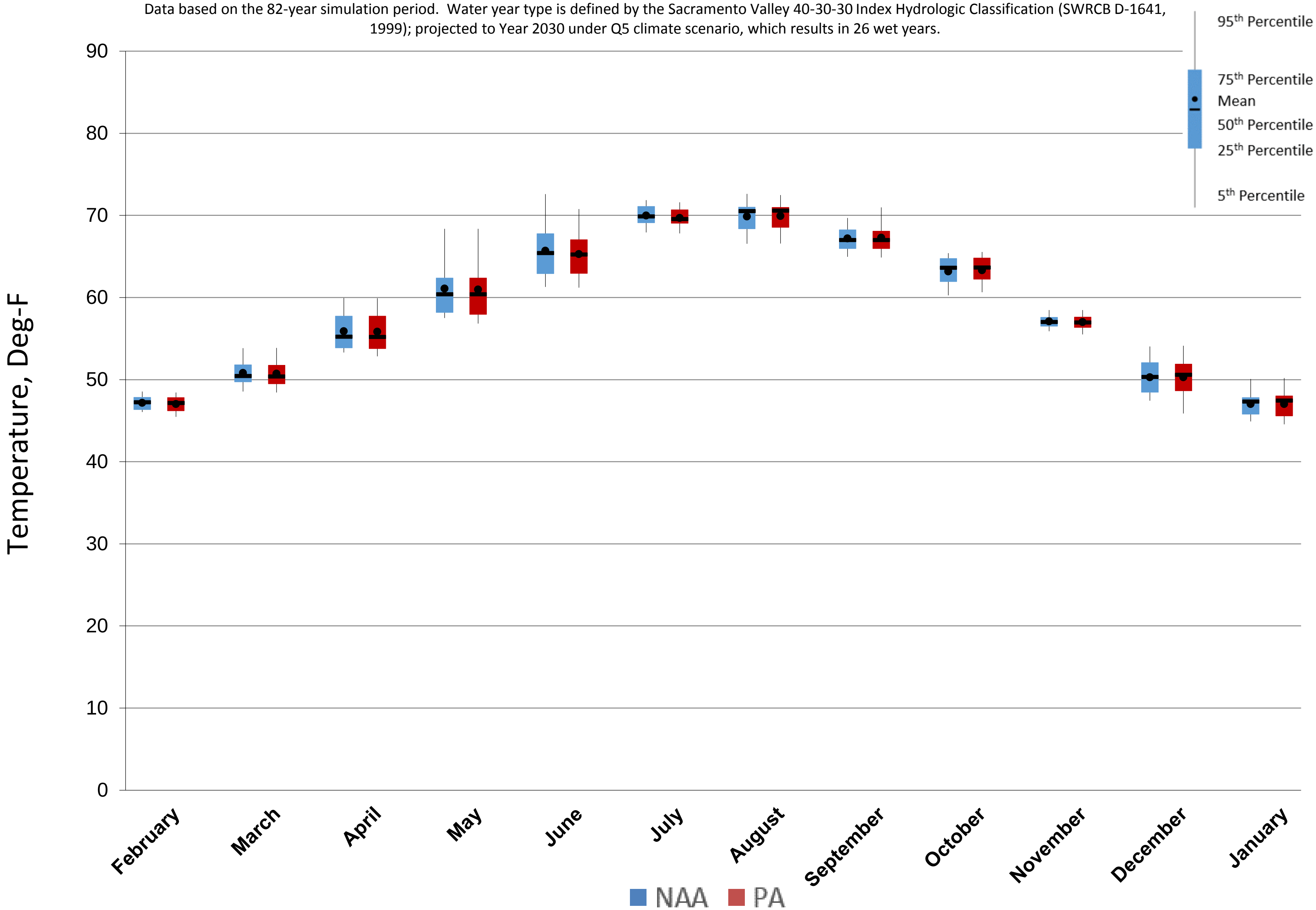


Figure 5.C.7-16-3. Monthly Temperature Ranges for American River at Sacramento River Confluence, Above Normal Years

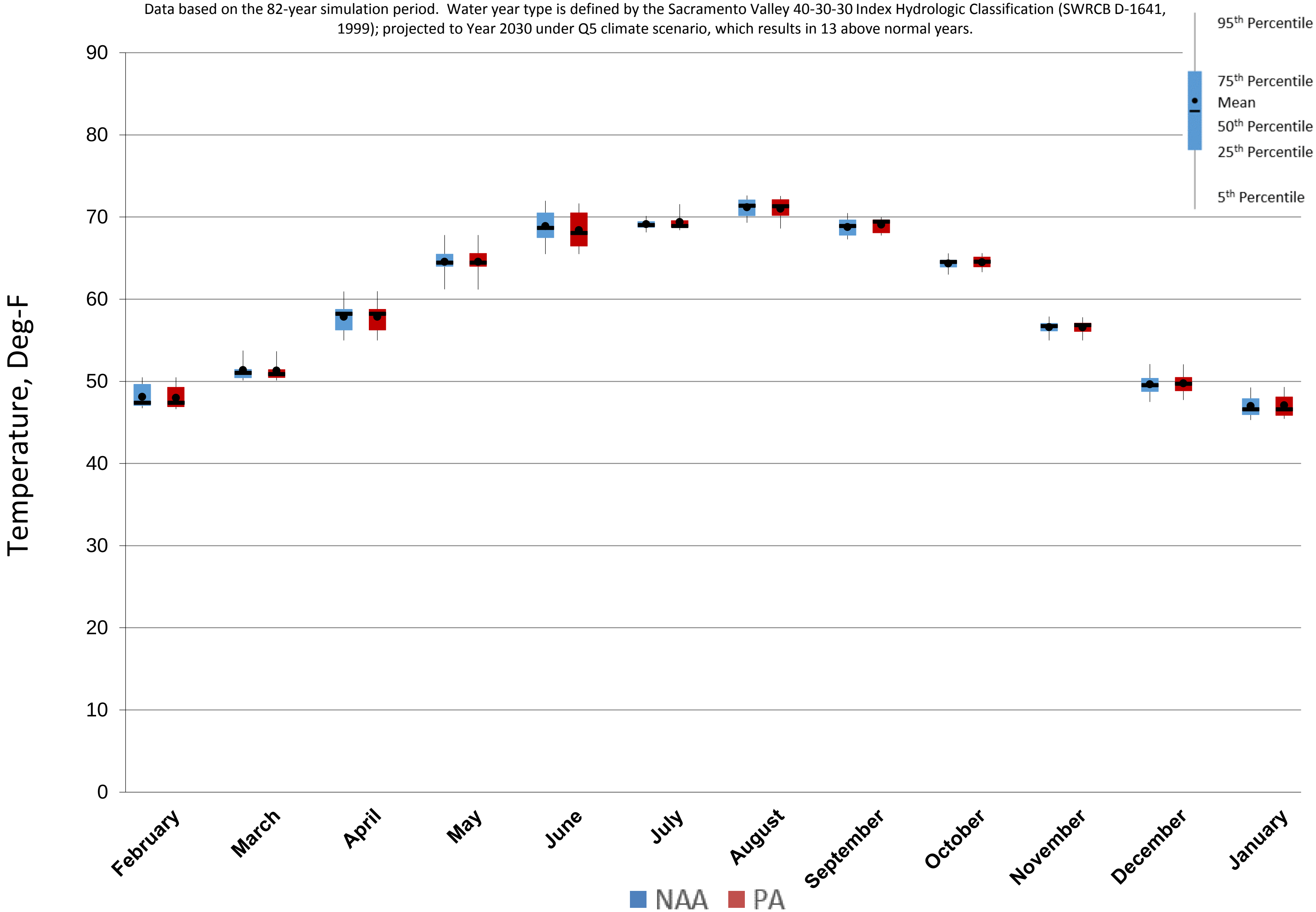


Figure 5.C.7-16-4. Monthly Temperature Ranges for American River at Sacramento River Confluence, Below Normal Years

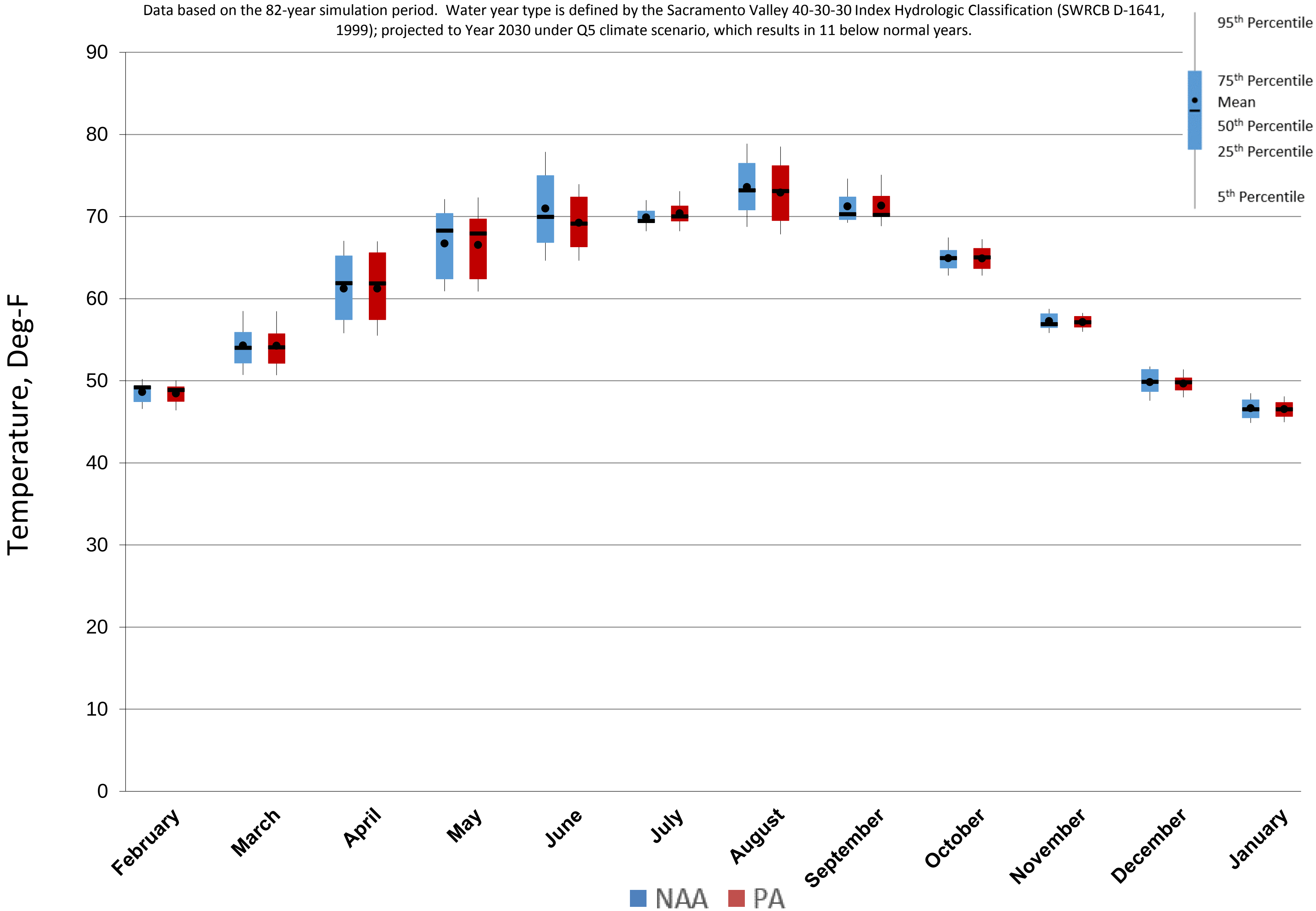


Figure 5.C.7-16-5. Monthly Temperature Ranges for American River at Sacramento River Confluence, Dry Years

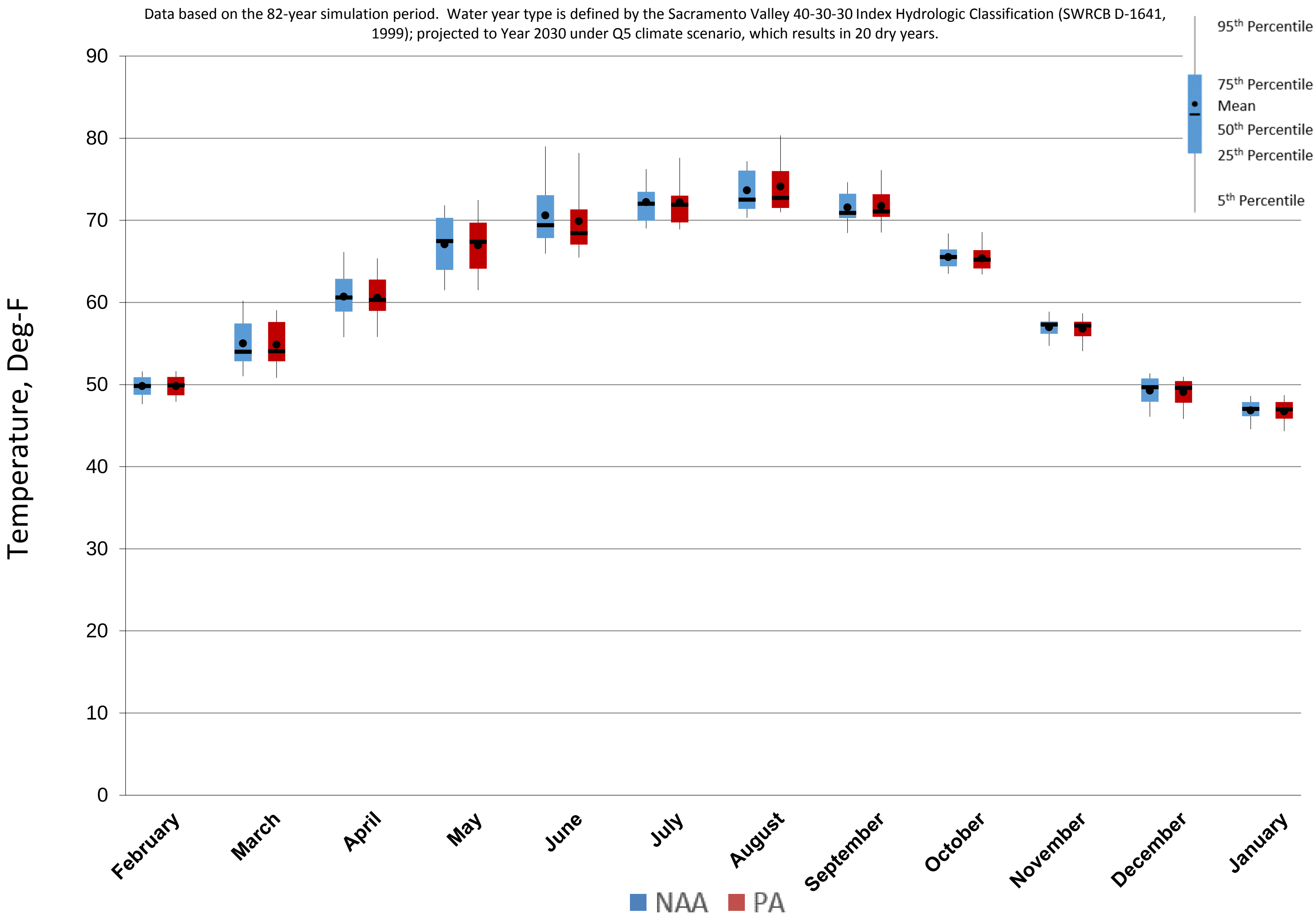


Figure 5.C.7-16-6. Monthly Temperature Ranges for American River at Sacramento River Confluence, Critical Years

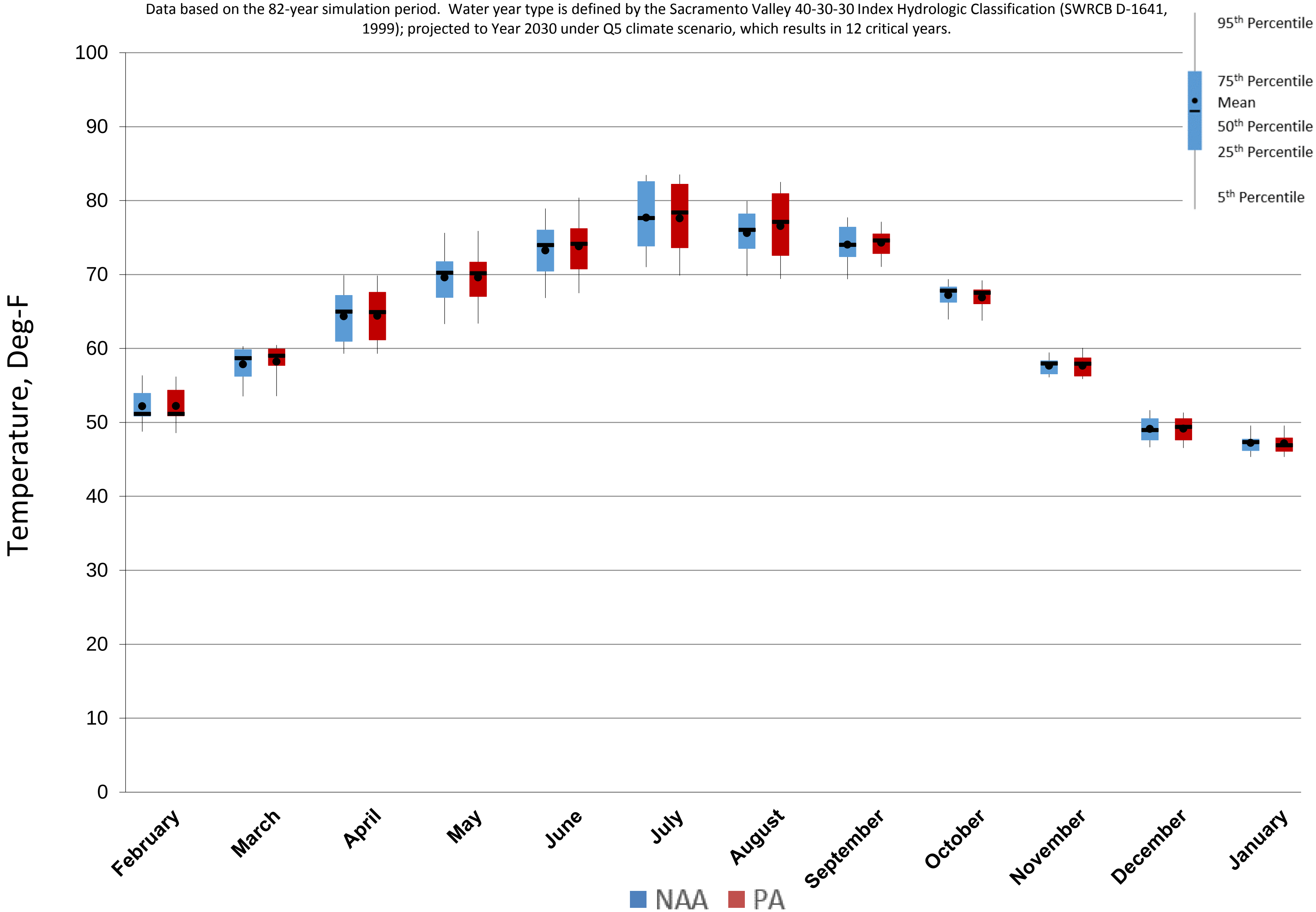
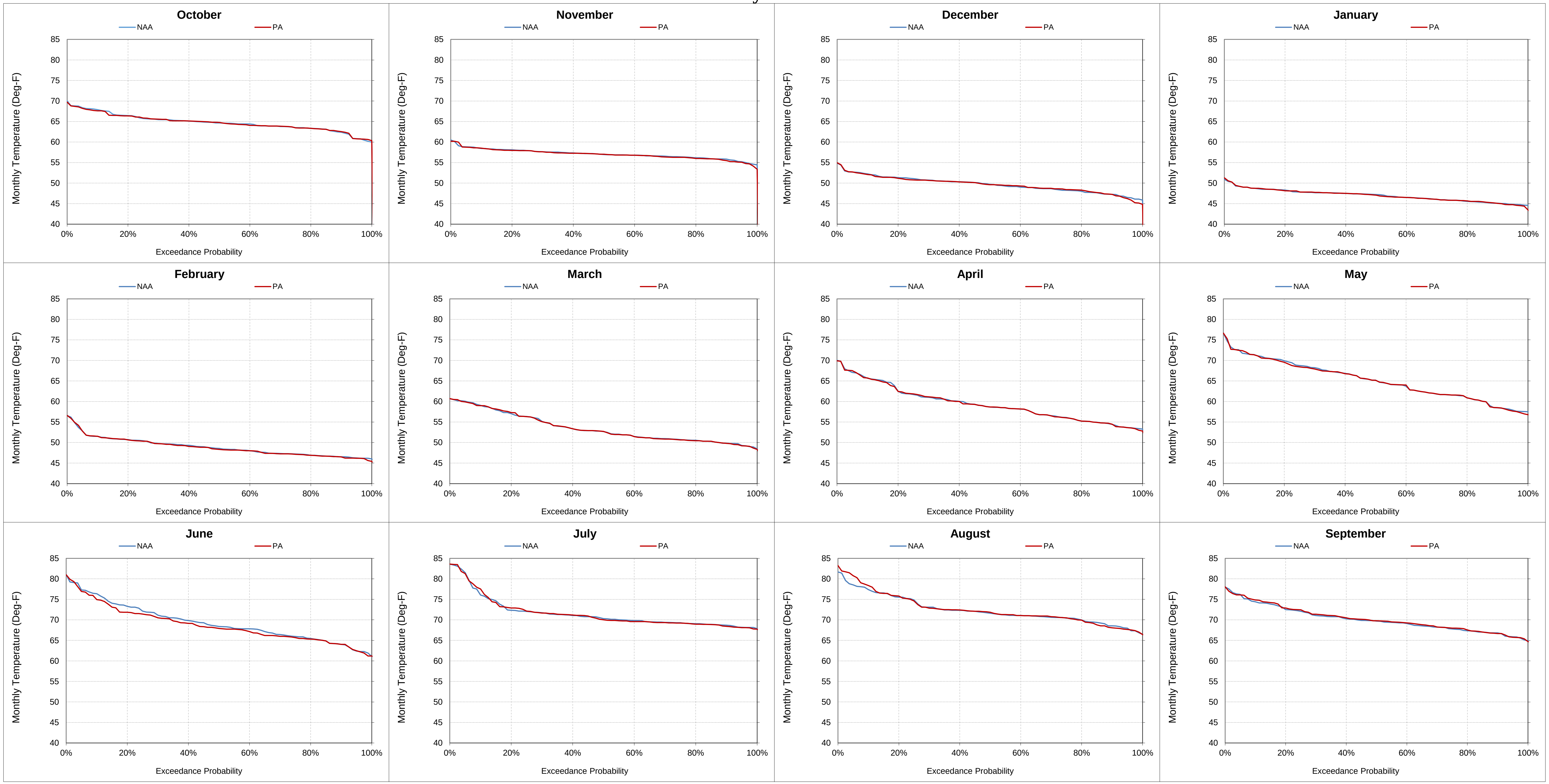
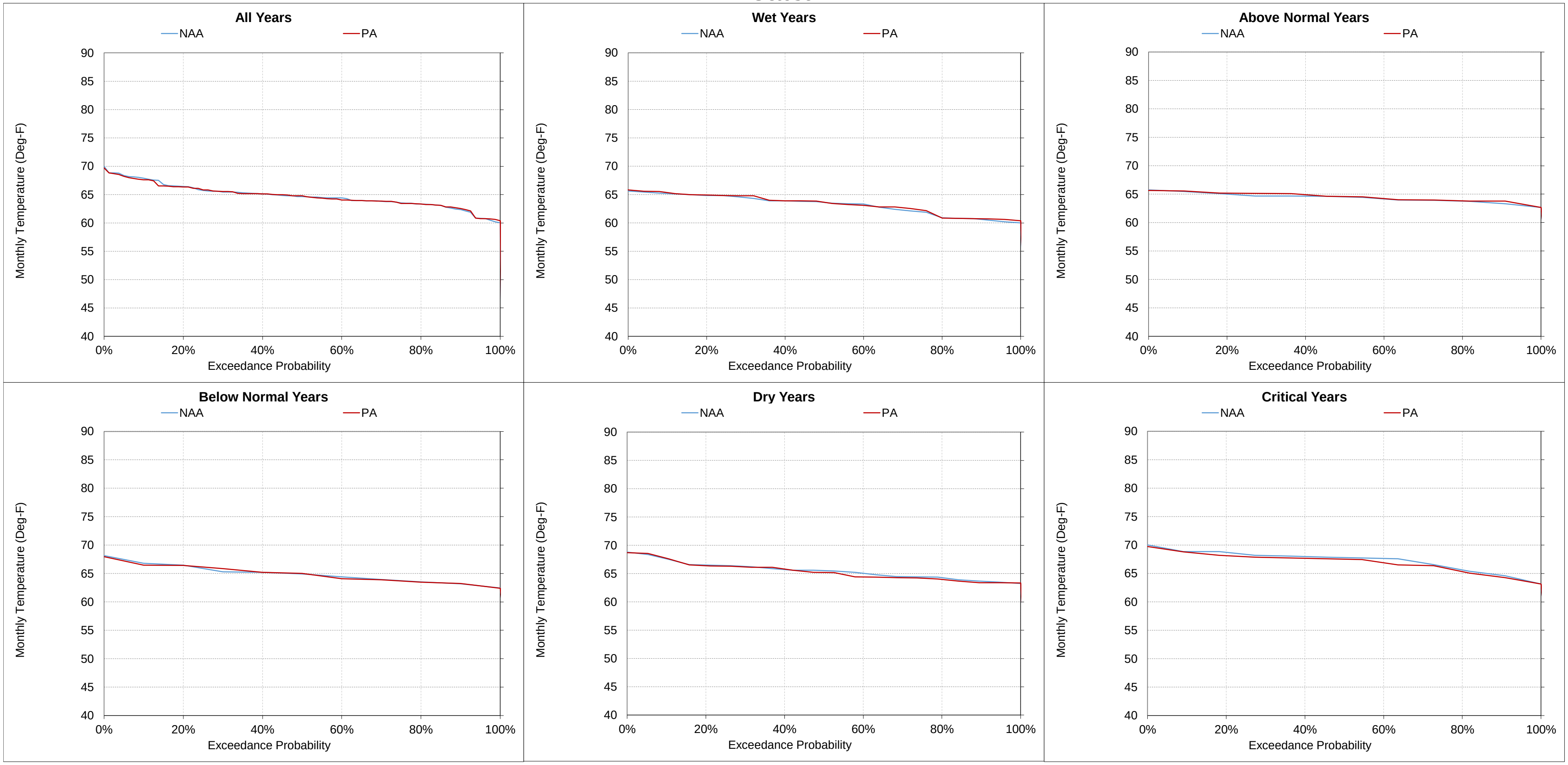


Figure 5.C.7-16-7. American River at Sacramento River Confluence, Monthly Temperature Probability of Exceedance



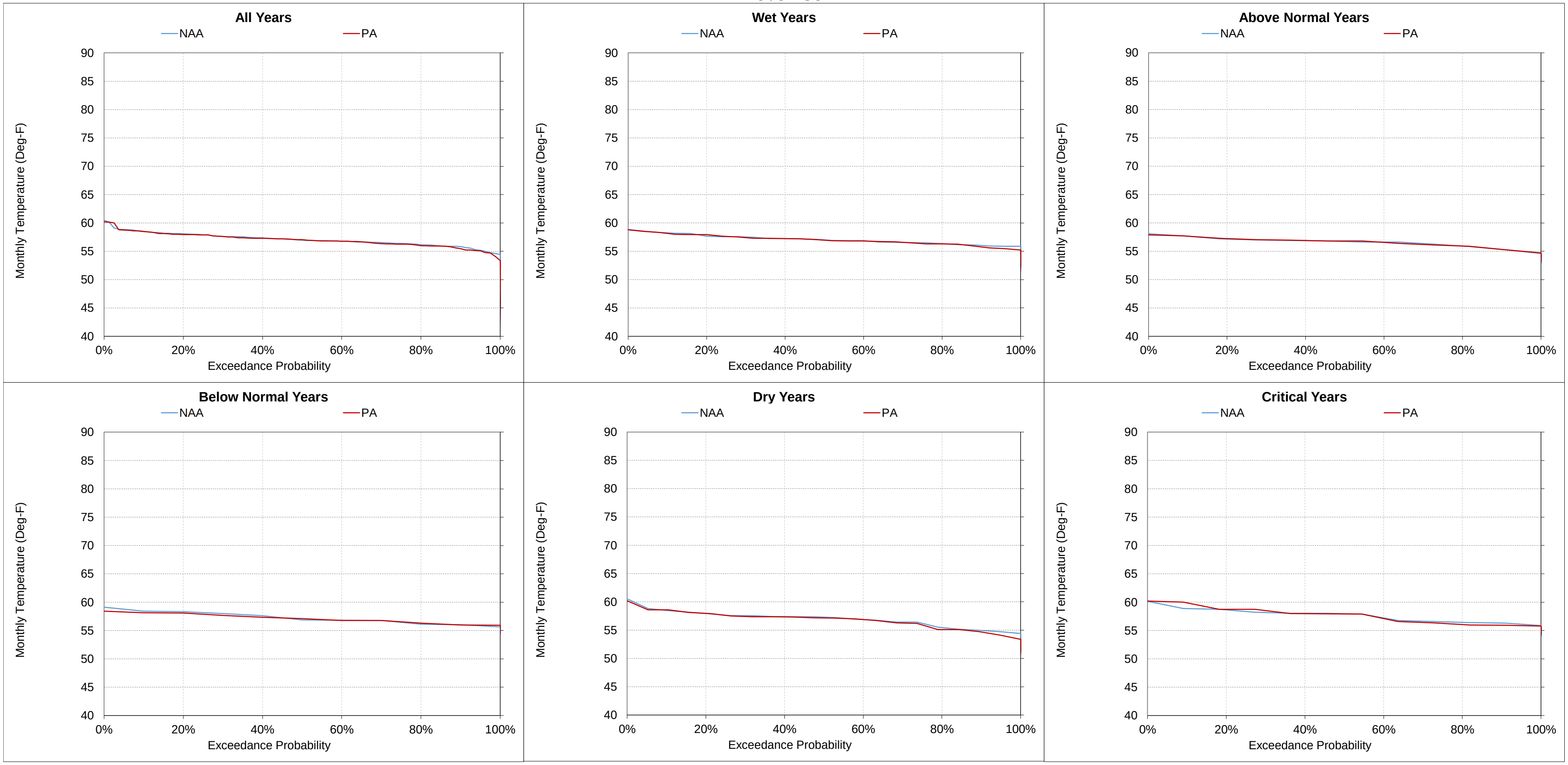
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-8. American River at Sacramento River Confluence, Monthly Temperature October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-9. American River at Sacramento River Confluence, Monthly Temperature November



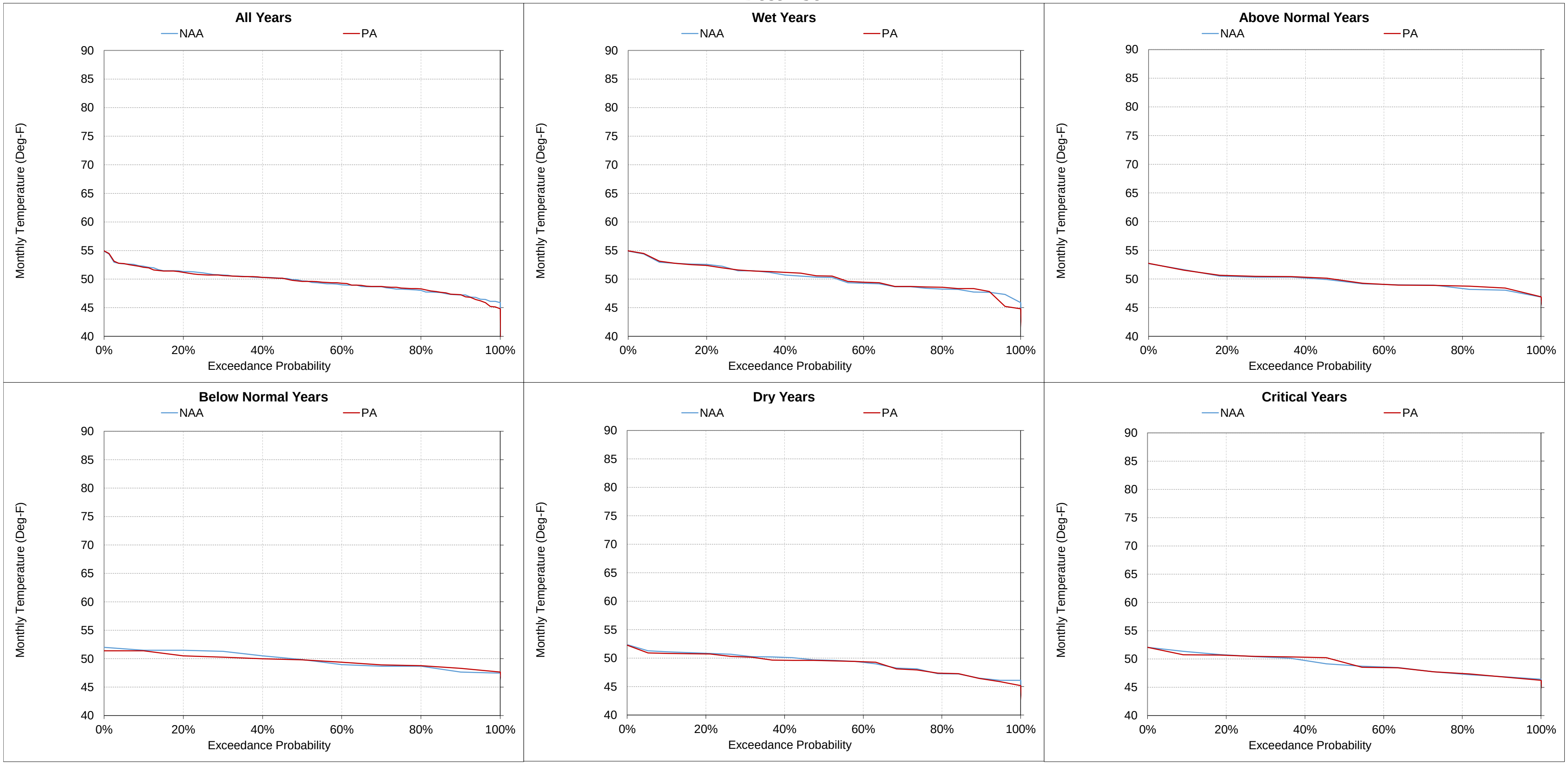
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-10. American River at Sacramento River Confluence, Monthly Temperature December



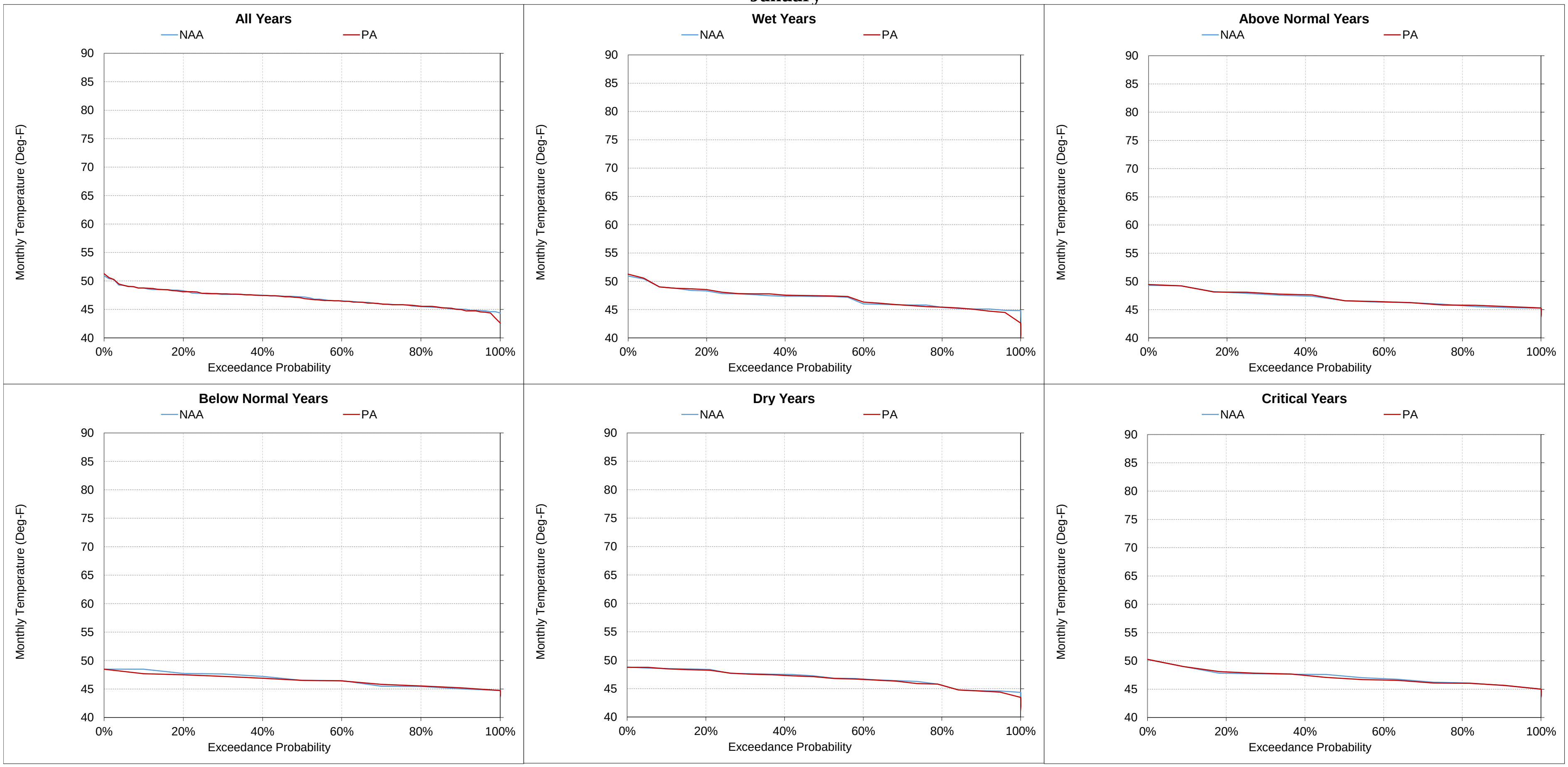
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

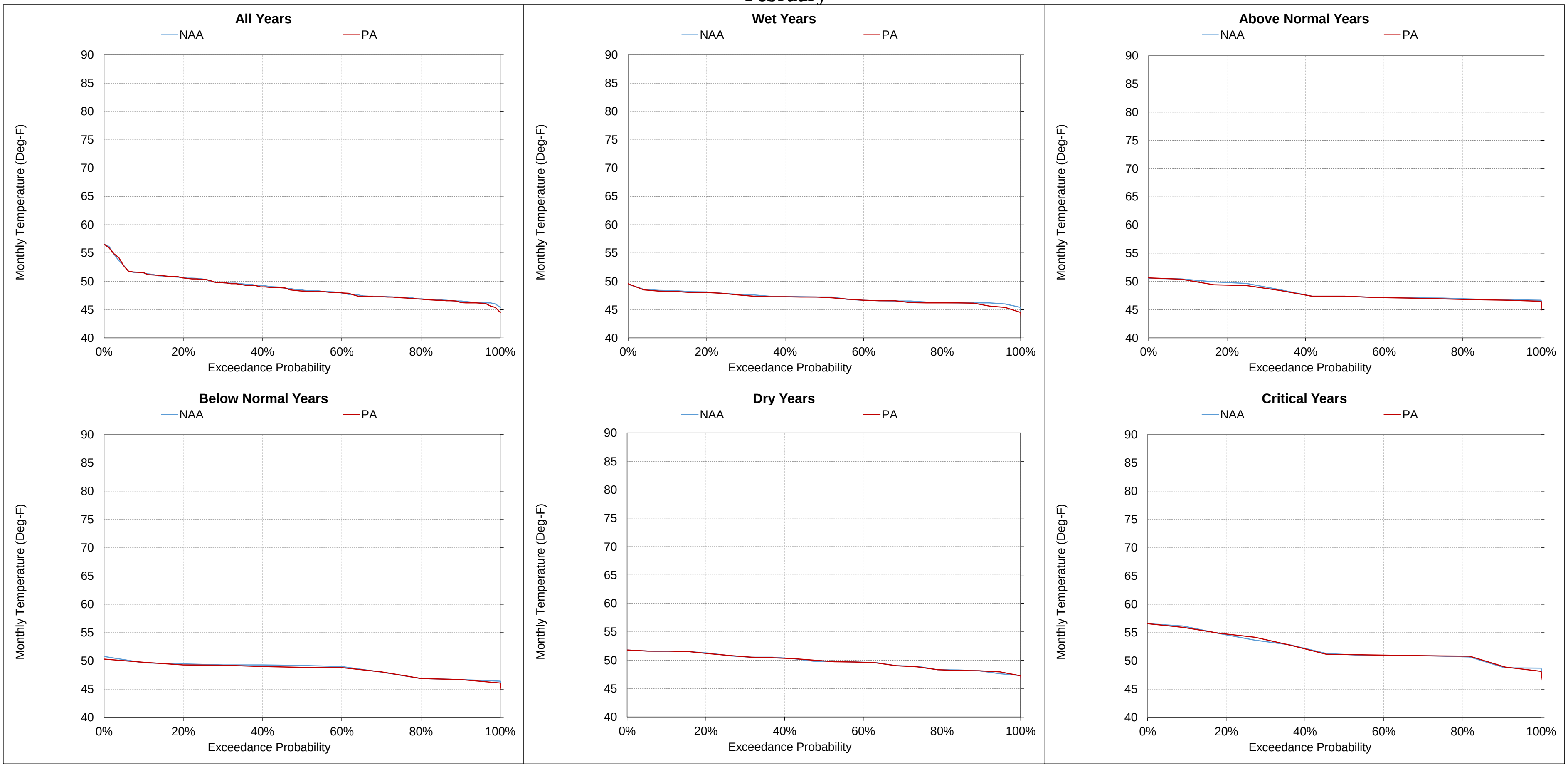
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-11. American River at Sacramento River Confluence, Monthly Temperature
January



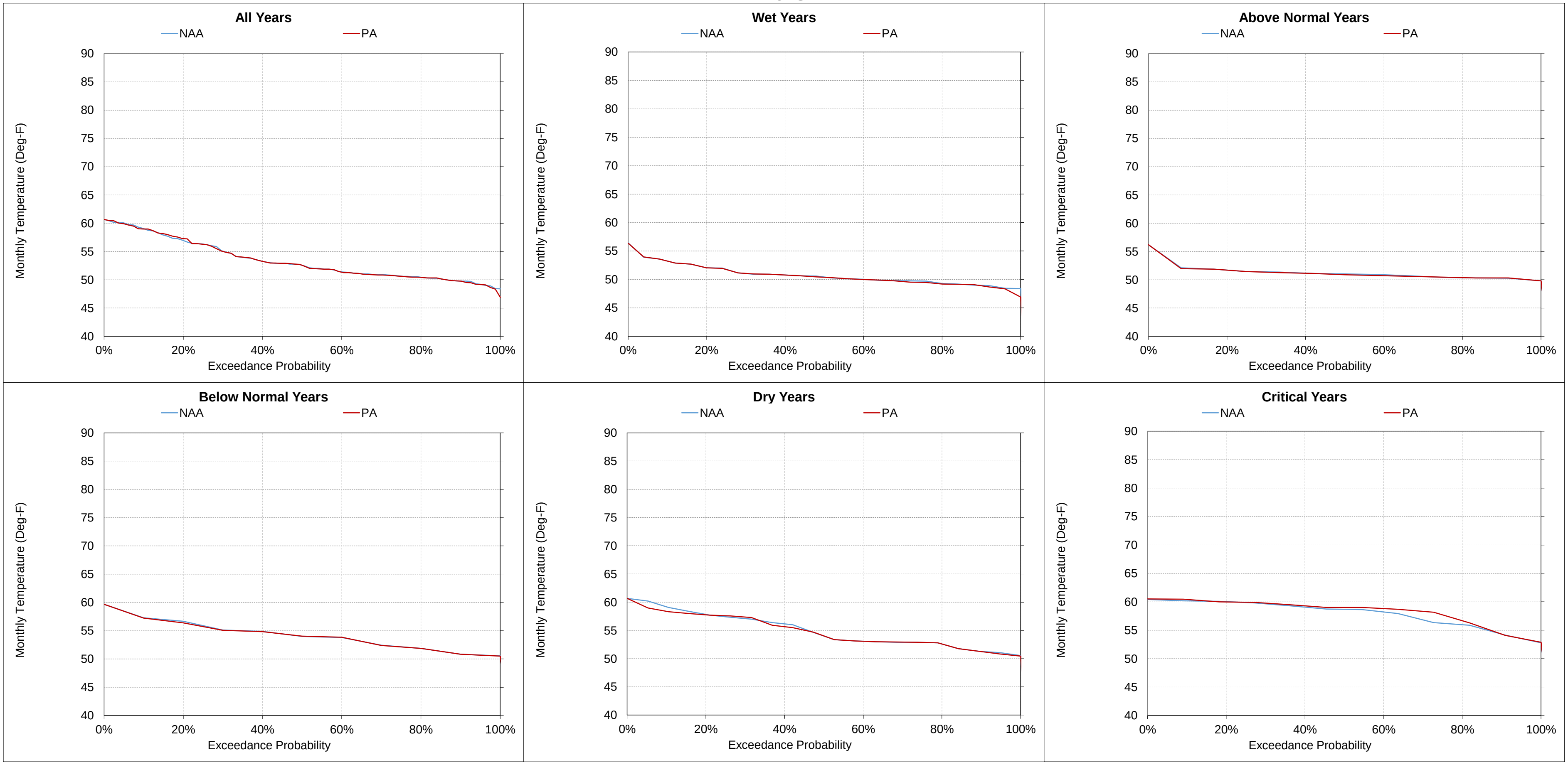
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-12. American River at Sacramento River Confluence, Monthly Temperature February



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-13. American River at Sacramento River Confluence, Monthly Temperature March



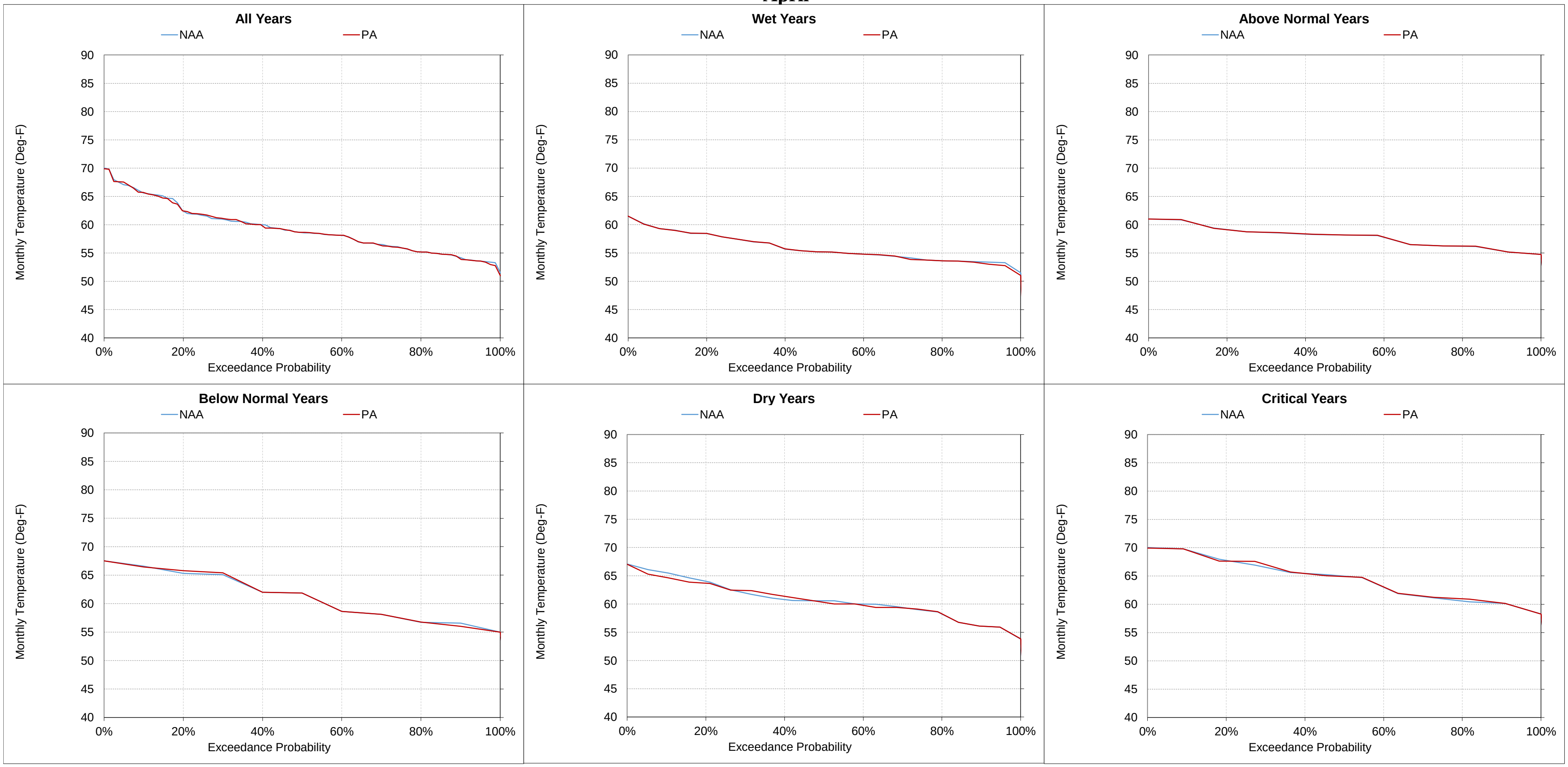
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

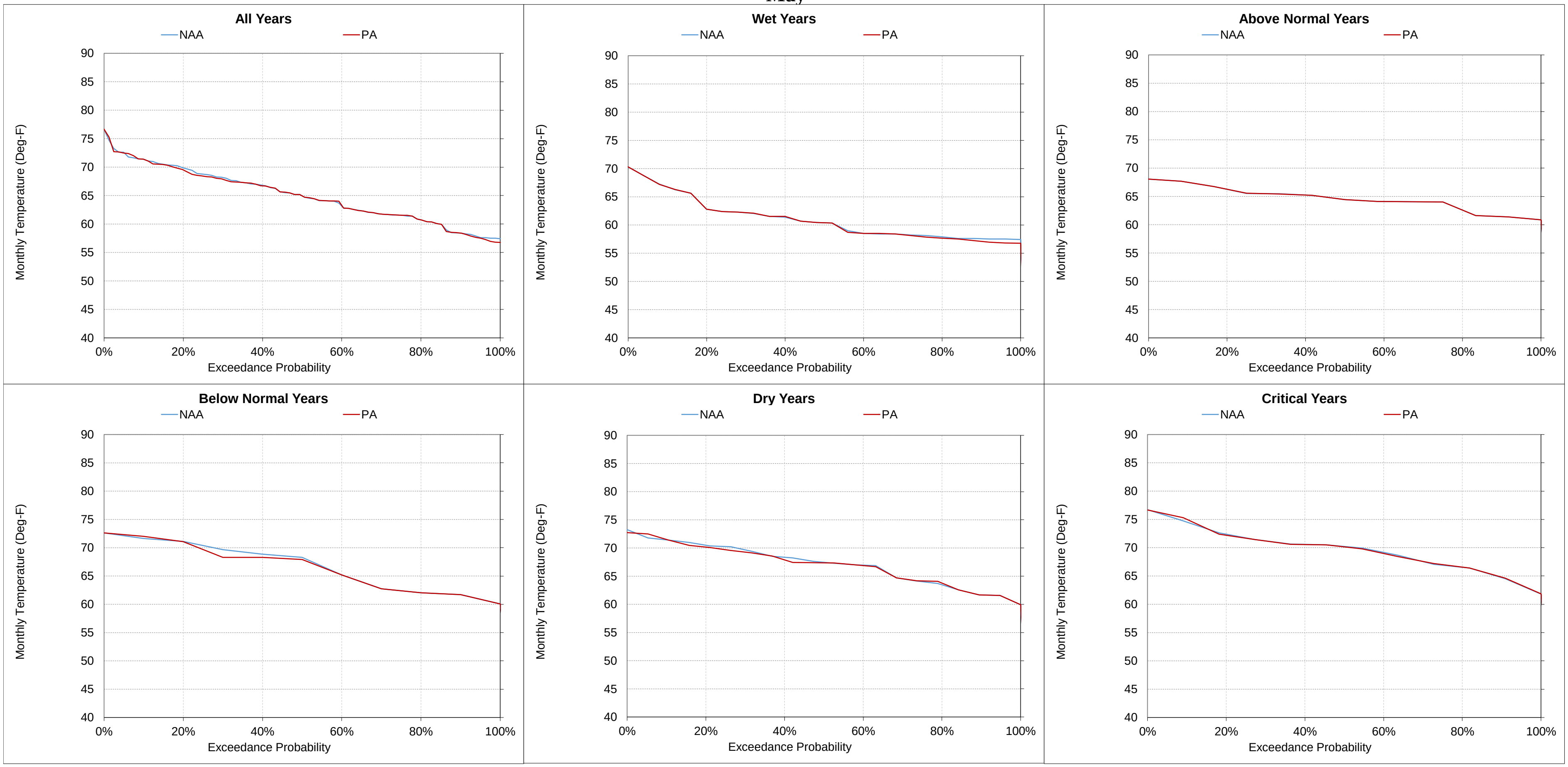
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-14. American River at Sacramento River Confluence, Monthly Temperature April



