Appendix N

Validation and Performance of C2VSimFG-Kern Model

Validation of C2VSimFG-Kern Performance

The C2VSimFG-Kern performs well within the central portion of the Subbasin. The model does not perform as well east of the Friant-Kern Canal or west of the California Aqueduct. The geologic and hydrogeologic conceptual models within the central portion of the Subbasin appear to be generally realistic. The geologic and hydrogeologic conceptual models appear to be very poor in the areas where the model does not perform well.

C2VSimFG-Kern Validation

One of the concerns for the modeling is the overall calibration of C2VSimFG--Beta in Kern County. As discussed above, the assumption is that C2VSimFG--Beta was developed using reasonable care in developing the geologic framework and developing a consistent regional methodology for determining aquifer properties. An identified weakness of the C2VSimFG--Beta is the quality of data used in developing the overall water balance such as the extent of the water banking operations in Kern County. The issues with the water balance are considered the primary contributing factor affecting the calibration of the C2VSimFG--Beta; the hydrogeologic conceptualization is reasonably accurate for a regional planning analysis.

To address these concerns, a validation analysis was performed for C2VSimFG-Kern by comparing simulation results to field measured groundwater level data collected during the Study Period and comparing those to a similar set of residuals from the C2VSimFG--Beta model. The statistical results of this analysis should be comparable, if not better, for C2VSimFG-Kern compared to the C2VSimFG-Beta results.

The analysis used 42,058 groundwater levels measurements collected from 558 monitoring wells in the Subbasin. The data were collected by Kern County Water Agency, the Kern Fan Monitoring Committee, the DWR Water Data Library, and local agencies. For each location, the residual was calculated as the simulated groundwater level minus the measured groundwater level based on the well measurement data. A brief summary of the statistical measures used to evaluate the calibration results is provided below:

- The residual mean is computed by dividing the sum of the residuals by the number of residual data values. The closer this value is to zero, the better the calibration especially as related to the water balance and estimating the change in aquifer storage. The residual mean of 17.3 feet for C2VSimFG-Kern is an improvement of 47 percent over the 32.6 feet from C2VSimFG-Beta.
- The absolute residual mean is the arithmetic average for the absolute value of the residual, so it provides a measure of the overall error in the model. The absolute residual mean of 37.4 feet for C2VSimFG-Kern is an improvement of 34 percent over the 56.8 feet from C2VSimFG-Beta.

- The residual standard deviation evaluates the scatter of the data. A lower standard deviation indicates a closer fit between the simulated and observed data. The standard deviation is 45.5 feet for C2VSimFG-Kern, which is an improvement of 16 percent over the 54.0 feet from C2VSimFG-Beta.
- The Root Mean Square (RMS) Error is the square root of the arithmetic mean of the squares of the residuals and provides another measure of the overall error in the model. The RMS Error is 50.0 feet for C2VSimFG-Kern, which is an improvement of 32 percent over the 73.5 feet from C2VSimFG-Beta.
- The correlation coefficient ranges from 0 to 1 and is a measure of the closeness of fit of the data to a 1 to 1 correlation. A correlation of 1 is a perfect correlation. The correlation coefficient of 0.76 for C2VSimFG-Kern is an improvement of 47 percent over the 0.52 from C2VSimFG-Beta.
- Another statistical measure is the ratio of the standard deviation of the mean error divided by the range of observed groundwater elevations. This ratio shows how the model error relates to the overall hydraulic gradient across the model. The ratio for C2VSimFG-Kern is 0.061 feet, which is an improvement of 34 percent over the 0.092 from C2VSimFG-Beta.

Considering these results in context with the overall range of measurements of 616 feet, the residual mean of 17.3 feet represents a relative percentage difference of less than 3 percent for the absolute residual mean of 37.4 feet, the relative percentage difference is about 6 percent. Despite this improvement in model performance, the model is not considered fully calibrated. However, C2VSimFG-Kern is reasonably validated for assessing groundwater level changes on the Subbasin scale for the purposes of SGMA planning.

Table 1. Summary of Statistical Analysis for Validation of C2VSimFG-Kern Historical Simulation

Validation Measure	C2VSimFG-Kern	C2VSimFG-Beta	Percent Change
Units	Feet	Feet	Percent
Residual Mean	17.3 ft	32.6 ft	47%
Residual Standard Deviation	45.5 ft	54.0 ft	16%
Absolute Residual Mean	37.4 ft	56.8 ft	34%
Root Mean Square (RMS) Error	50 ft	73.5 ft	32%
Scaled Absolute Residual Mean	0.061	0.092	34%
Correlation Coefficient	0.76	0.52	47%
Number of Monitor Wells	558	558	same
Number of Observations	42,075	42,075	same