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-15. American River at Sacramento River Confluence, Monthly Temperature May



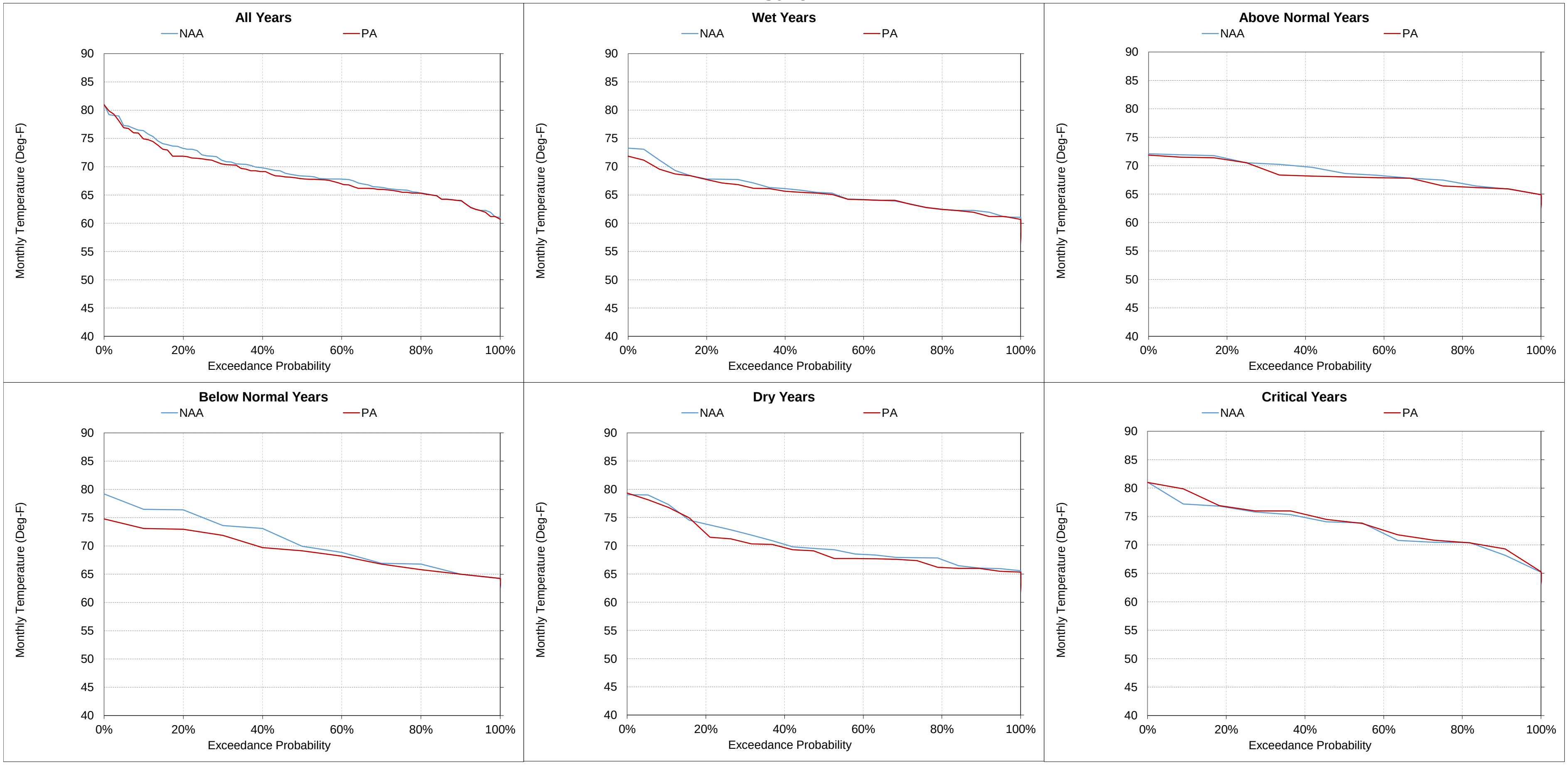
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-16. American River at Sacramento River Confluence, Monthly Temperature June



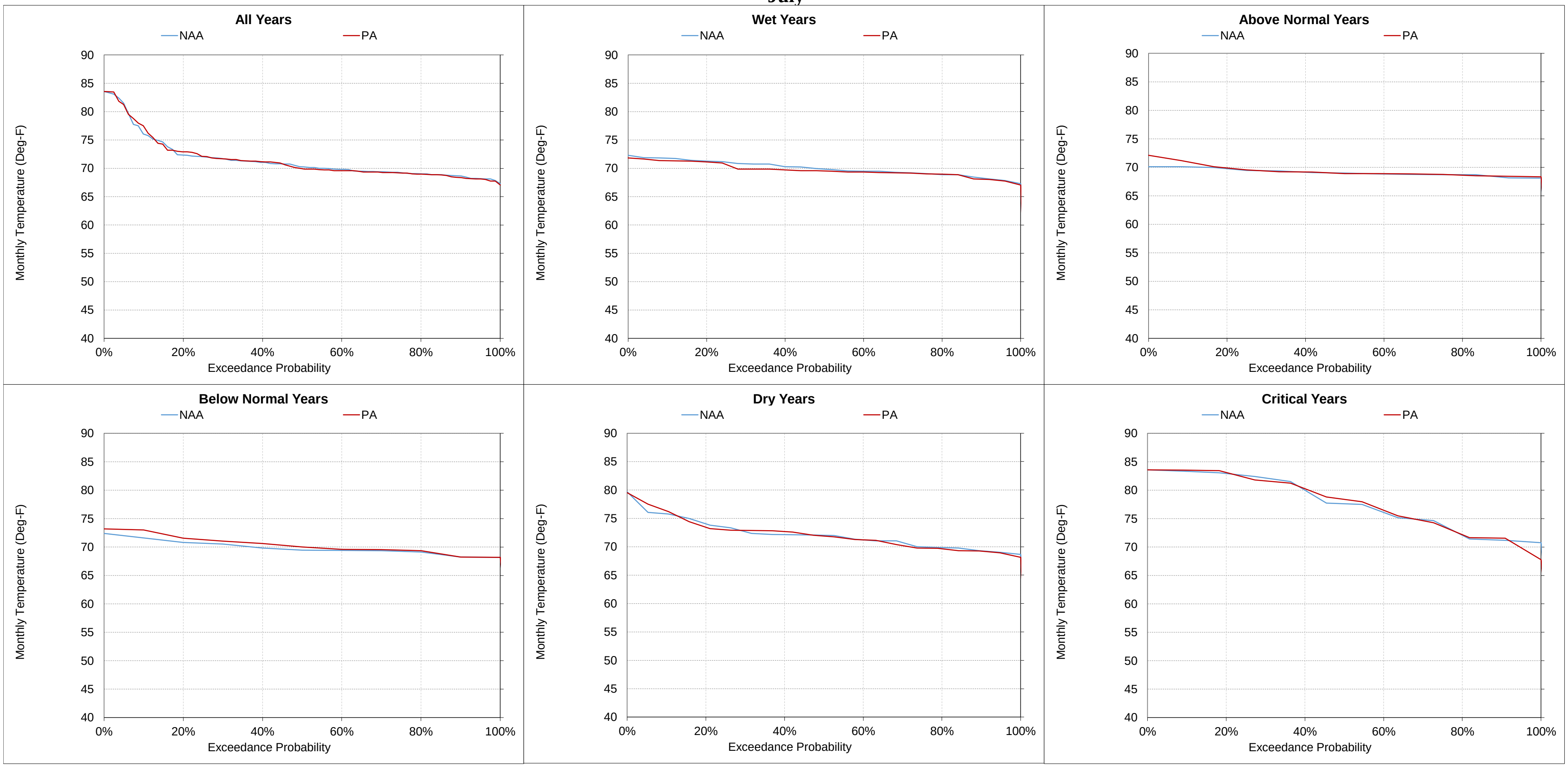
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

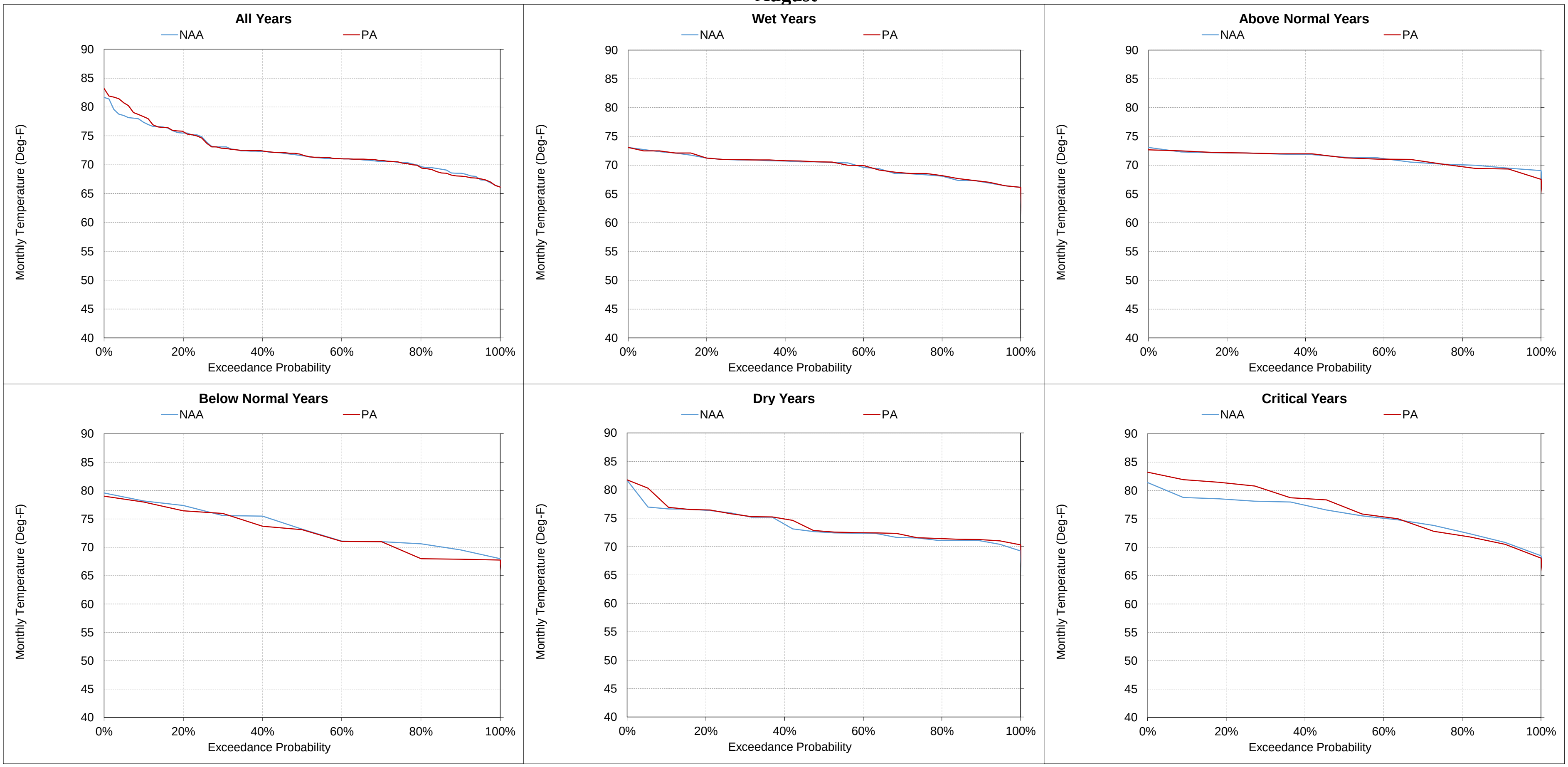
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-17. American River at Sacramento River Confluence, Monthly Temperature July



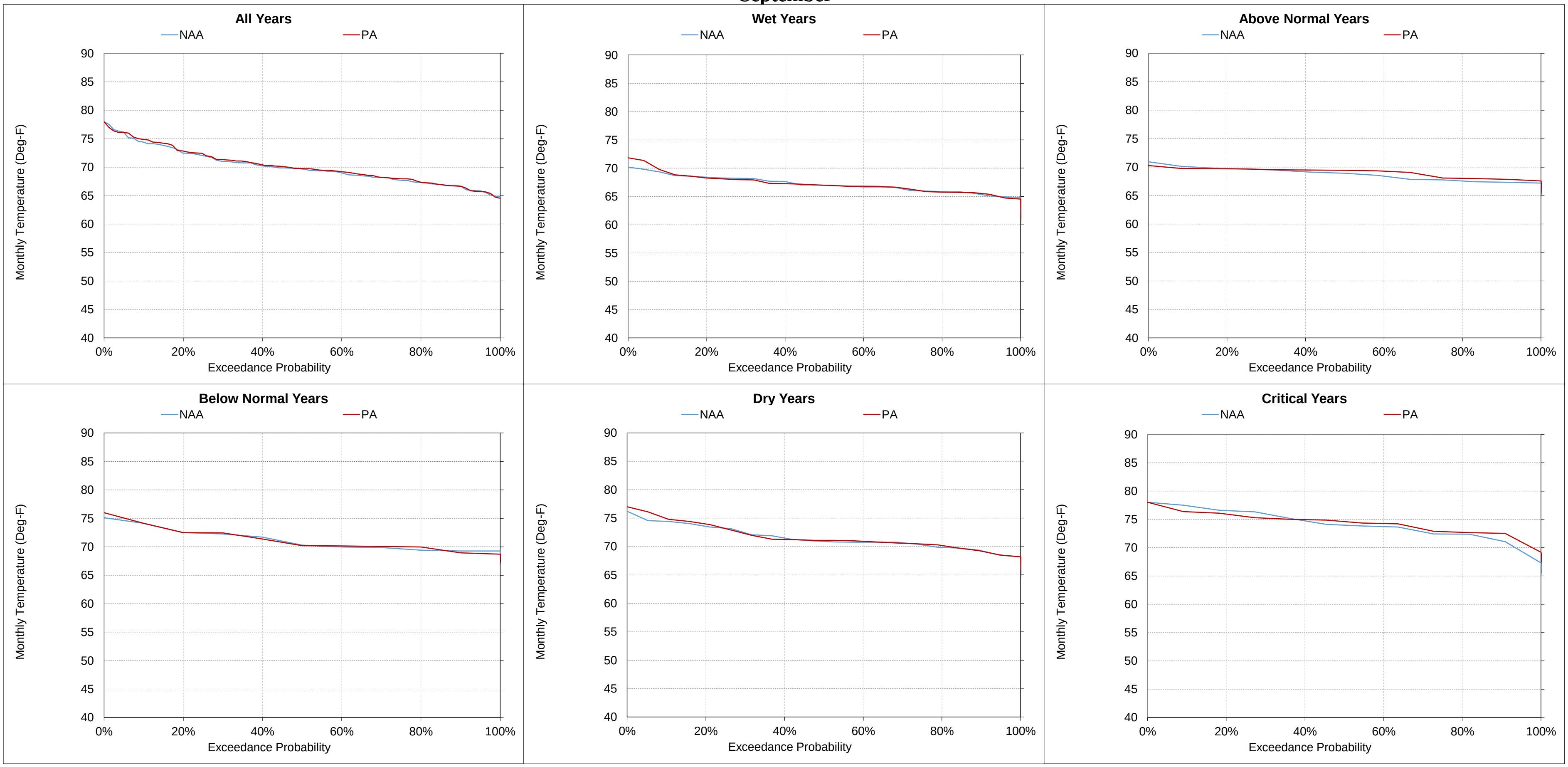
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-18. American River at Sacramento River Confluence, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-16-19. American River at Sacramento River Confluence, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-17. Stanislaus River below Knights Ferry, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	62.0	62.2	0.2	0.3%	59.0	59.0	0.0	0.0%	54.4	54.4	0.0	0.0%	51.1	51.1	0.0	0.0%	51.2	51.1	0.0	0.0%	52.5	52.5	0.0	0.0%
20%	58.7	58.7	0.0	0.0%	57.1	57.1	0.0	0.0%	53.0	53.0	0.0	0.0%	50.5	50.5	0.0	0.0%	50.5	50.5	0.0	0.0%	52.1	52.1	0.0	0.0%
30%	56.6	56.6	0.0	0.0%	55.6	55.6	0.0	0.0%	52.3	52.3	0.0	0.0%	49.7	49.7	0.0	0.0%	49.8	49.8	0.0	0.0%	51.8	51.8	0.0	0.0%
40%	56.0	56.0	0.0	0.0%	54.8	54.8	0.0	0.0%	51.7	51.7	0.0	0.0%	49.2	49.2	0.0	0.0%	49.3	49.3	0.0	0.0%	51.3	51.3	0.0	0.0%
50%	55.5	55.5	0.0	0.0%	54.3	54.3	0.0	0.0%	51.3	51.3	0.0	0.0%	48.8	48.8	0.0	0.0%	49.1	49.1	0.0	0.0%	51.0	51.1	0.0	0.0%
60%	55.0	55.0	0.0	0.0%	53.9	53.9	0.0	0.0%	51.0	51.0	0.0	0.0%	48.5	48.5	0.0	0.0%	48.9	48.9	0.0	0.0%	50.7	50.7	0.0	0.0%
70%	54.4	54.4	0.0	0.0%	53.7	53.7	0.0	0.0%	50.8	50.8	0.0	0.0%	48.0	48.0	0.0	0.0%	48.4	48.4	0.0	0.0%	50.0	50.0	0.0	0.0%
80%	53.9	53.9	0.0	0.0%	53.1	53.1	0.0	0.0%	50.3	50.3	0.0	0.0%	47.3	47.3	0.0	0.0%	47.8	47.8	0.0	0.0%	49.8	49.8	0.0	0.0%
90%	52.8	52.8	0.0	0.0%	52.1	52.1	0.0	0.0%	49.7	49.7	0.0	0.0%	46.5	46.5	0.0	0.0%	47.1	47.1	0.0	0.0%	48.8	48.8	0.0	0.0%
Long Term Full Simulation Period[b]	56.4	56.4	0.0	0.0%	55.1	55.1	0.0	0.0%	51.7	51.6	0.0	0.0%	48.8	48.8	0.0	0.0%	49.1	49.1	0.0	0.0%	50.9	50.9	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	53.3	53.3	0.0	0.0%	52.7	52.7	0.0	0.0%	50.5	50.5	0.0	0.0%	48.6	48.6	0.0	0.0%	48.1	48.1	0.0	0.0%	49.5	49.5	0.0	0.0%
Above Normal (24%)	55.9	55.9	0.0	0.0%	54.7	54.7	0.0	0.0%	51.6	51.6	0.0	0.0%	48.8	48.8	0.0	0.0%	48.5	48.5	0.0	0.0%	50.2	50.2	0.0	0.0%
Below Normal (10%)	55.3	55.3	0.0	0.0%	54.3	54.3	0.0	0.0%	51.3	51.3	0.0	0.0%	48.3	48.3	0.0	0.0%	49.1	49.1	0.0	0.0%	50.9	50.9	0.0	0.0%
Dry (16%)	56.8	56.8	0.0	0.0%	55.6	55.6	0.0	0.0%	51.9	51.9	0.0	0.0%	48.3	48.3	0.0	0.0%	49.6	49.6	0.0	0.0%	51.7	51.7	0.0	0.0%
Critical (27%)	59.7	59.7	0.0	0.0%	57.5	57.5	0.0	0.0%	52.7	52.7	0.0	0.0%	49.4	49.4	0.0	0.0%	50.2	50.2	0.0	0.0%	52.1	52.1	0.0	0.0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	53.8	53.8	0.0	0.0%	55.3	55.3	0.0	0.0%	58.6	58.6	0.0	0.0%	60.4	60.4	0.0	0.0%	61.1	61.2	0.0	0.0%	62.2	62.2	0.0	0.0%
20%	53.0	53.0	0.0	0.0%	54.7	54.7	0.0	0.0%	57.4	57.4	0.0	0.0%	58.9	58.9	0.0	0.0%	59.4	59.4	0.0	0.0%	59.8	59.8	0.0	0.0%
30%	52.6	52.6	0.0	0.0%	53.8	53.8	0.0	0.0%	56.6	56.6	0.0	0.0%	58.3	58.3	0.0	0.0%	58.4	58.4	0.0	0.0%	58.3	58.3	0.0	0.0%
40%	52.3	52.2	0.0	0.0%	53.5	53.5	0.0	0.0%	55.8	55.8	0.0	0.0%	57.6	57.6	0.0	0.0%	57.7	57.7	0.0	0.0%	57.5	57.5	0.0	0.0%
50%	51.8	51.8	0.0	0.0%	53.2	53.2	0.0	0.0%	55.4	55.4	0.0	0.0%	57.1	57.1	0.0	0.0%	57.3	57.3	0.0	0.0%	57.2	57.2	0.0	0.0%
60%	51.4	51.4	0.0	0.0%	52.8	52.8	0.0	0.0%	53.8	53.8	0.0	0.0%	56.5	56.5	0.0	0.0%	56.8	56.8	0.0	0.0%	56.5	56.5	0.0	0.0%
70%	51.1	51.1	0.0	0.0%	52.4	52.4	0.0	0.0%	53.5	53.5	0.0	0.0%	56.3	56.3	0.0	0.0%	56.5	56.5	0.0	0.0%	56.3	56.3	0.0	0.0%
80%	50.4	50.4	0.0	0.0%	52.0	52.0	0.0	0.0%	53.1	53.1	0.0	0.0%	55.5	55.5	0.0	0.0%	56.0	56.0	0.0	0.0%	55.6	55.6	0.0	0.0%
90%	49.6	49.6	0.0	0.0%	51.1	51.1	0.0	0.0%	52.1	52.1	0.0	0.0%	54.3	54.3	0.0	0.0%	54.5	54.5	0.0	0.0%	54.2	54.2	0.0	0.0%
Long Term Full Simulation Period[b]	51.8	51.8	0.0	0.0%	53.4	53.4	0.0	0.0%	55.2	55.2	0.0	0.0%	57.4	57.4	0.0	0.0%	58.0	58.0	0.0	0.0%	57.8	57.8	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	50.3	50.3	0.0	0.0%	51.8	51.8	0.0	0.0%	52.7	52.7	0.0	0.0%	54.7	54.7	0.0	0.0%	54.9	54.9	0.0	0.0%	54.5	54.5	0.0	0.0%
Above Normal (24%)	51.1	51.1	0.0	0.0%	52.7	52.7	0.0	0.0%	53.6	53.7	0.0	0.0%	56.4	56.4	0.0	0.0%	57.2	57.2	0.0	0.0%	57.3	57.3	0.0	0.0%
Below Normal (10%)	51.7	51.7	0.0	0.0%	52.7	52.7	0.0	0.0%	54.7	54.7	0.0	0.0%	57.2	57.2	0.0	0.0%	57.2	57.2	0.0	0.0%	57.1	57.1	0.0	0.0%
Dry (16%)	52.5	52.5	0.0	0.0%	53.6	53.6	0.0	0.0%	56.5	56.4	0.0	0.0%	58.4	58.4	0.0	0.0%	58.6	58.6	0.0	0.0%	58.3	58.3	0.0	0.0%
Critical (27%)	53.4	53.4	0.0	0.0%	55.7	55.6	0.0	0.0%	58.2	58.2	-0.1	-0.1%	60.2	60.2	0.0	0.0%	61.3	61.3	0.0	-0.1%	61.2	61.2	0.0	0.0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-1. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, All Years

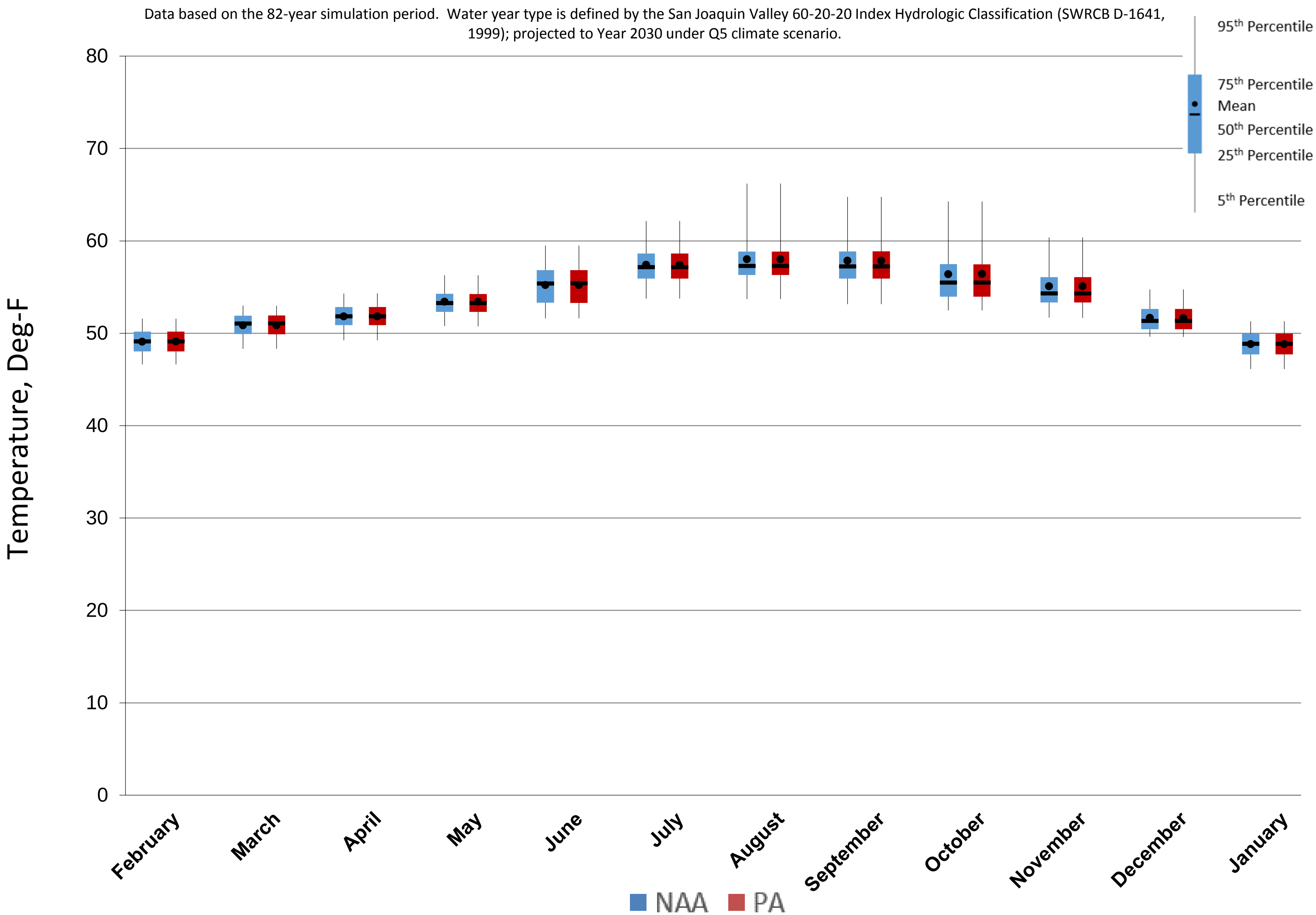


Figure 5.C.7-17-2. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, Wet Years

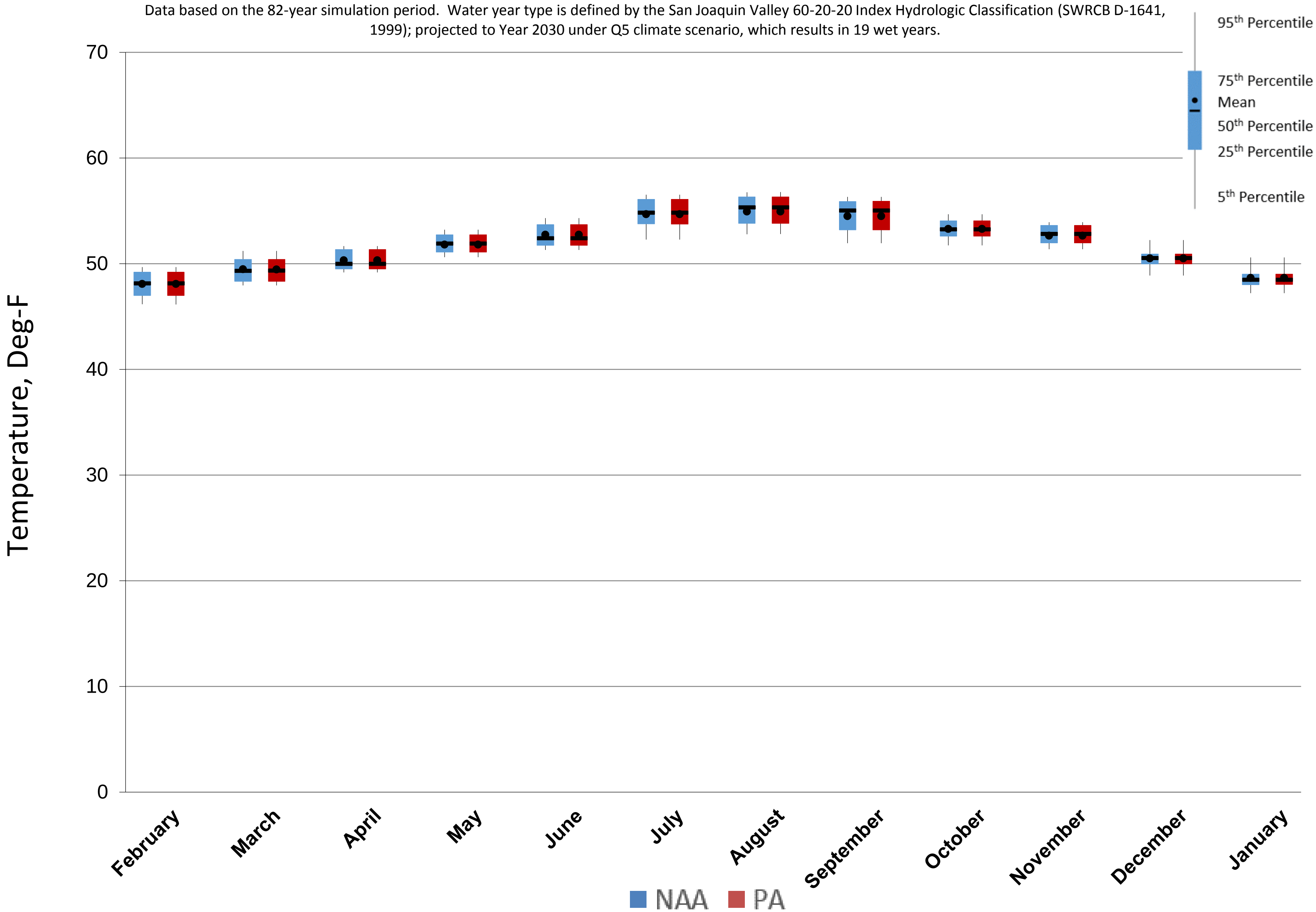


Figure 5.C.7-17-3. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 above normal years.

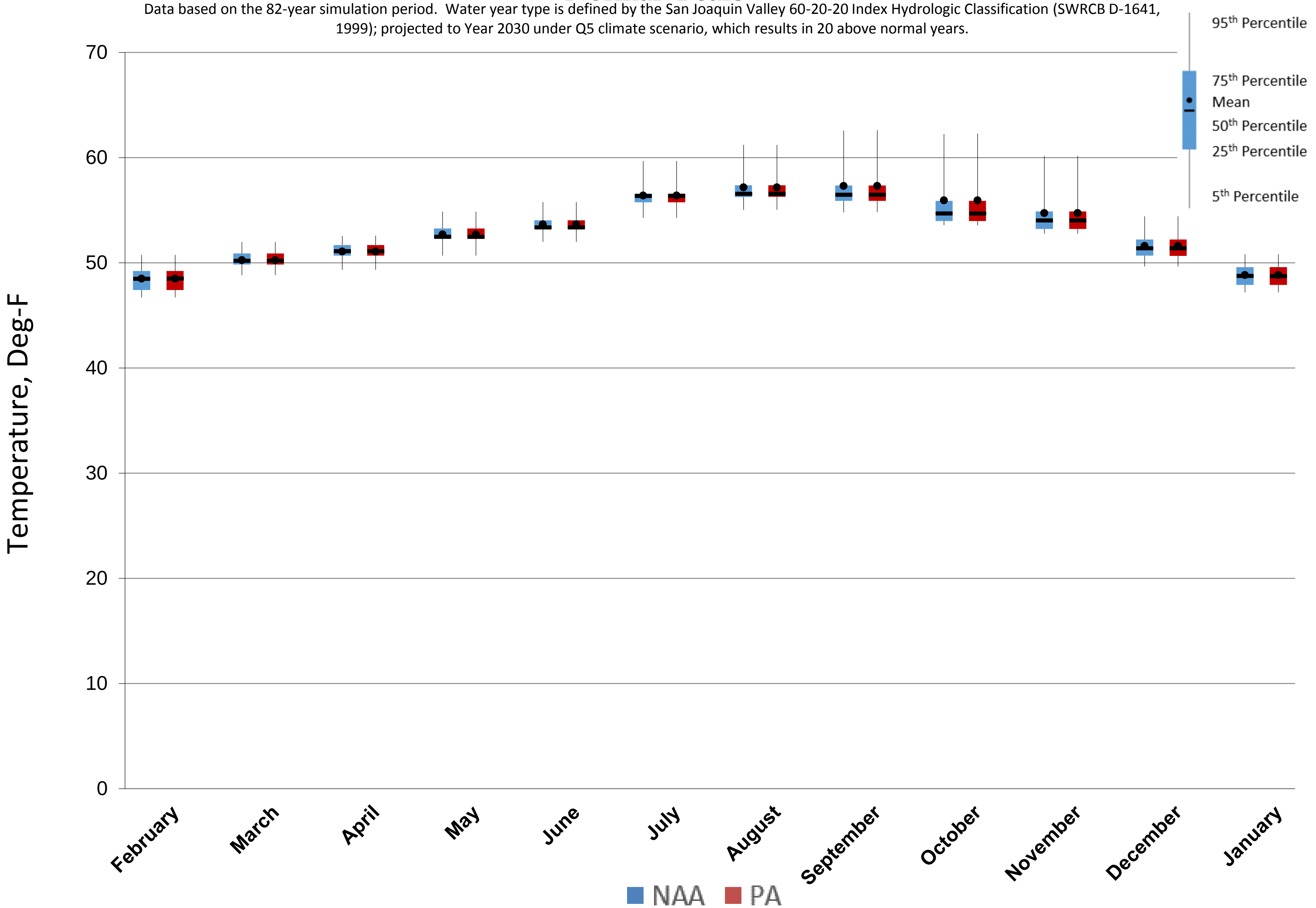


Figure 5.C.7-17-4. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, Below Normal Years

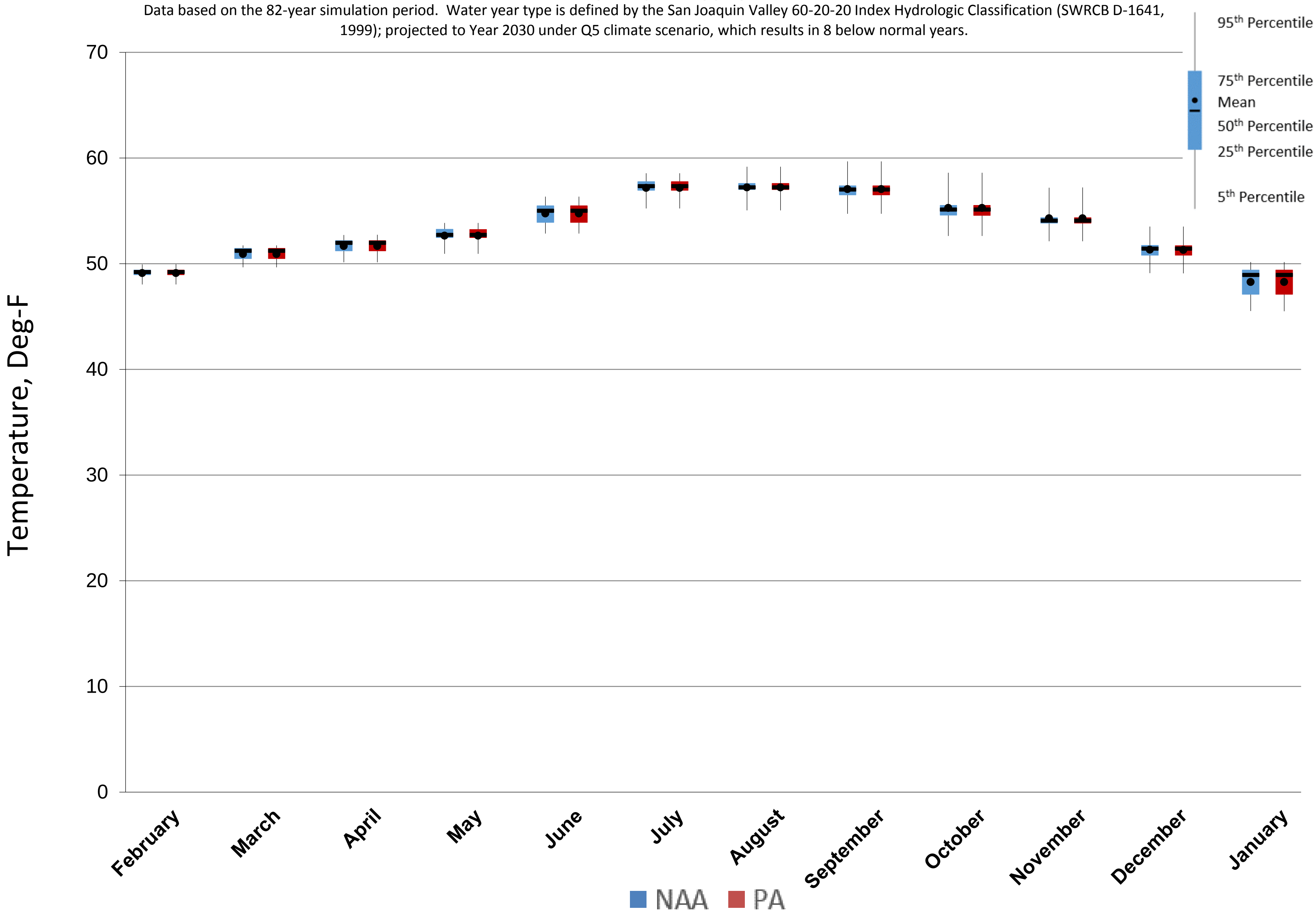


Figure 5.C.7-17-5. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, Dry Years

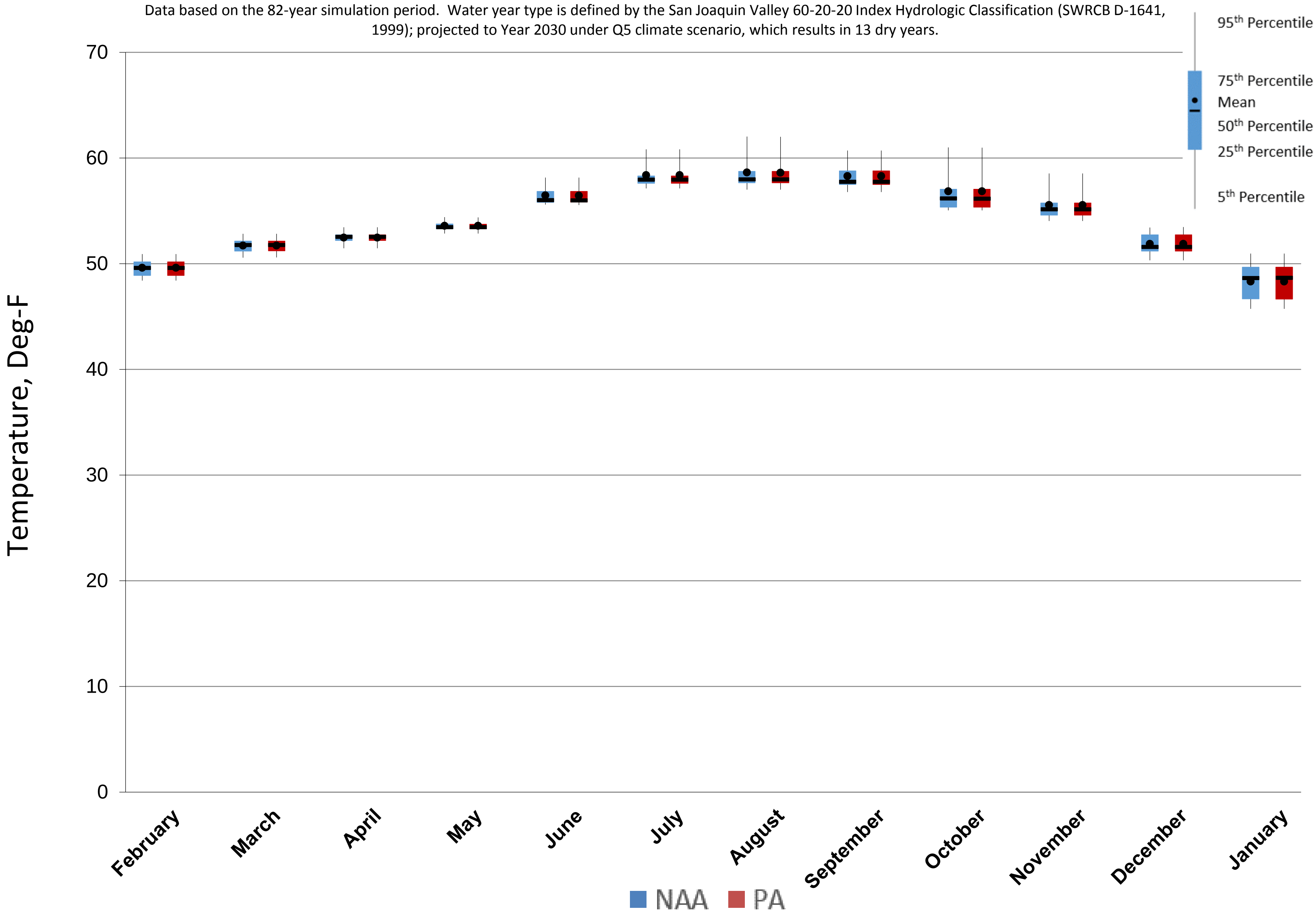


Figure 5.C.7-17-6. Monthly Temperature Ranges for Stanislaus River below Knights Ferry, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 22 critical years.

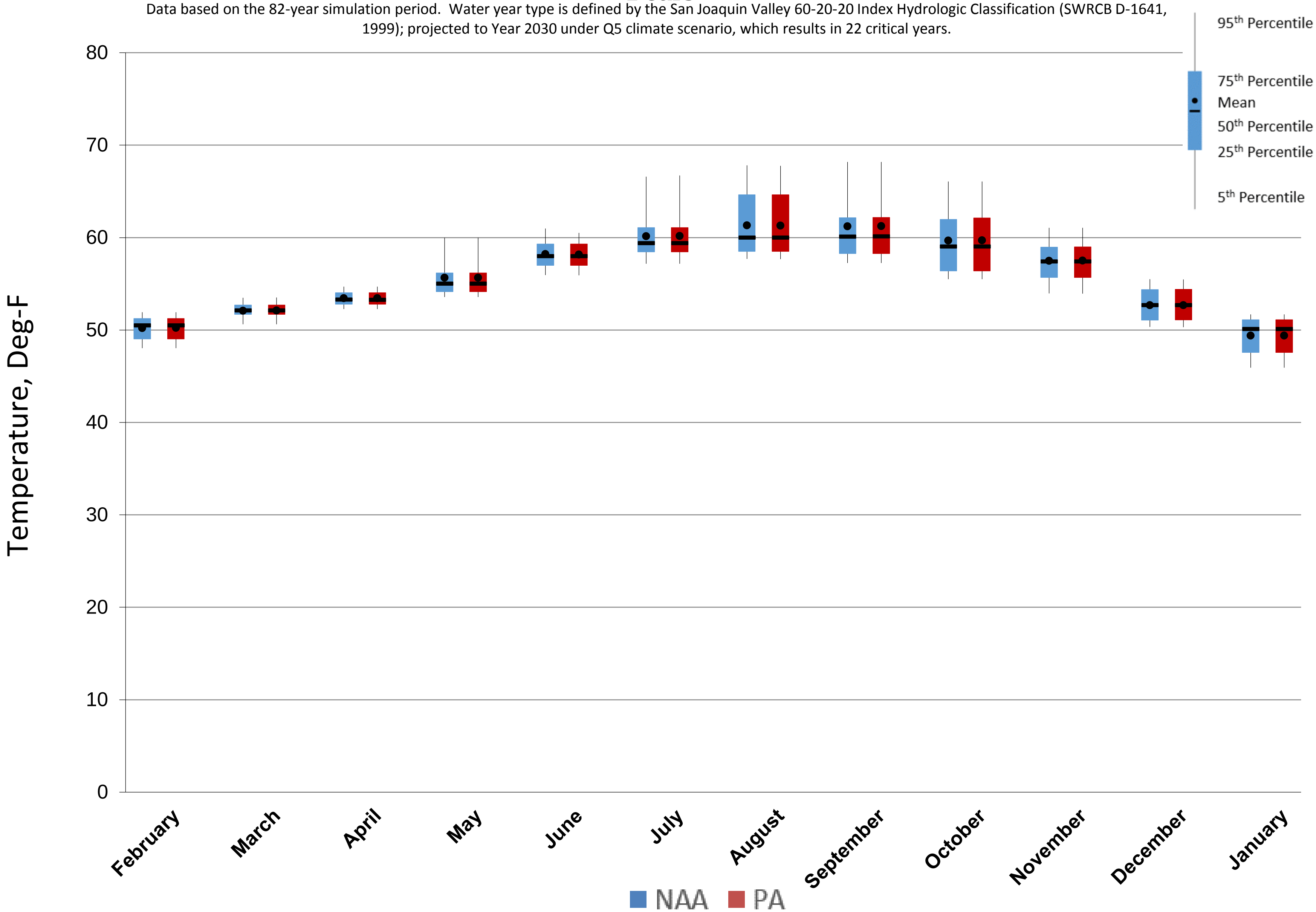
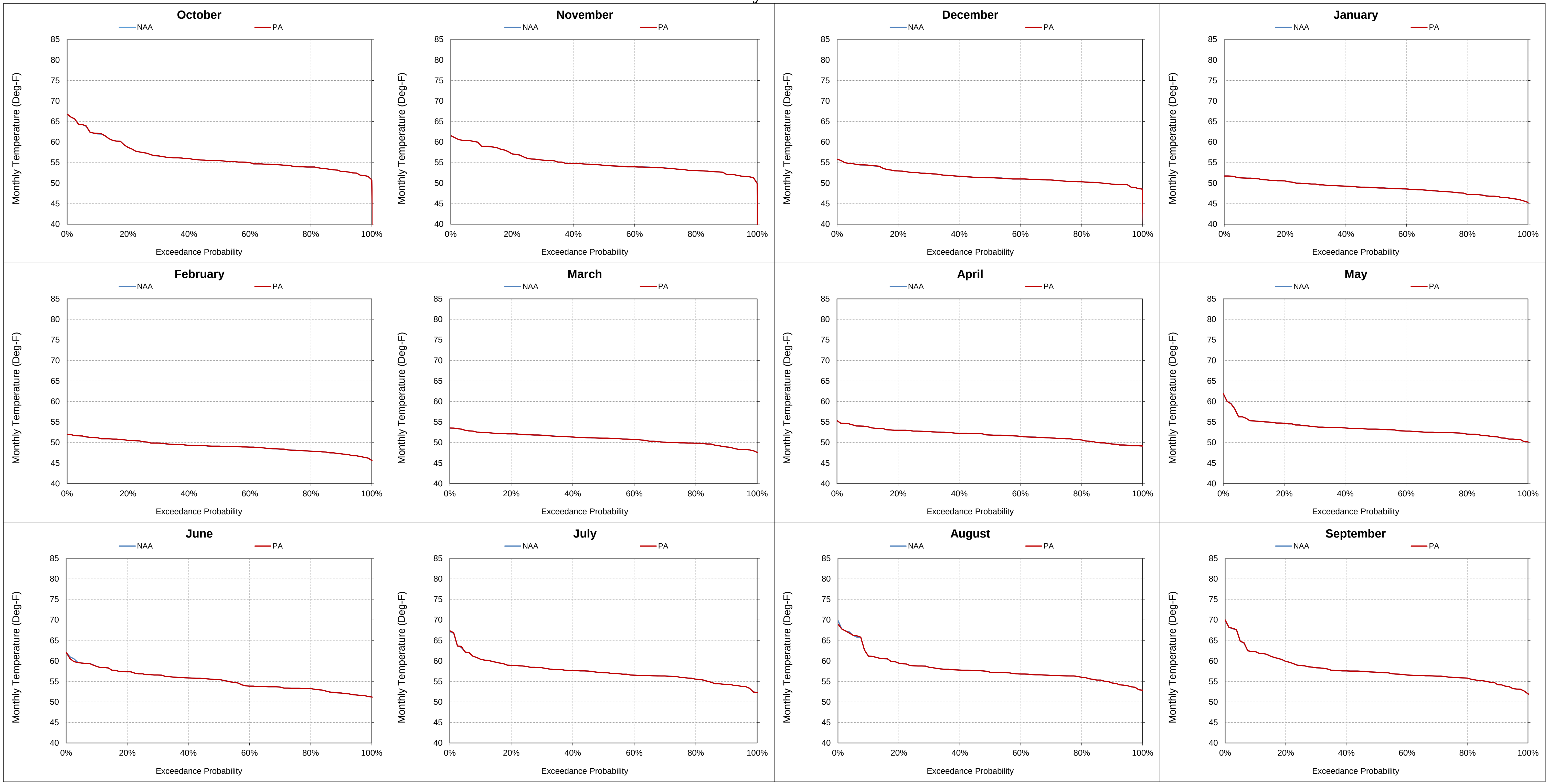
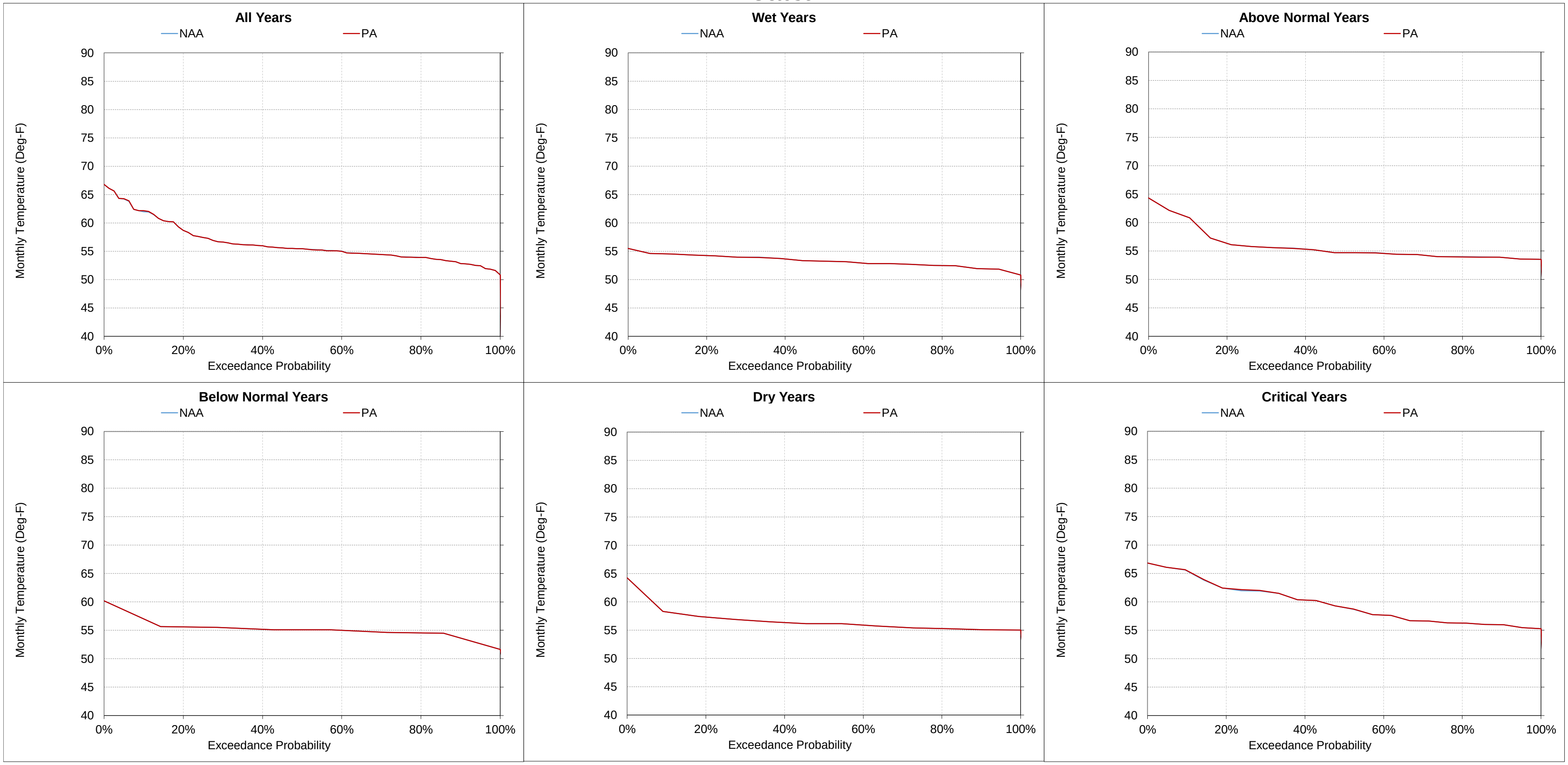


Figure 5.C.7-17-7. Stanislaus River below Knights Ferry, Monthly Temperature Probability of Exceedance



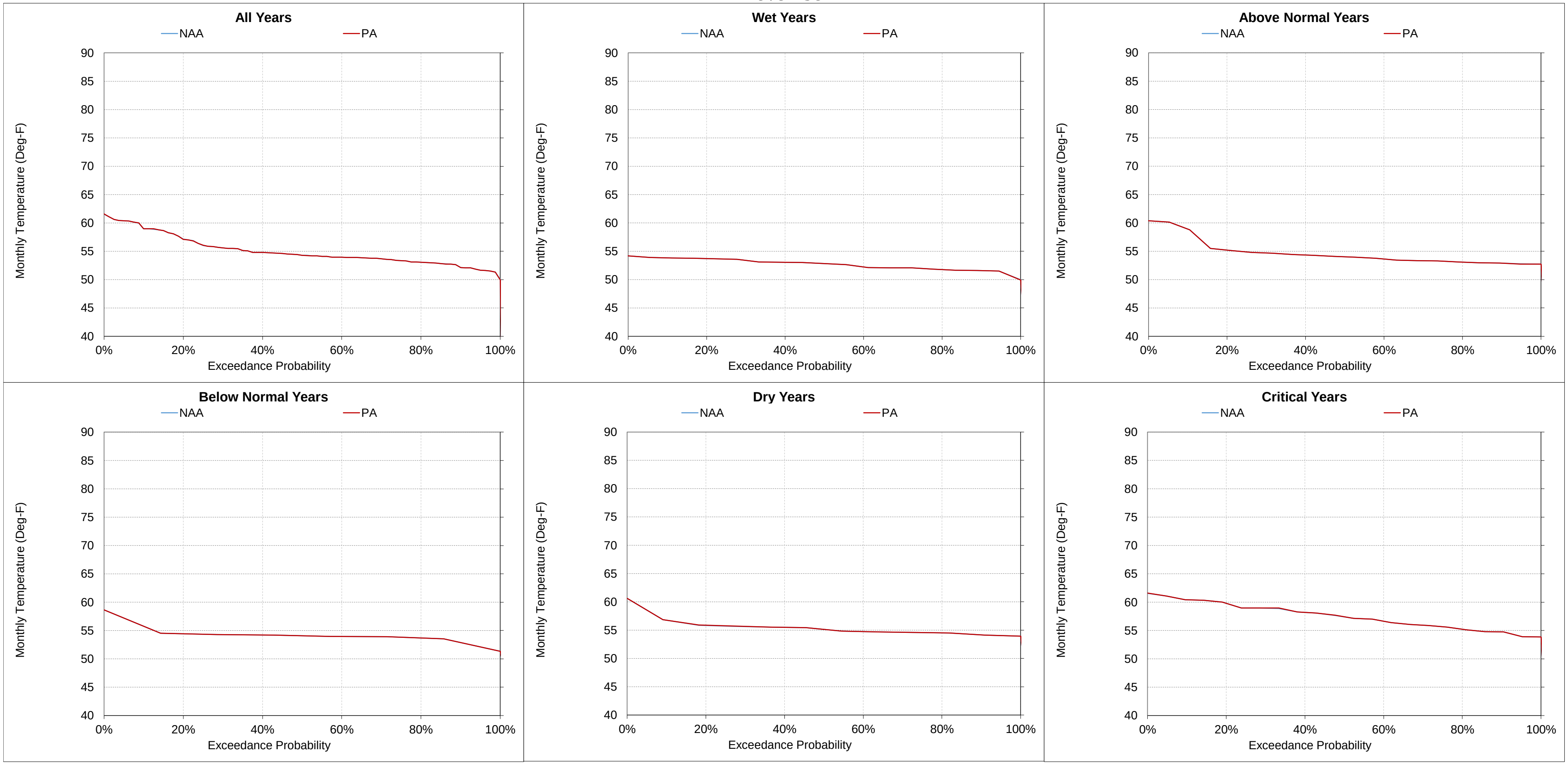
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-8. Stanislaus River below Knights Ferry, Monthly Temperature
October



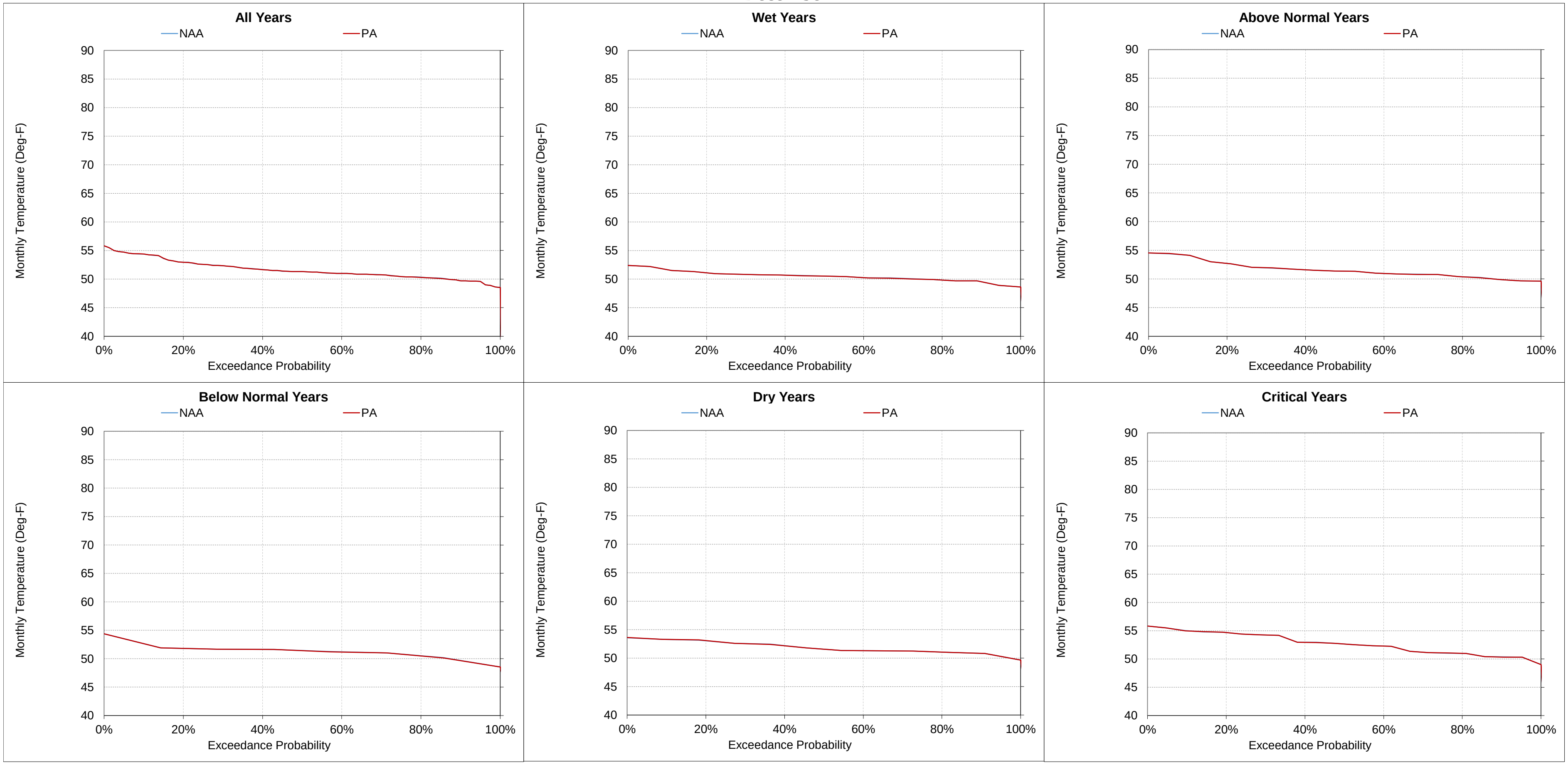
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-9. Stanislaus River below Knights Ferry, Monthly Temperature November



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-10. Stanislaus River below Knights Ferry, Monthly Temperature December



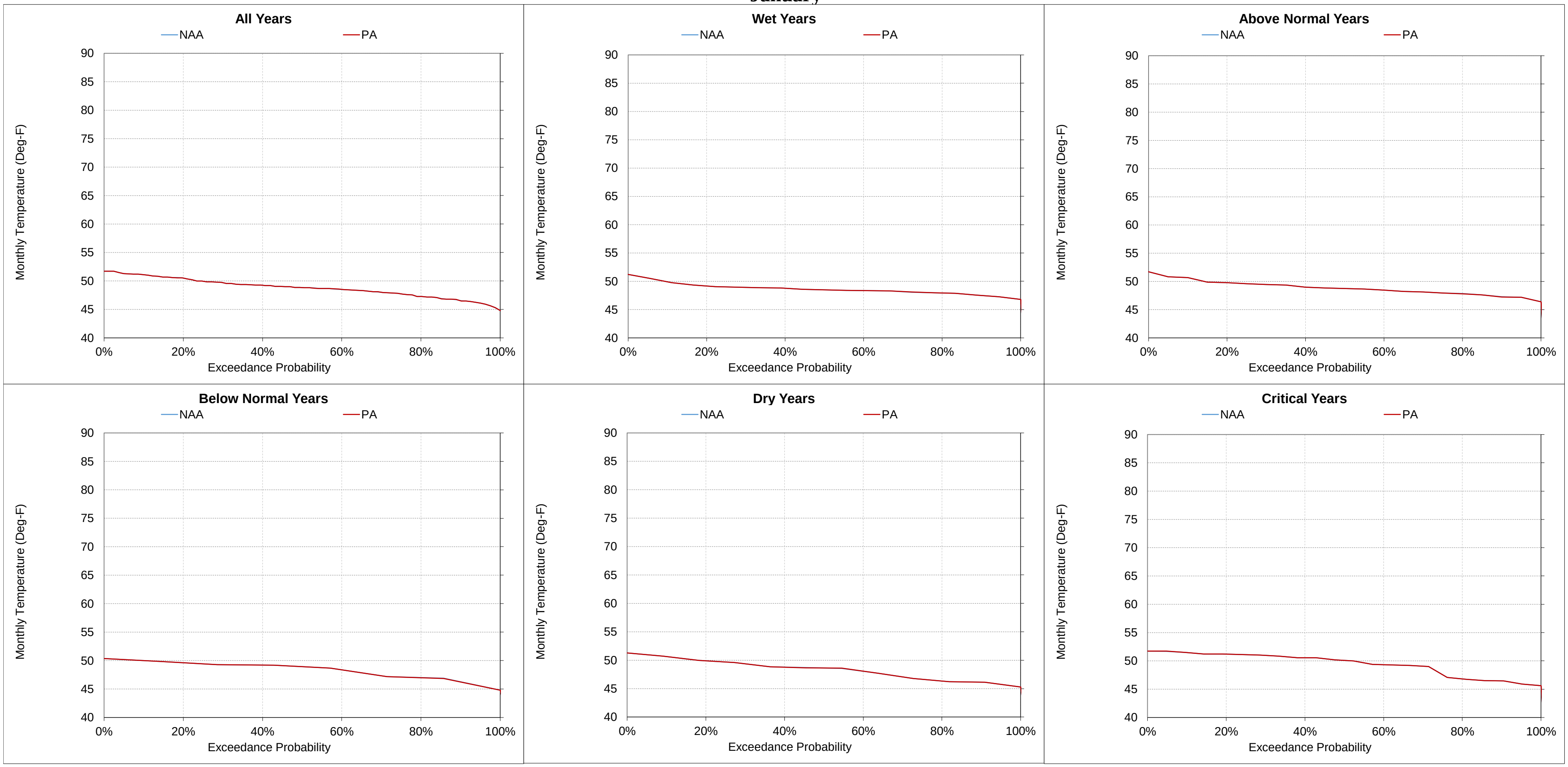
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

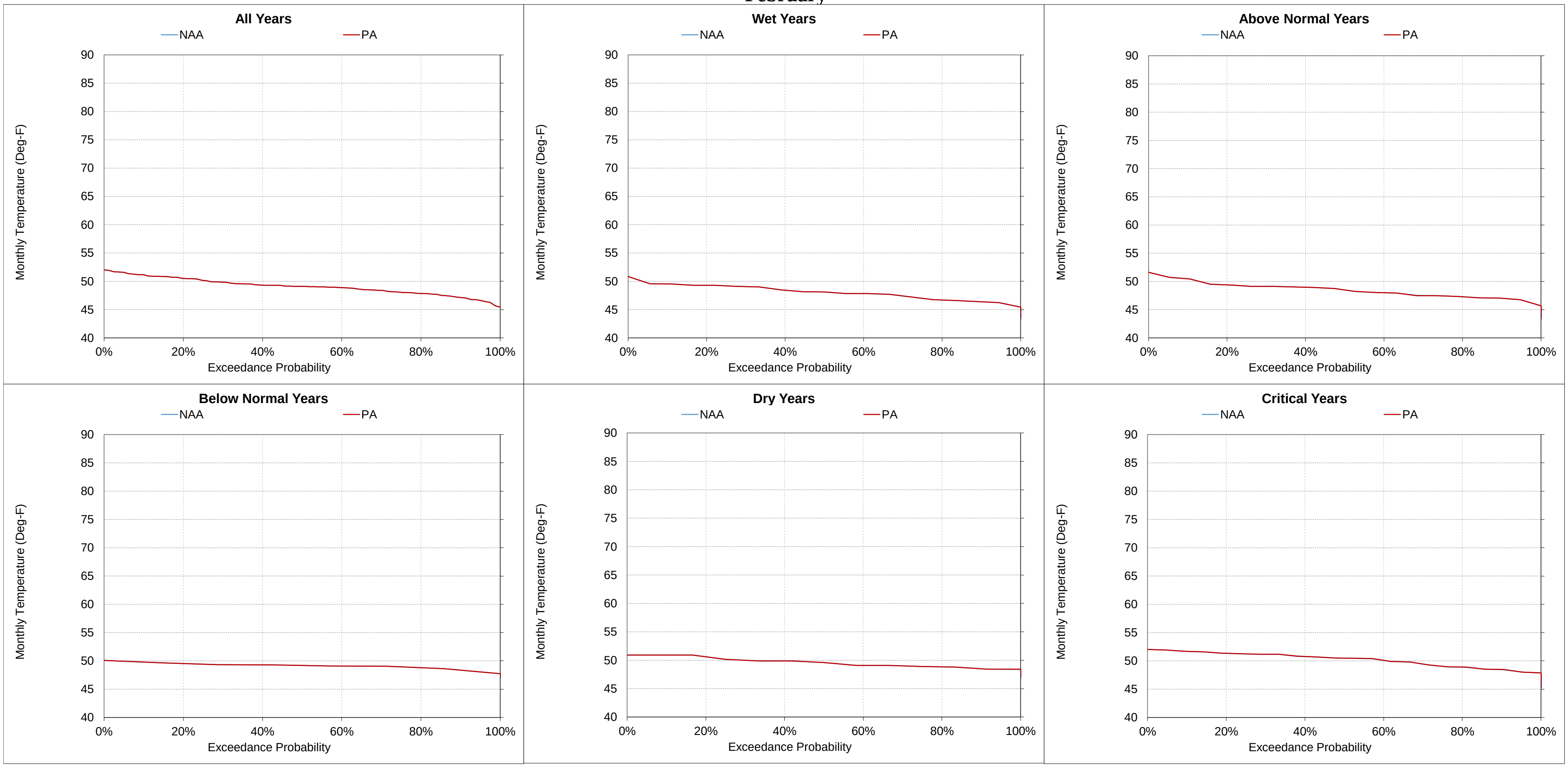
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-11. Stanislaus River below Knights Ferry, Monthly Temperature
January



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-12. Stanislaus River below Knights Ferry, Monthly Temperature February



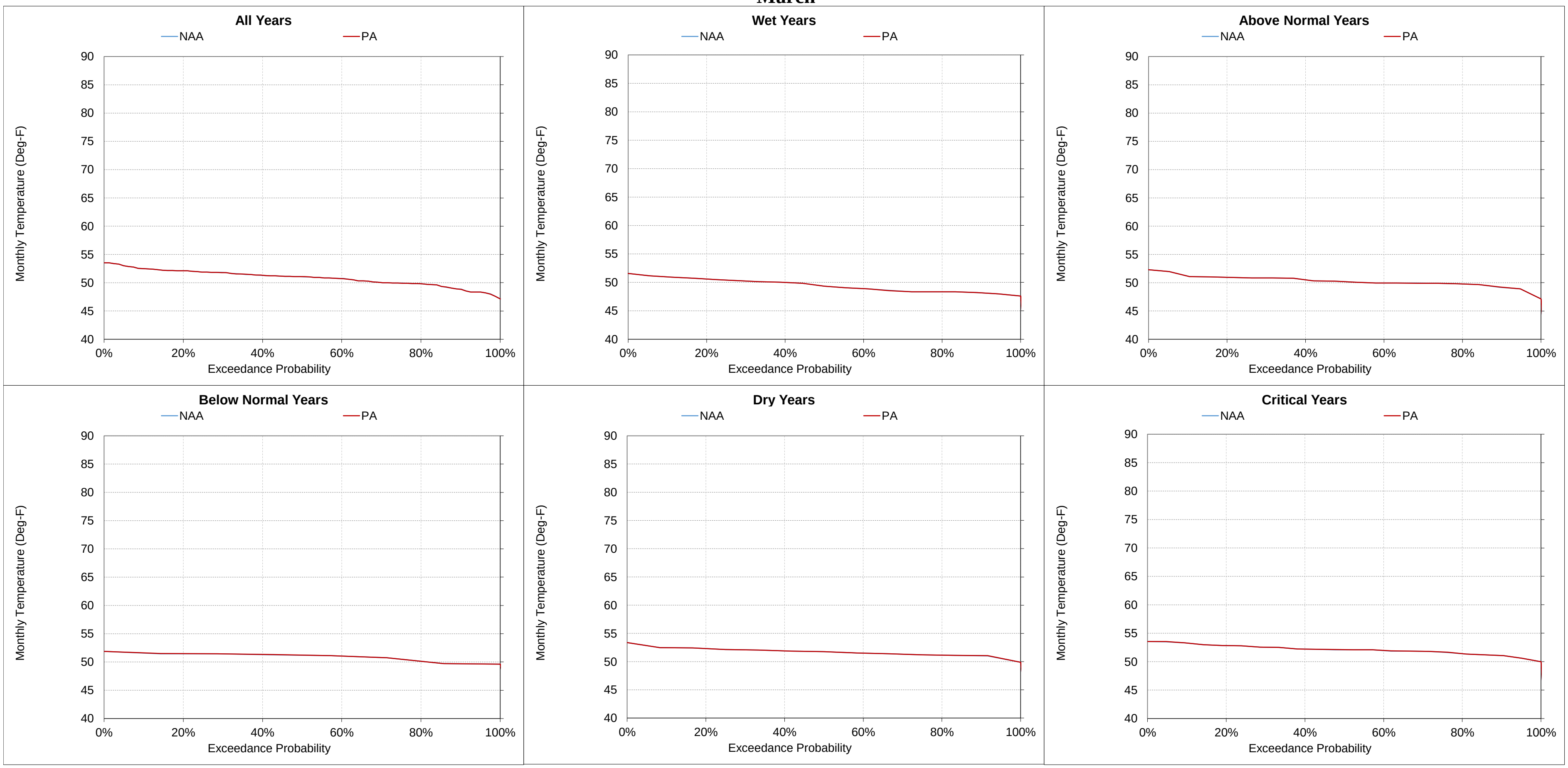
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

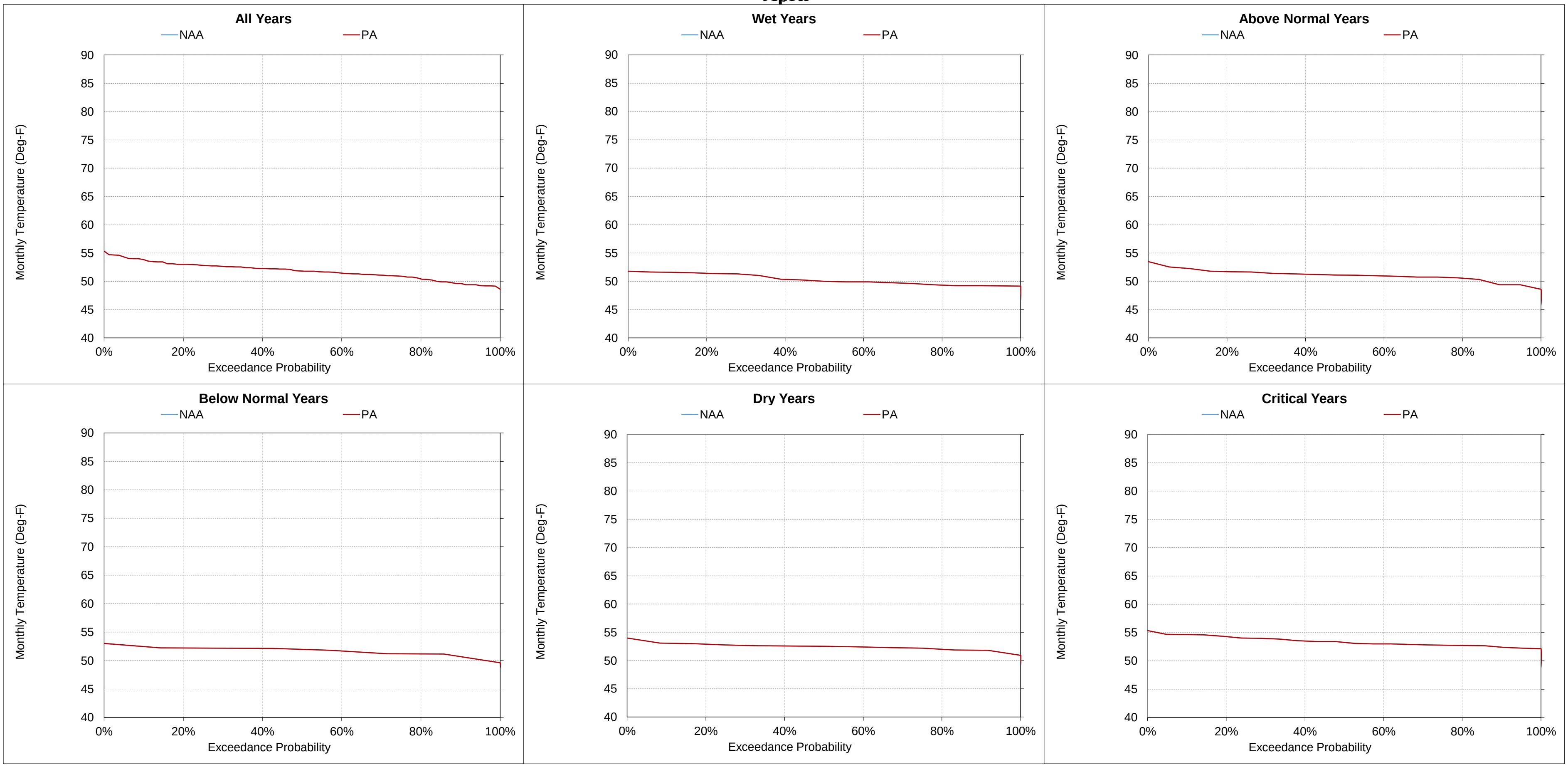
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-13. Stanislaus River below Knights Ferry, Monthly Temperature
March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-14. Stanislaus River below Knights Ferry, Monthly Temperature April



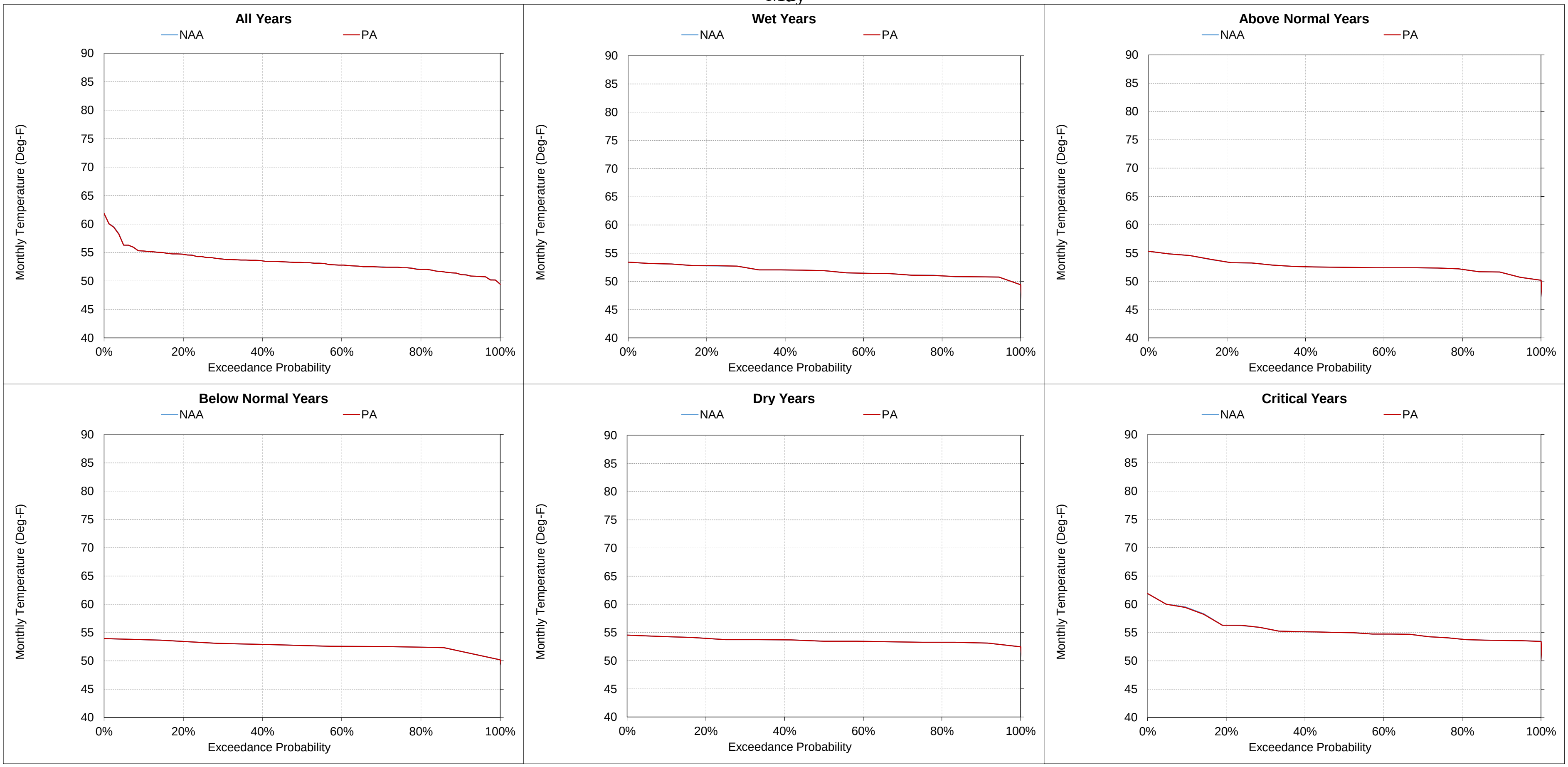
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-15. Stanislaus River below Knights Ferry, Monthly Temperature May



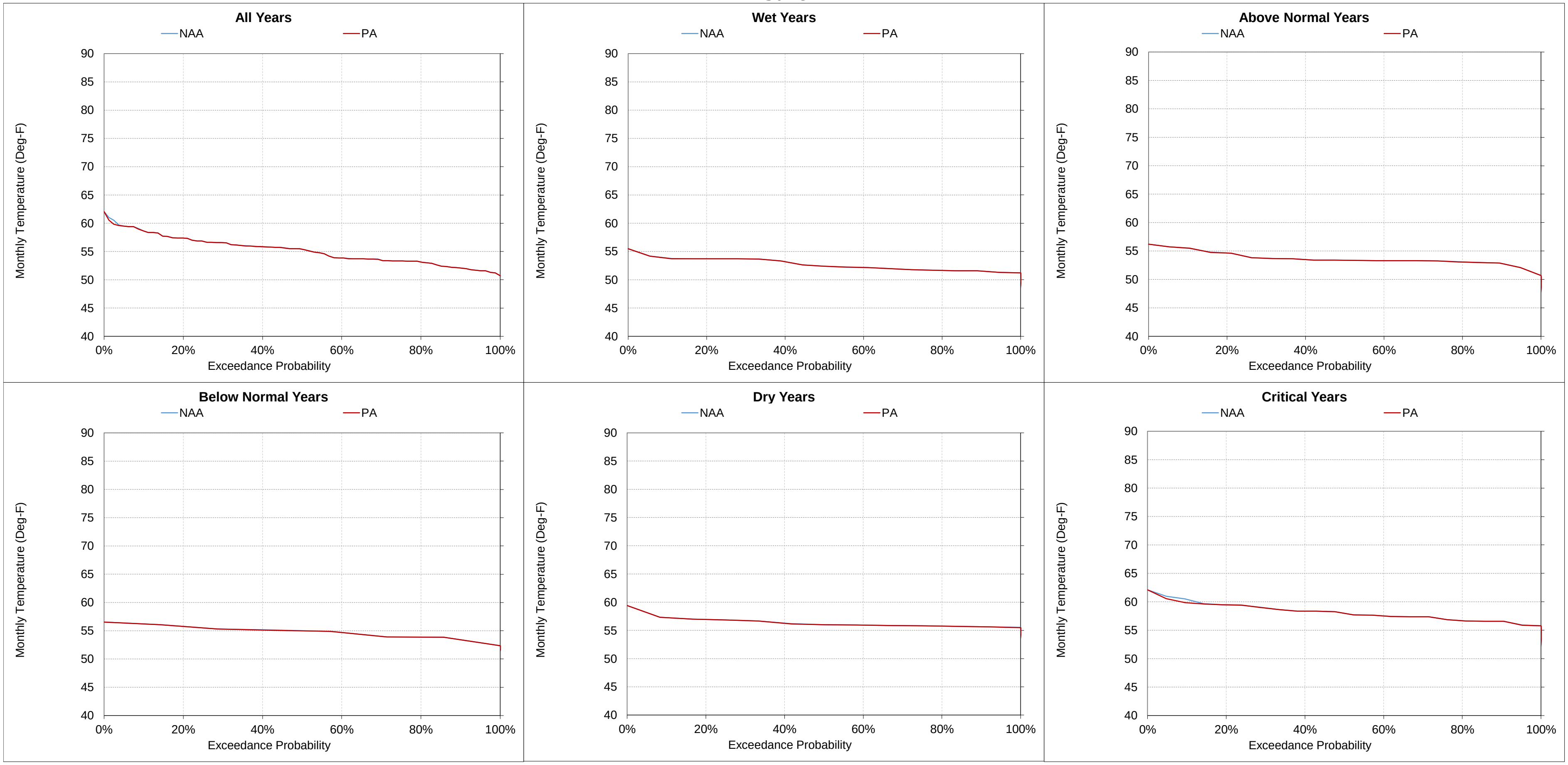
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

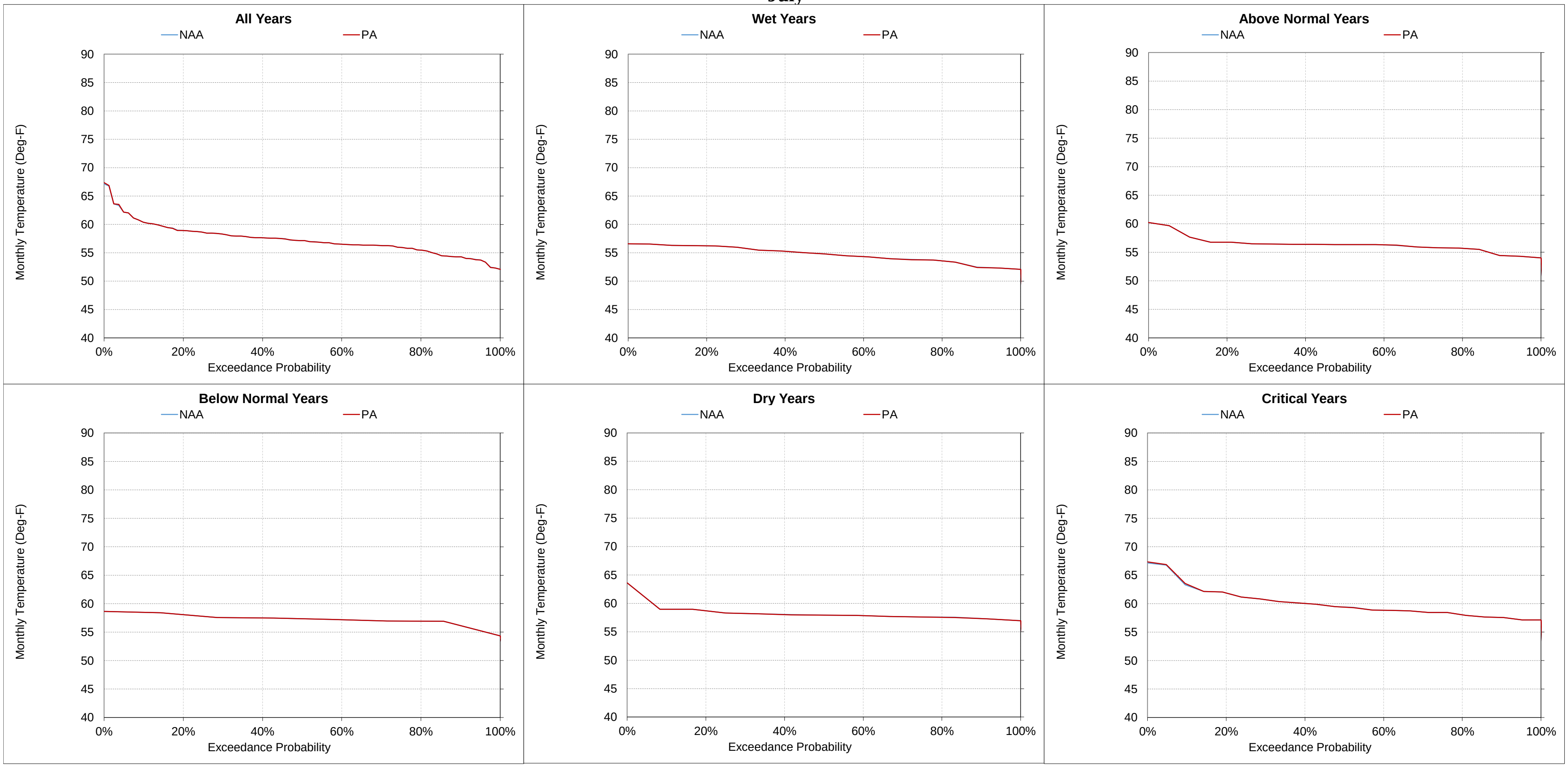
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-16. Stanislaus River below Knights Ferry, Monthly Temperature June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-17. Stanislaus River below Knights Ferry, Monthly Temperature July



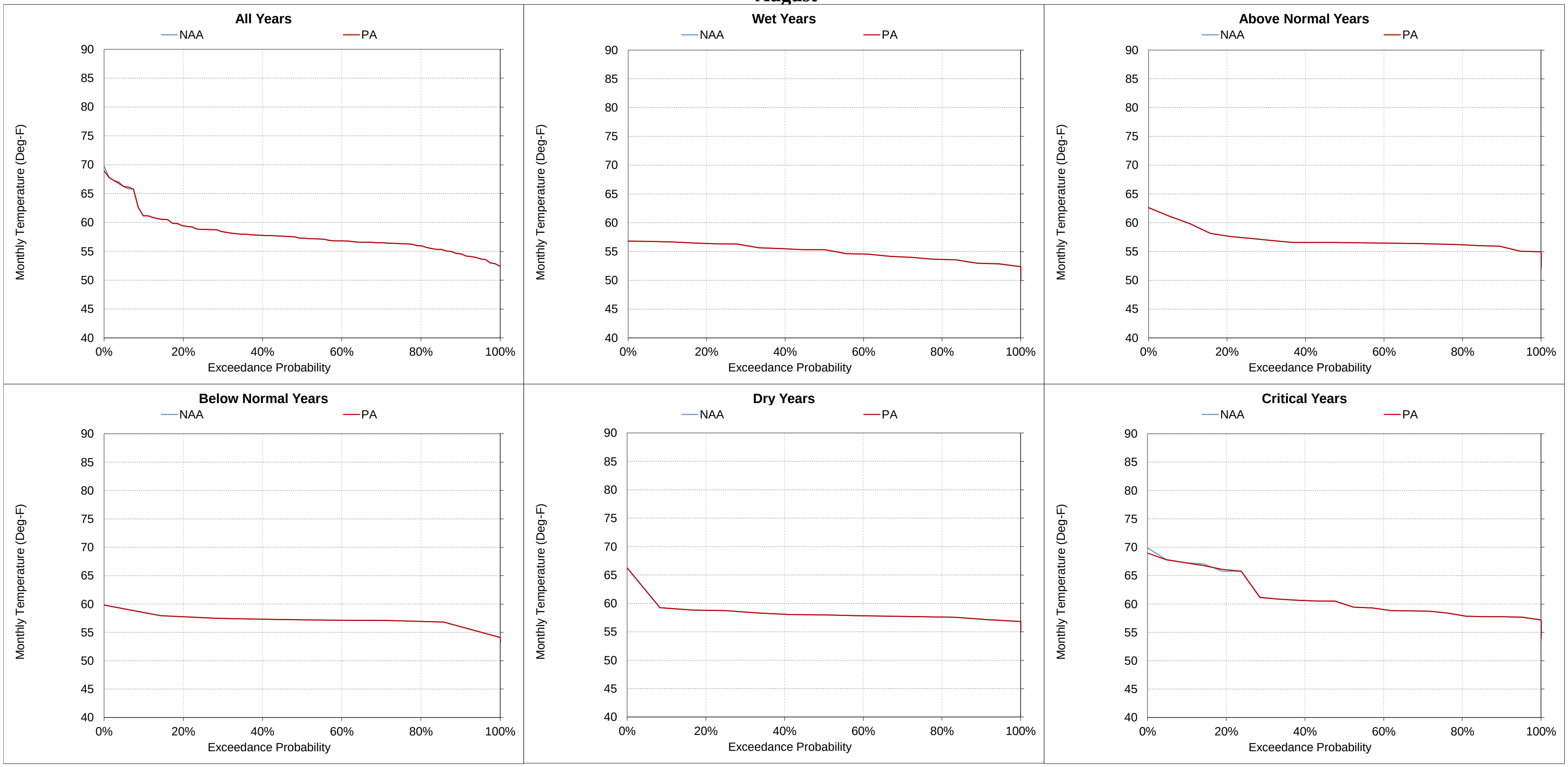
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-18. Stanislaus River below Knights Ferry, Monthly Temperature August



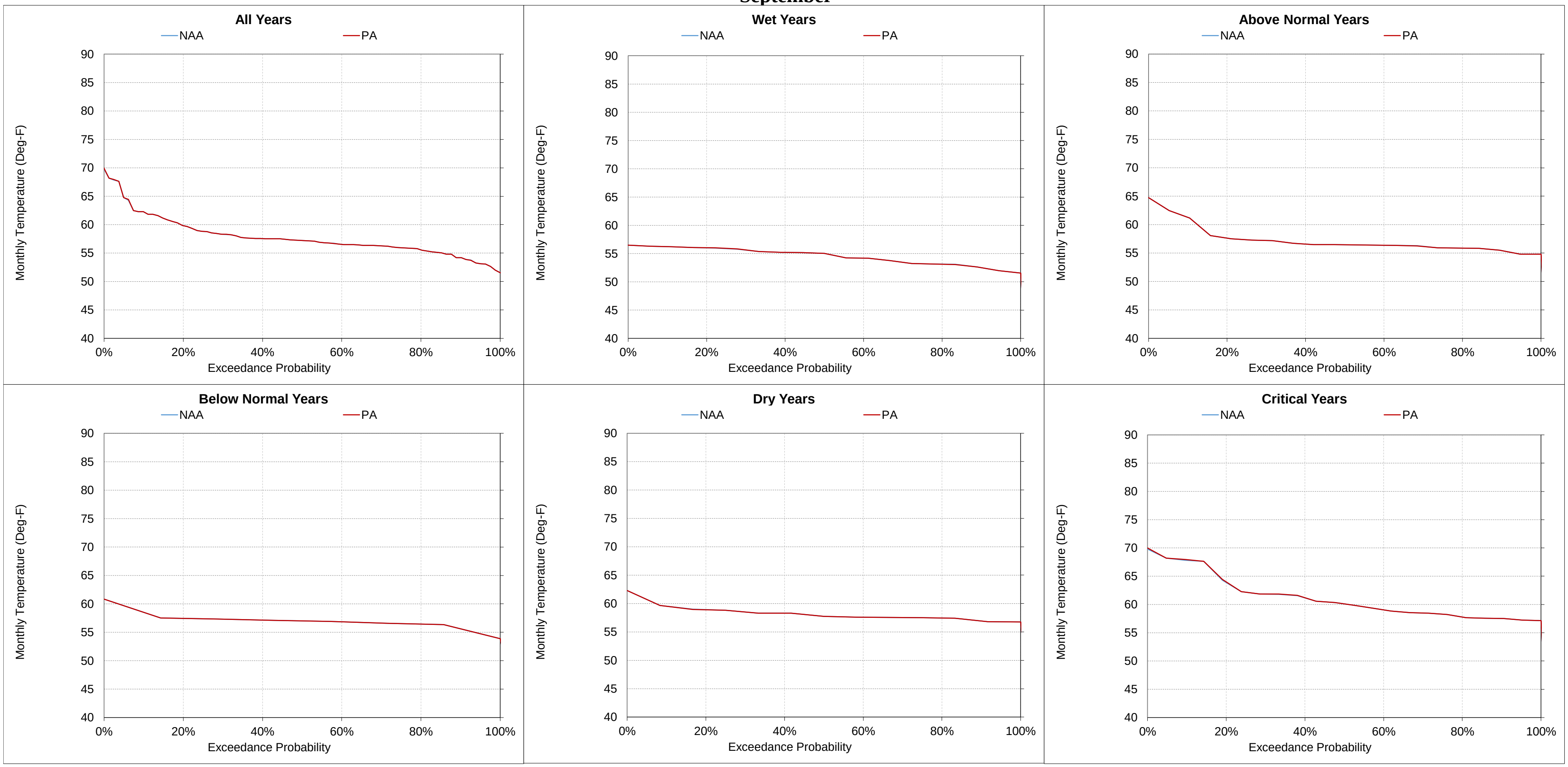
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-17-19. Stanislaus River below Knights Ferry, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-18. Stanislaus River below Orange Blossom Bridge, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	62.4	62.5	0.1	0.1%	59.2	59.3	0.0	0.0%	53.5	53.5	0.0	0.0%	51.4	51.4	0.0	0.0%	52.4	52.4	0.0	0.0%	54.8	54.8	0.0	0.0%
20%	59.7	59.7	0.0	0.0%	57.4	57.4	0.0	0.0%	52.7	52.7	0.0	0.0%	50.8	50.8	0.0	0.0%	51.7	51.7	0.0	0.0%	54.4	54.4	0.0	0.0%
30%	57.7	57.7	0.0	0.0%	56.3	56.3	0.0	0.0%	51.9	51.9	0.0	0.0%	50.1	50.1	0.0	0.0%	51.2	51.2	0.0	0.0%	54.0	54.0	0.0	0.0%
40%	57.0	57.0	0.0	0.0%	55.3	55.3	0.0	0.0%	51.5	51.5	0.0	0.0%	49.5	49.5	0.0	0.0%	50.7	50.7	0.0	0.0%	53.6	53.6	0.0	0.0%
50%	56.4	56.4	0.0	0.0%	54.9	54.9	0.0	0.0%	51.0	51.0	0.0	0.0%	49.1	49.1	0.0	0.0%	50.3	50.3	0.0	0.1%	53.2	53.2	0.0	0.0%
60%	55.9	55.9	0.0	0.0%	54.6	54.6	0.0	0.0%	50.8	50.8	0.0	0.0%	48.9	48.9	0.0	0.0%	50.0	50.0	0.0	0.0%	52.6	52.6	0.0	0.0%
70%	55.2	55.2	0.0	0.0%	54.1	54.1	0.0	0.0%	50.6	50.5	0.0	0.0%	48.4	48.4	0.0	0.0%	49.6	49.6	0.0	0.0%	51.6	51.6	0.0	0.0%
80%	54.9	54.9	0.0	0.0%	53.7	53.7	0.0	0.0%	50.2	50.2	0.0	0.0%	47.9	47.9	0.0	0.0%	49.2	49.2	0.0	0.0%	50.6	50.6	0.0	0.0%
90%	54.0	54.0	0.0	0.0%	52.7	52.7	0.0	0.0%	49.8	49.8	0.0	0.0%	47.2	47.2	0.0	0.0%	48.3	48.3	0.0	0.0%	49.6	49.6	0.0	0.0%
Long Term																								
Full Simulation Period[b]	57.3	57.3	0.0	0.0%	55.5	55.5	0.0	0.0%	51.4	51.4	0.0	0.0%	49.2	49.2	0.0	0.0%	50.4	50.4	0.0	0.0%	52.6	52.6	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	54.3	54.3	0.0	0.0%	53.4	53.4	0.0	0.0%	50.5	50.5	0.0	0.0%	49.0	49.0	0.0	0.0%	49.3	49.3	0.0	0.0%	50.4	50.4	0.0	0.0%
Above Normal (24%)	56.9	56.9	0.0	0.0%	55.1	55.1	0.0	0.0%	51.3	51.3	0.0	0.0%	49.2	49.2	0.0	0.0%	49.9	49.9	0.0	0.0%	52.2	52.2	0.0	0.0%
Below Normal (10%)	56.1	56.1	0.0	0.0%	54.8	54.8	0.0	0.0%	51.1	51.1	0.0	0.0%	48.6	48.6	0.0	0.0%	50.3	50.3	0.0	0.0%	53.2	53.2	0.0	0.0%
Dry (16%)	57.7	57.7	0.0	0.0%	56.0	56.0	0.0	0.0%	51.6	51.6	0.0	0.0%	48.9	48.9	0.0	0.0%	50.8	50.8	0.0	0.0%	54.0	54.0	0.0	0.0%
Critical (27%)	60.5	60.5	0.0	0.0%	57.6	57.6	0.0	0.0%	52.3	52.3	0.0	0.0%	49.8	49.8	0.0	0.0%	51.5	51.5	0.0	0.0%	54.0	54.0	0.0	0.0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	55.1	55.1	0.0	0.0%	57.8	57.8	0.0	0.0%	63.9	63.9	0.0	0.0%	65.8	65.8	0.0	0.0%	65.7	65.7	0.0	0.0%	65.2	65.2	0.0	0.0%
20%	54.6	54.6	0.0	0.0%	56.8	56.8	0.0	-0.1%	62.6	62.6	0.0	0.0%	64.7	64.7	0.0	0.0%	64.5	64.5	0.0	0.0%	63.9	63.9	0.0	0.0%
30%	54.0	54.0	0.0	0.0%	55.9	55.9	0.0	0.0%	61.7	61.7	0.0	0.0%	64.2	64.2	0.0	0.0%	63.5	63.5	0.0	0.0%	62.3	62.3	0.0	0.0%
40%	53.6	53.6	0.0	0.0%	55.1	55.2	0.0	0.0%	60.4	60.4	0.0	0.0%	63.7	63.7	0.0	0.0%	62.9	62.9	0.0	0.0%	61.7	61.7	0.0	0.0%
50%	53.0	53.0	0.0	0.0%	54.9	54.9	0.0	0.0%	58.6	58.6	0.0	-0.1%	63.2	63.2	0.0	0.0%	62.6	62.6	0.0	0.0%	61.3	61.3	0.0	0.0%
60%	52.5	52.5	0.0	0.0%	54.4	54.4	0.0	0.0%	56.5	56.6	0.0	0.0%	62.7	62.7	0.0	0.0%	62.3	62.3	0.0	0.0%	60.8	60.8	0.0	0.0%
70%	52.1	52.1	0.0	0.0%	53.9	53.9	0.0	0.0%	55.8	55.8	0.0	0.0%	62.2	62.2	0.0	0.0%	61.9	61.9	0.0	0.0%	60.5	60.5	0.0	0.0%
80%	51.6	51.6	0.0	0.0%	53.5	53.5	0.0	0.0%	55.3	55.3	0.0	0.0%	61.5	61.5	0.0	0.0%	61.4	61.4	0.0	0.0%	59.9	59.9	0.0	0.0%
90%	50.6	50.6	0.0	0.0%	52.6	52.6	0.0	0.0%	54.4	54.4	0.0	0.0%	58.7	58.7	0.0	0.0%	59.8	59.8	0.0	0.0%	58.1	58.1	0.0	0.0%
Long Term																								
Full Simulation Period[b]	53.1	53.1	0.0	0.0%	55.2	55.2	0.0	0.0%	59.0	58.9	0.0	0.0%	63.0	63.0	0.0	0.0%	62.9	62.9	0.0	0.0%	61.6	61.6	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	51.3	51.3	0.0	0.0%	53.2	53.2	0.0	0.0%	55.4	55.4	0.0	0.0%	59.8	59.8	0.0	0.0%	59.4	59.4	0.0	0.0%	57.8	57.8	0.0	0.0%
Above Normal (24%)	52.2	52.2	0.0	0.0%	54.5	54.5	0.0	0.0%	55.9	55.9	0.0	0.0%	62.0	62.0	0.0	0.0%	62.4	62.4	0.0	0.0%	61.3	61.3	0.0	0.0%
Below Normal (10%)	52.7	52.7	0.0	0.0%	54.1	54.1	0.0	0.0%	58.7	58.7	0.0	0.0%	63.3	63.3	0.0	0.0%	62.4	62.4	0.0	0.0%	61.1	61.1	0.0	0.0%
Dry (16%)	53.8	53.8	0.0	0.0%	55.4	55.4	0.0	0.0%	61.3	61.3	0.0	0.0%	64.4	64.4	0.0	0.0%	63.7	63.7	0.0	0.0%	62.3	62.3	0.0	0.0%
Critical (27%)	55.1	55.1	0.0	0.0%	57.9	57.9	0.0	0.0%	63.6	63.5	0.0	-0.1%	65.9	65.9	0.0	0.0%	66.2	66.1	0.0	0.0%	64.8	64.8	0.0	0.0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-1. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, All Years