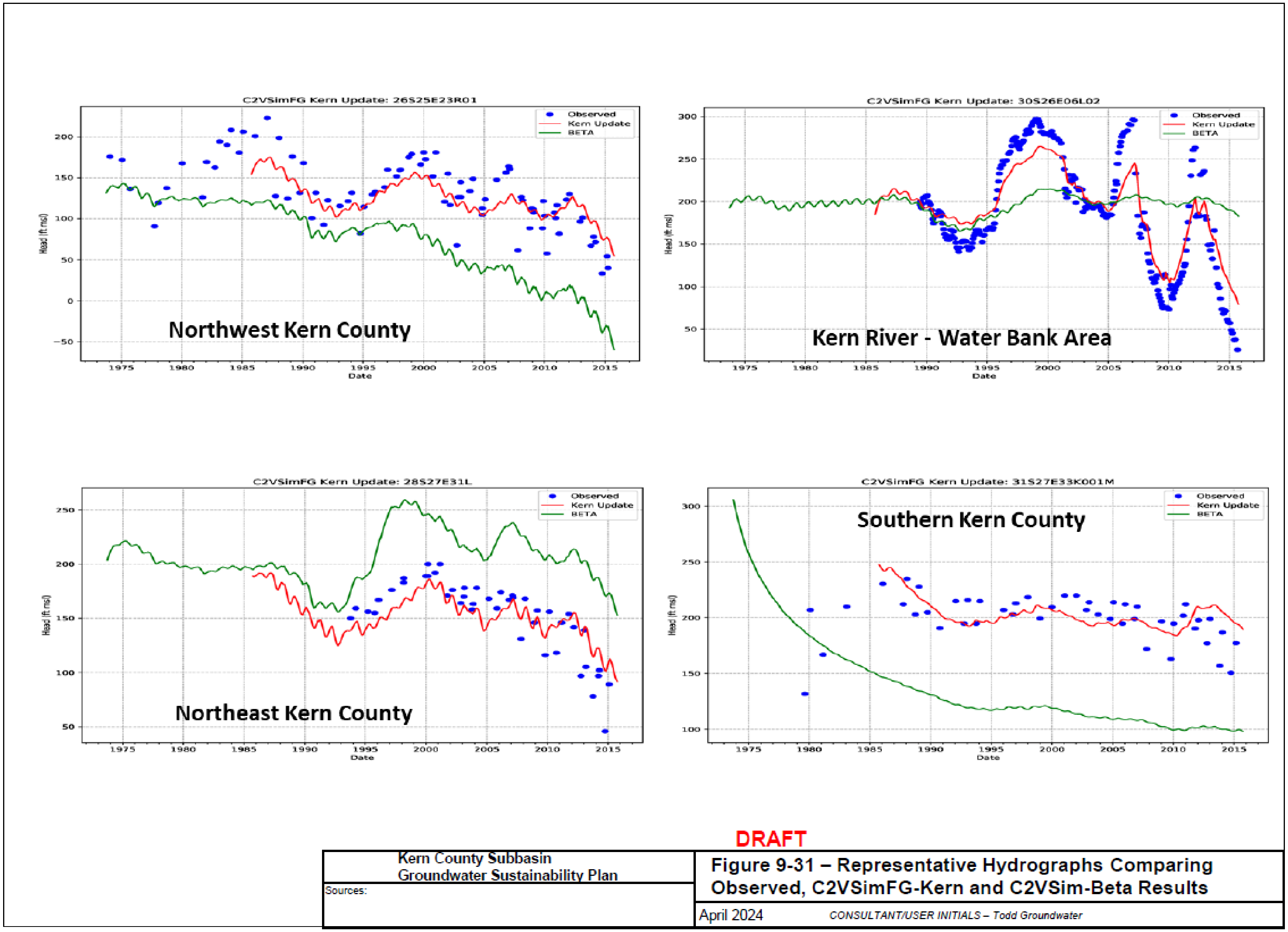


Figure 9-1. Representative Hydrographs Comparing Observed, C2VSimFG-Kern and C2VSim-Beta Results