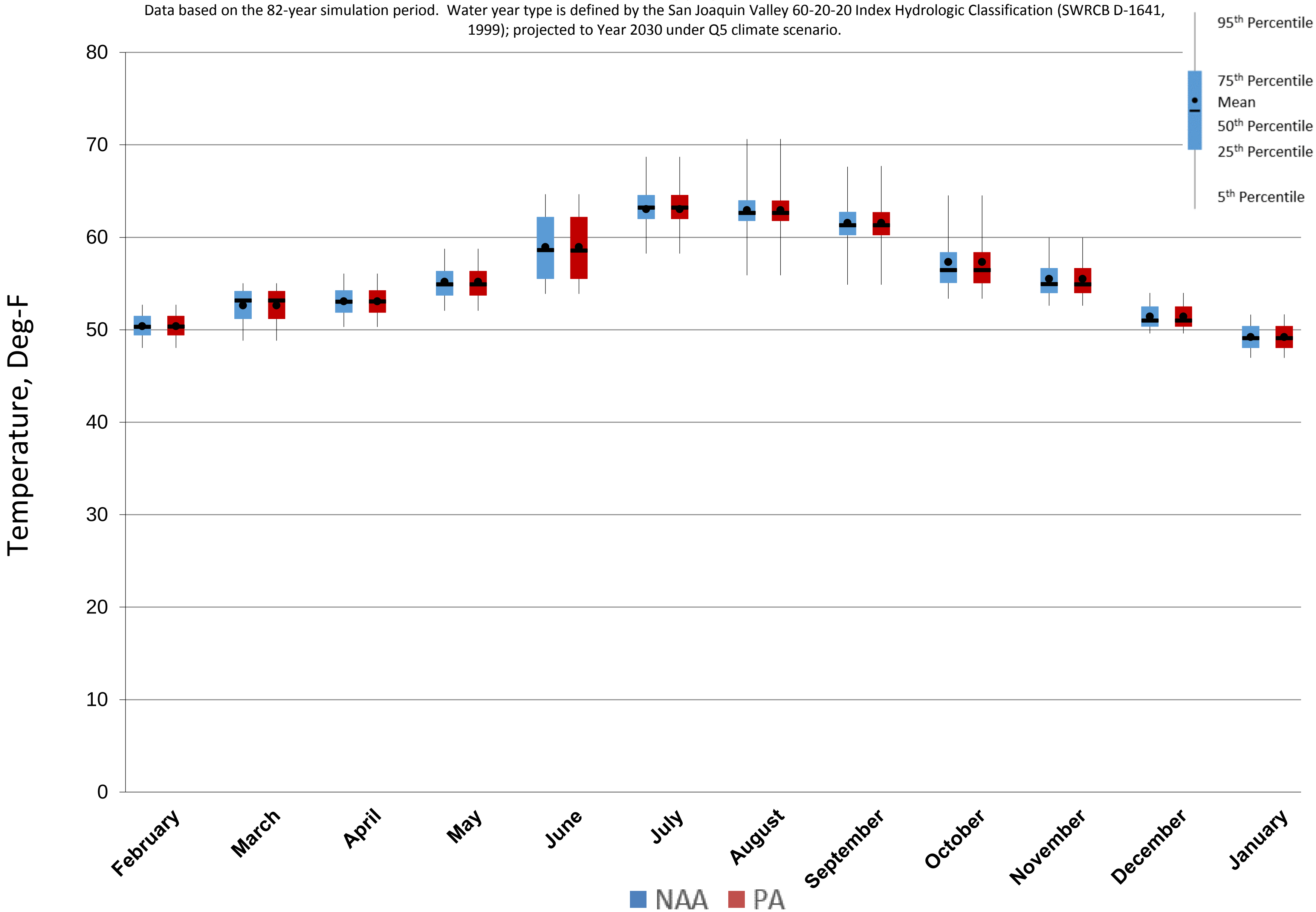


Figure 5.C.7-18-2. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, Wet Years

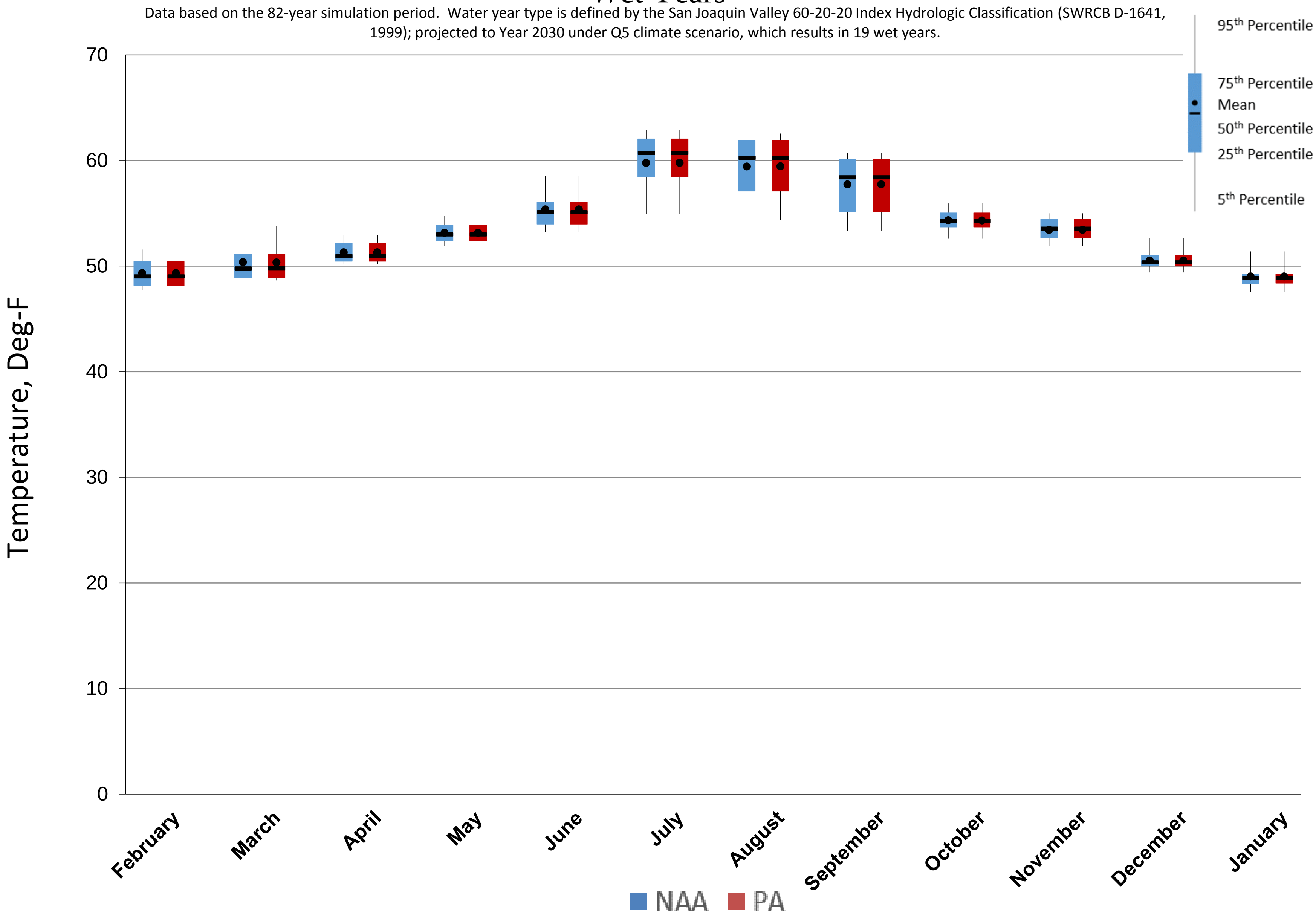


Figure 5.C.7-18-3. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, Above Normal Years

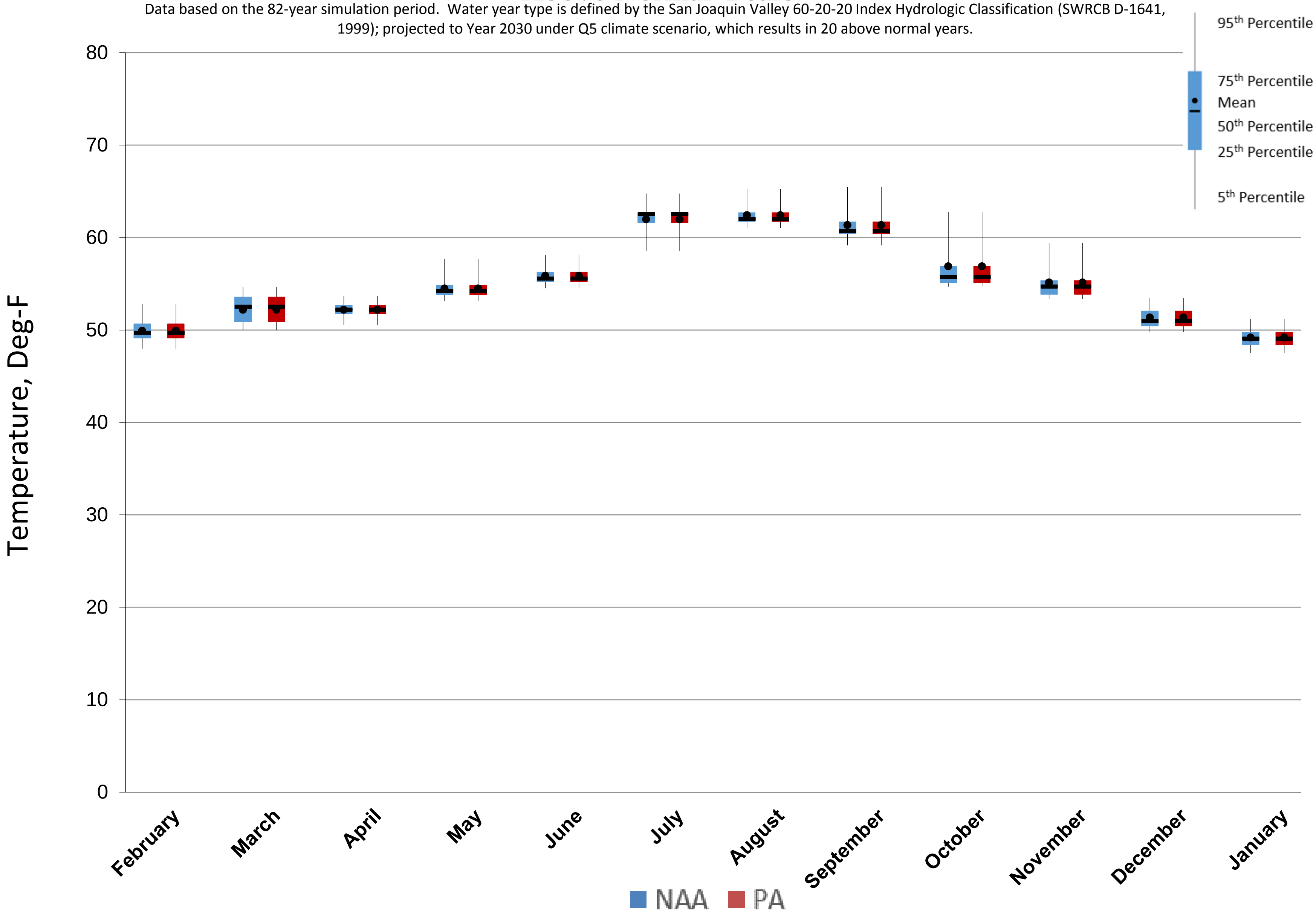


Figure 5.C.7-18-4. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, Below Normal Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 8 below normal years.

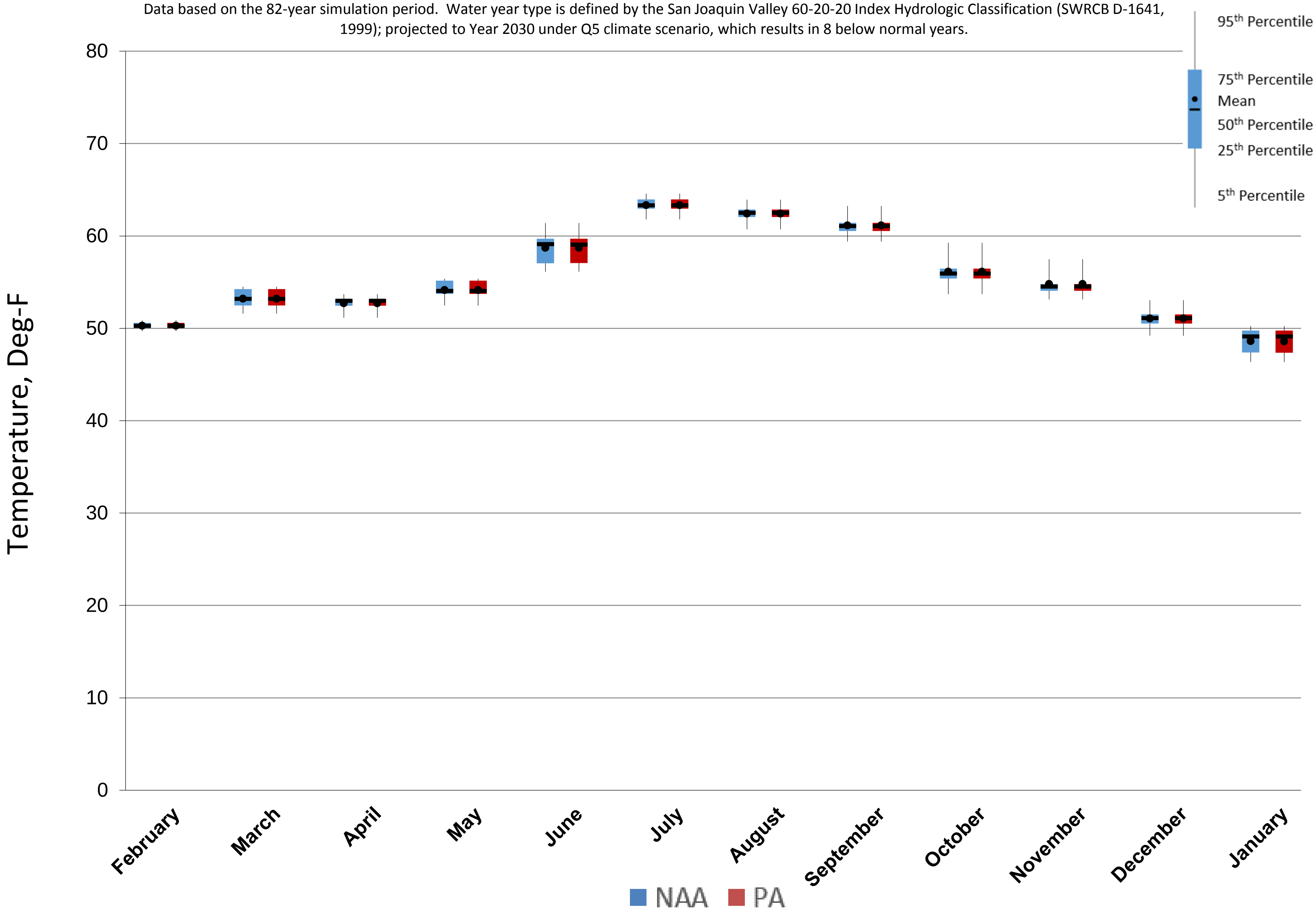


Figure 5.C.7-18-5. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, Dry Years

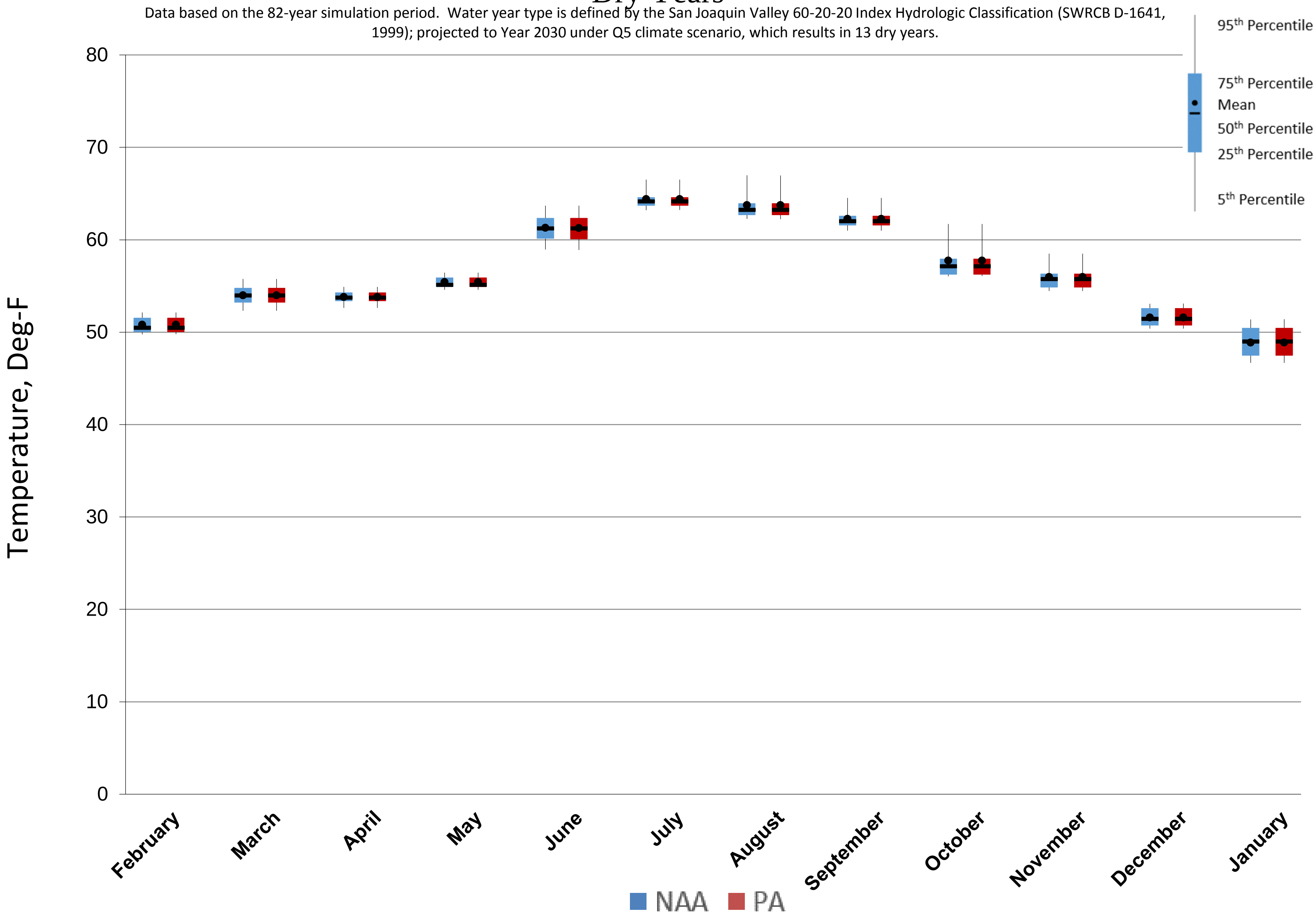


Figure 5.C.7-18-6. Monthly Temperature Ranges for Stanislaus River below Orange Blossom Bridge, Critical Years

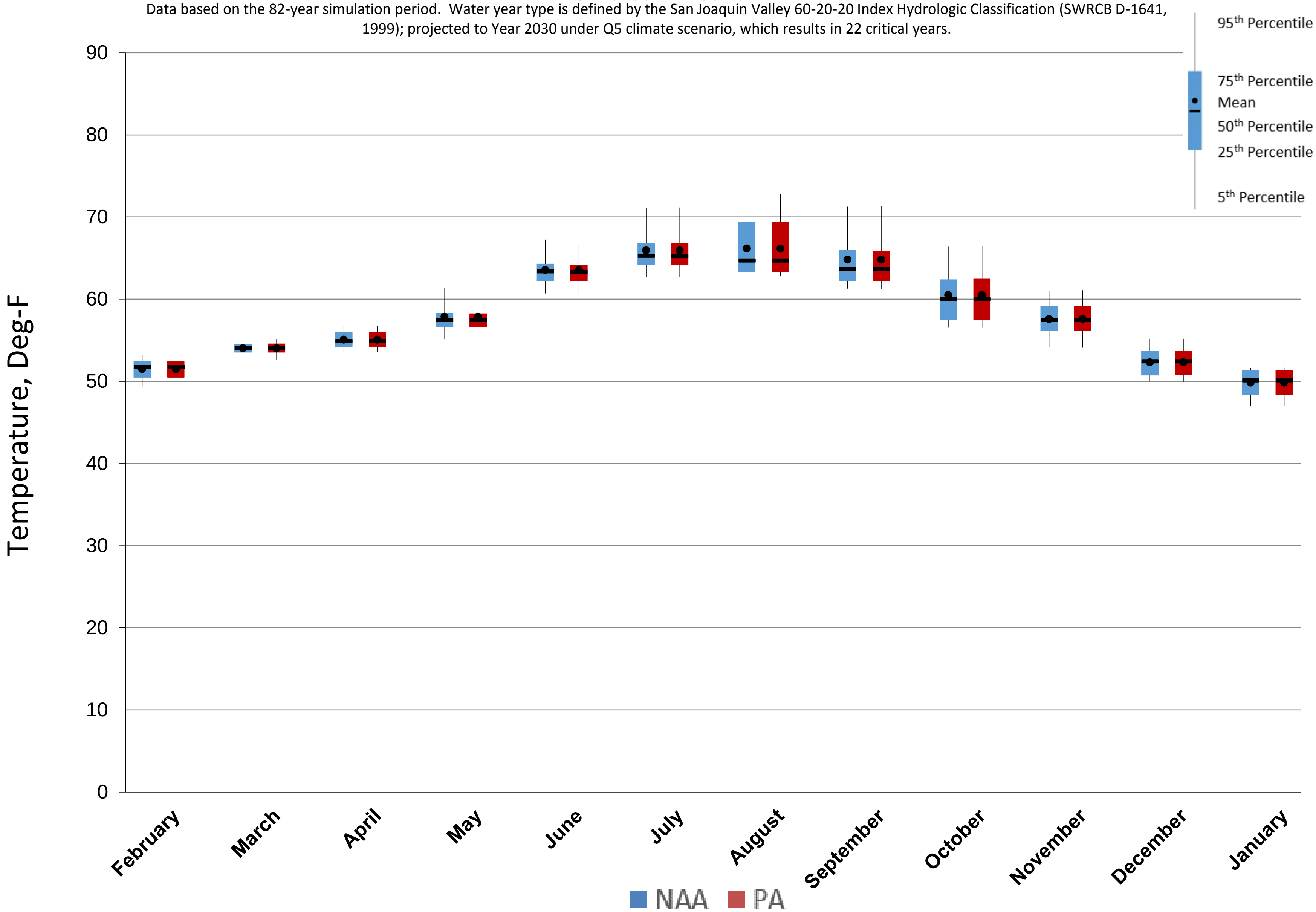
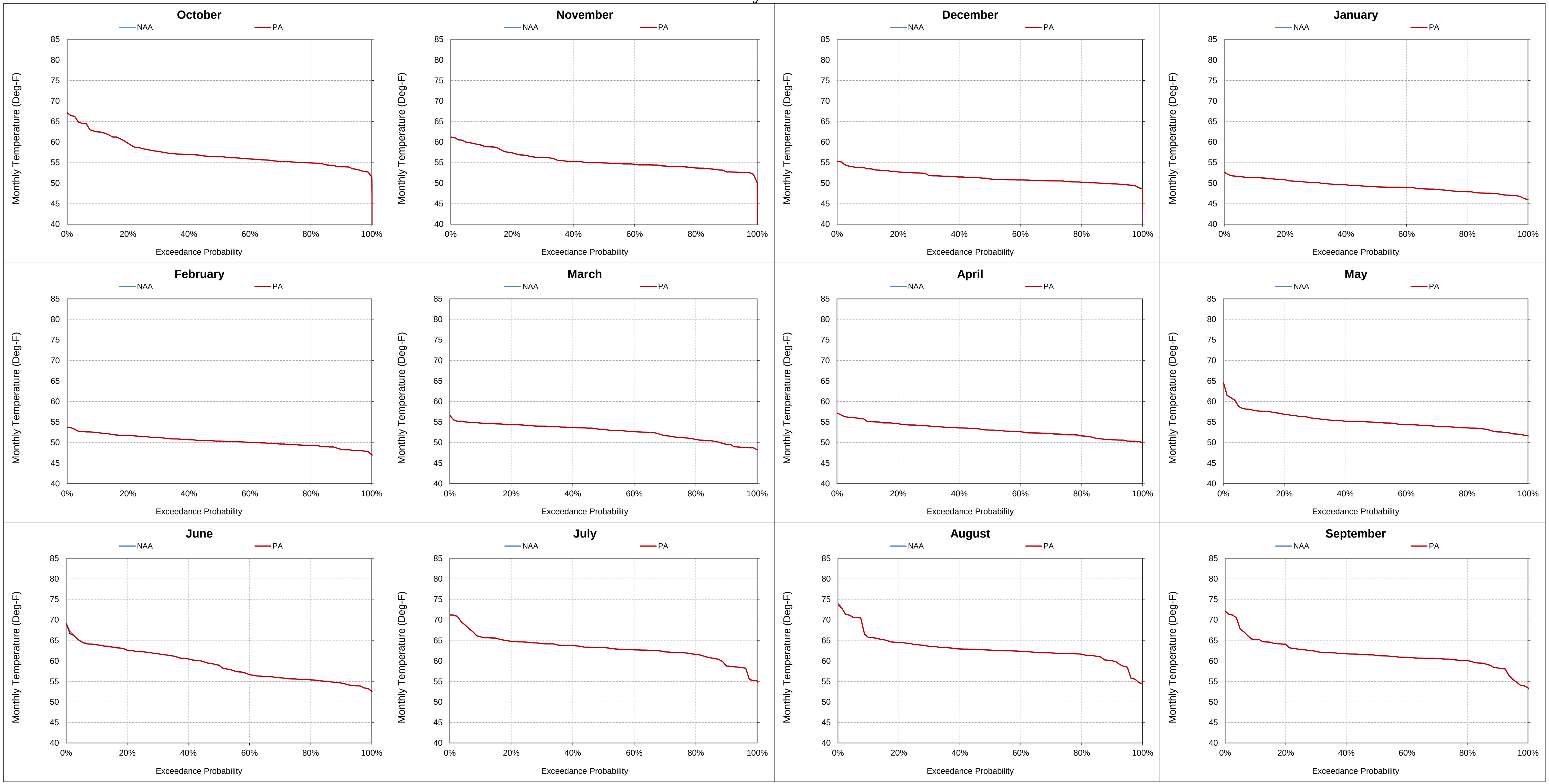
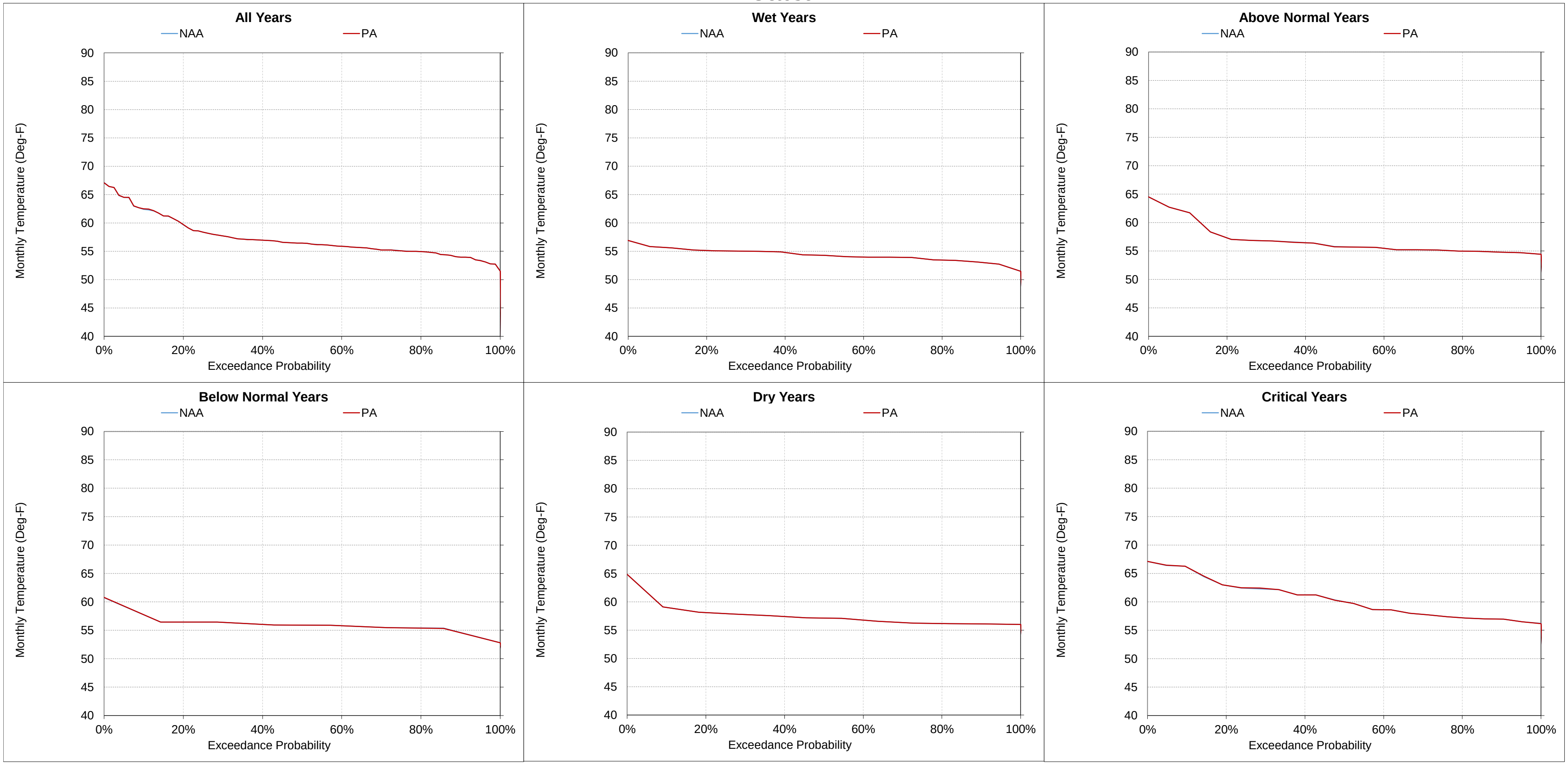


Figure 5.C.7-18-7. Stanislaus River below Orange Blossom Bridge, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-8. Stanislaus River below Orange Blossom Bridge, Monthly Temperature October



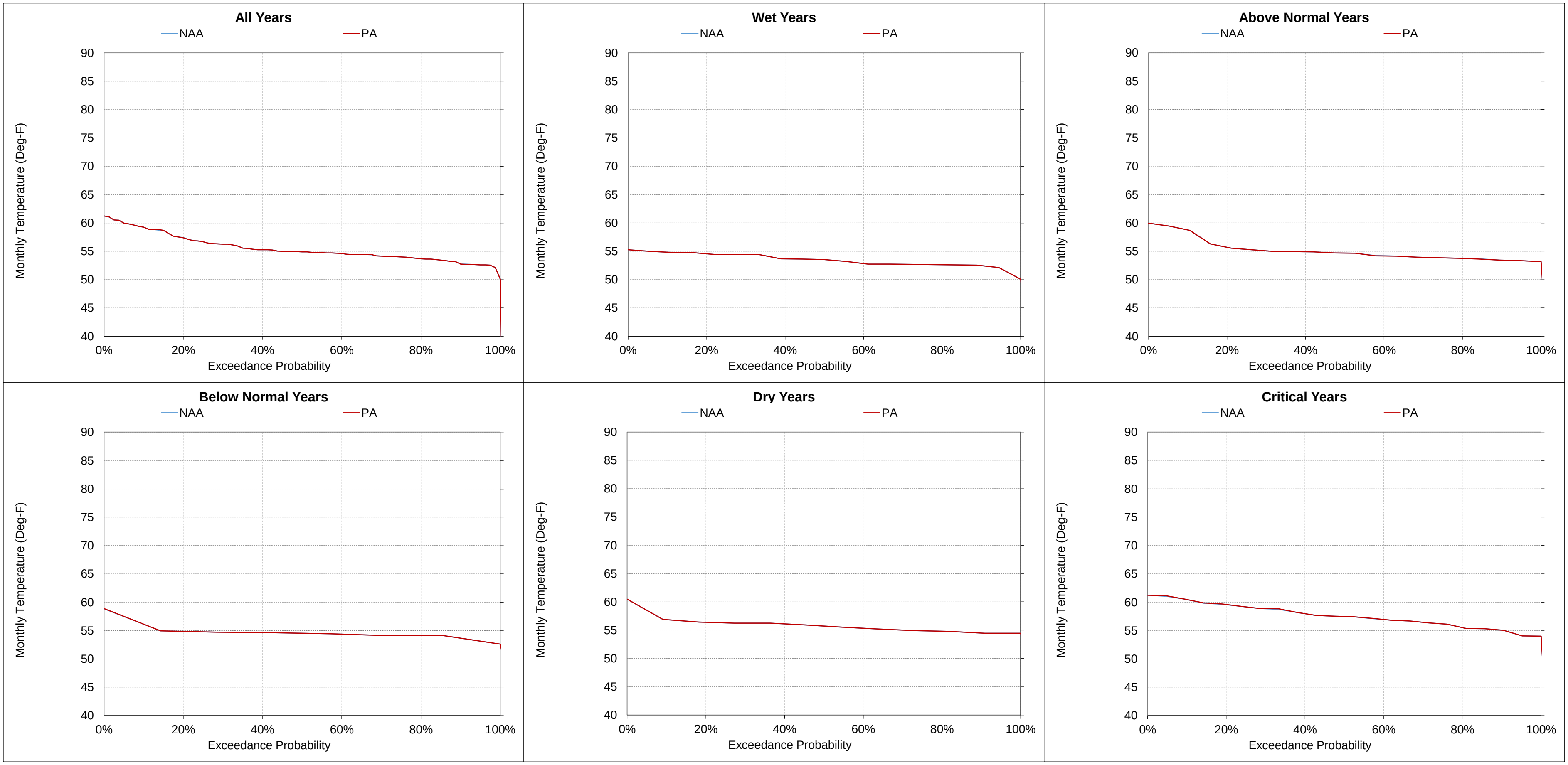
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-9. Stanislaus River below Orange Blossom Bridge, Monthly Temperature November



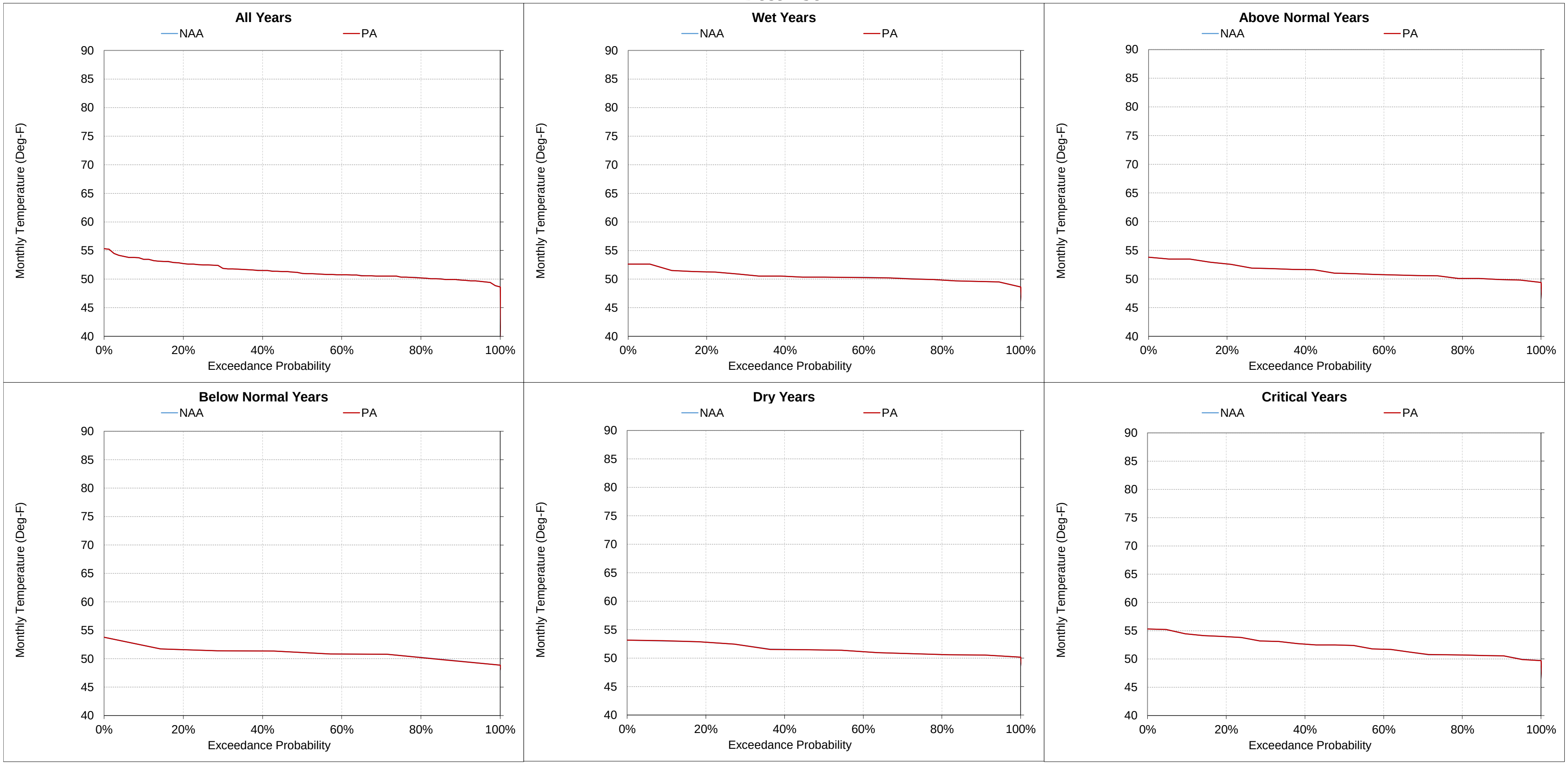
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

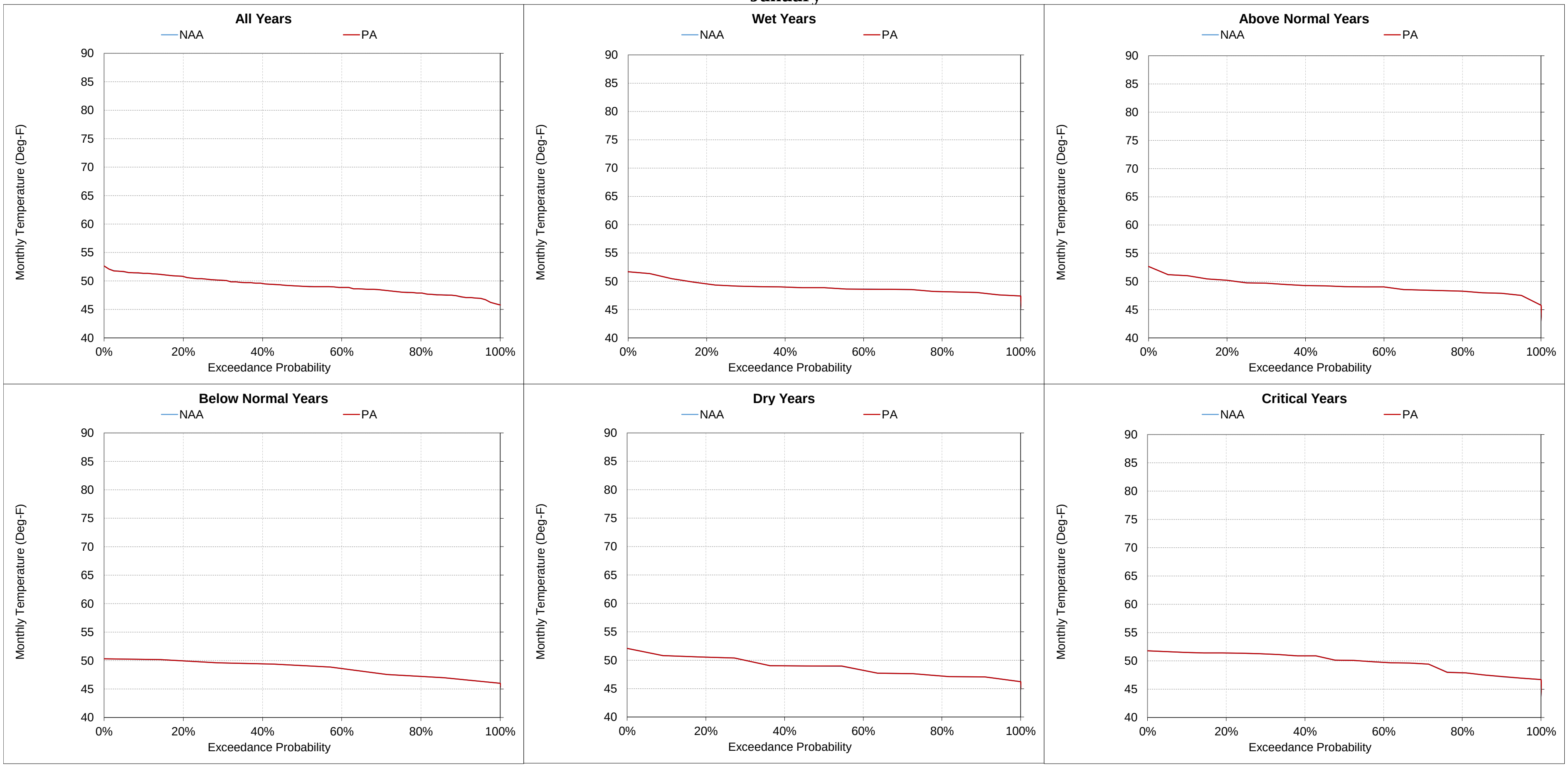
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-10. Stanislaus River below Orange Blossom Bridge, Monthly Temperature
December



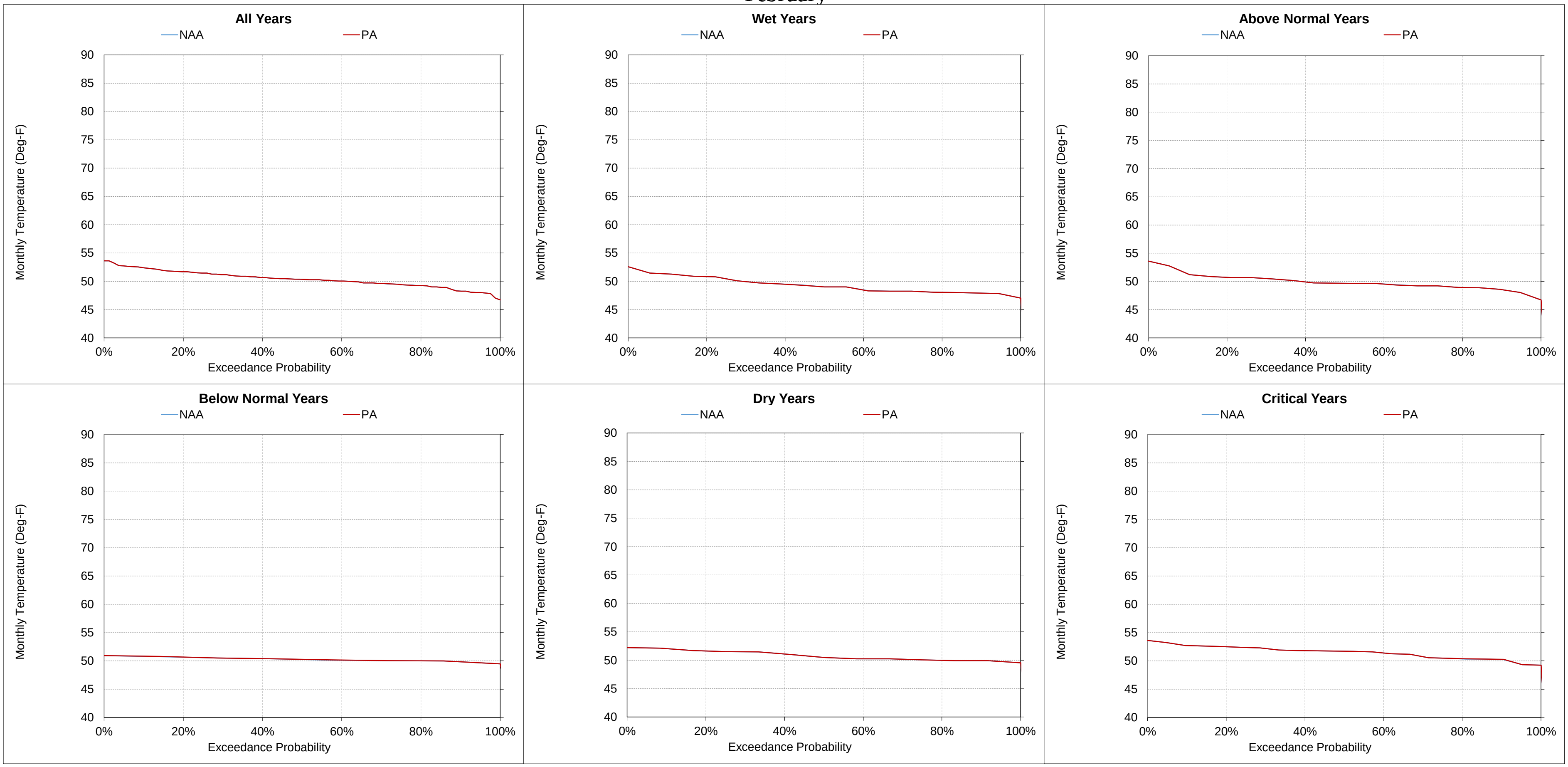
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-11. Stanislaus River below Orange Blossom Bridge, Monthly Temperature
January



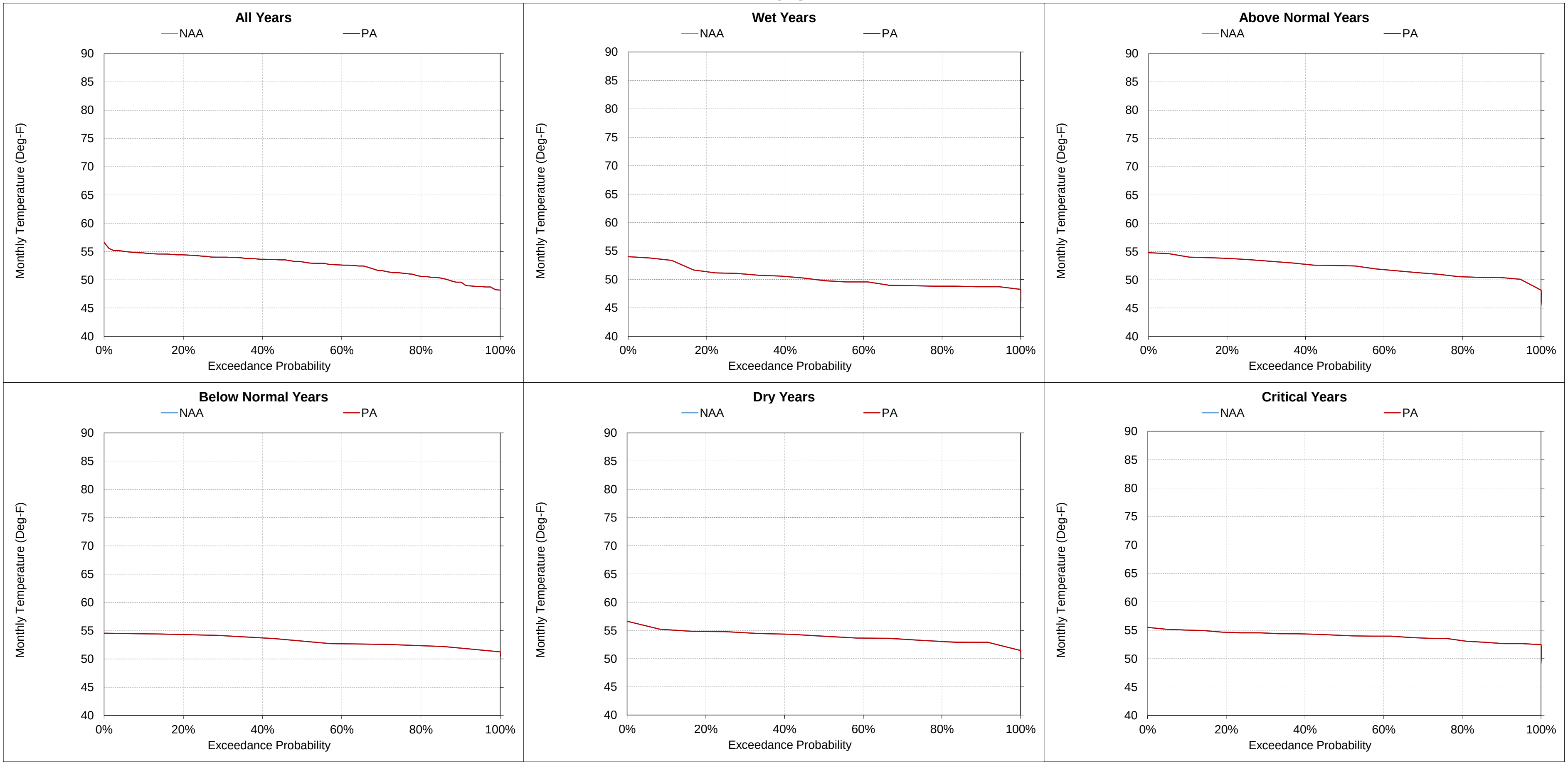
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-12. Stanislaus River below Orange Blossom Bridge, Monthly Temperature February



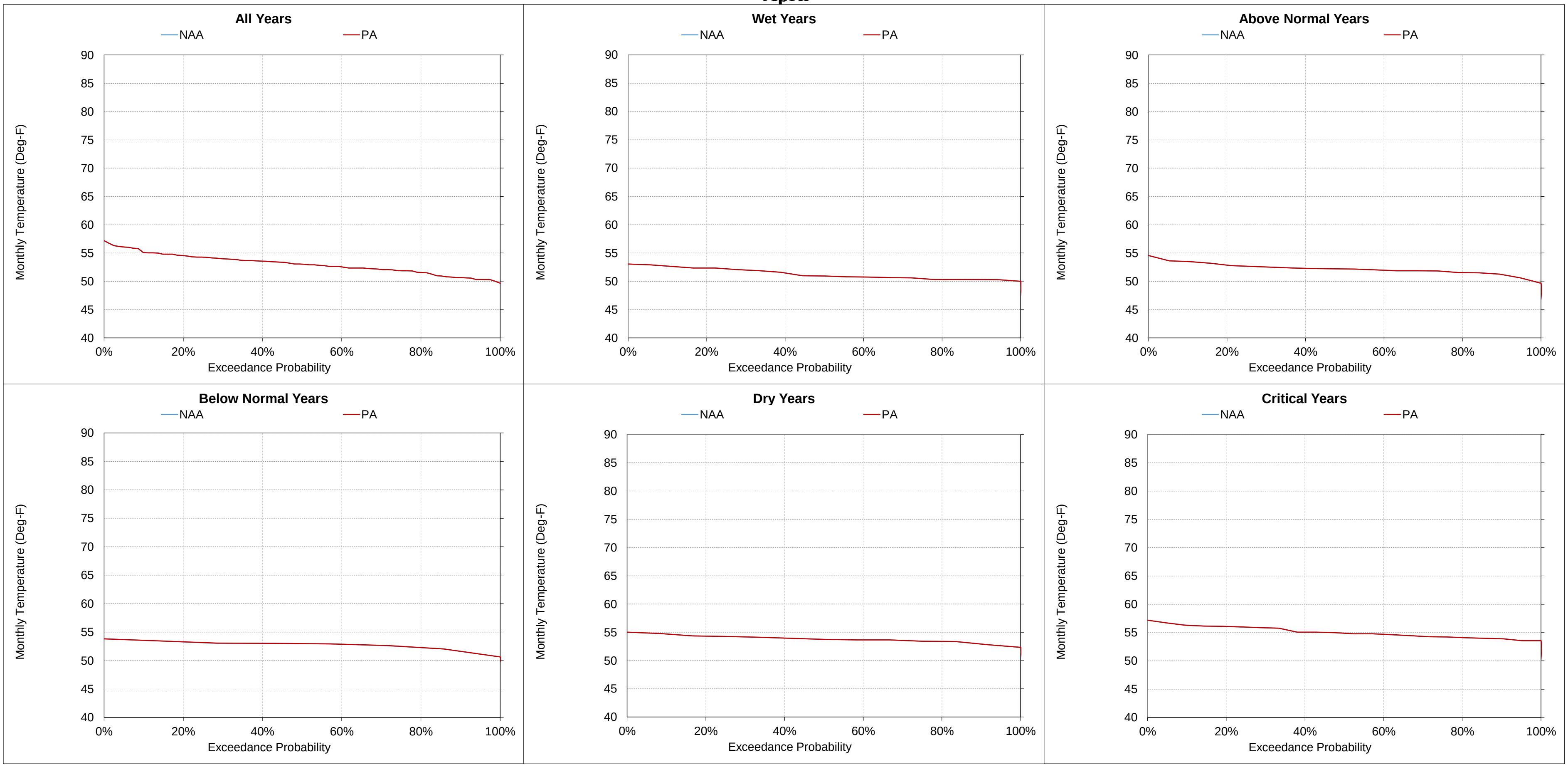
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-13. Stanislaus River below Orange Blossom Bridge, Monthly Temperature March



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-14. Stanislaus River below Orange Blossom Bridge, Monthly Temperature April



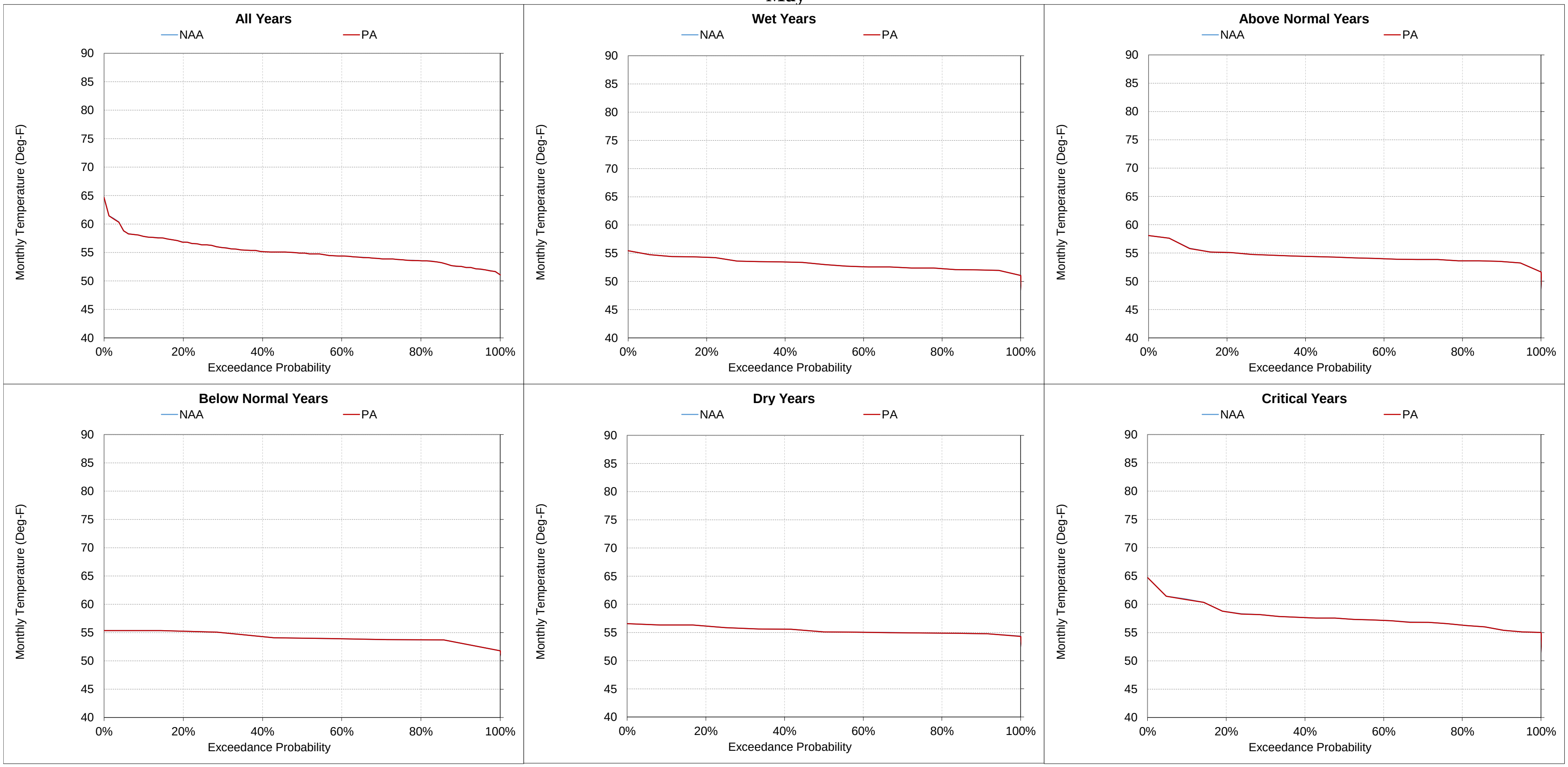
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

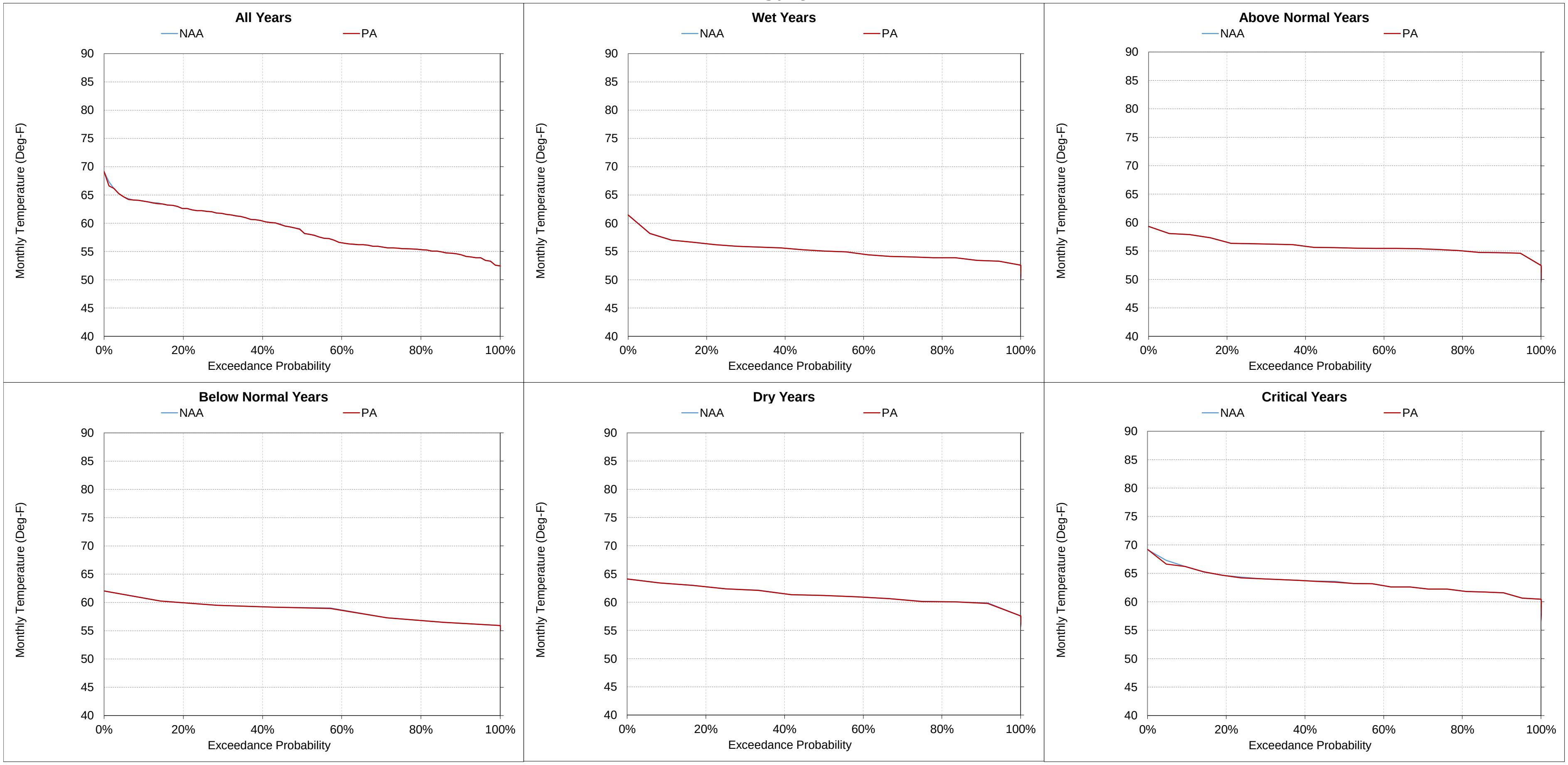
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-15. Stanislaus River below Orange Blossom Bridge, Monthly Temperature May



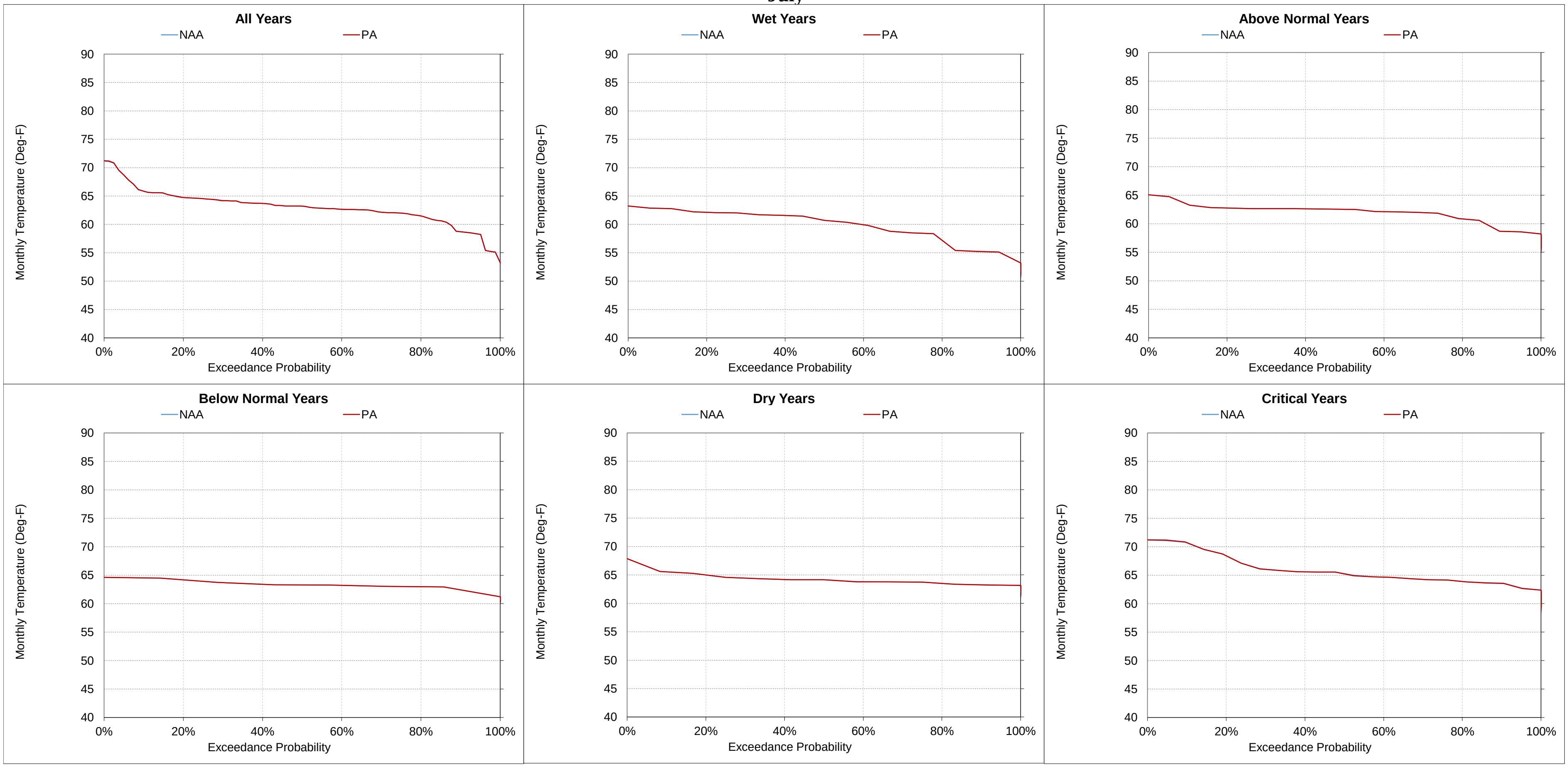
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-16. Stanislaus River below Orange Blossom Bridge, Monthly Temperature June



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

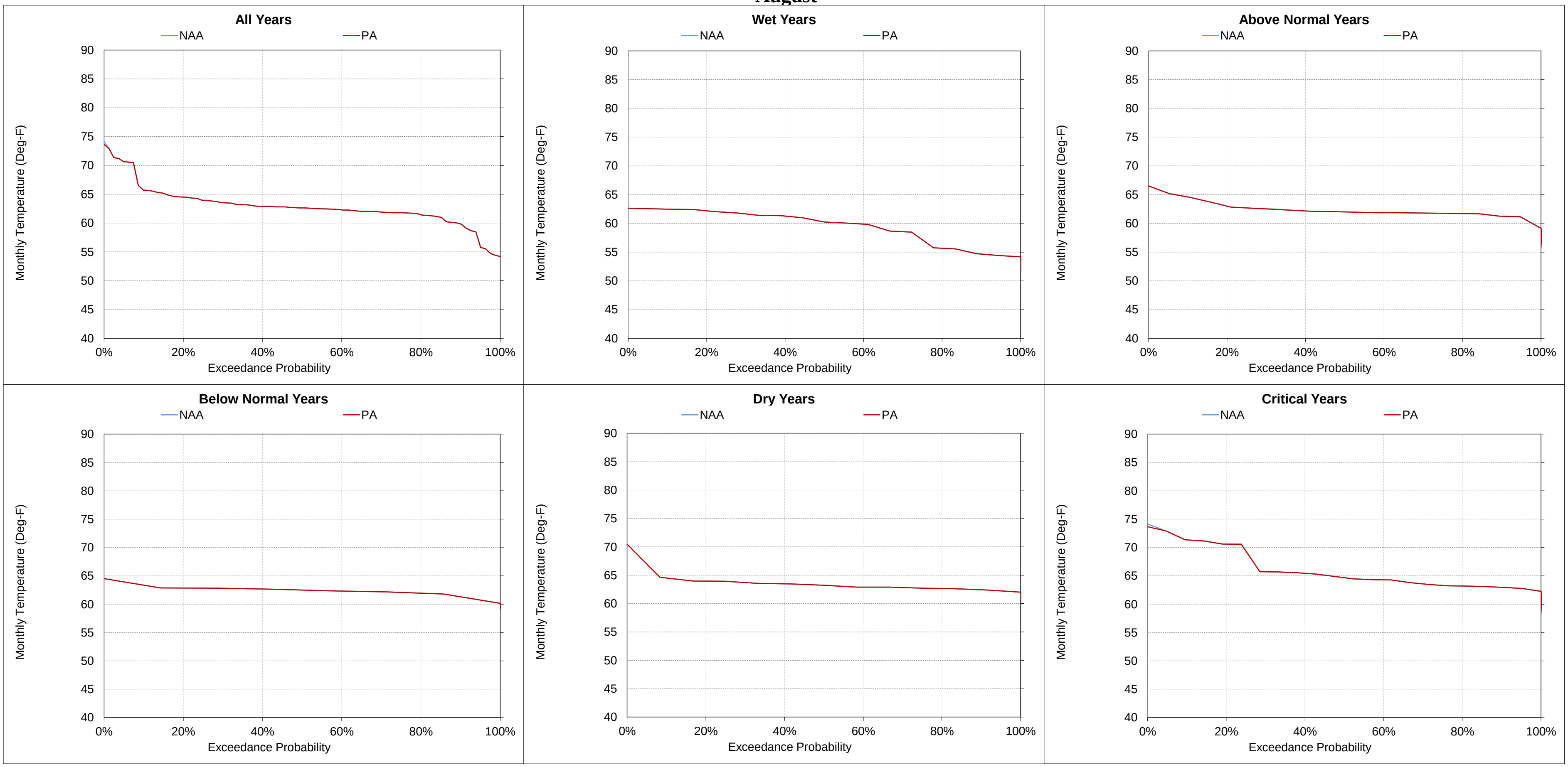
Figure 5.C.7-18-17. Stanislaus River below Orange Blossom Bridge, Monthly Temperature July



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-18. Stanislaus River below Orange Blossom Bridge, Monthly Temperature

August



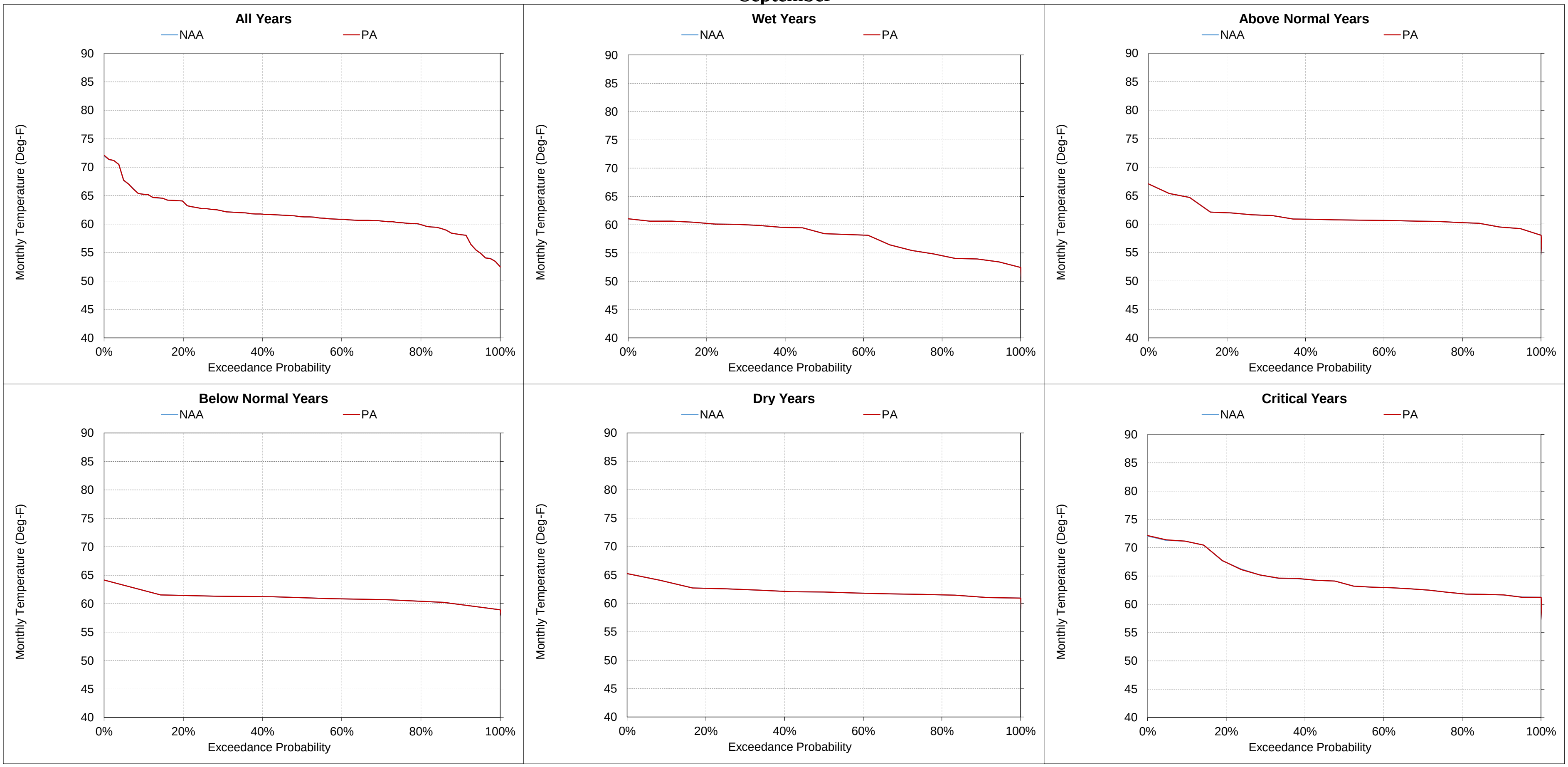
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-18-19. Stanislaus River below Orange Blossom Bridge, Monthly Temperature
September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-19. Stanislaus River below Riverbank Bridge, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	63.1	63.1	0.0	0.0%	58.5	58.5	0.0	0.0%	52.5	52.5	0.0	0.0%	51.2	51.2	0.0	0.0%	53.5	53.5	0.0	0.0%	57.4	57.4	0.0	0.0%
20%	61.2	61.2	0.0	0.0%	57.4	57.4	0.0	0.0%	51.9	51.9	0.0	0.0%	50.8	50.8	0.0	0.0%	53.1	53.1	0.0	0.0%	56.9	56.9	0.0	0.0%
30%	59.3	59.3	0.0	0.0%	56.5	56.5	0.0	0.0%	51.4	51.4	0.0	0.0%	49.9	49.9	0.0	0.0%	52.4	52.4	0.0	0.0%	56.2	56.2	0.0	0.0%
40%	58.5	58.5	0.0	0.0%	55.8	55.8	0.0	0.0%	50.9	50.9	0.0	0.0%	49.5	49.5	0.0	0.0%	52.0	52.0	0.0	0.0%	55.8	55.9	0.0	0.0%
50%	57.9	57.9	0.0	0.0%	55.4	55.4	0.0	0.0%	50.5	50.5	0.0	0.0%	49.0	49.0	0.0	0.0%	51.6	51.6	0.0	0.0%	55.6	55.6	0.0	0.0%
60%	57.4	57.4	0.0	0.0%	54.8	54.8	0.0	0.0%	50.2	50.2	0.0	0.0%	48.9	48.9	0.0	0.0%	51.3	51.3	0.0	0.0%	54.6	54.6	0.0	0.0%
70%	56.8	56.8	0.0	0.0%	54.4	54.4	0.0	0.0%	49.9	49.9	0.0	0.0%	48.6	48.6	0.0	0.0%	50.8	50.8	0.0	0.0%	53.2	53.2	0.0	0.0%
80%	56.5	56.5	0.0	0.0%	54.0	54.0	0.0	0.0%	49.7	49.7	0.0	0.0%	48.0	48.0	0.0	0.0%	50.4	50.4	0.0	0.0%	51.8	51.8	0.0	0.0%
90%	55.8	55.8	0.0	0.0%	53.8	53.8	0.0	0.0%	49.3	49.3	0.0	0.0%	47.6	47.6	0.0	0.0%	49.5	49.5	0.0	0.0%	50.3	50.3	0.0	0.0%
Long Term Full Simulation Period[b]	58.7	58.7	0.0	0.0%	55.7	55.7	0.0	0.0%	50.7	50.7	0.0	0.0%	49.3	49.3	0.0	0.0%	51.6	51.6	0.0	0.0%	54.6	54.6	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	56.0	56.0	0.0	0.0%	54.1	54.1	0.0	0.0%	50.3	50.2	0.0	0.0%	49.2	49.2	0.0	0.0%	50.6	50.6	0.0	0.0%	51.6	51.6	0.0	0.0%
Above Normal (24%)	58.4	58.4	0.0	0.0%	55.3	55.3	0.0	0.0%	50.6	50.6	0.0	0.0%	49.2	49.2	0.0	0.0%	51.3	51.3	0.0	0.0%	54.2	54.2	0.0	0.0%
Below Normal (10%)	57.5	57.5	0.0	0.0%	55.1	55.1	0.0	0.0%	50.3	50.3	0.0	0.0%	48.6	48.5	0.0	0.0%	51.4	51.4	0.0	0.0%	55.4	55.4	0.0	0.0%
Dry (16%)	59.1	59.1	0.0	0.0%	56.1	56.1	0.0	0.0%	50.8	50.8	0.0	0.0%	49.1	49.1	0.0	0.0%	52.0	52.0	0.0	0.0%	56.2	56.2	0.0	0.0%
Critical (27%)	61.7	61.7	0.0	0.0%	57.3	57.3	0.0	0.0%	51.4	51.4	0.0	0.0%	49.9	49.9	0.0	0.0%	52.7	52.7	0.0	0.0%	56.2	56.2	0.0	0.0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	57.8	57.8	0.0	0.0%	61.4	61.4	0.0	0.0%	69.5	69.3	-0.2	-0.2%	72.1	72.1	0.0	0.0%	71.1	71.1	0.0	0.0%	68.6	68.6	0.0	0.0%
20%	56.9	56.9	0.0	0.0%	60.3	60.2	-0.1	-0.1%	68.0	68.0	0.0	0.0%	71.0	71.0	0.0	0.0%	69.9	69.9	0.0	0.0%	67.8	67.9	0.0	0.0%
30%	56.3	56.3	0.0	0.0%	59.4	59.4	0.0	0.0%	66.9	66.9	0.0	0.0%	70.4	70.4	0.0	0.0%	69.5	69.5	0.0	0.0%	66.8	66.8	0.0	0.0%
40%	55.5	55.5	0.0	0.0%	57.8	57.8	0.0	0.0%	65.7	65.6	0.0	-0.1%	69.9	69.9	0.0	0.0%	69.0	69.0	0.0	0.0%	66.4	66.4	0.0	0.0%
50%	54.7	54.7	0.0	0.0%	57.3	57.3	0.0	0.0%	63.3	63.3	0.0	0.0%	69.4	69.4	0.0	0.0%	68.6	68.6	0.0	0.0%	66.0	66.0	0.0	0.0%
60%	54.2	54.2	0.0	0.0%	56.8	56.8	0.0	0.0%	60.4	60.4	0.0	0.0%	69.1	69.1	0.0	0.0%	68.3	68.3	0.0	0.0%	65.6	65.6	0.0	0.0%
70%	53.6	53.6	0.0	0.0%	56.2	56.2	0.0	0.0%	58.9	58.9	0.0	0.0%	68.6	68.6	0.0	0.0%	68.0	68.0	0.0	0.0%	65.3	65.3	0.0	0.0%
80%	53.3	53.3	0.0	0.0%	55.7	55.7	0.0	0.0%	58.5	58.5	0.0	0.0%	67.9	67.9	0.0	0.0%	67.5	67.5	0.0	0.0%	64.8	64.8	0.0	0.0%
90%	52.2	52.2	0.0	0.0%	54.5	54.5	0.0	0.0%	57.5	57.5	0.0	0.0%	64.5	64.5	0.0	0.0%	65.2	65.2	0.0	0.0%	62.4	62.4	0.0	0.0%
Long Term Full Simulation Period[b]	55.0	55.0	0.0	0.0%	57.8	57.8	0.0	0.0%	63.2	63.2	0.0	0.0%	69.0	69.0	0.0	0.0%	68.5	68.5	0.0	0.0%	65.7	65.7	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	52.9	52.9	0.0	0.0%	55.3	55.3	0.0	0.0%	59.0	59.0	0.0	0.0%	65.5	65.5	0.0	0.0%	64.9	64.9	0.0	0.0%	61.8	61.8	0.0	0.0%
Above Normal (24%)	54.0	54.0	0.0	0.0%	57.2	57.2	0.0	0.0%	59.2	59.2	0.0	0.0%	67.9	67.9	0.0	0.0%	68.3	68.3	0.0	0.0%	65.8	65.8	0.0	0.0%
Below Normal (10%)	54.4	54.4	0.0	0.0%	56.4	56.4	0.0	0.0%	63.4	63.4	0.0	0.0%	69.7	69.7	0.0	0.0%	68.3	68.3	0.0	0.0%	65.7	65.7	0.0	0.0%
Dry (16%)	55.9	55.9	0.0	0.0%	58.2	58.2	0.0	0.0%	66.4	66.4	0.0	0.0%	70.7	70.7	0.0	0.0%	69.4	69.4	0.0	0.0%	66.7	66.7	0.0	0.0%
Critical (27%)	57.5	57.5	0.0	0.0%	61.0	61.0	0.0	0.0%	68.7	68.7	0.0	0.0%	71.8	71.8	0.0	0.0%	71.2	71.2	0.0	0.0%	68.6	68.6	0.0	0.0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-1. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, All Years

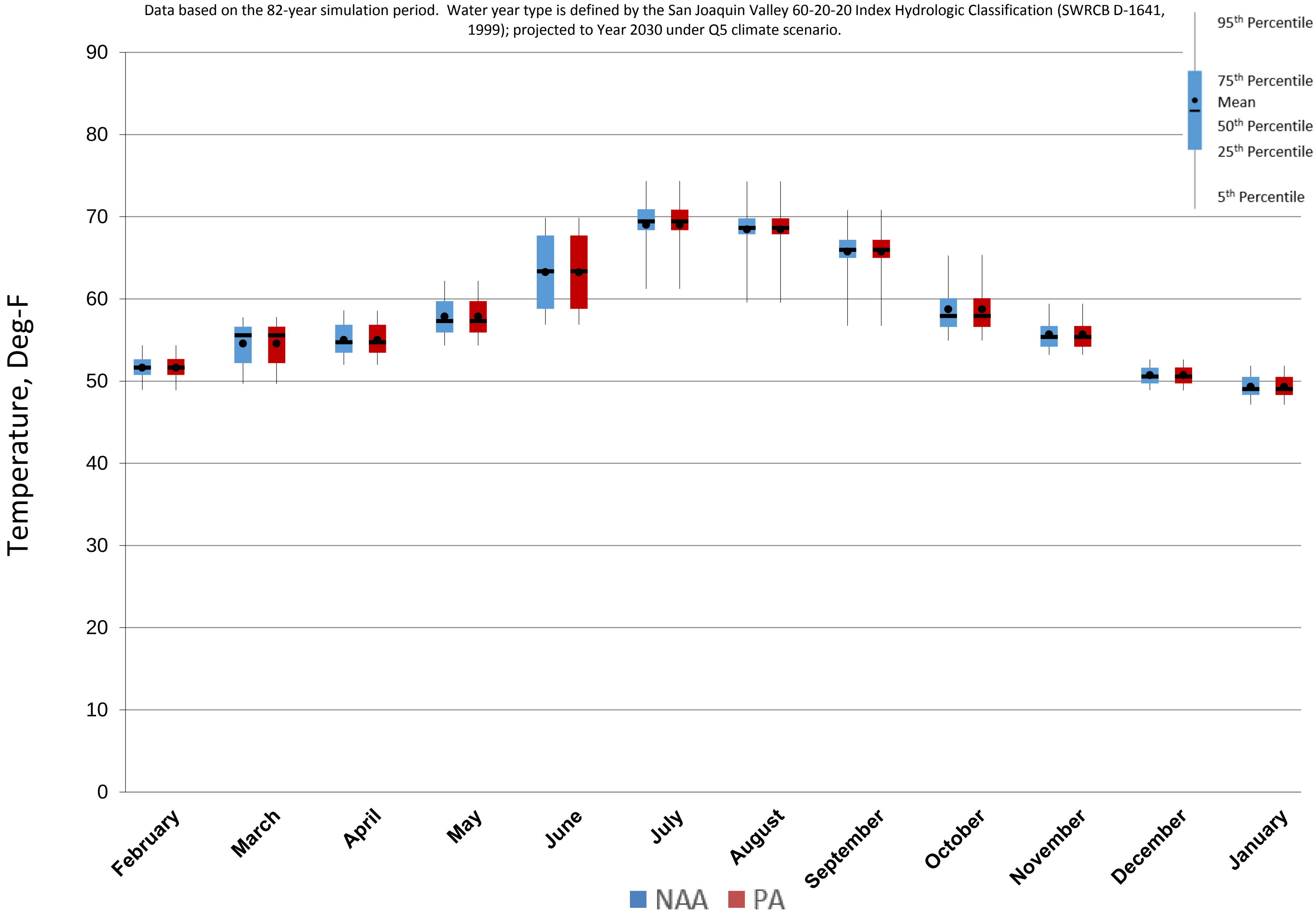


Figure 5.C.7-19-2. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, Wet Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 19 wet years.

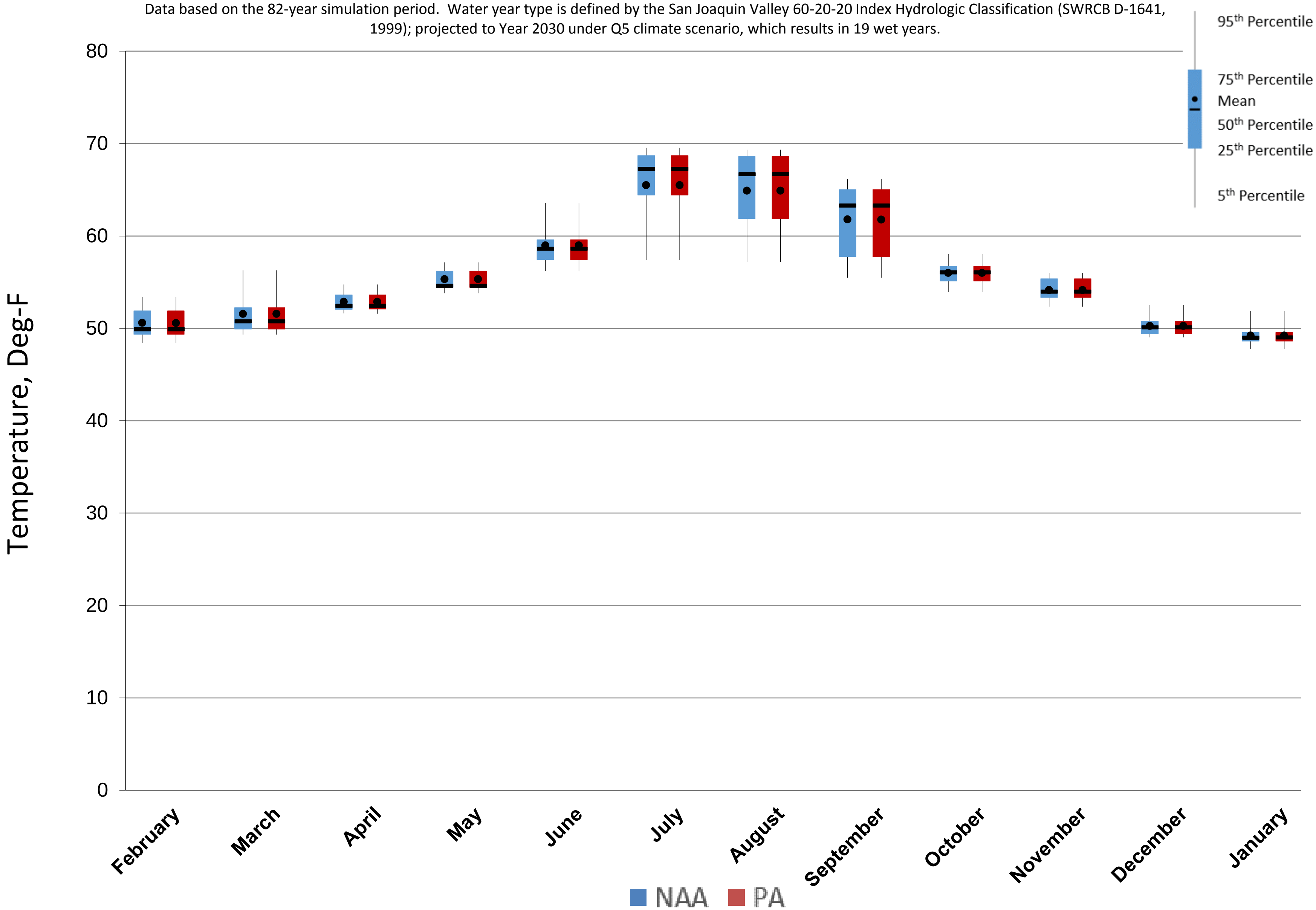


Figure 5.C.7-19-3. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, Above Normal Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 20 above normal years.

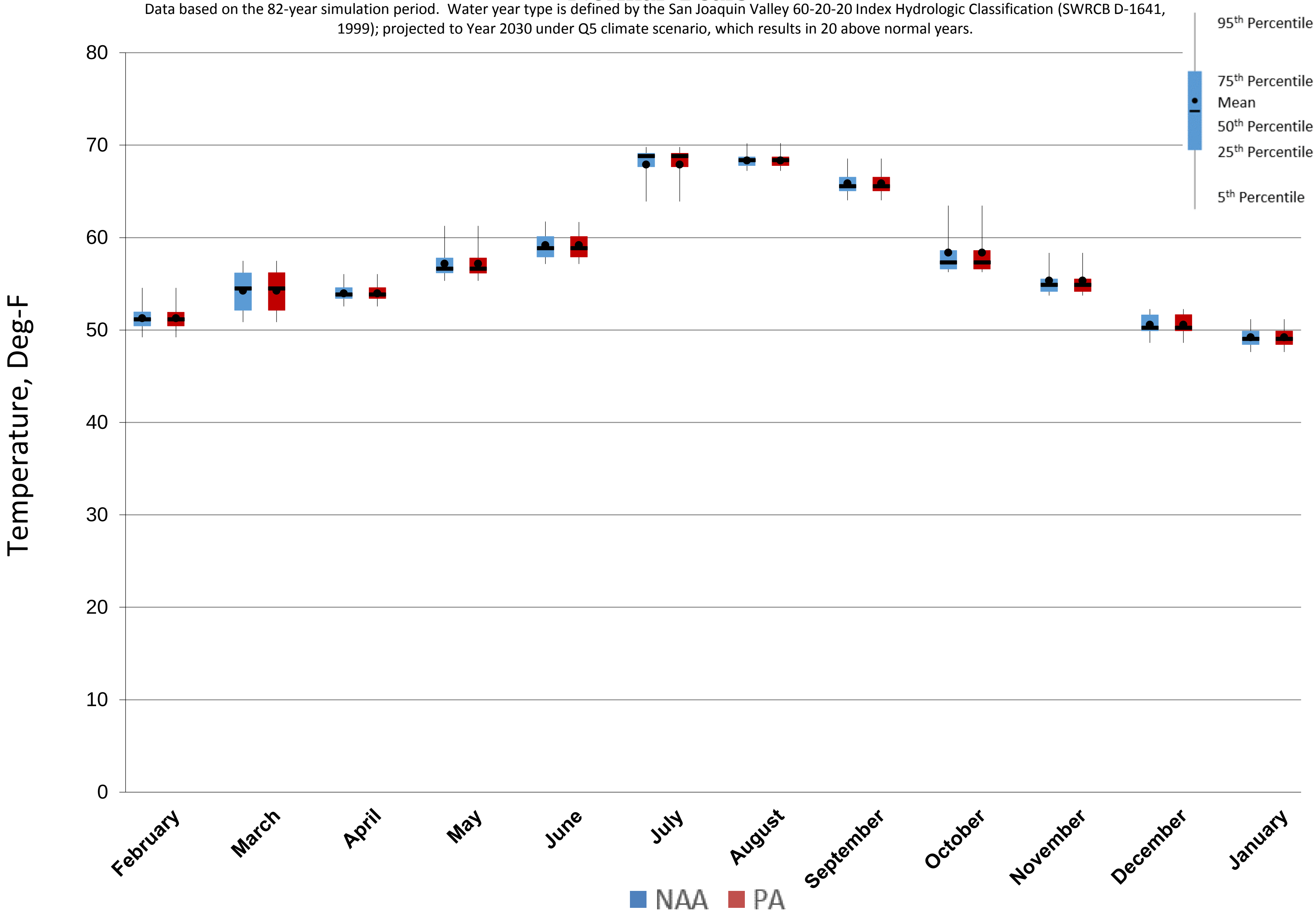


Figure 5.C.7-19-4. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, Below Normal Years

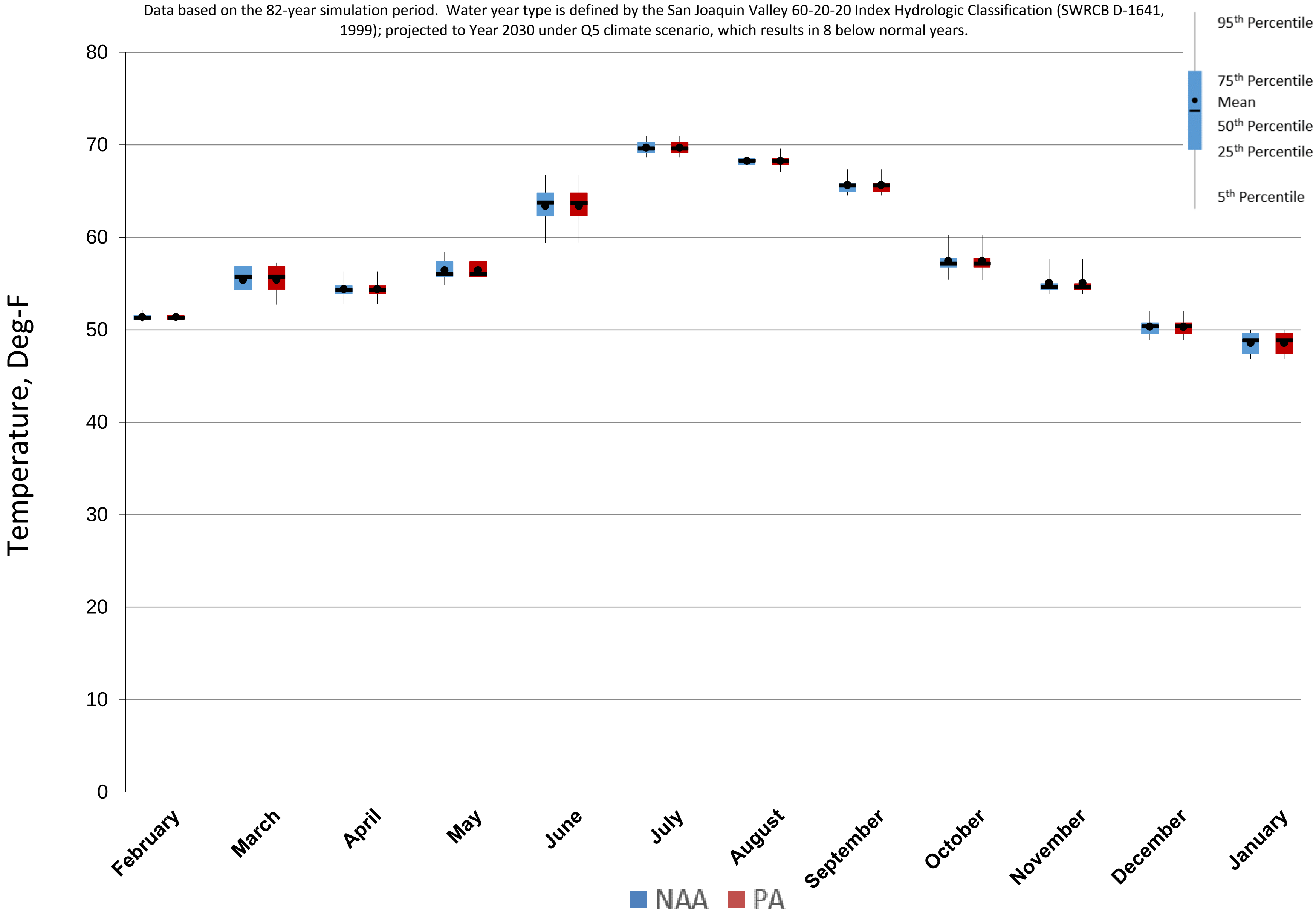


Figure 5.C.7-19-5. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, Dry Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 13 dry years.

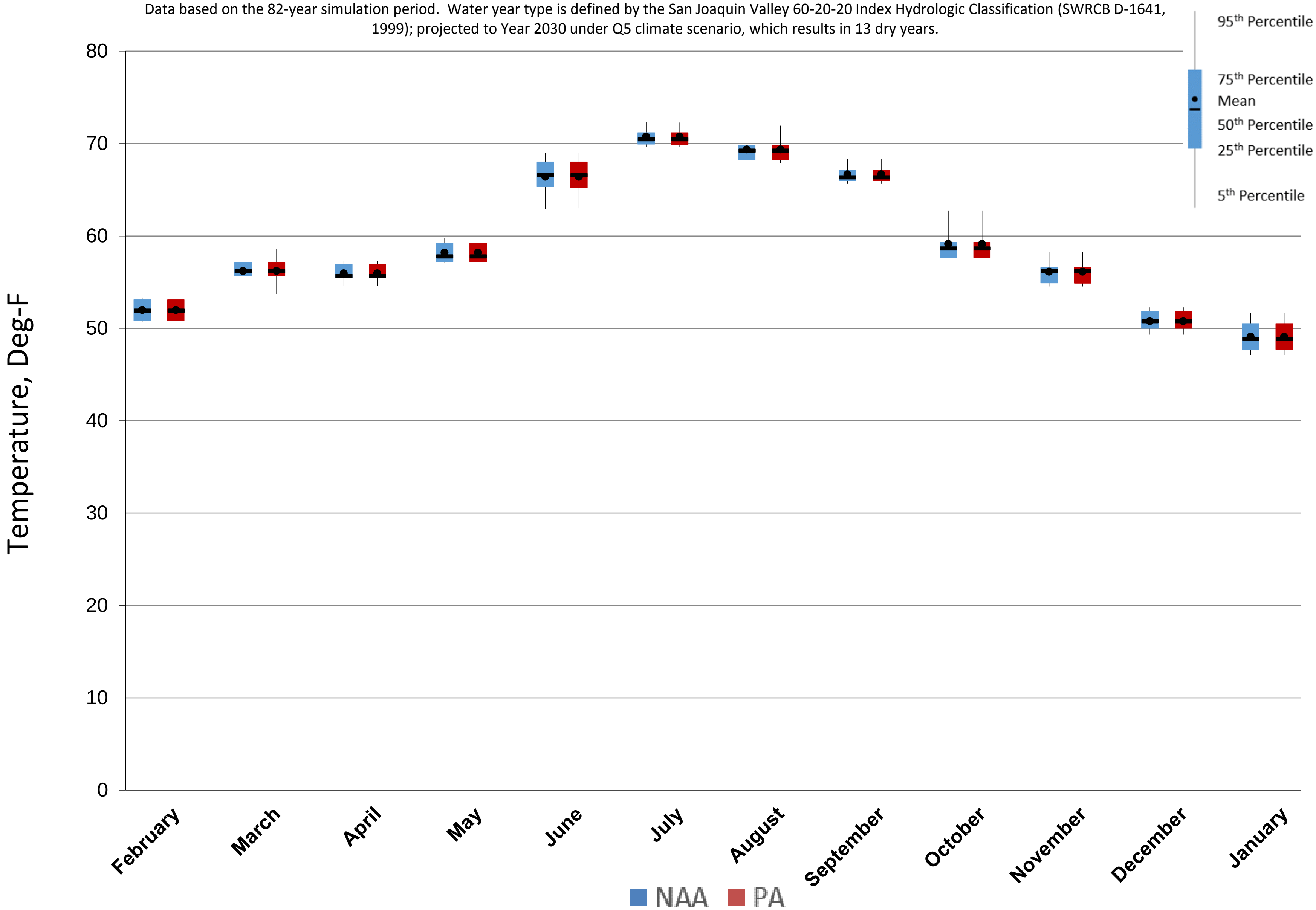


Figure 5.C.7-19-6. Monthly Temperature Ranges for Stanislaus River below Riverbank Bridge, Critical Years

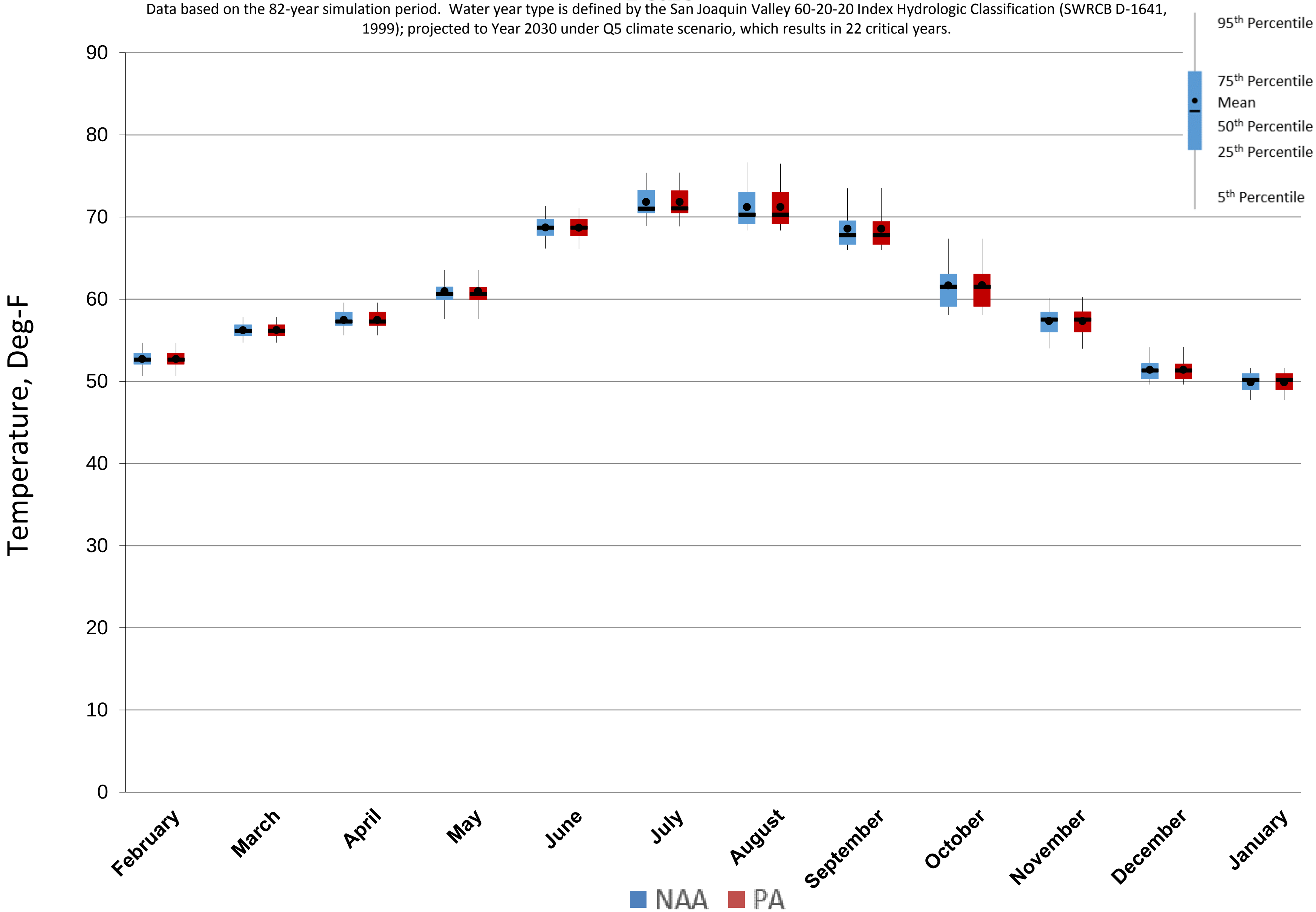
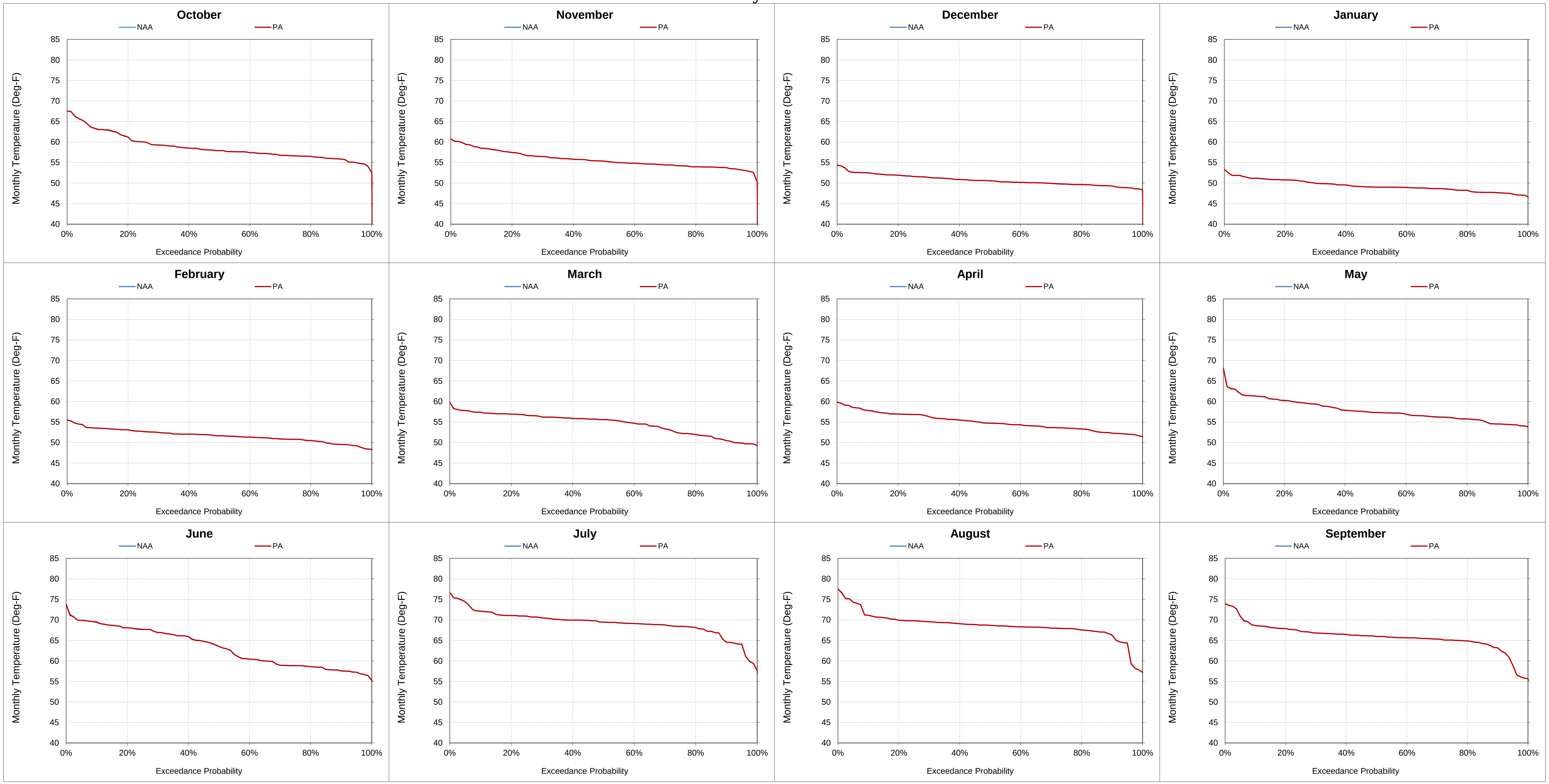
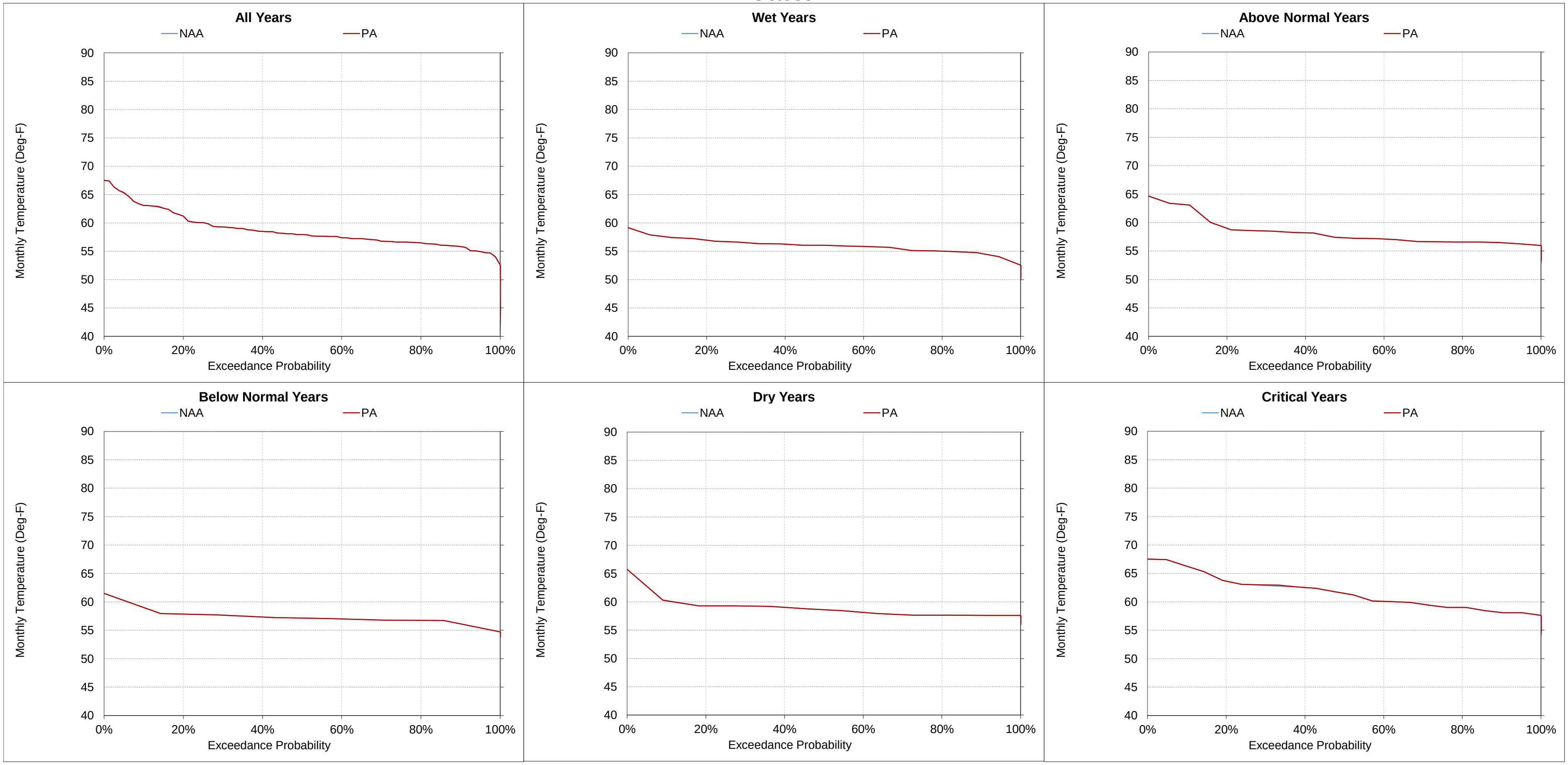


Figure 5.C.7-19-7. Stanislaus River below Riverbank Bridge, Monthly Temperature Probability of Exceedance



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-8. Stanislaus River below Riverbank Bridge, Monthly Temperature October



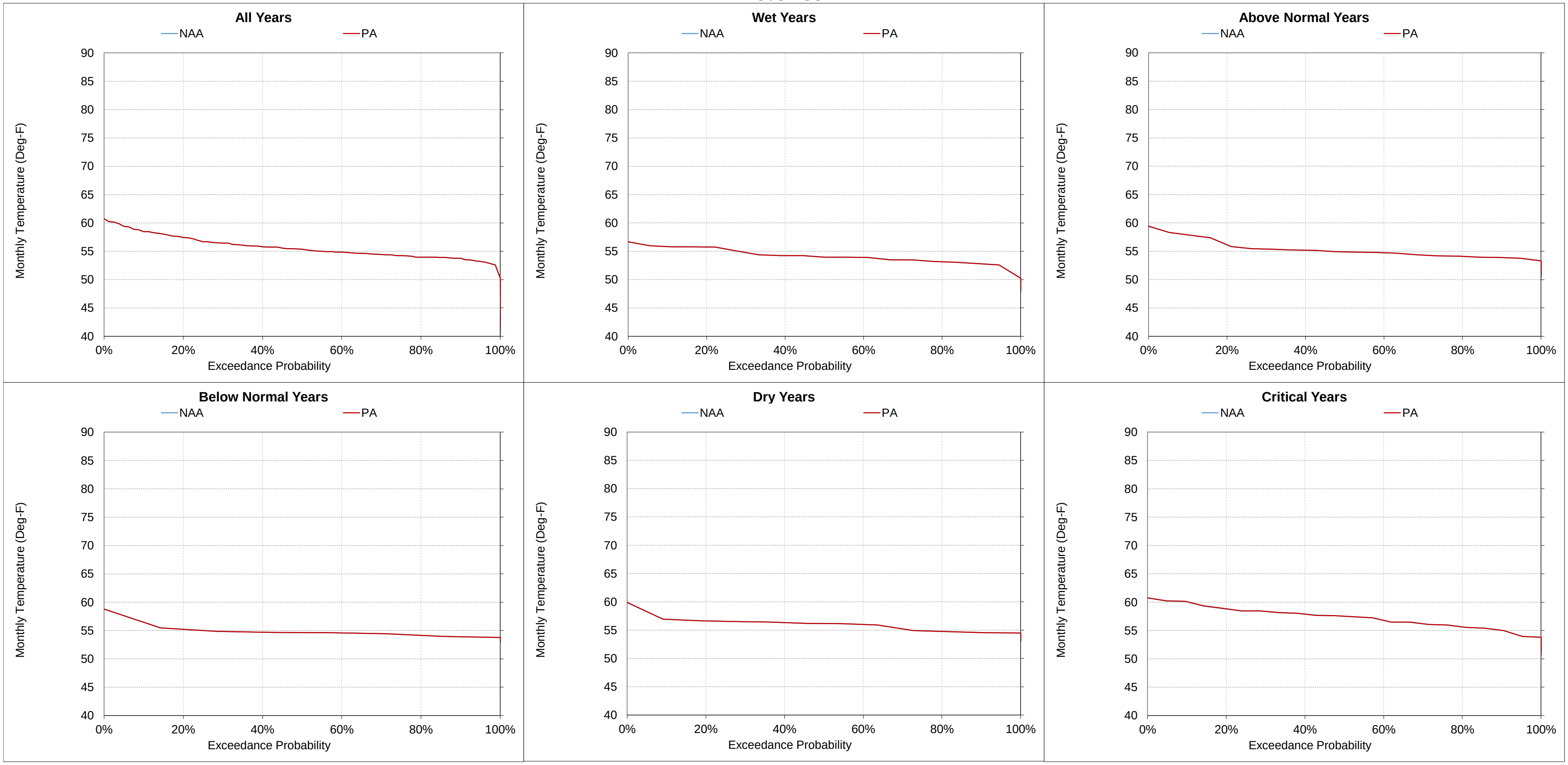
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

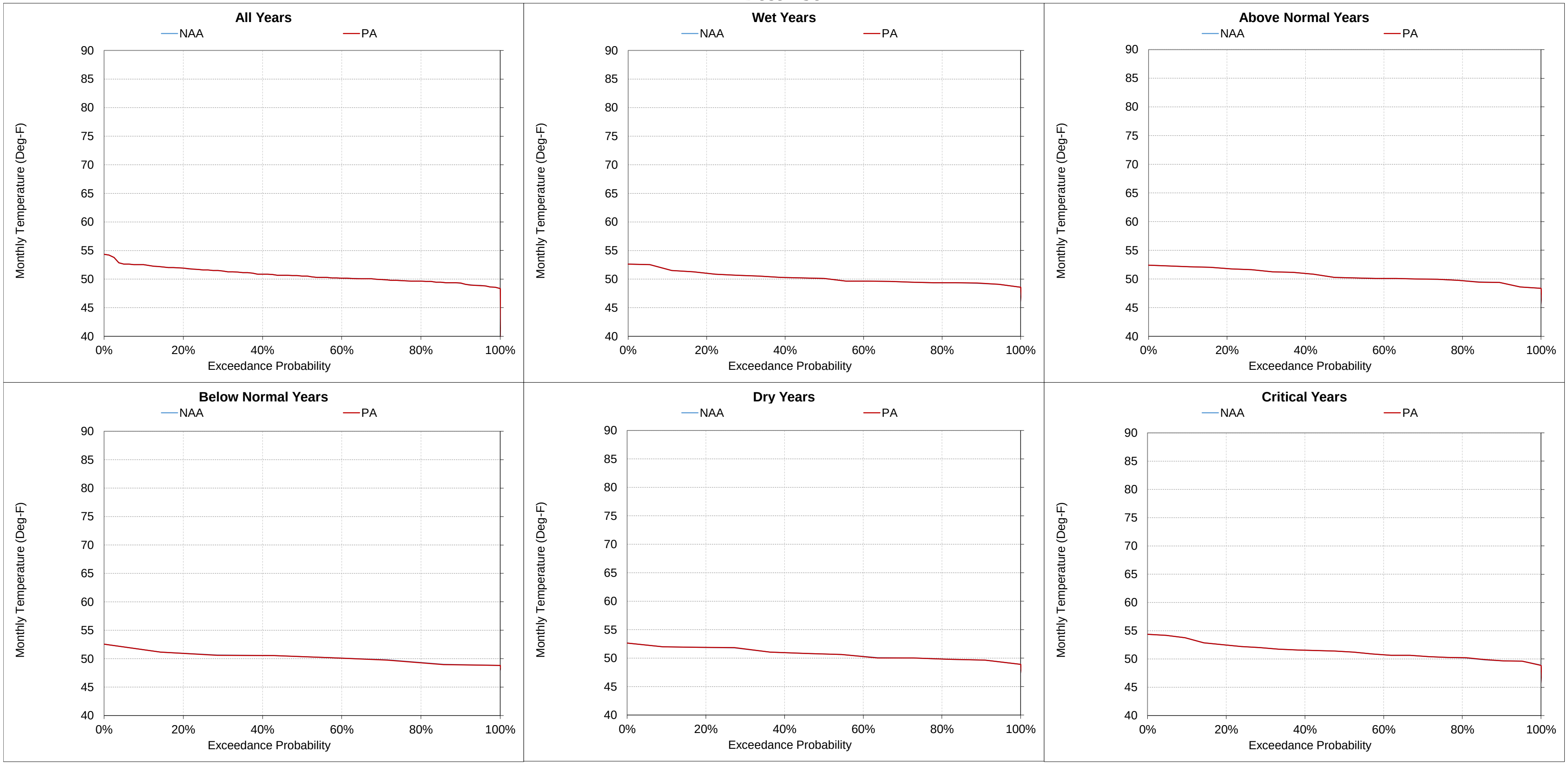
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-9. Stanislaus River below Riverbank Bridge, Monthly Temperature November



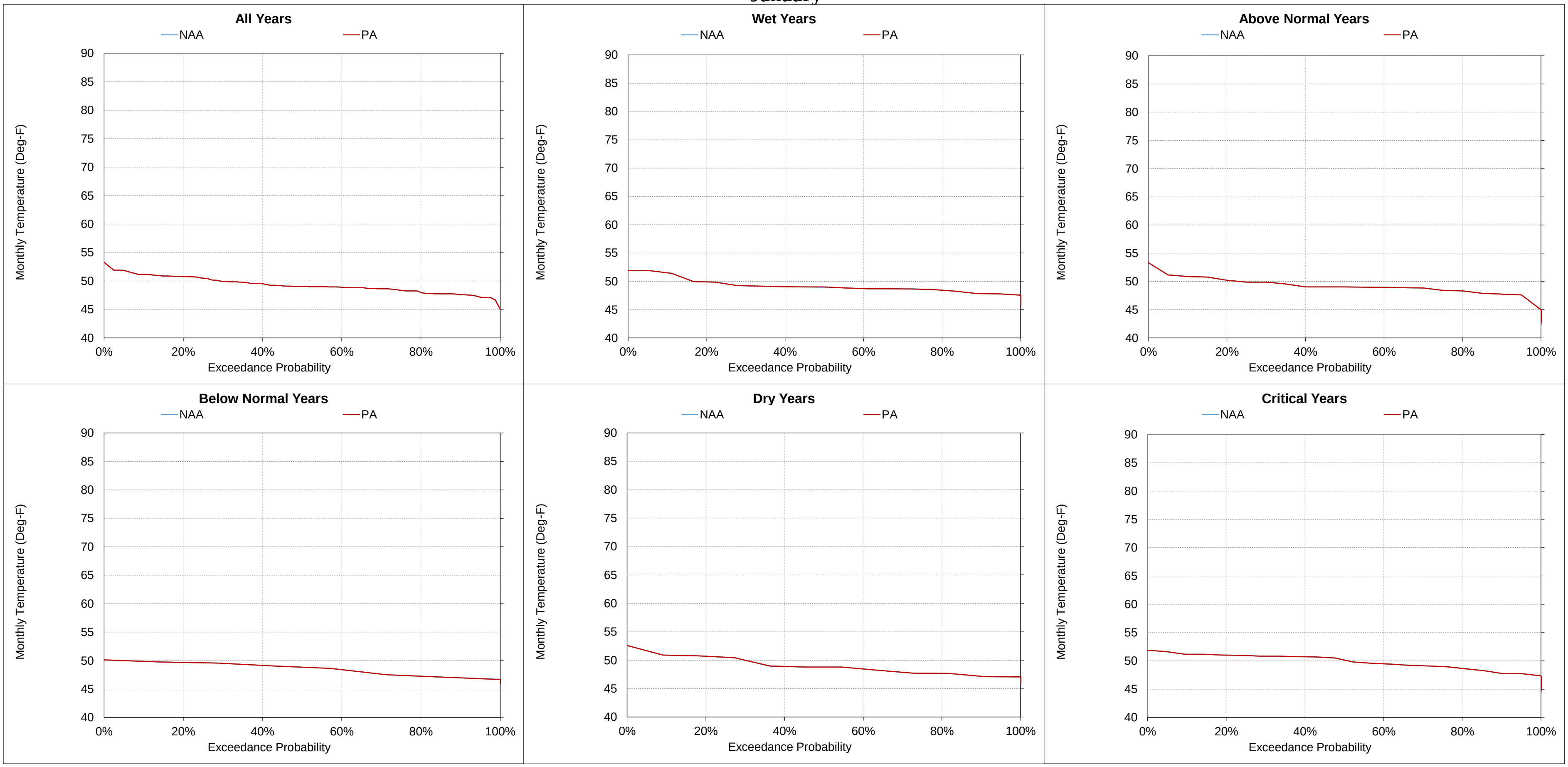
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-10. Stanislaus River below Riverbank Bridge, Monthly Temperature December



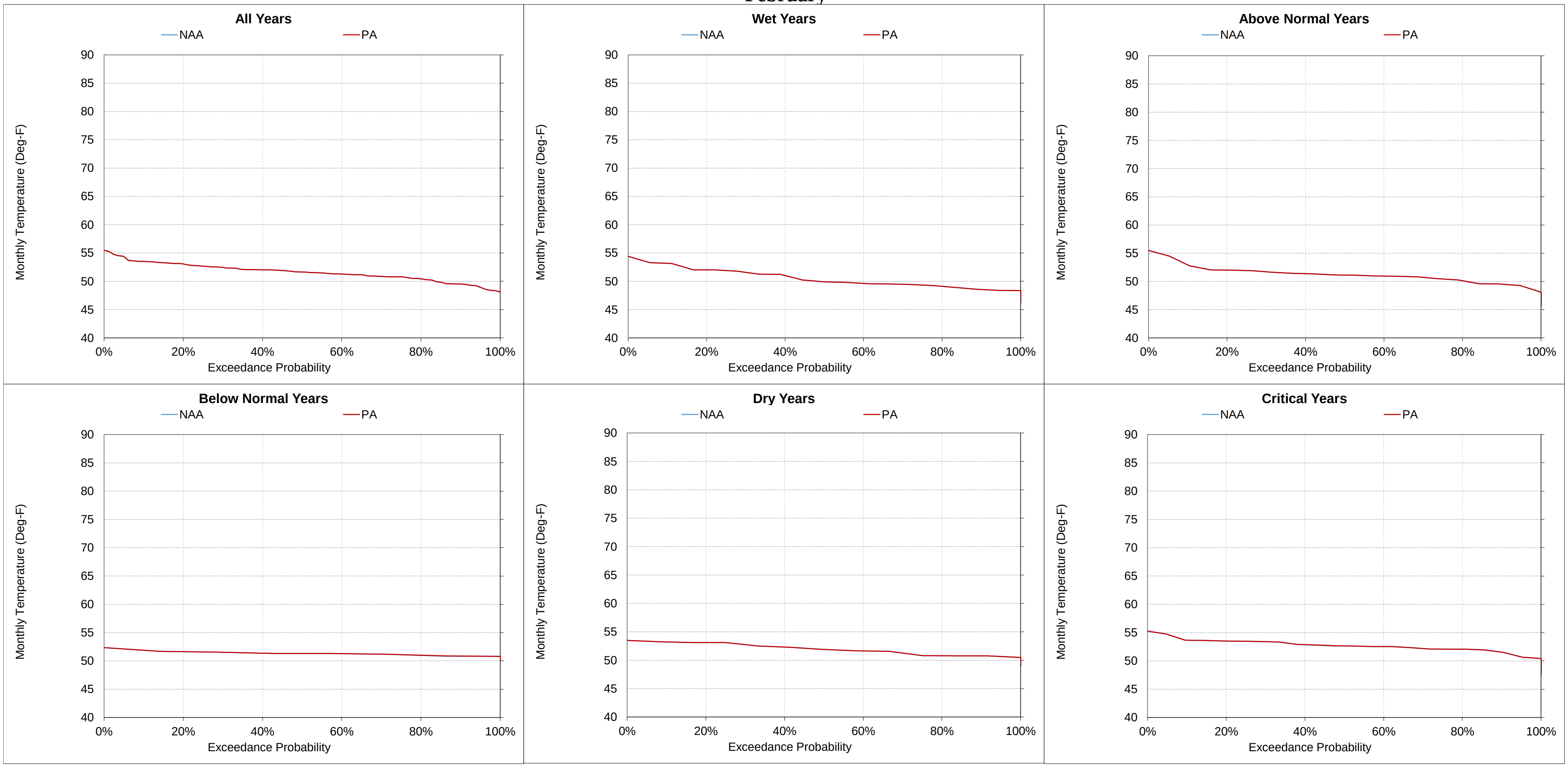
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-11. Stanislaus River below Riverbank Bridge, Monthly Temperature
January



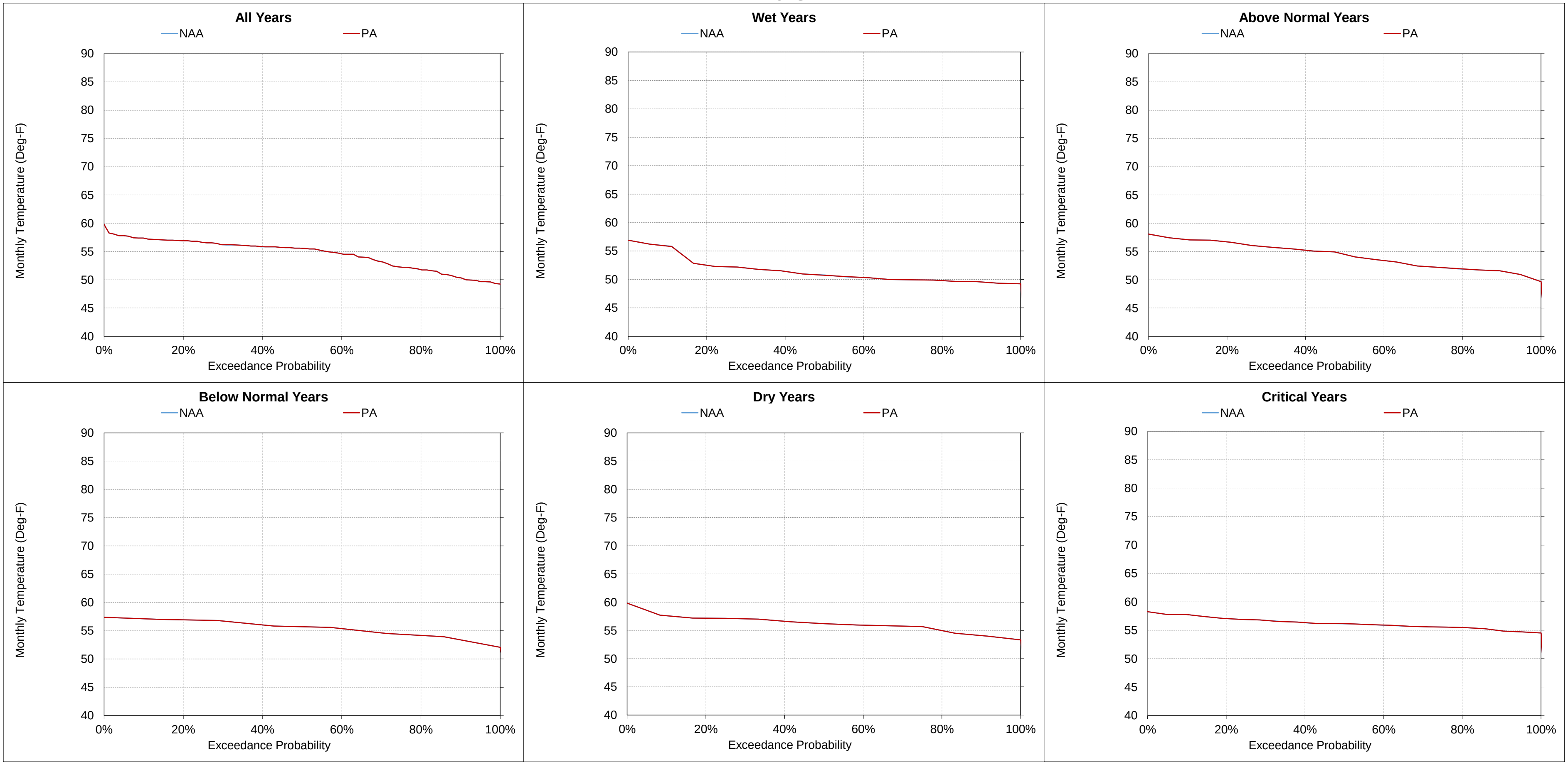
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-12. Stanislaus River below Riverbank Bridge, Monthly Temperature February



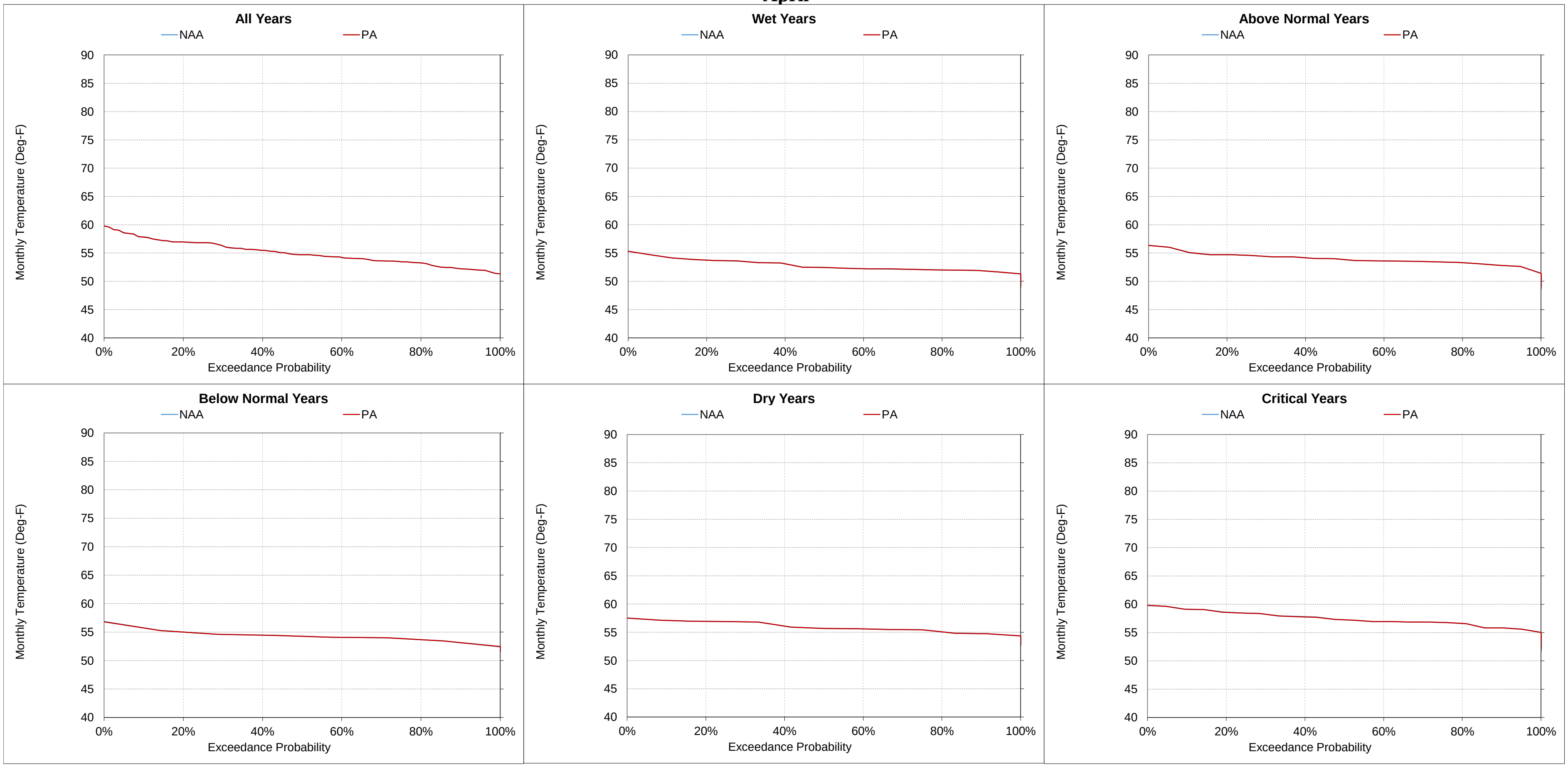
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-13. Stanislaus River below Riverbank Bridge, Monthly Temperature
March



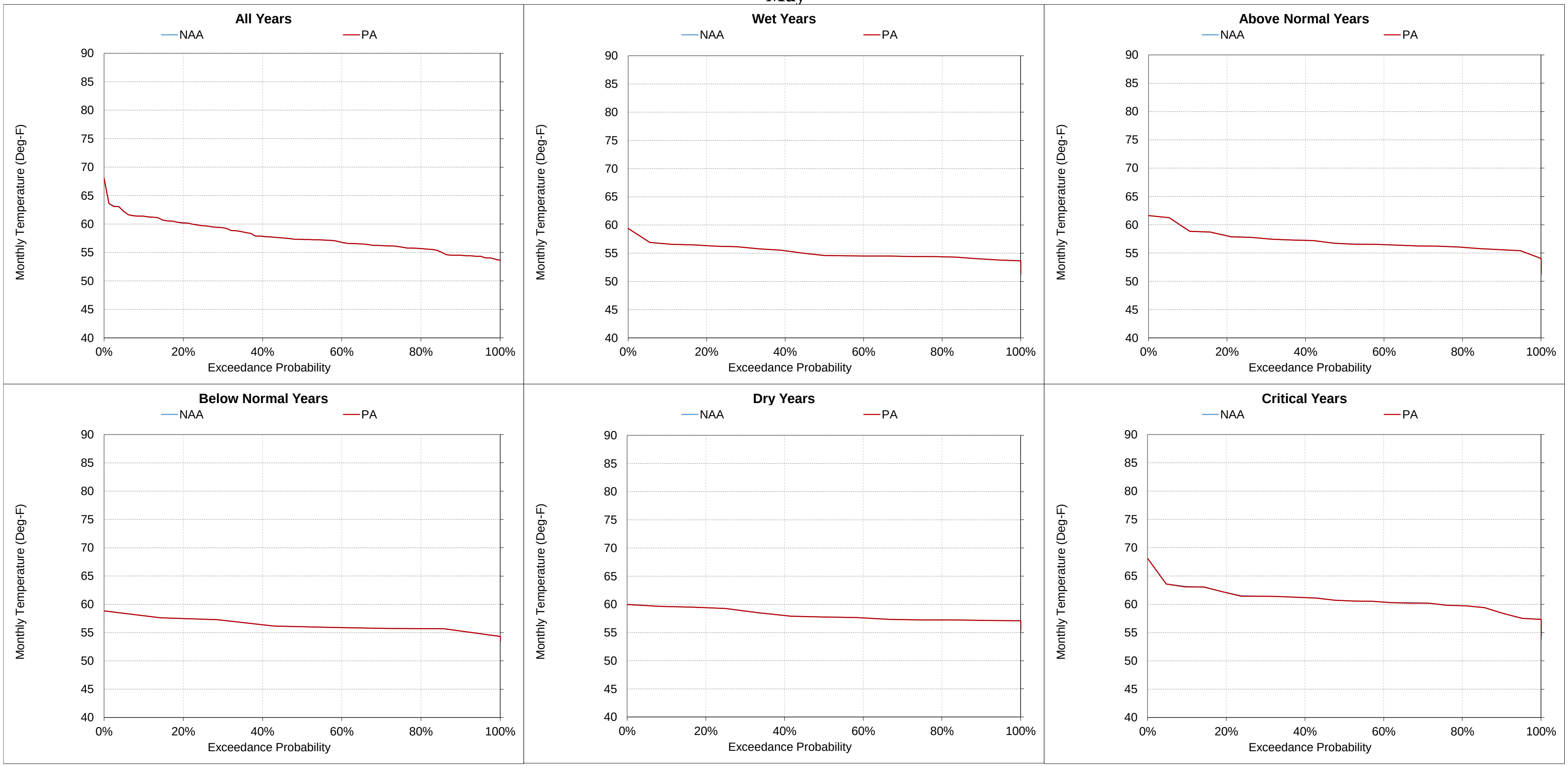
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-14. Stanislaus River below Riverbank Bridge, Monthly Temperature April



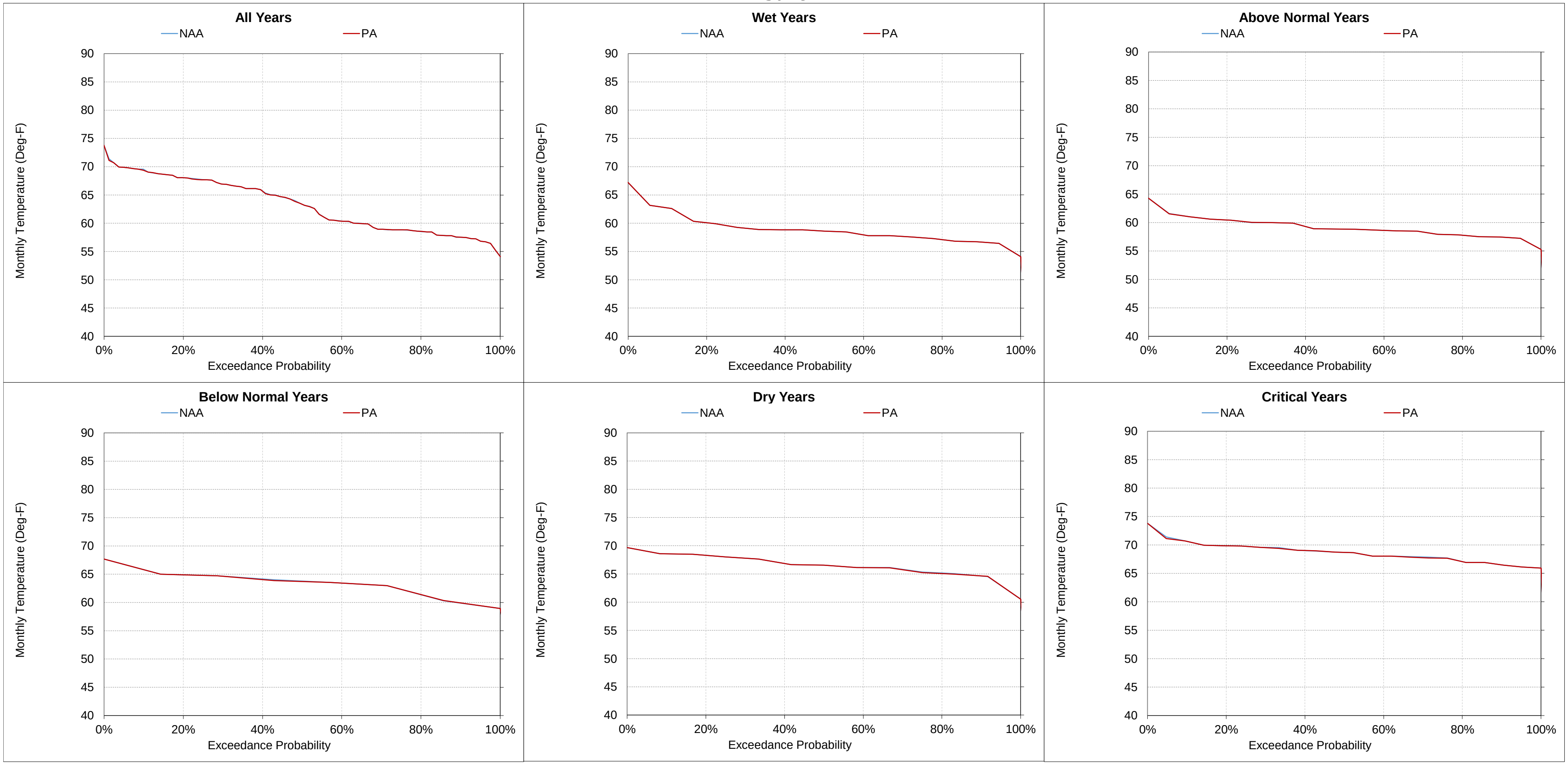
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-15. Stanislaus River below Riverbank Bridge, Monthly Temperature May



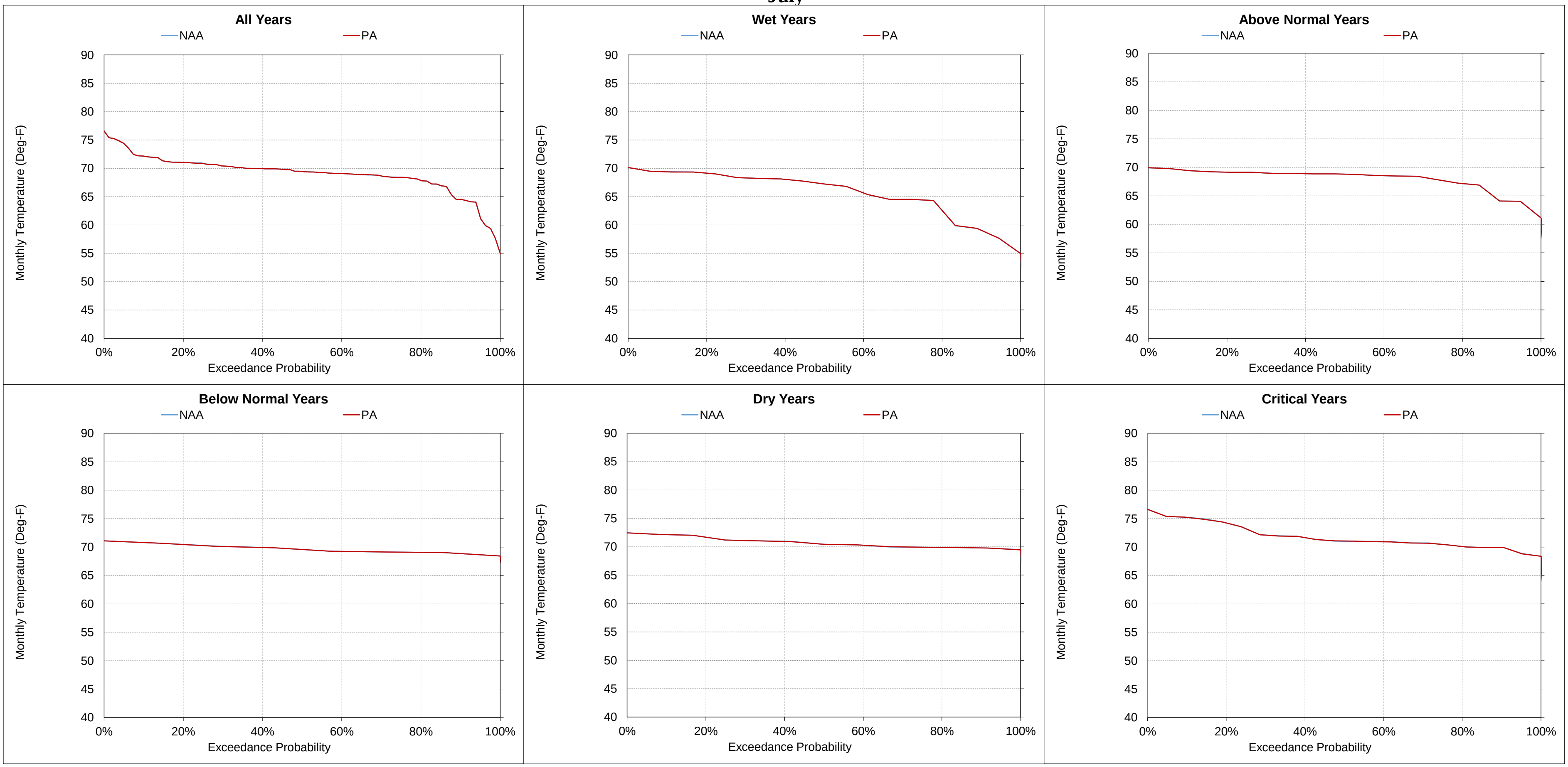
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-16. Stanislaus River below Riverbank Bridge, Monthly Temperature June



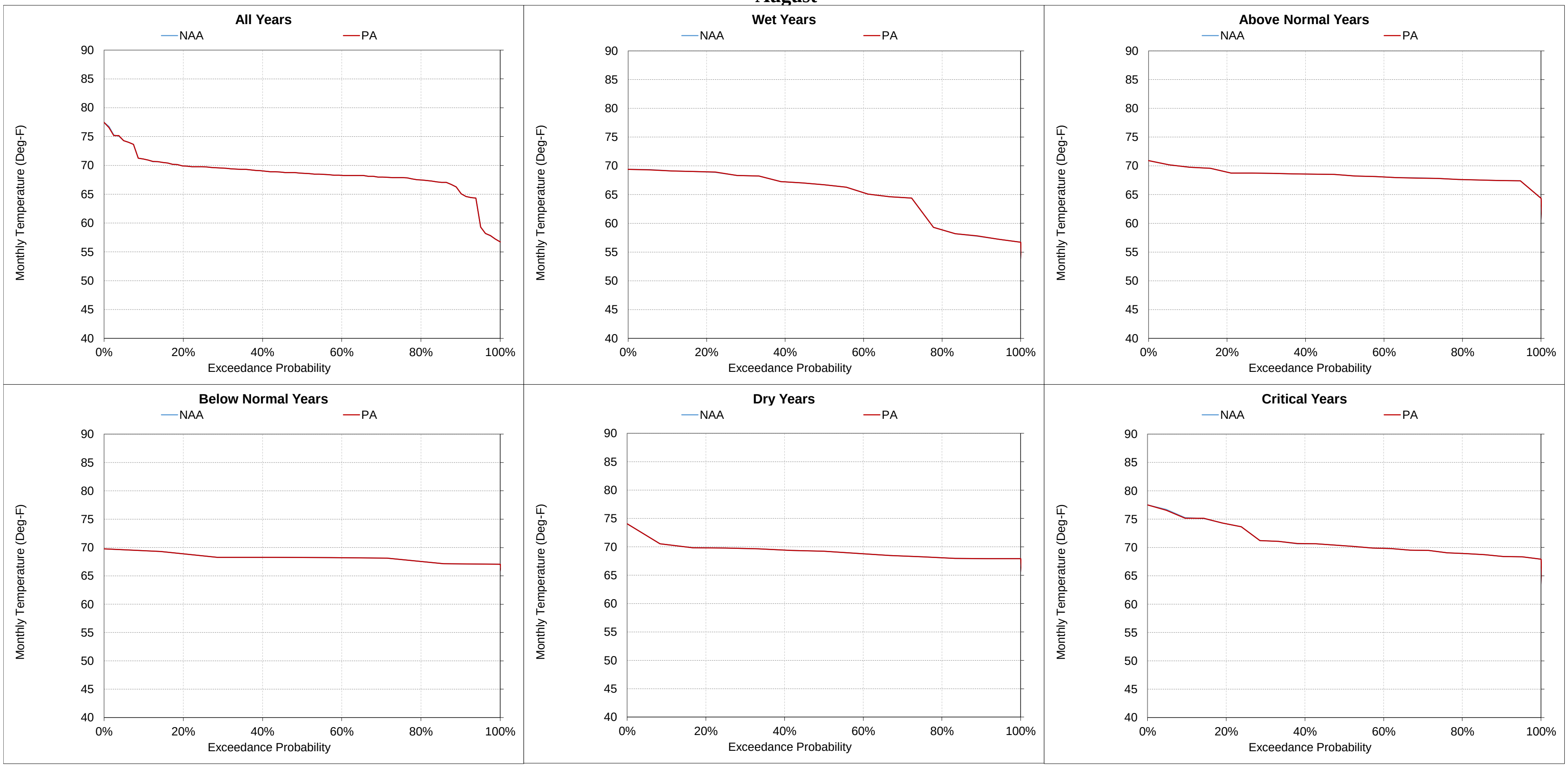
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-17. Stanislaus River below Riverbank Bridge, Monthly Temperature July



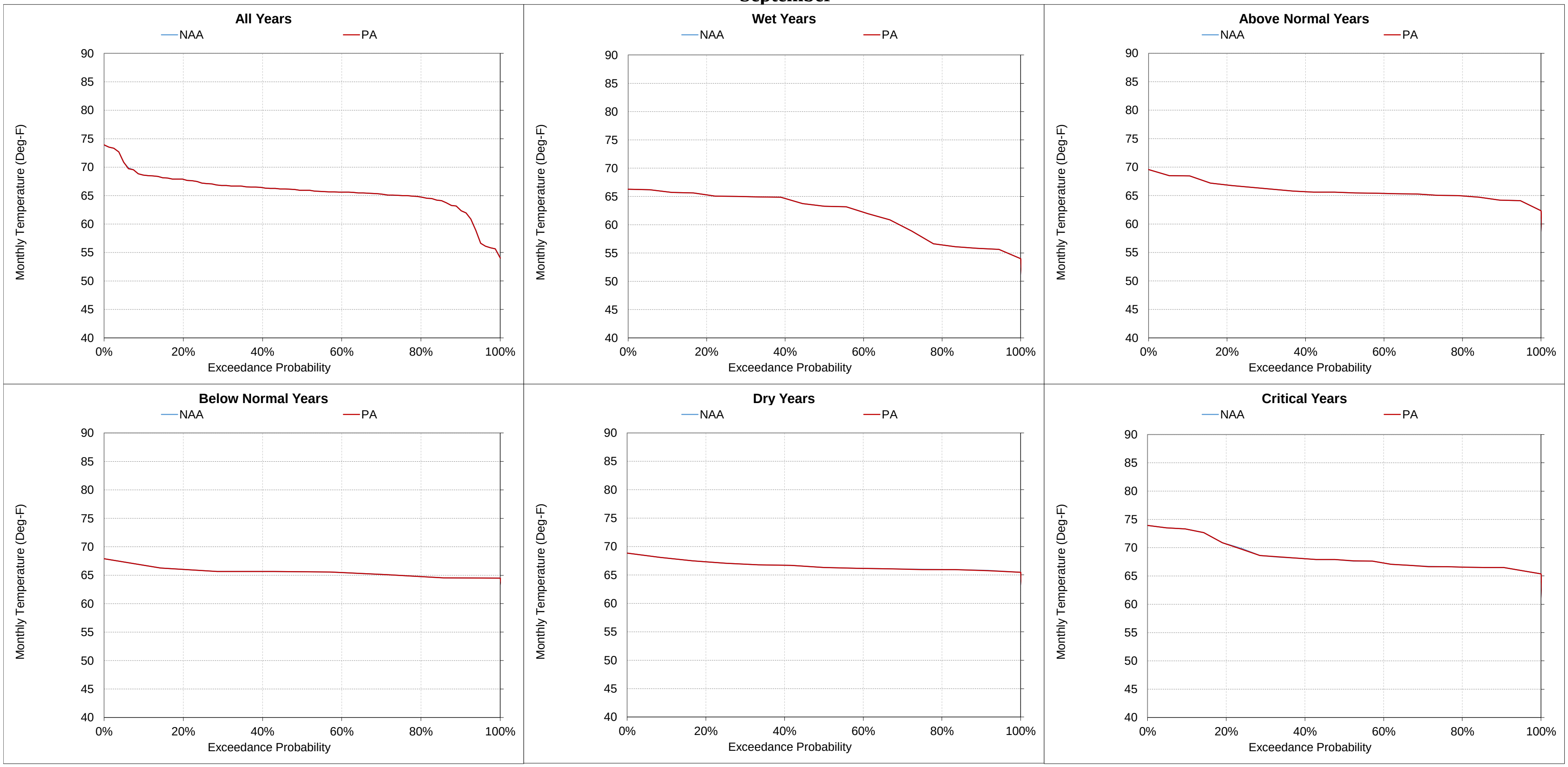
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-18. Stanislaus River below Riverbank Bridge, Monthly Temperature
August



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-19-19. Stanislaus River below Riverbank Bridge, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7-20. Stanislaus River at San Joaquin River Confluence, Monthly Temperature

Statistic	Monthly Temperature (Deg-F)																							
	October				November				December				January				February				March			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	64.6	64.6	0.0	0.0%	58.7	58.7	0.0	0.0%	52.0	52.0	0.0	0.0%	51.4	51.4	0.0	0.0%	54.9	54.9	0.0	0.0%	59.5	59.5	0.0	0.0%
20%	63.1	63.1	0.0	0.0%	57.6	57.6	0.0	0.0%	51.5	51.5	0.0	0.0%	50.8	50.8	0.0	0.0%	54.2	54.2	0.0	0.0%	59.0	59.0	0.0	0.0%
30%	61.8	61.8	0.0	0.0%	56.9	56.9	0.0	0.0%	51.0	51.0	0.0	0.0%	50.2	50.2	0.0	0.0%	53.7	53.7	0.0	0.0%	58.4	58.4	0.0	0.0%
40%	60.8	60.8	0.0	0.0%	56.4	56.4	0.0	0.0%	50.7	50.7	0.0	0.0%	49.7	49.7	0.0	0.0%	53.2	53.2	0.0	0.0%	57.9	57.9	0.0	0.0%
50%	60.2	60.2	0.0	0.0%	55.8	55.8	0.0	0.0%	50.3	50.3	0.0	0.0%	49.3	49.3	0.0	0.0%	52.9	52.9	0.0	0.0%	57.4	57.4	0.0	0.0%
60%	59.6	59.6	0.0	0.0%	55.2	55.2	0.0	0.0%	50.0	50.0	0.0	0.0%	49.0	49.0	0.0	0.0%	52.6	52.6	0.0	0.0%	56.8	56.8	0.0	0.0%
70%	59.1	59.1	0.0	0.0%	55.0	55.0	0.0	0.0%	49.7	49.7	0.0	0.0%	48.8	48.8	0.0	0.0%	52.0	52.0	0.0	0.0%	54.9	54.9	0.0	0.0%
80%	58.7	58.7	0.0	0.0%	54.7	54.7	0.0	0.0%	49.3	49.3	0.0	0.0%	48.5	48.5	0.0	0.0%	51.5	51.5	0.0	0.0%	53.6	53.6	0.0	0.0%
90%	58.2	58.2	0.0	0.0%	54.2	54.2	0.0	0.0%	49.0	49.0	0.0	0.0%	47.9	47.9	0.0	0.0%	50.6	50.6	0.0	0.0%	51.9	51.9	0.0	0.0%
Long Term Full Simulation Period[b]	60.8	60.8	0.0	0.0%	56.1	56.1	0.0	0.0%	50.4	50.4	0.0	0.0%	49.6	49.6	0.0	0.0%	52.9	52.9	0.0	0.0%	56.5	56.5	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	58.4	58.4	0.0	0.0%	55.0	55.0	0.0	0.0%	50.3	50.3	0.0	0.0%	49.6	49.6	0.0	0.0%	51.8	51.8	0.0	0.0%	53.3	53.3	0.0	0.0%
Above Normal (24%)	60.5	60.5	0.0	0.0%	55.8	55.8	0.0	0.0%	50.2	50.2	0.0	0.0%	49.4	49.4	0.0	0.0%	52.6	52.6	0.0	0.0%	56.1	56.1	0.0	0.0%
Below Normal (10%)	59.4	59.4	0.0	0.0%	55.6	55.6	0.0	0.0%	50.1	50.1	0.0	0.0%	48.8	48.8	0.0	0.0%	52.4	52.4	0.0	0.0%	57.1	57.1	0.0	0.0%
Dry (16%)	61.2	61.2	0.0	0.0%	56.5	56.5	0.0	0.0%	50.5	50.5	0.0	0.0%	49.4	49.4	0.0	0.0%	53.2	53.2	0.0	0.0%	58.0	58.0	0.0	0.0%
Critical (27%)	63.4	63.4	0.0	0.0%	57.3	57.3	0.0	0.0%	50.9	50.9	0.0	0.0%	50.1	50.1	0.0	0.0%	54.0	54.0	0.0	0.0%	58.6	58.6	0.0	0.0%

Statistic	Monthly Temperature (Deg-F)																							
	April				May				June				July				August				September			
	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.	NAA	PA	Diff.	Perc. Diff.
Probability of Exceedance[a]																								
10%	61.6	61.5	0.0	0.0%	65.2	65.2	0.0	0.0%	72.6	72.6	0.0	0.0%	76.3	76.3	0.0	0.0%	75.4	75.4	0.0	0.0%	71.6	71.6	0.0	0.0%
20%	60.6	60.6	0.0	0.0%	64.4	64.4	0.0	0.0%	71.8	71.8	0.0	0.0%	75.5	75.5	0.0	0.0%	74.4	74.4	0.0	0.0%	70.9	70.9	0.0	0.0%
30%	59.3	59.4	0.0	0.0%	63.6	63.6	0.0	0.0%	70.8	70.8	0.0	0.0%	75.0	74.9	0.0	-0.1%	73.9	73.9	0.0	0.0%	70.4	70.4	0.0	0.0%
40%	58.4	58.4	0.0	0.0%	62.0	62.0	0.0	0.0%	69.7	69.6	-0.1	-0.1%	74.3	74.3	0.0	0.0%	73.4	73.5	0.0	0.0%	69.9	69.9	0.0	0.0%
50%	57.5	57.5	0.0	0.0%	61.0	61.0	0.0	0.0%	67.4	67.4	0.0	0.0%	73.6	73.6	0.0	0.0%	73.1	73.1	0.0	0.0%	69.5	69.5	0.0	0.0%
60%	56.9	56.9	0.0	0.0%	60.7	60.7	0.0	0.0%	65.1	65.1	0.0	0.0%	73.1	73.1	0.0	0.0%	72.6	72.6	0.0	0.0%	69.2	69.2	0.0	0.0%
70%	56.0	56.0	0.0	0.0%	59.9	59.9	0.0	0.0%	63.9	63.9	0.0	0.0%	72.9	72.9	0.0	0.0%	72.4	72.4	0.0	0.0%	68.7	68.7	0.0	0.0%
80%	55.6	55.6	0.0	0.0%	58.7	58.7	0.0	0.0%	62.7	62.7	0.0	0.0%	71.9	71.9	0.0	0.0%	71.9	71.9	0.0	0.0%	68.1	68.1	0.0	0.0%
90%	54.8	54.8	0.0	0.0%	57.9	57.9	0.0	0.0%	61.5	61.5	0.0	0.0%	69.3	69.3	0.0	0.0%	70.7	70.7	0.0	0.0%	66.6	66.6	0.0	0.0%
Long Term Full Simulation Period[b]	57.9	57.9	0.0	0.0%	61.6	61.6	0.0	0.0%	67.2	67.2	0.0	0.0%	73.2	73.2	0.0	0.0%	72.7	72.7	0.0	0.0%	69.0	69.0	0.0	0.0%
Water Year Types[c]																								
Wet (23%)	55.4	55.4	0.0	0.0%	58.9	58.9	0.0	0.0%	63.3	63.3	0.0	0.0%	70.0	70.0	0.0	0.0%	69.7	69.7	0.0	0.0%	65.5	65.5	0.0	0.0%
Above Normal (24%)	56.6	56.6	0.0	0.0%	61.0	61.0	0.0	0.0%	63.4	63.4	0.0	0.0%	72.0	72.0	0.0	0.0%	72.7	72.7	0.0	0.0%	69.2	69.2	0.0	0.0%
Below Normal (10%)	57.1	57.1	0.0	0.0%	59.8	59.8	0.0	0.0%	67.5	67.5	0.0	0.0%	73.9	73.9	0.0	0.0%	72.6	72.6	0.0	0.0%	69.0	69.0	0.0	0.0%
Dry (16%)	59.2	59.2	0.0	0.0%	62.0	62.0	0.0	0.0%	70.2	70.2	0.0	0.0%	75.1	75.1	0.0	0.0%	73.4	73.4	0.0	0.0%	69.9	69.9	0.0	0.0%
Critical (27%)	60.8	60.8	0.0	0.0%	65.0	65.0	0.0	0.0%	72.1	72.1	0.0	0.0%	75.8	75.8	0.0	0.0%	74.7	74.7	0.0	0.0%	71.2	71.2	0.0	0.0%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-1. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, All Years

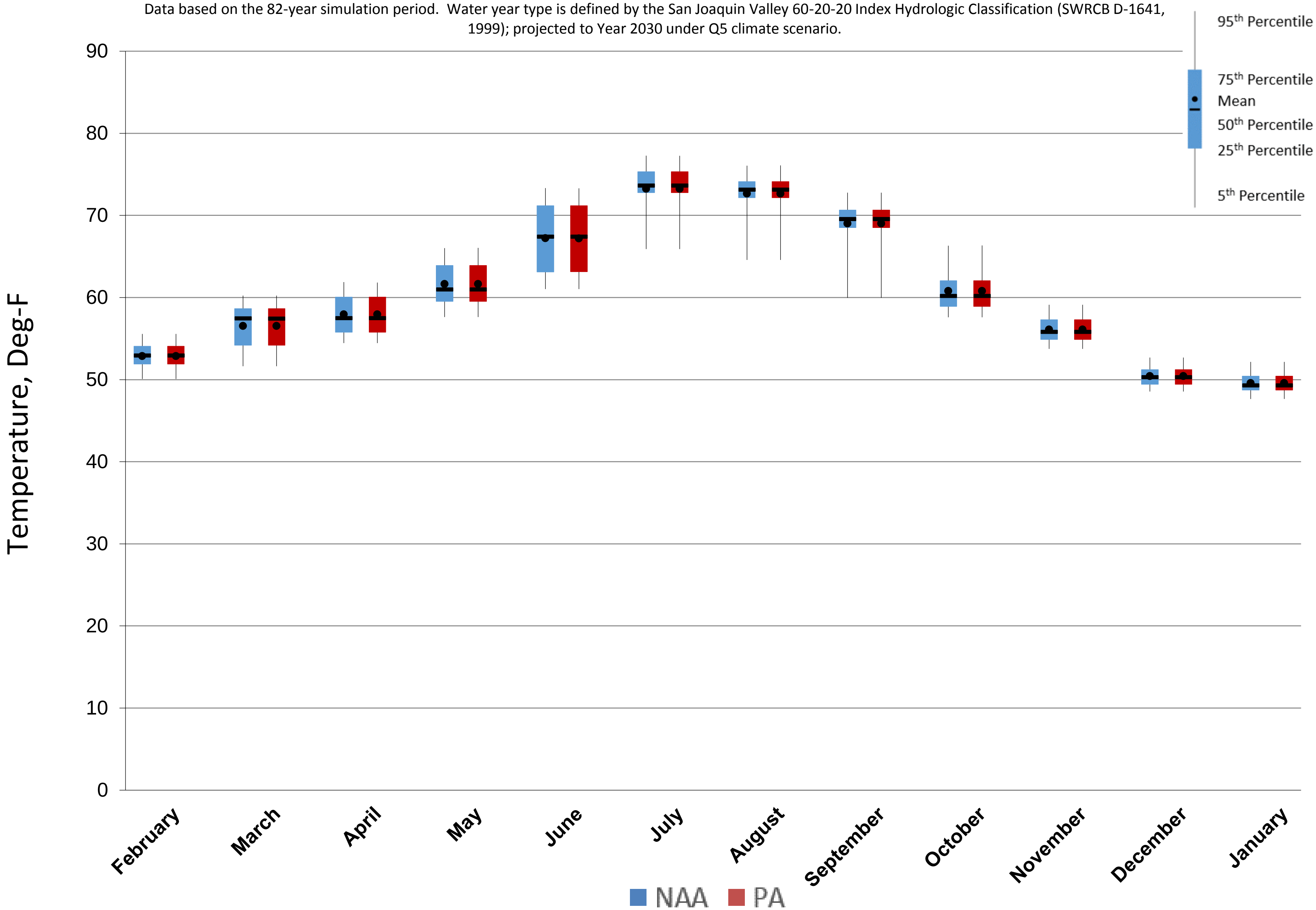


Figure 5.C.7-20-2. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, Wet Years

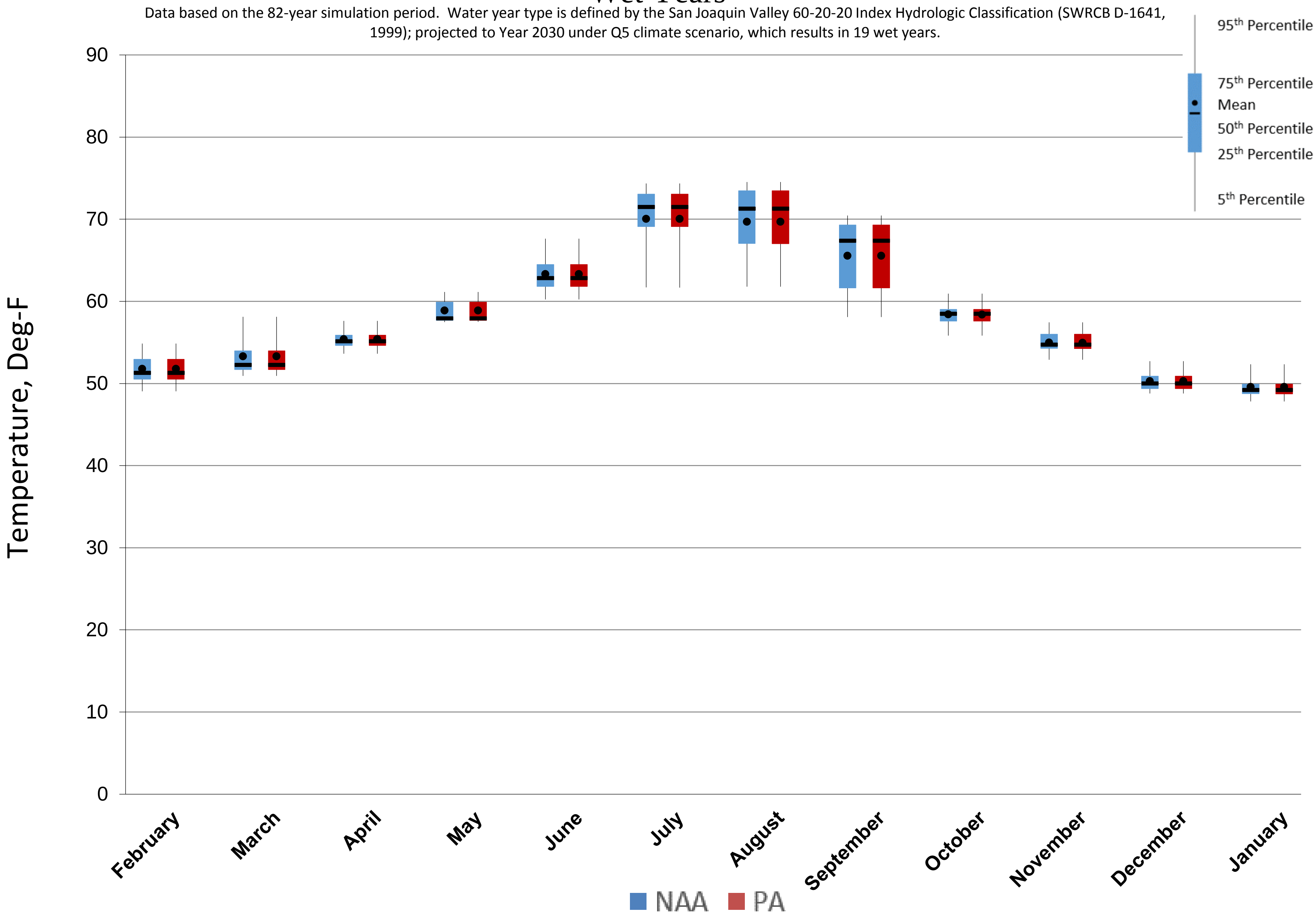


Figure 5.C.7-20-3. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, Above Normal Years

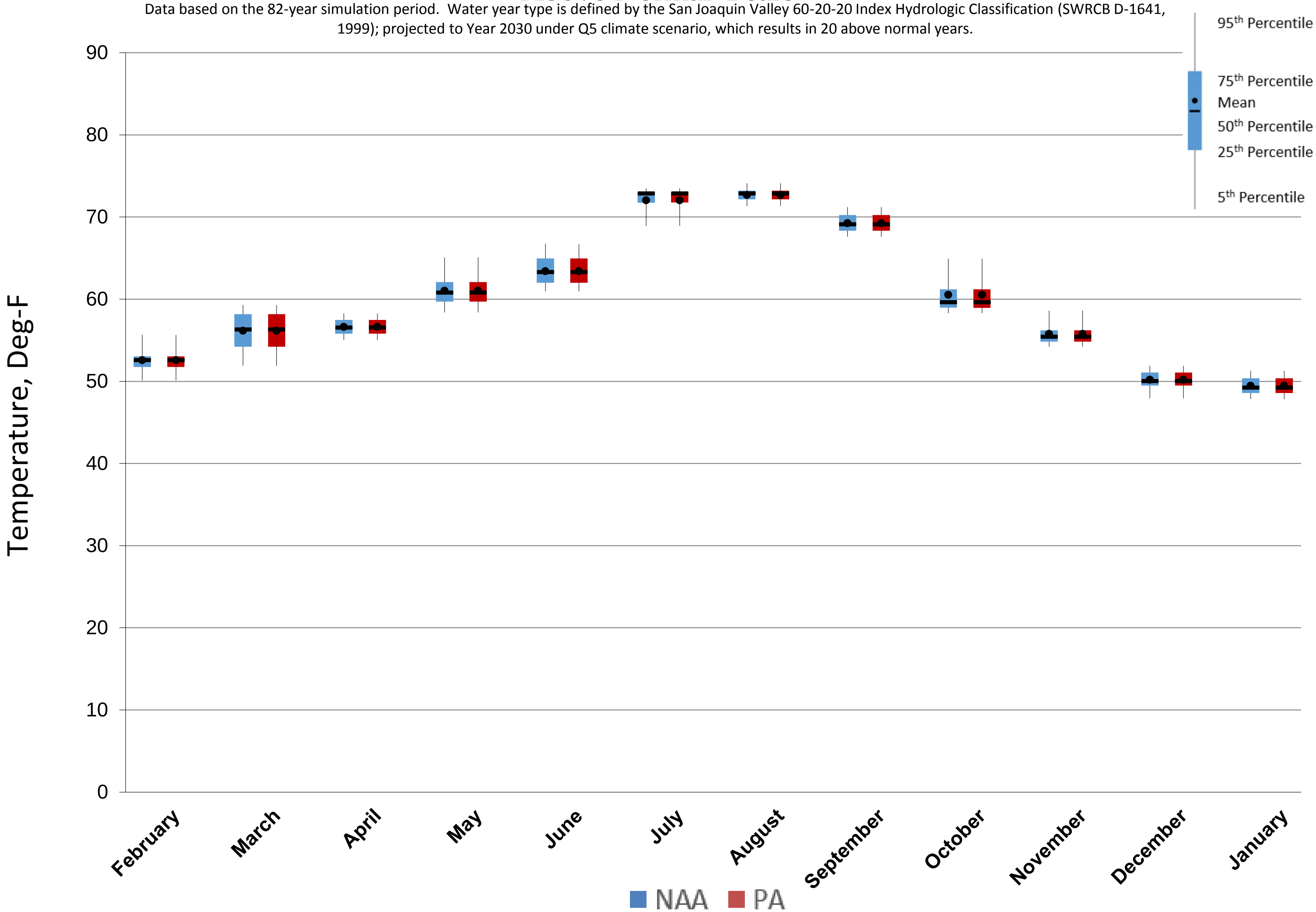


Figure 5.C.7-20-4. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, Below Normal Years

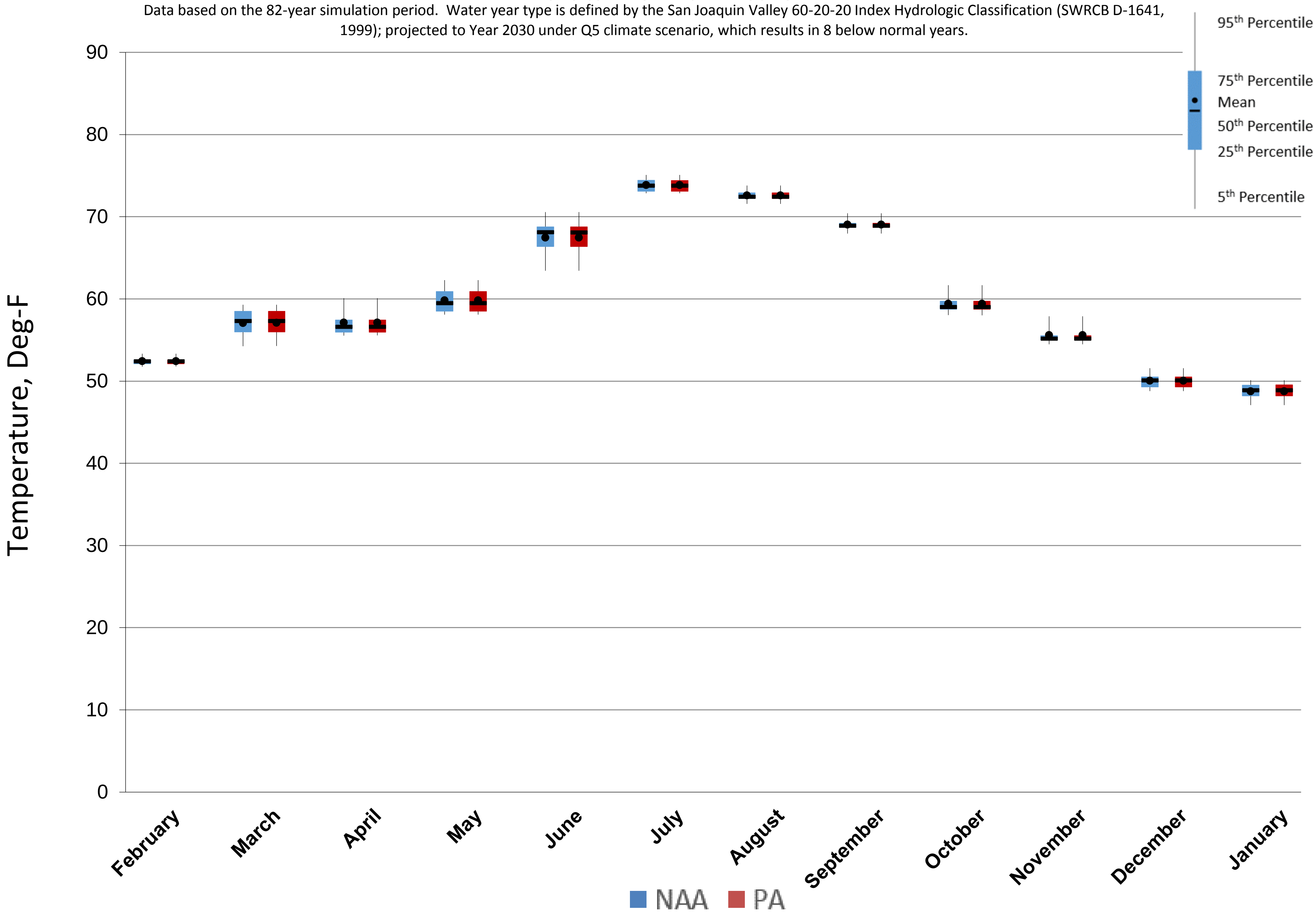


Figure 5.C.7-20-5. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, Dry Years

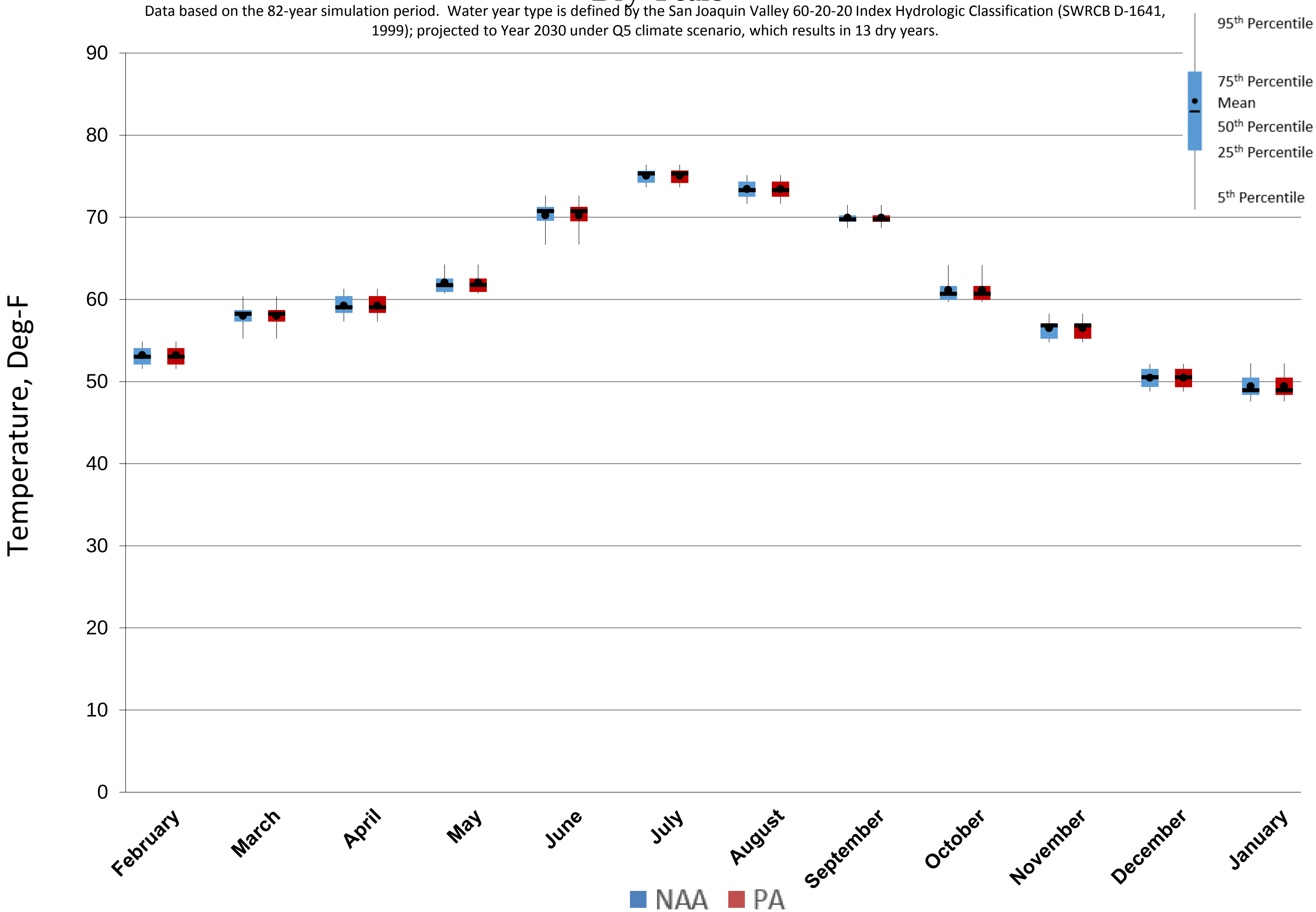


Figure 5.C.7-20-6. Monthly Temperature Ranges for Stanislaus River at San Joaquin River Confluence, Critical Years

Data based on the 82-year simulation period. Water year type is defined by the San Joaquin Valley 60-20-20 Index Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 under Q5 climate scenario, which results in 22 critical years.

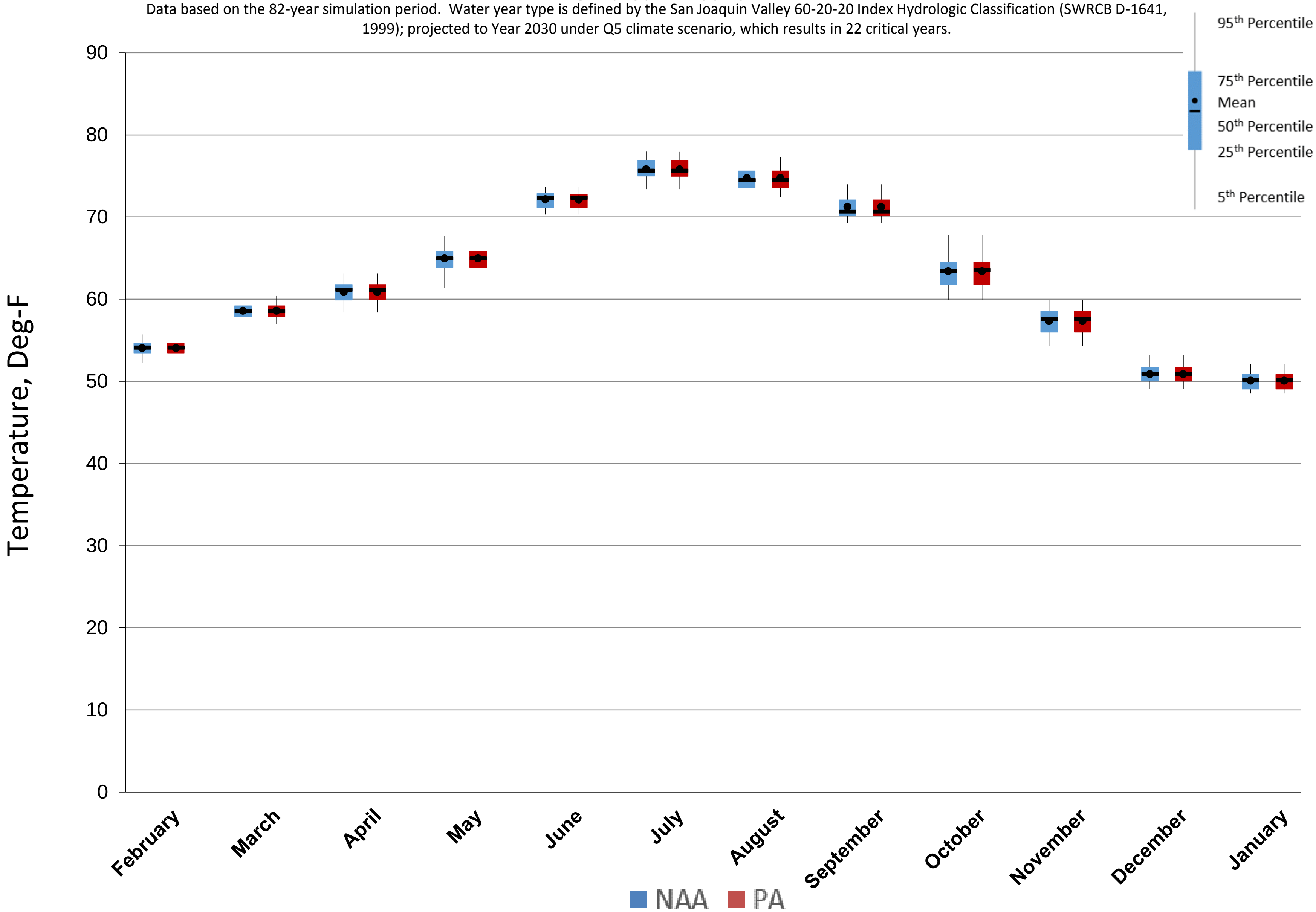
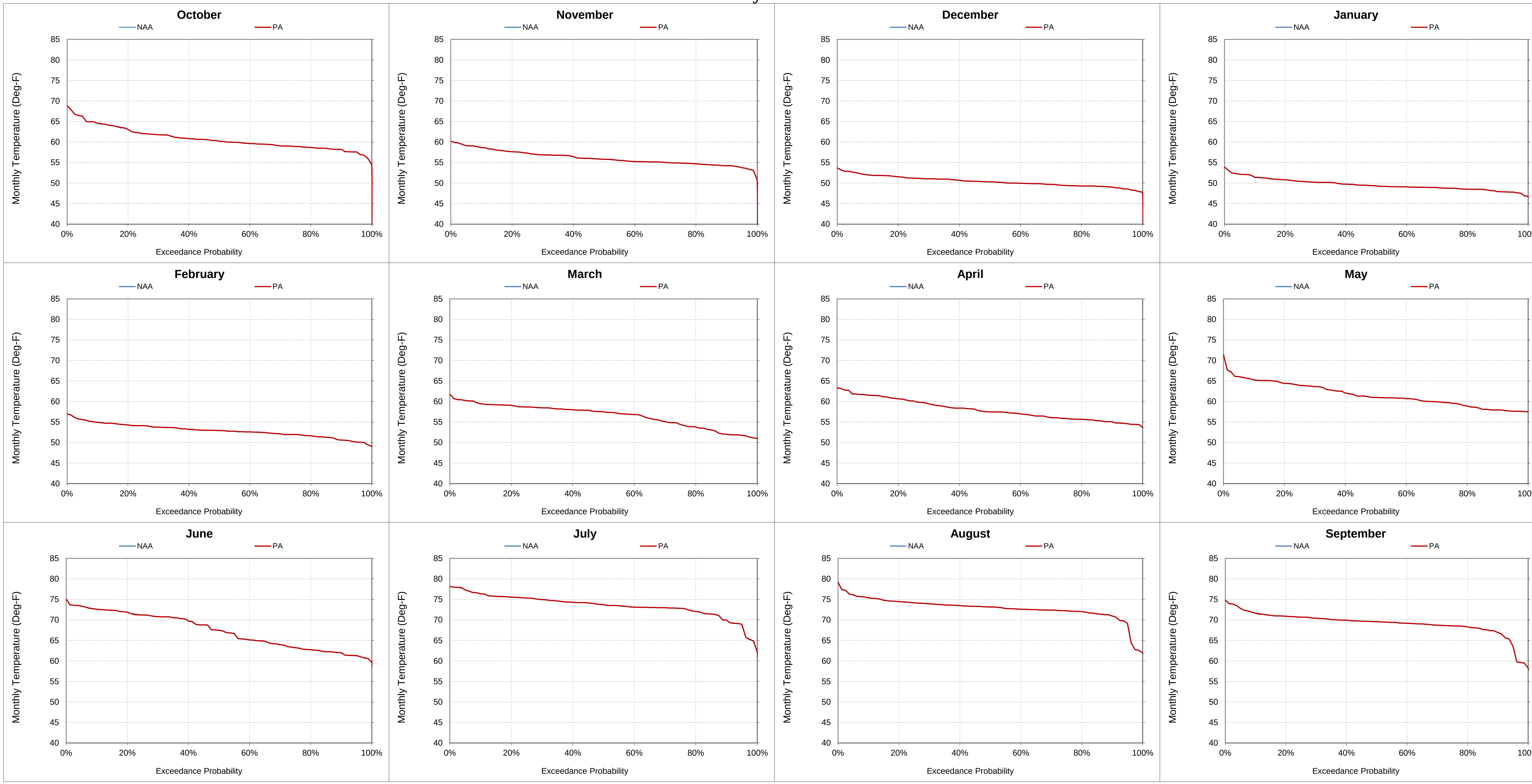
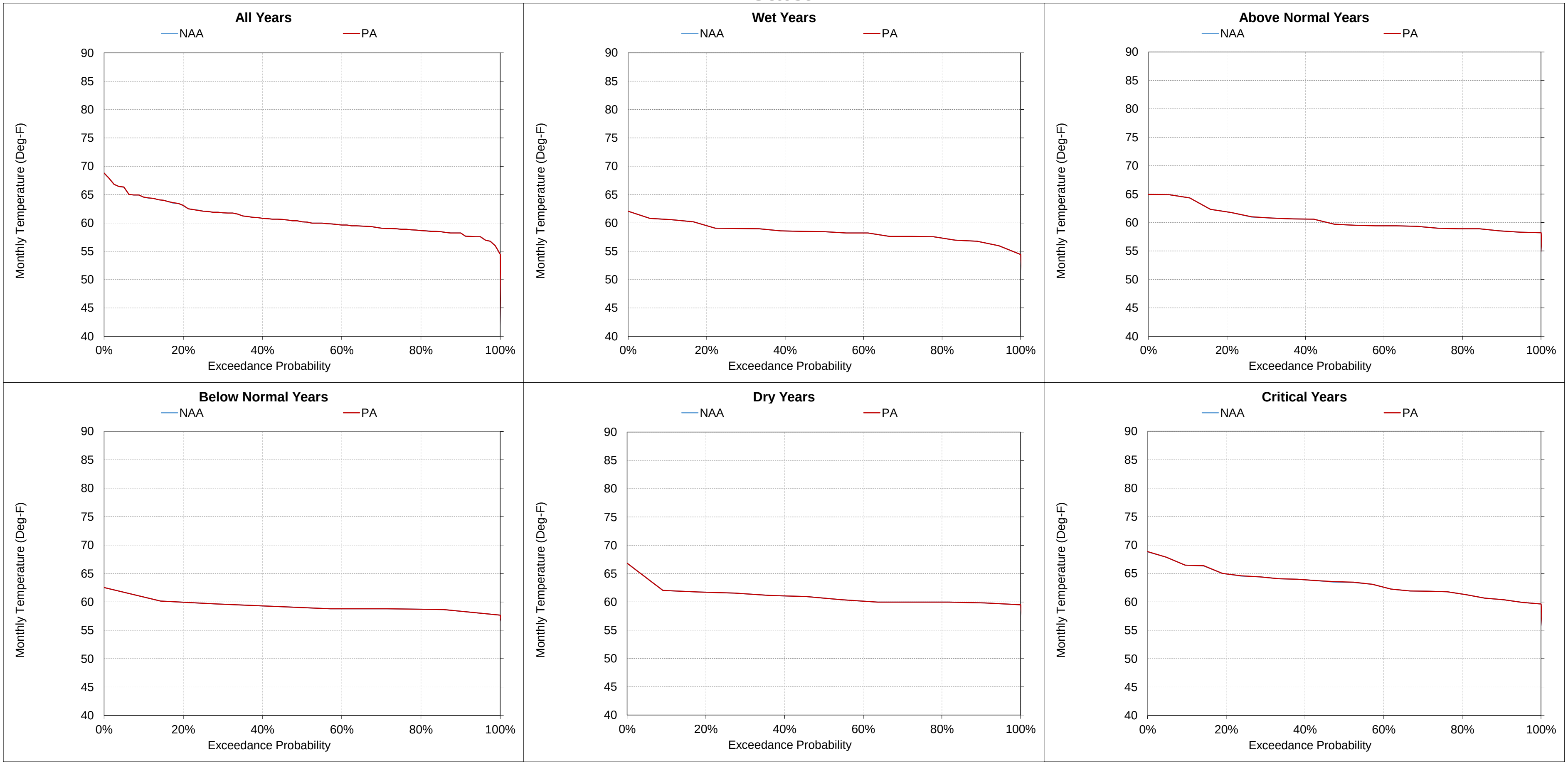


Figure 5.C.7-20-7. Stanislaus River at San Joaquin River Confluence, Monthly Temperature Probability of Exceedance



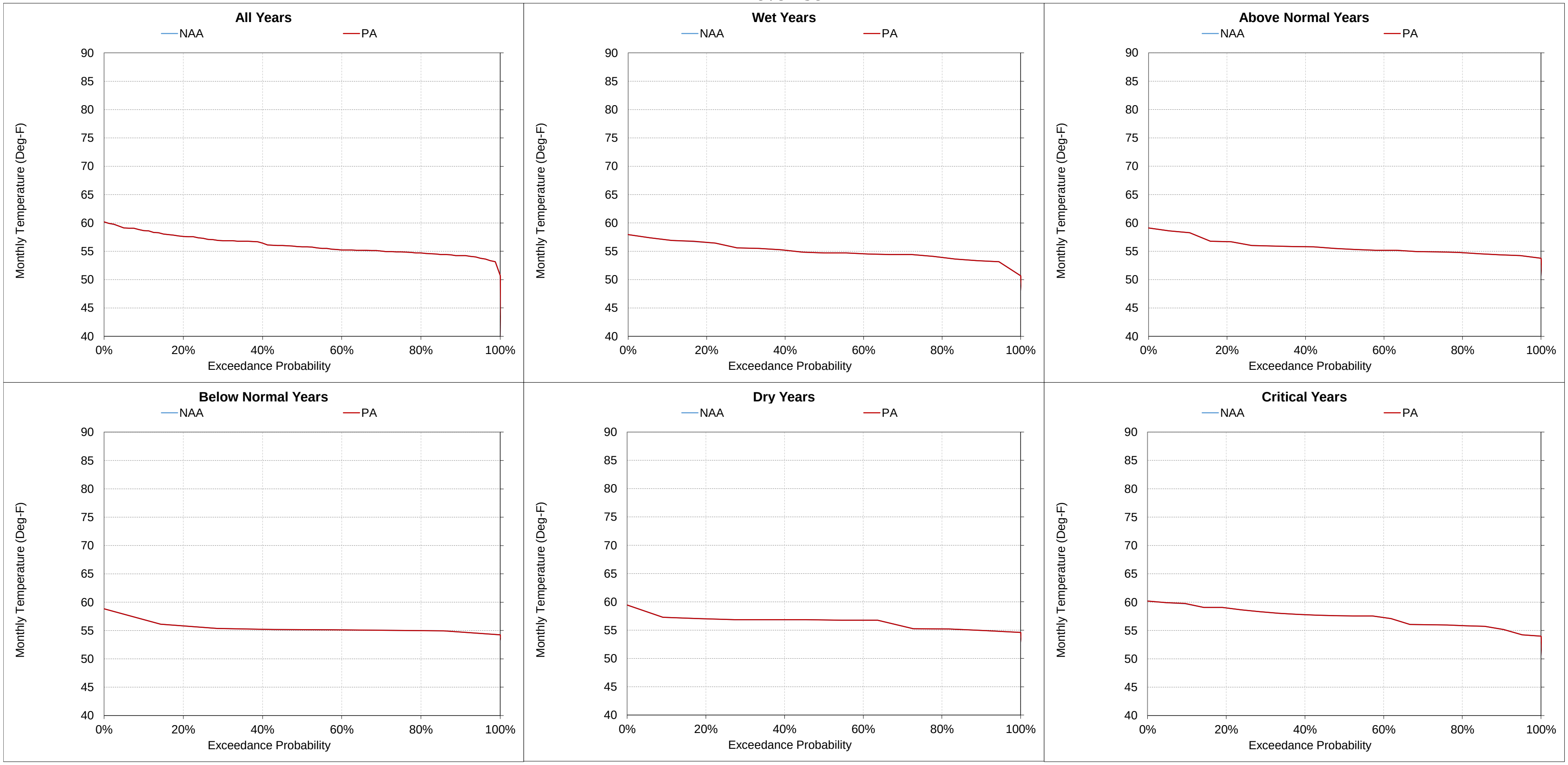
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-8. Stanislaus River at San Joaquin River Confluence, Monthly Temperature
October



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-9. Stanislaus River at San Joaquin River Confluence, Monthly Temperature November



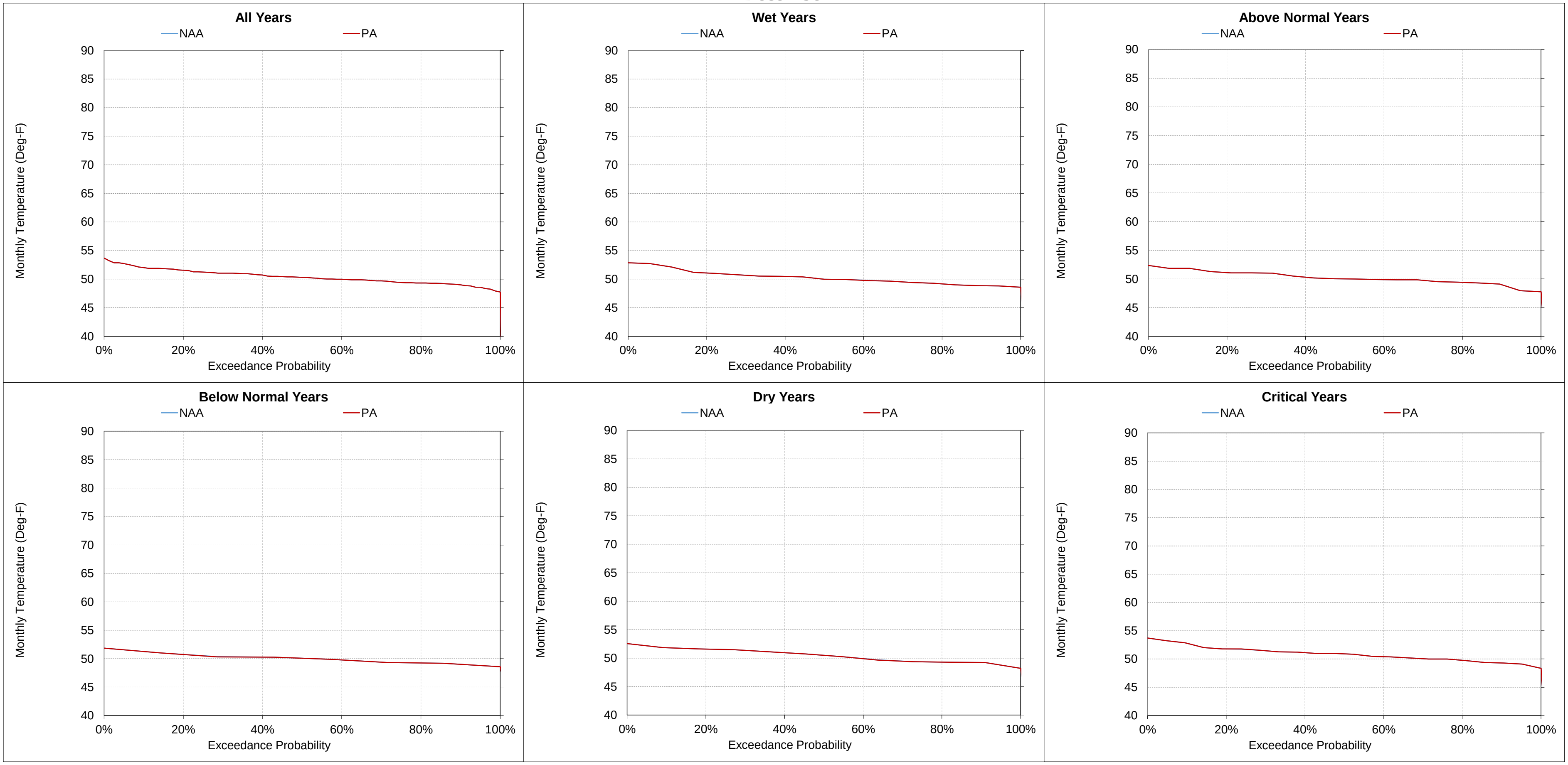
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-10. Stanislaus River at San Joaquin River Confluence, Monthly Temperature December



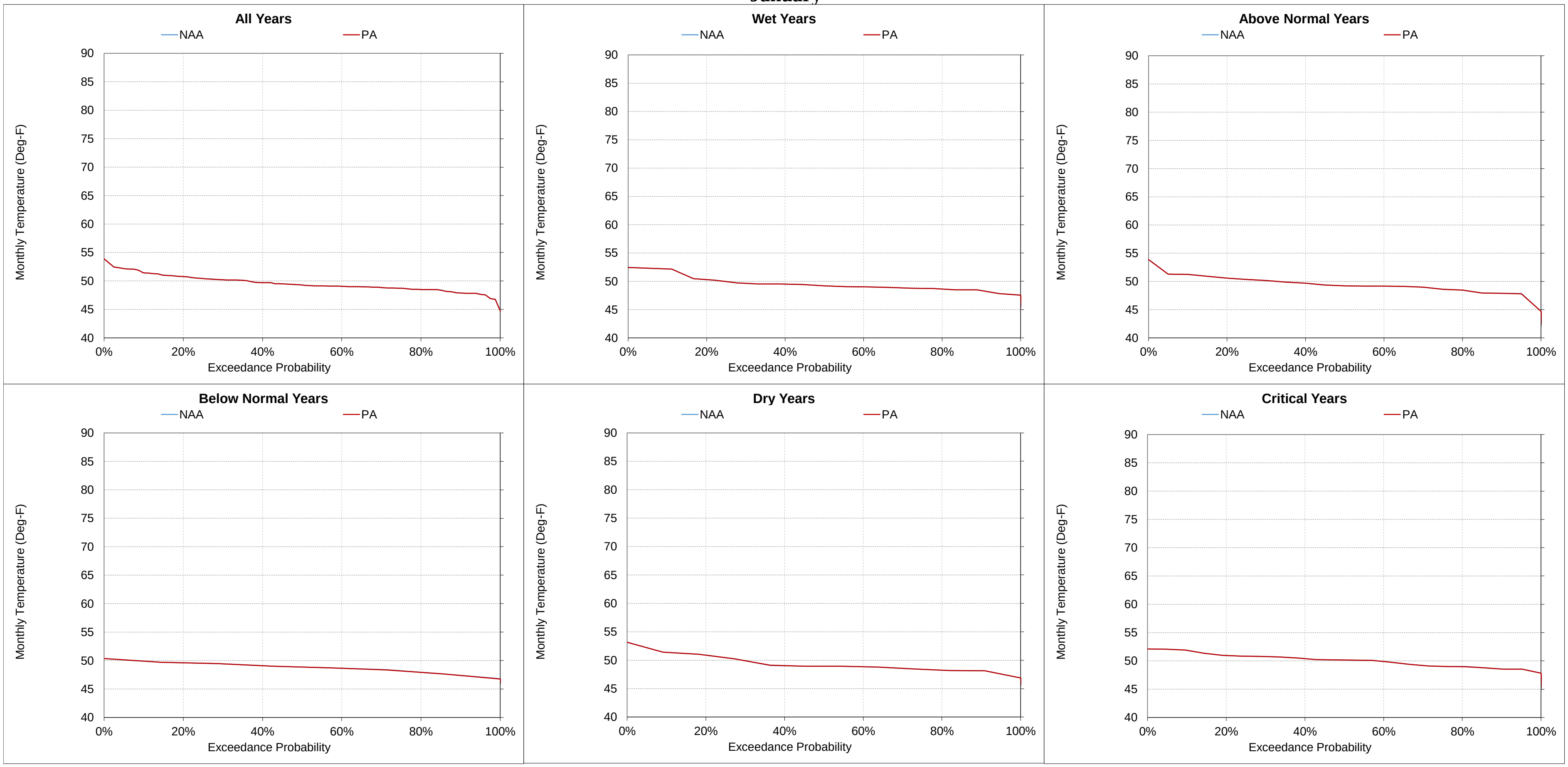
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

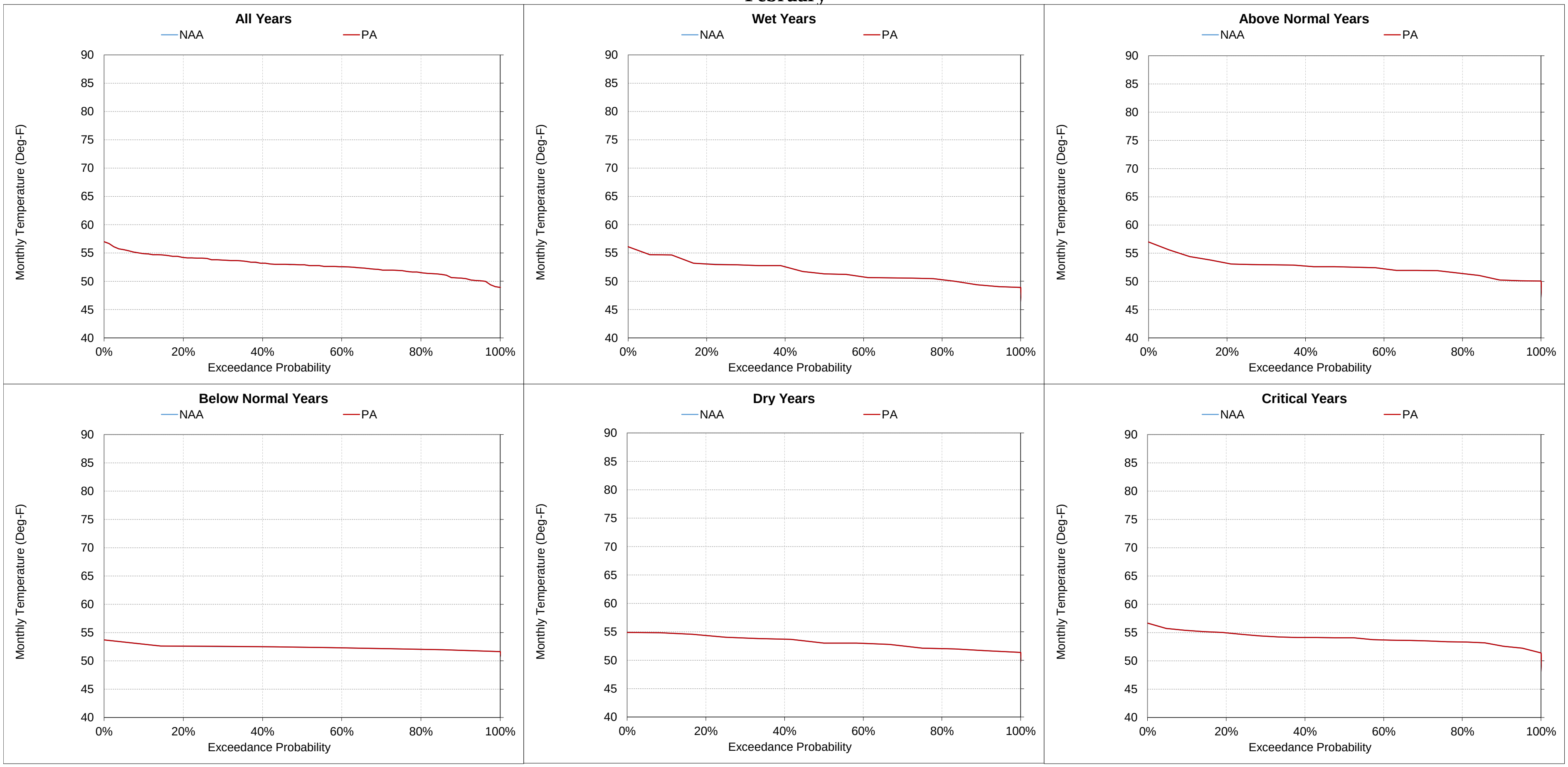
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-11. Stanislaus River at San Joaquin River Confluence, Monthly Temperature
January



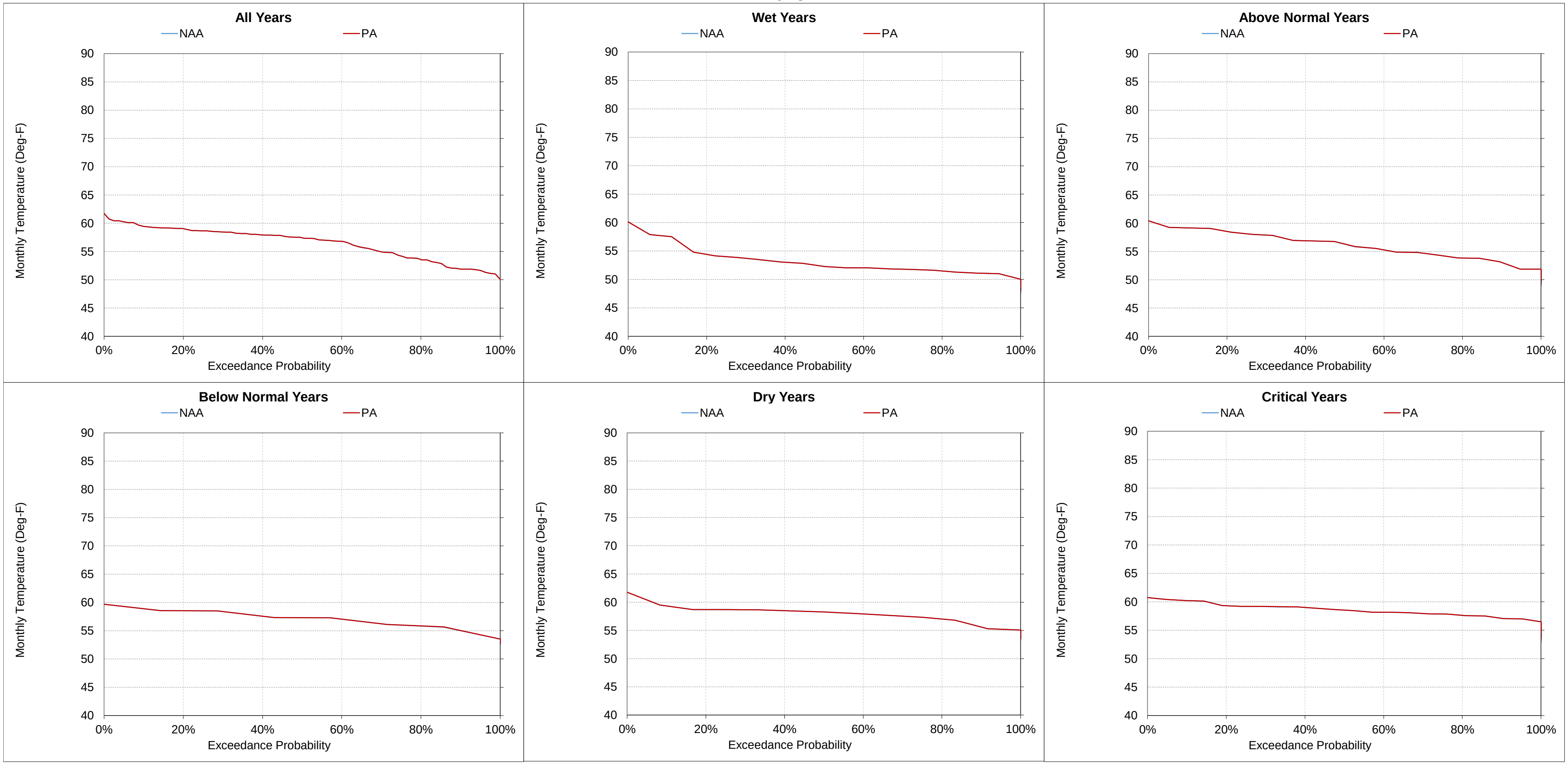
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-12. Stanislaus River at San Joaquin River Confluence, Monthly Temperature
February



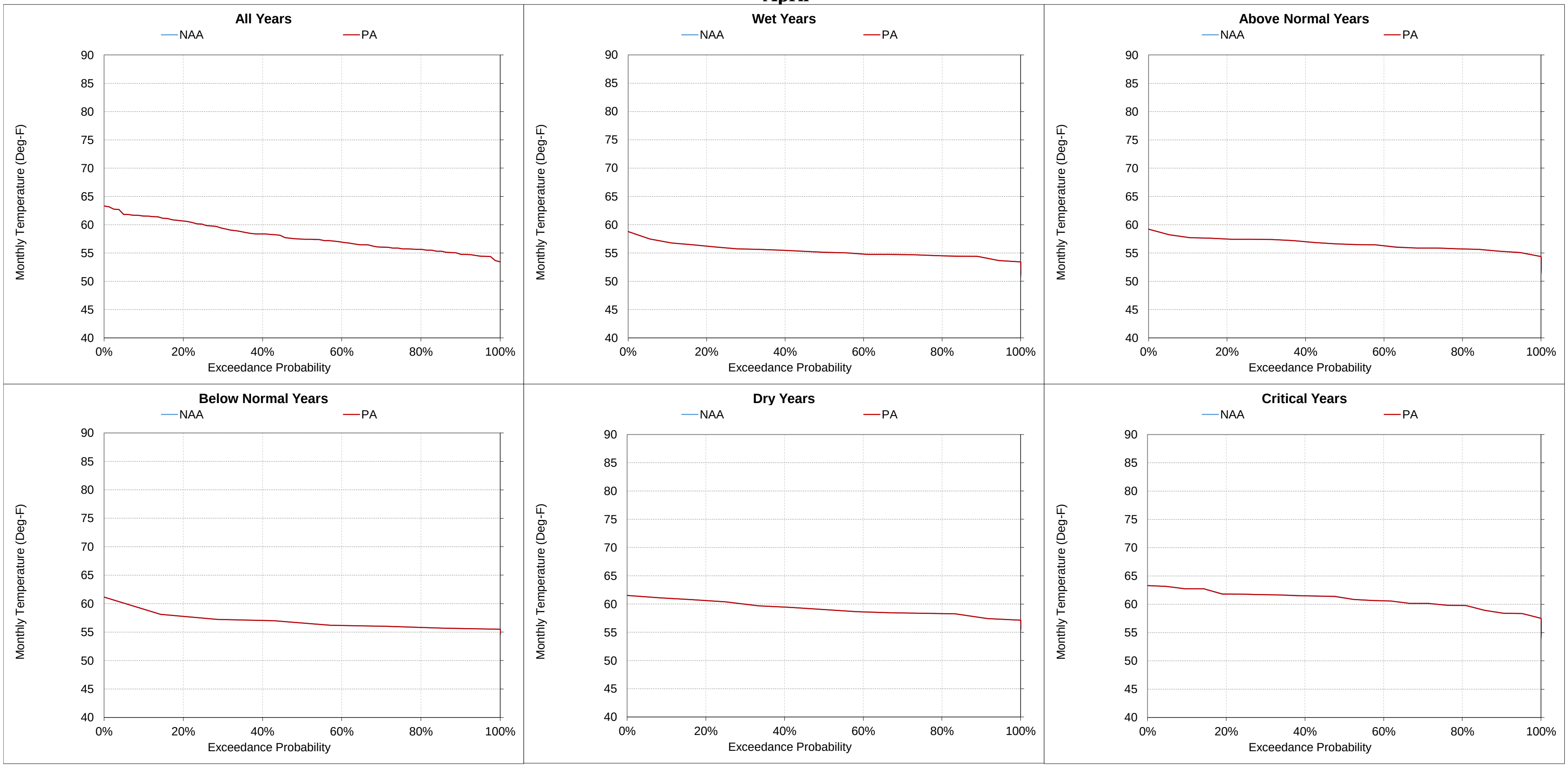
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-13. Stanislaus River at San Joaquin River Confluence, Monthly Temperature March



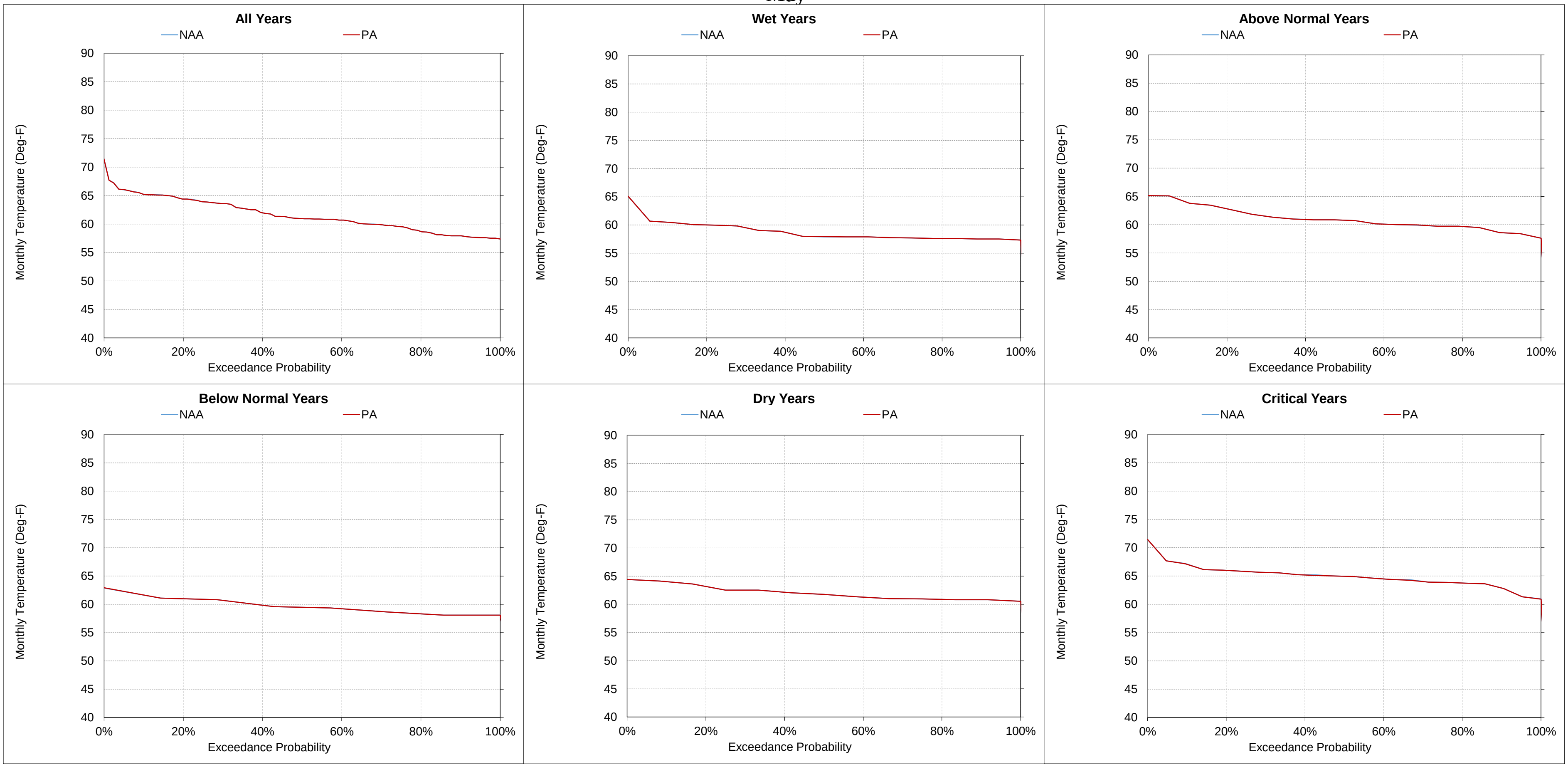
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-14. Stanislaus River at San Joaquin River Confluence, Monthly Temperature April



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-15. Stanislaus River at San Joaquin River Confluence, Monthly Temperature May



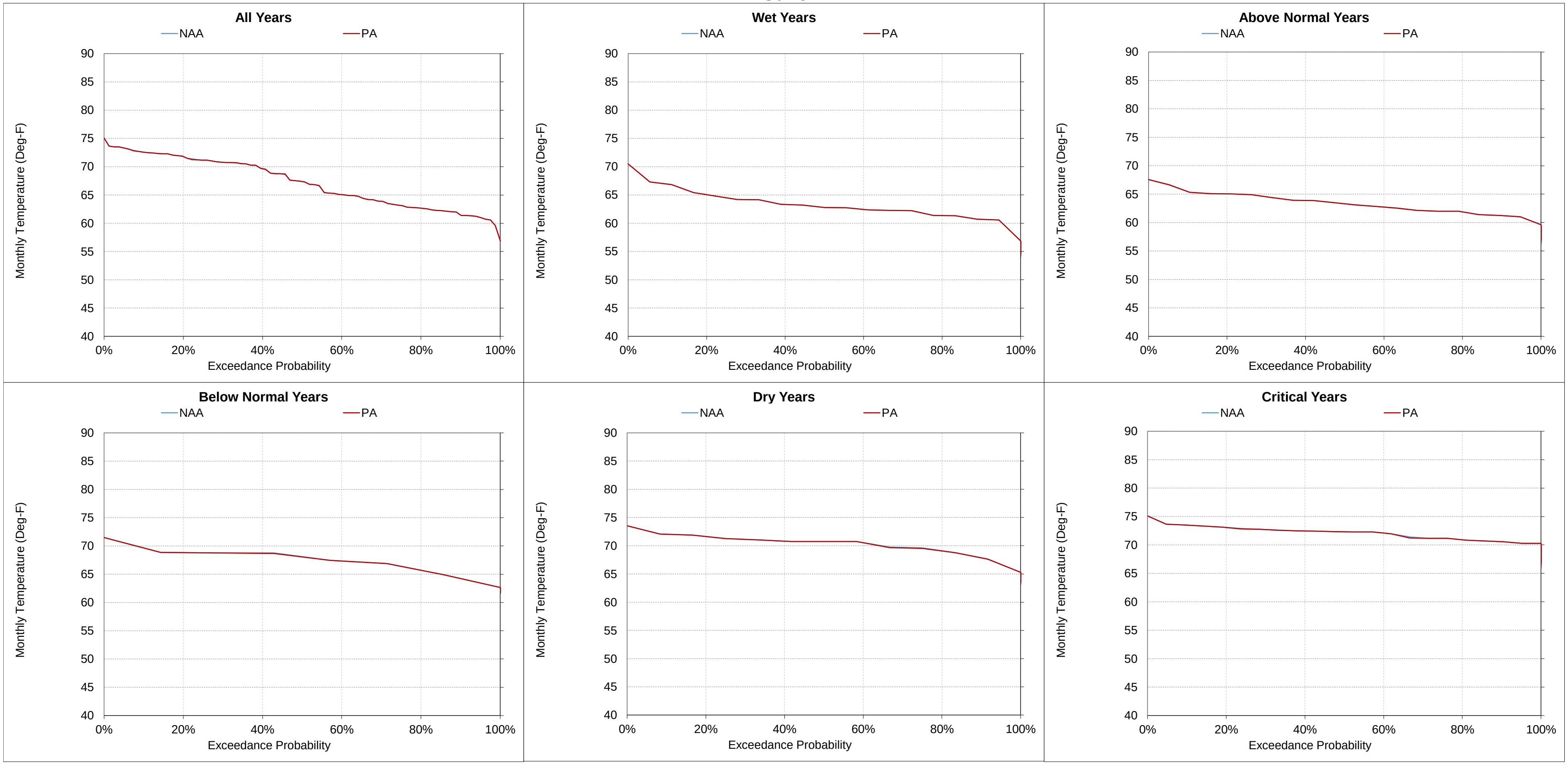
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-16. Stanislaus River at San Joaquin River Confluence, Monthly Temperature June



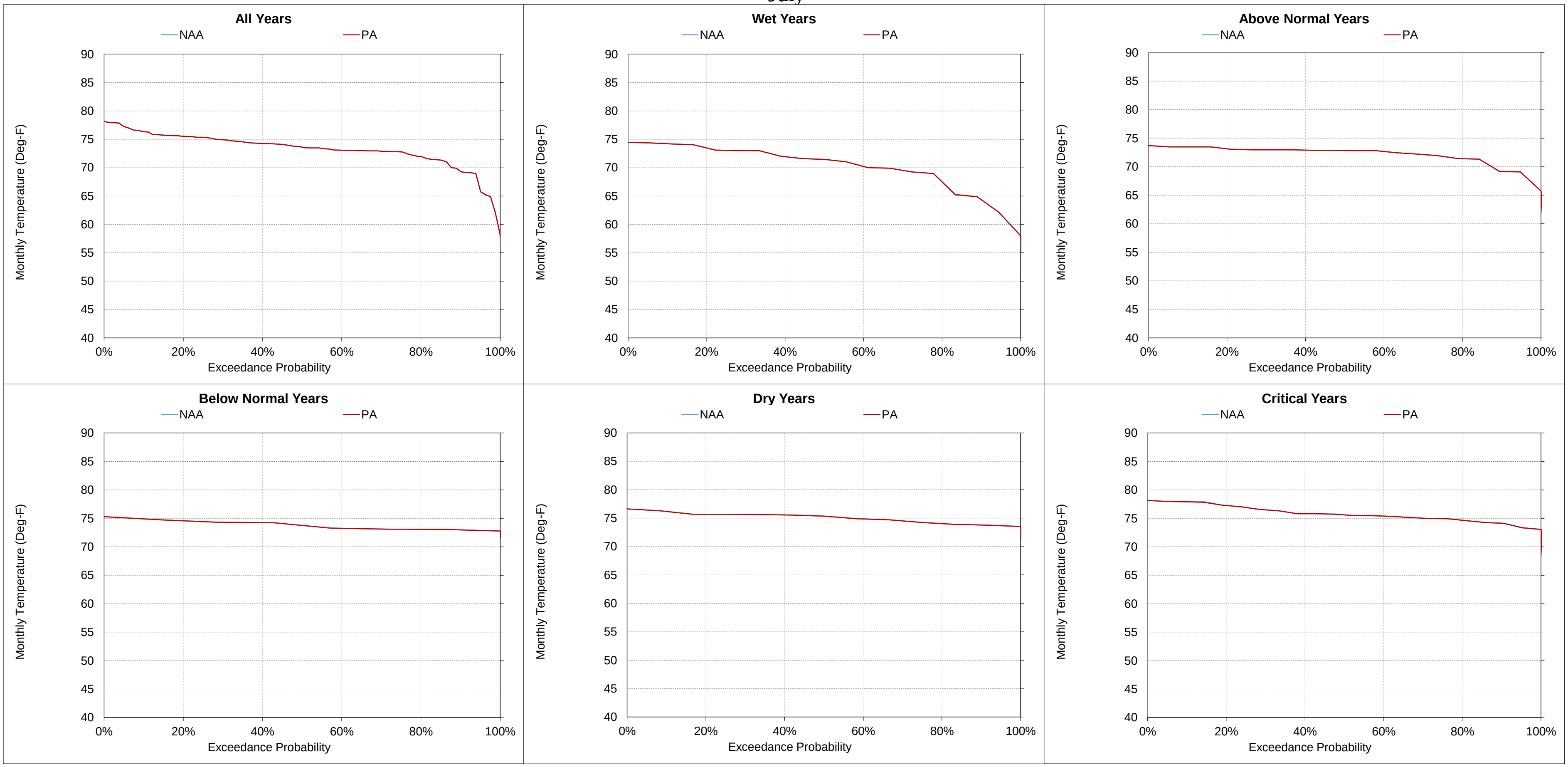
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

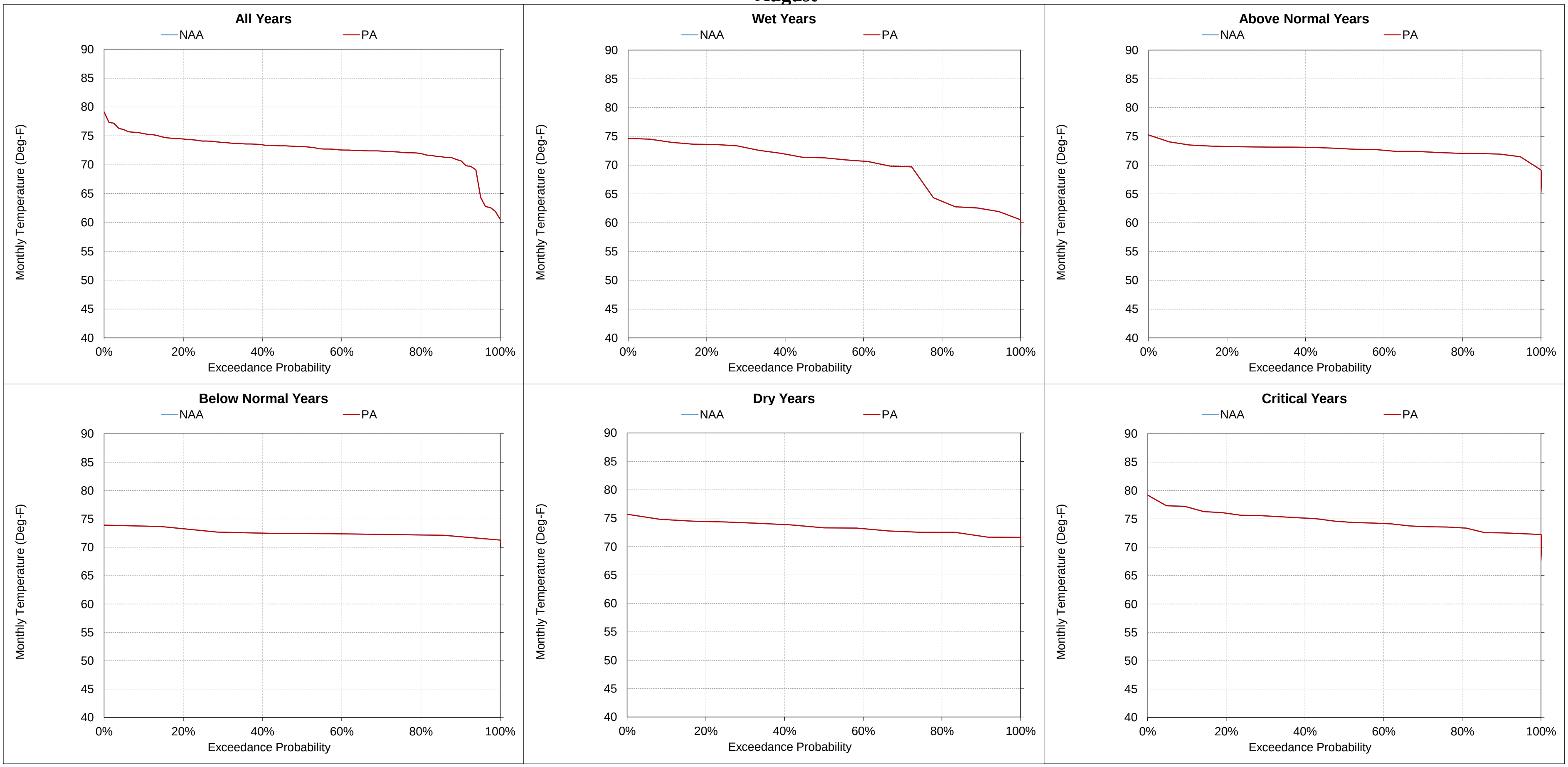
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-17. Stanislaus River at San Joaquin River Confluence, Monthly Temperature
July



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-18. Stanislaus River at San Joaquin River Confluence, Monthly Temperature August



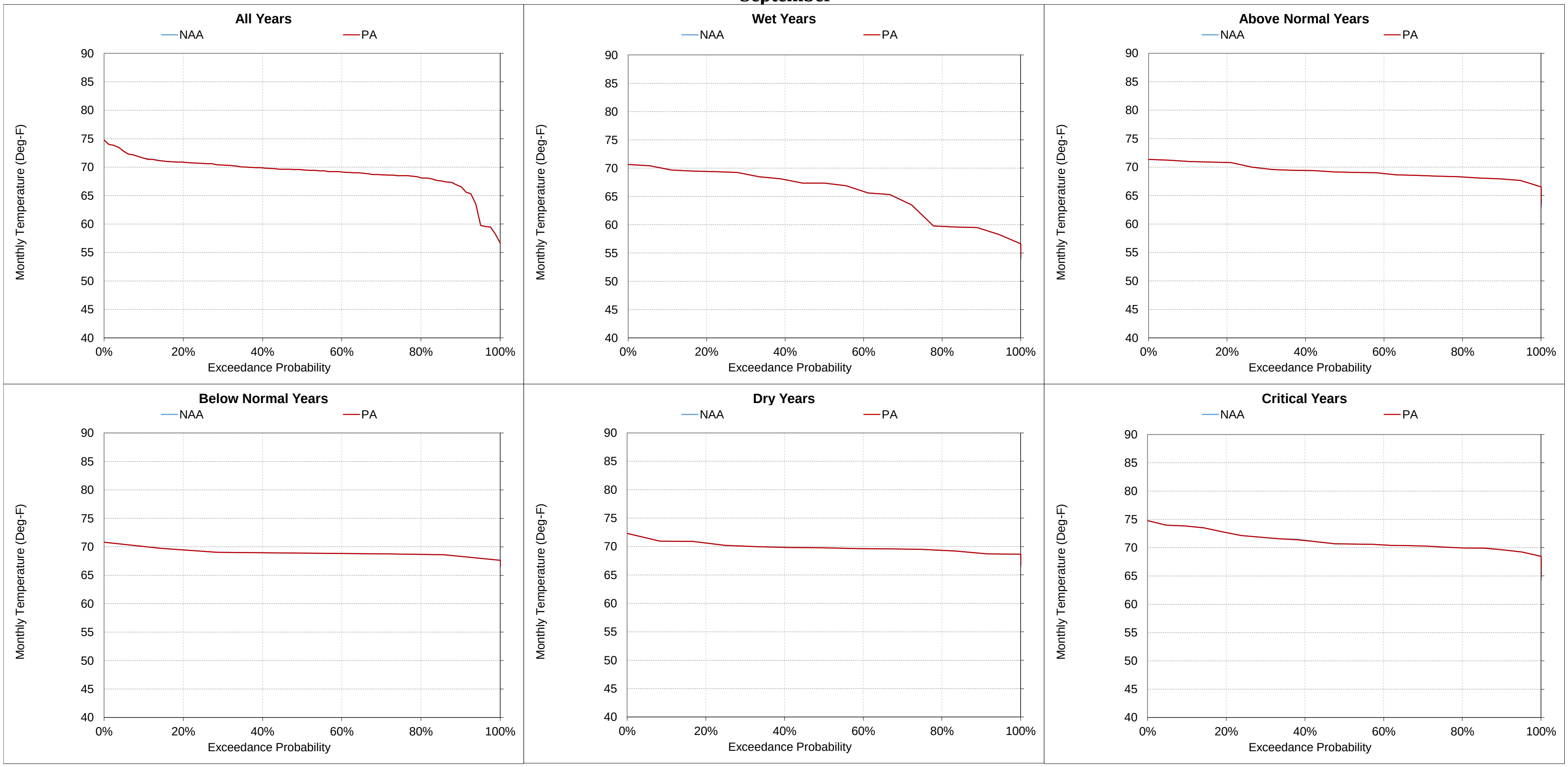
a Exceedance probability is defined as the probability a given value will be exceeded in any one year.

b Based on the 82-year simulation period.

c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.

d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-20-19. Stanislaus River at San Joaquin River Confluence, Monthly Temperature September



a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 19 wet years, 20 above normal years, 8 below normal years, 13 dry years, and 22 critical years projected for 2030 under Q5 climate scenario.

Table 5.C.7.21-1. Shasta Cold Water Pool Volume

	April Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol <48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	2378	3005	3387	3794	3942	4020	2368	3001	3368	3790	3937	4017	-0.4%	-0.1%	-0.6%	-0.1%	-0.1%	-0.1%
Above Normal	2583	3086	3400	3702	4056	4143	2542	3075	3392	3695	4048	4136	-1.6%	-0.4%	-0.2%	-0.2%	-0.2%	-0.2%
Below Normal	2310	2875	3203	3347	3629	3770	2272	2880	3219	3366	3612	3793	-1.6%	0.2%	0.5%	0.6%	-0.5%	0.6%
Dry	2016	2591	2843	3089	3310	3521	2013	2649	2914	3161	3383	3584	-0.1%	2.2%	2.5%	2.3%	2.2%	1.8%
Critical	1055	1452	1635	1794	1962	2125	1060	1484	1674	1834	2010	2164	0.5%	2.2%	2.4%	2.2%	2.4%	1.9%

	May Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	1851	2512	2939	3225	3462	3644	1843	2510	2938	3224	3462	3643	-0.5%	-0.1%	0.0%	0.0%	0.0%	0.0%
Above Normal	2090	2669	3033	3288	3483	3644	2046	2654	3025	3281	3477	3637	-2.1%	-0.5%	-0.3%	-0.2%	-0.2%	-0.2%
Below Normal	1808	2418	2714	2918	3085	3223	1782	2437	2744	2950	3118	3257	-1.4%	0.8%	1.1%	1.1%	1.1%	1.0%
Dry	1543	2197	2507	2707	2863	2994	1514	2216	2537	2740	2897	3028	-1.8%	0.9%	1.2%	1.2%	1.2%	1.1%
Critical	723	1073	1269	1412	1525	1619	728	1103	1308	1454	1568	1663	0.8%	2.8%	3.0%	2.9%	2.8%	2.7%

	June Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	1291	1930	2359	2658	2910	3135	1278	1922	2352	2651	2903	3128	-1.0%	-0.4%	-0.3%	-0.3%	-0.2%	-0.2%
Above Normal	1470	2070	2442	2706	2913	3092	1419	2035	2413	2679	2887	3067	-3.5%	-1.7%	-1.2%	-1.0%	-0.9%	-0.8%
Below Normal	1256	1843	2158	2378	2563	2729	1227	1846	2173	2397	2582	2749	-2.3%	0.1%	0.7%	0.8%	0.8%	0.7%
Dry	1010	1614	1941	2157	2324	2468	972	1606	1947	2167	2338	2484	-3.8%	-0.5%	0.3%	0.5%	0.6%	0.6%
Critical	459	695	847	966	1073	1179	460	713	876	997	1105	1211	0.2%	2.6%	3.4%	3.3%	3.0%	2.8%

	July Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	784	1289	1705	2010	2265	2490	769	1273	1689	1993	2249	2473	-1.9%	-1.3%	-1.0%	-0.8%	-0.7%	-0.7%
Above Normal	857	1333	1695	1963	2176	2357	815	1285	1647	1917	2130	2311	-4.9%	-3.6%	-2.8%	-2.3%	-2.1%	-2.0%
Below Normal	745	1189	1482	1703	1887	2047	726	1172	1469	1693	1878	2040	-2.6%	-1.4%	-0.9%	-0.6%	-0.5%	-0.4%
Dry	594	1008	1296	1508	1680	1827	563	983	1281	1499	1674	1823	-5.2%	-2.5%	-1.1%	-0.6%	-0.4%	-0.2%
Critical	245	360	444	516	590	668	247	374	468	548	626	708	0.8%	3.8%	5.5%	6.1%	6.2%	6.0%

	August Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	455	745	1064	1353	1605	1827	447	735	1052	1342	1596	1819	-1.8%	-1.4%	-1.1%	-0.8%	-0.6%	-0.4%
Above Normal	470	742	1012	1263	1476	1657	453	720	988	1238	1452	1634	-3.6%	-2.9%	-2.4%	-2.0%	-1.6%	-1.4%
Below Normal	419	675	881	1069	1239	1392	414	679	886	1074	1245	1399	-1.3%	0.6%	0.5%	0.5%	0.5%	0.5%
Dry	373	604	794	961	1114	1255	355	585	779	951	1109	1253	-4.8%	-3.1%	-1.9%	-1.0%	-0.5%	-0.2%
Critical	98	146	179	210	243	281	102	157	198	235	273	318	3.4%	8.2%	10.4%	11.8%	12.7%	13.2%

	September Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	194	327	525	767	1009	1228	187	318	512	750	992	1211	-3.2%	-2.9%	-2.6%	-2.2%	-1.7%	-1.4%
Above Normal	224	362	554	775	983	1165	227	369	562	781	988	1170	1.2%	1.7%	1.5%	0.7%	0.5%	0.5%
Below Normal	248	401	545	699	854	1001	247	426	585	745	904	1054	-0.1%	6.3%	7.2%	6.7%	5.9%	5.3%
Dry	242	398	529	659	790	921	227	382	514	646	783	917	-6.0%	-4.0%	-2.9%	-1.8%	-0.9%	-0.4%
Critical	33	53	67	80	95	114	32	52	70	89	110	136	-4.3%	-1.0%	4.4%	11.0%	16.5%	19.0%

	October Monthly Average Volume (TAF)																	
	NAA						PA						Percent Difference					
Year Type	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F	Vol < 48^{0}F	Vol < 50^{0}F	Vol < 52^{0}F	Vol < 54^{0}F	Vol < 56^{0}F	Vol < 58^{0}F
Wet	74	127	215	359	538	735	74	128	217	360	542	744	0.1%	0.5%	0.6%	0.4%	0.8%	1.2%
Above Normal	136	209	308	441	590	744	143	220	323	458	607	762	5.2%	4.9%	5.0%	3.9%	2.8%	2.5%
Below Normal	163	267	366	481	610	749	159	275	388	510	643	786	-2.5%	3.3%	5.9%	6.1%	5.5%	4.9%
Dry	148	272	375	480	592	714	137	265	367	469	582	705	-7.5%	-2.6%	-2.2%	-2.1%	-1.8%	-1.2%
Critical	19	29	34	38	43	52	20	31	36	43	52	68	7.4%	5.9%	6.6%	11.8%	19.3%	31.4%

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82-year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030. WYT for a given water year is applied from Feb through Jan consistent with CALSIM II.
d There are 26 wet years, 13 above normal years, 11 below normal years, 20 dry years, and 12 critical years projected for 2030 under Q5 climate scenario.

Figure 5.C.7-21-1. Shasta Lake, Cold Water Pool Volume April

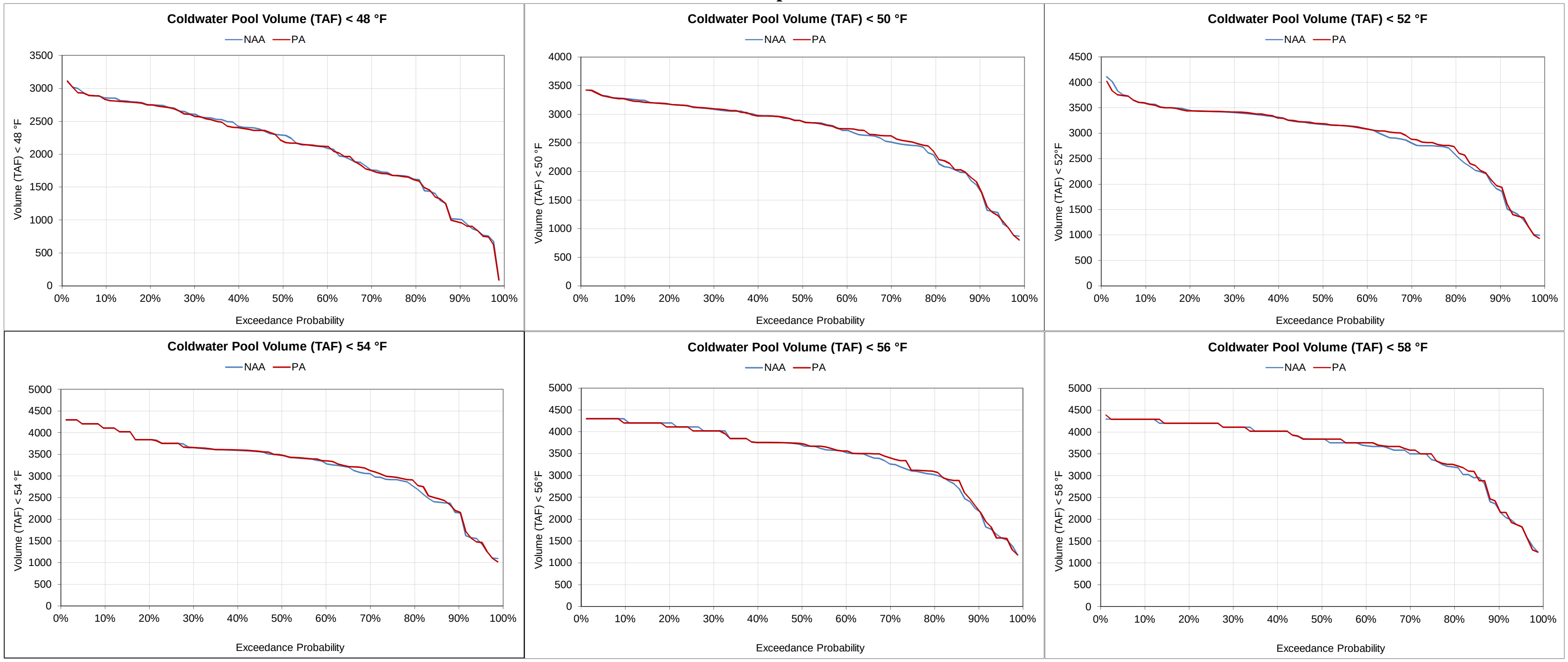


Figure 5.C.7-21-2. Shasta Lake, Cold Water Pool Volume
May

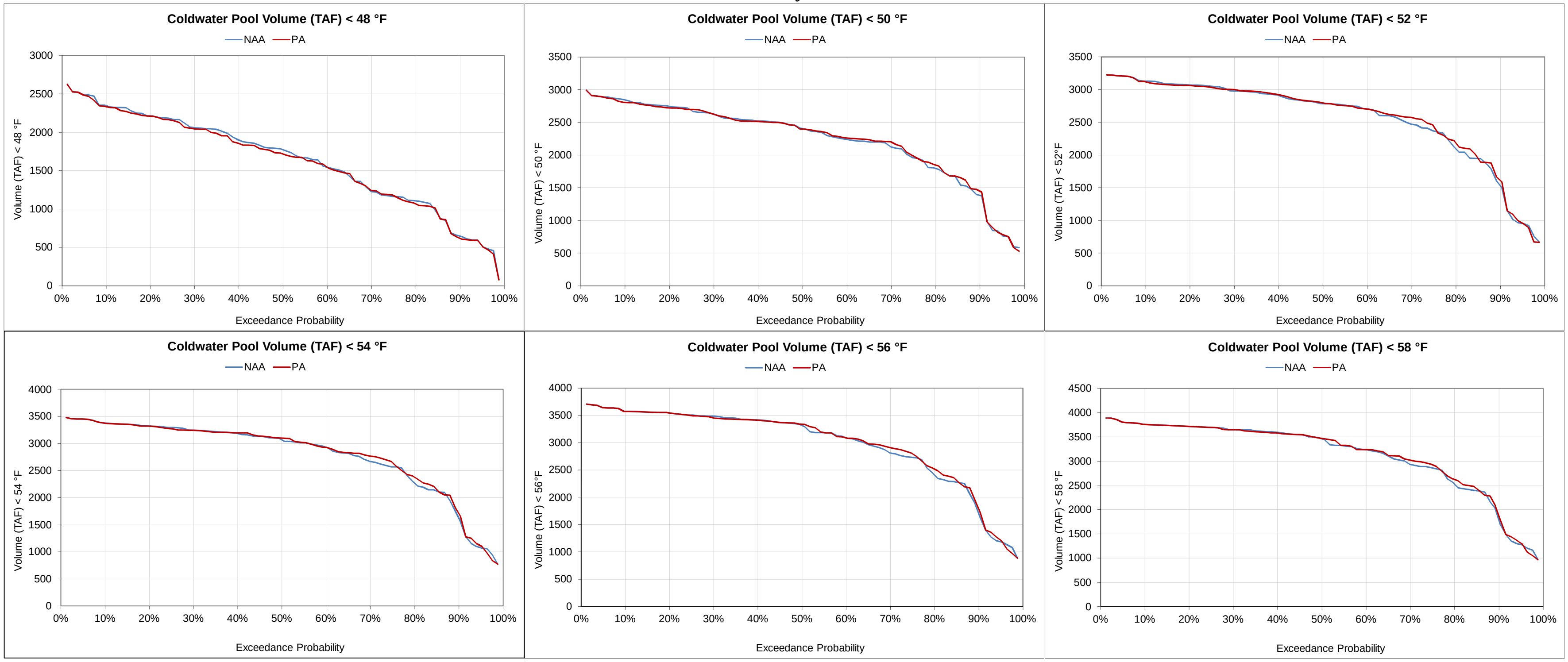


Figure 5.C.7-21-3. Shasta Lake, Cold Water Pool Volume
June

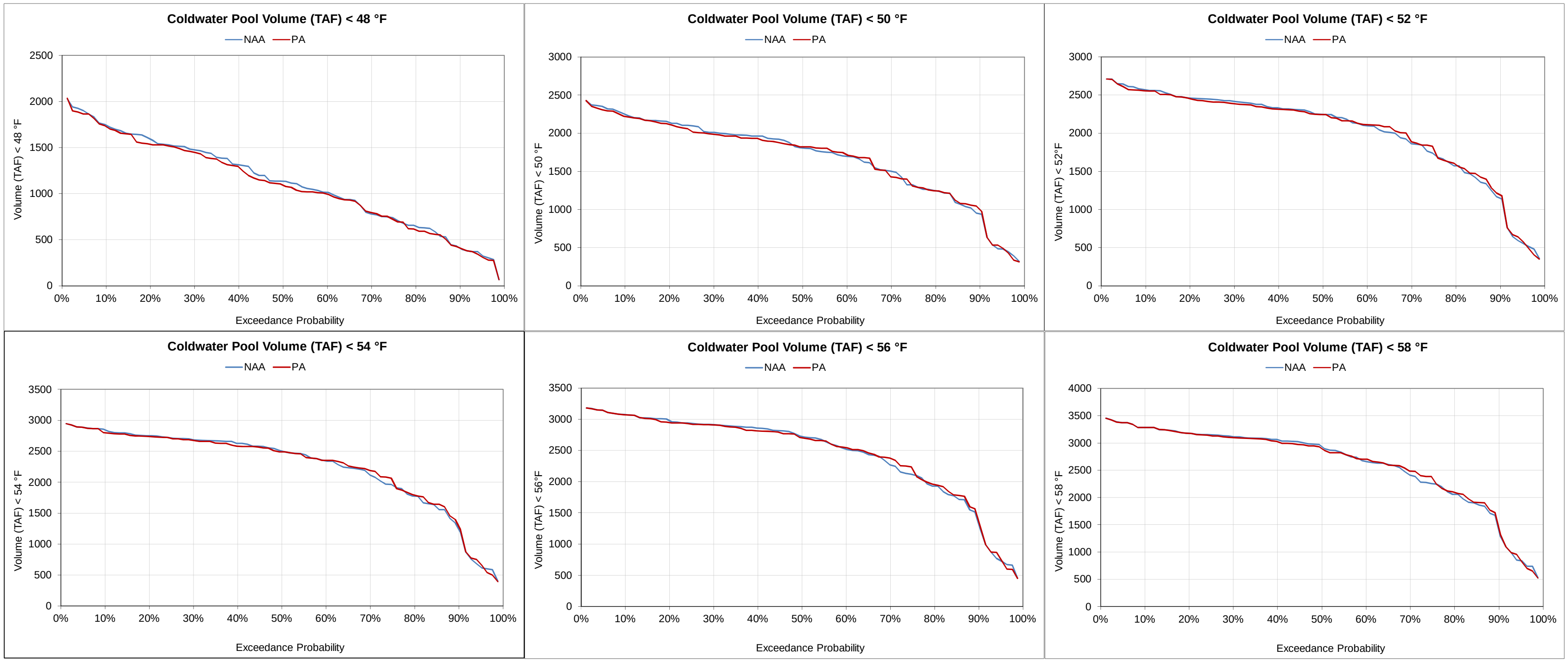


Figure 5.C.7-21-4. Shasta Lake, Cold Water Pool Volume
July

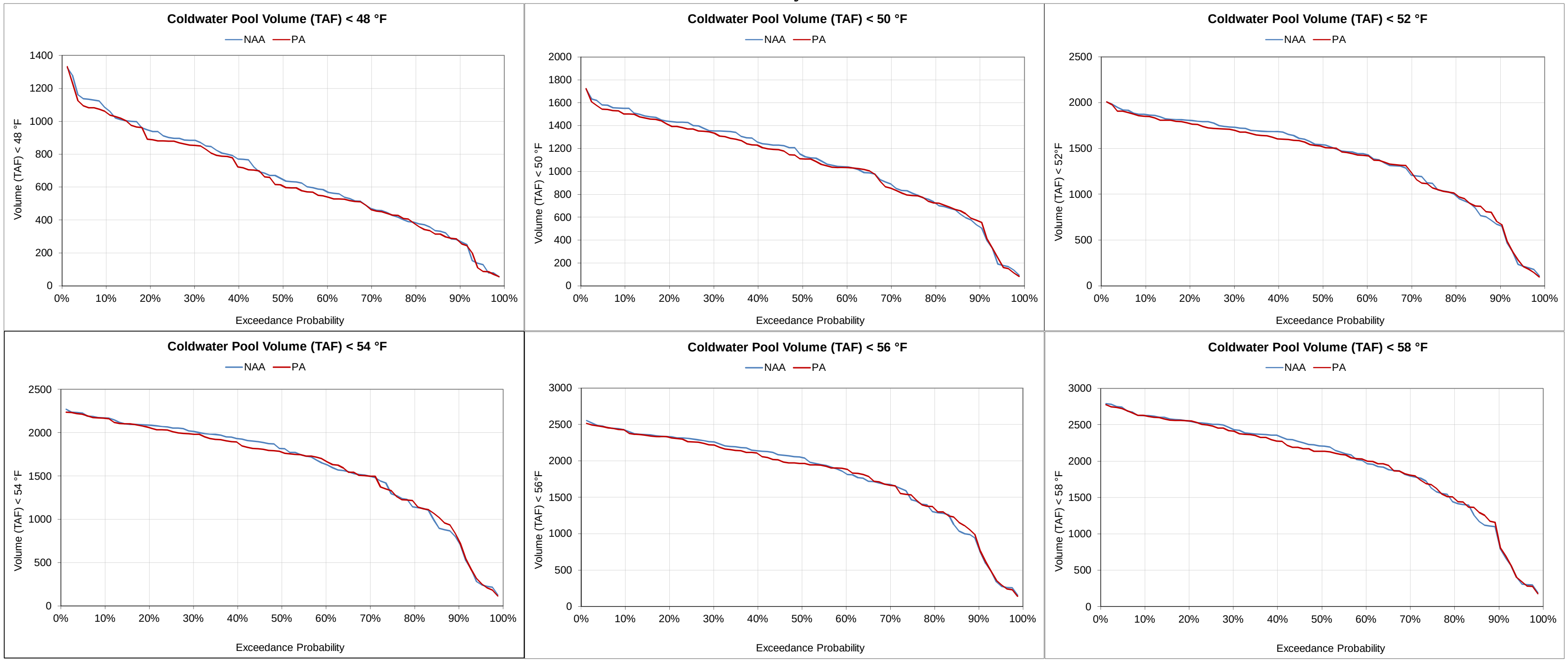


Figure 5.C.7-21-5. Shasta Lake, Cold Water Pool Volume August

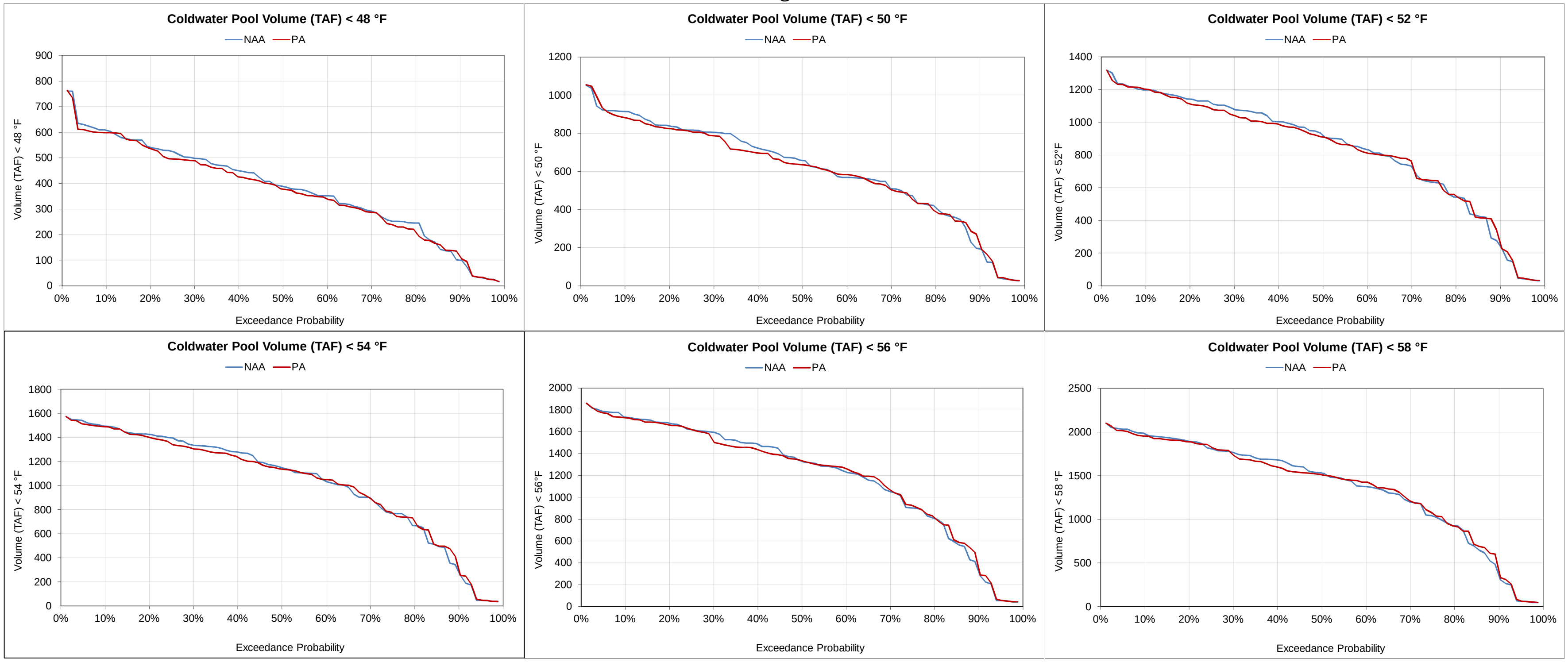


Figure 5.C.7-21-6. Shasta Lake, Cold Water Pool Volume
September

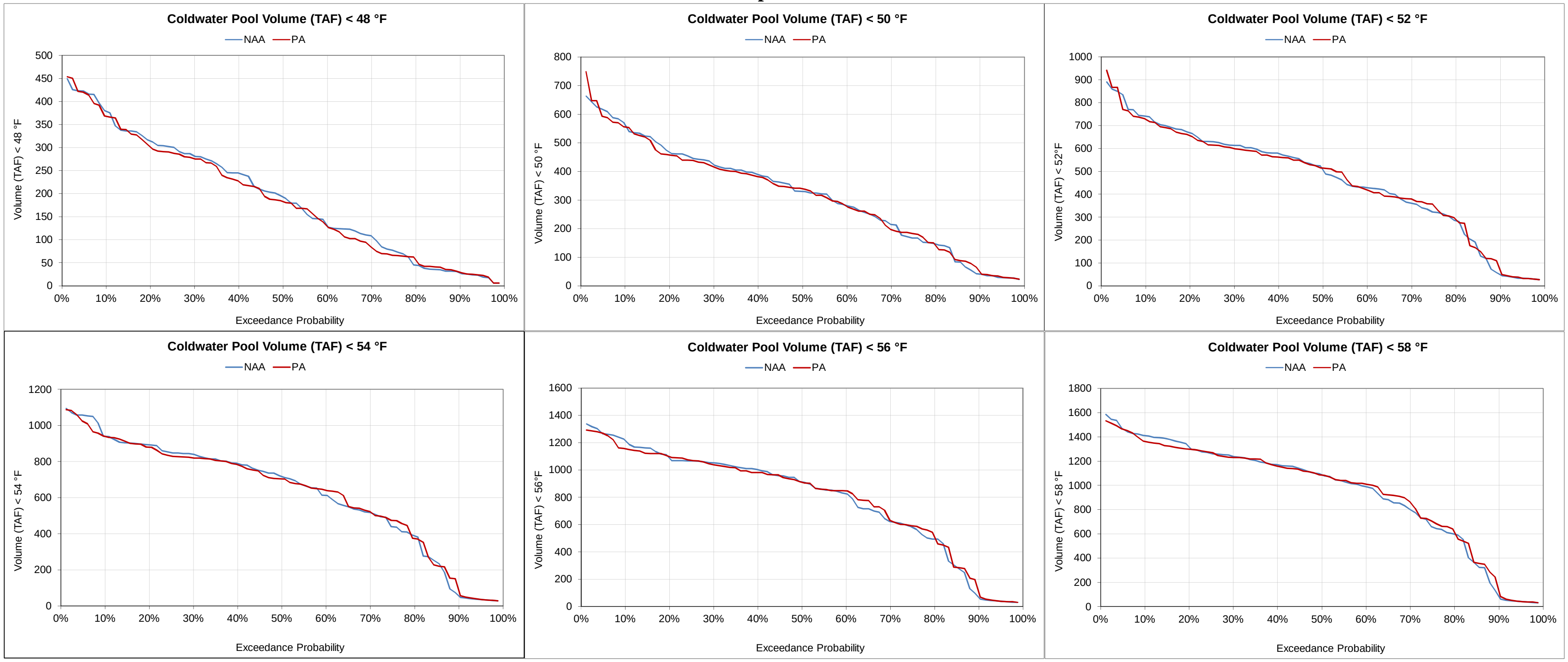


Figure 5.C.7-21-7. Shasta Lake, Cold Water Pool Volume
October