Sensitivity Analysis

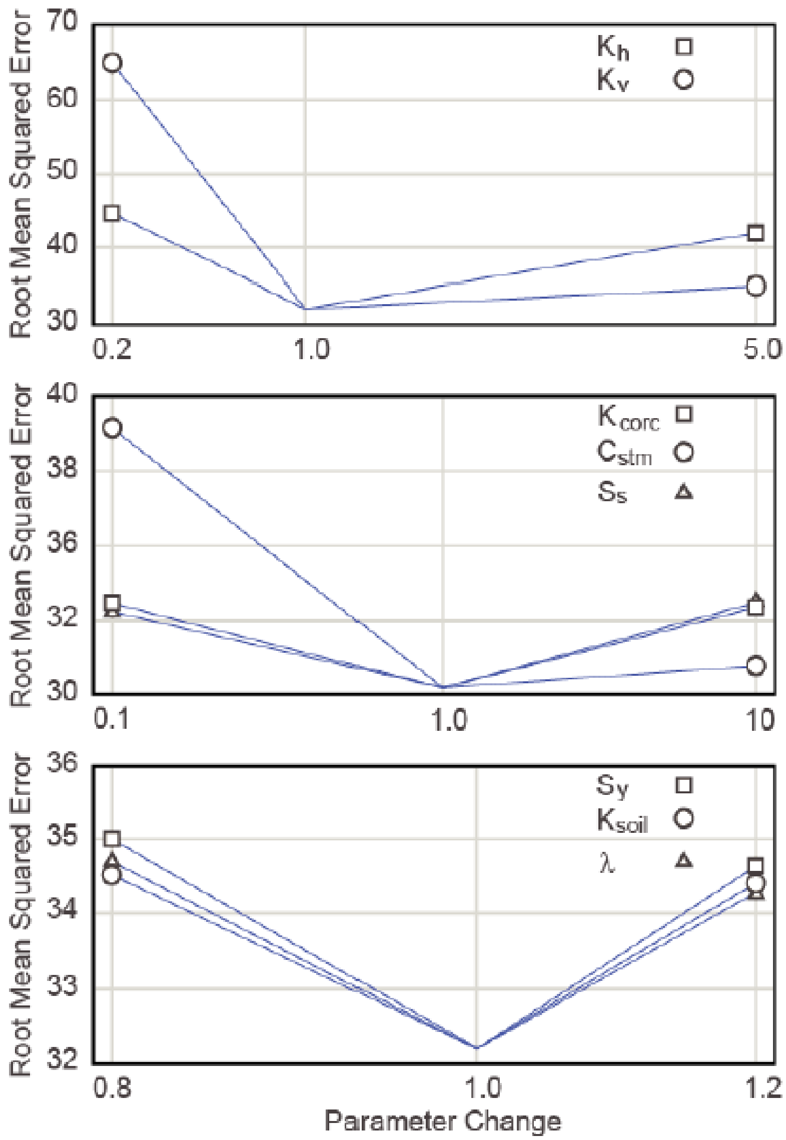
The C2VSimFG-Kern model was not formally calibrated. Some physical parameters were adjusted to improve model performance in specific areas. A sensitivity analysis was conducted on the adjusted model to understand how variations in model parameters affect model results. Eight physical parameter sets were systematically varied, and model results compared to the base model for a selected group of groundwater hydrographs. C2VSimFG-Kern parameter sensitivities evaluated for Subbasin include:

- Horizontal hydraulic conductivity of aquifer (Kh)
- Vertical hydraulic conductivity of aquifer (Kv)
- Vertical hydraulic conductivity of Corcoran Clay aquitard (Kcorc)
- Streambed conductance of Kern River (Cstm)
- Specific storage of aquifer (Ss)
- Specific yield of aquifer (Sy)
- Soil hydraulic conductivity in root zone (Ksoil)
- Soil pore size distribution index in root zone (λ)

The Root Mean Squared Error between observed and simulated values was calculated for the original parameter set and after varying each parameter set upward and downward by a set factor. Results are shown in **Figure 9-32**. This sensitivity analysis shows that the hydrologic parameter values in the C2VSimFG-Kern model are generally within an acceptable range. A full model calibration would likely improve model performance.

Peer Review Process

Todd Groundwater worked with Woodard and Curran (W&C) throughout the model development process as W&C conducted an on-going peer review of model input files. W&C staff have developed several IWFM-based models and worked with DWR to develop C2VSimFG-Beta. Their reviews helped ensure that the model update used best practices when incorporating new data. The peer review process was documented in a series of meeting summaries to the KGA and KRGSA. The updated C2VSimFG-Kern input files for the Subbasin were shared with DWR for incorporation into future C2VSim public releases.



Notes:
Sensitivity parameters modified and evaluated for Kern County Subbasin
Kh – horizontal hydraulic conductivity of aquifer
Kv – vertical hydraulic conductivity of aquifer

Kcorc - horizontal hydraulic conductivity of Corcoran Clay aquitard or equivalent
Cstm – streambed conductance of Kern River and Poso Creek
Ss – specific storage of aquifer

Sy – specific yield of aquifer
Ksoil –soil hydraulic conductivity in root zone
Λ –soil pore size distribution index in root zone

DRAFT

Kern County Subbasin Groundwater Sustainability Plan	Figure 9-32 C2VSimFG-Kern Sensitivity Analysis Results
Sources:	April 2024 CONSULTANT/USER INITIALS – Todd Groundwater

Figure 9-2. C2VSimFG-Kern Sensitivity Analysis Results

In addition, Dr. Charles Brush of Hydrolytics LLC was added to the modeling team. As an early developer of C2VSim for DWR, Dr. Brush provided his experience and expertise with the C2VSim to support the development of C2VSimFG-Kern. This collaborative effort provided further assurance that the model updates and revisions were conducted in an appropriate manner for water budget development consistent with DWR model update practices.

The more general assumptions in C2VSimFG--Beta were replaced with local data and knowledge that are regionally or locally significant for WY1995 to WY2015. This update employed a phased approach with regular peer reviews.

1) Phase 1 revisions address components of Regional Significance that require significant changes to the overall model input file structure. These include:
    a) Surface water delivery volumes, application areas and use by water district.
    b) Water banking recharge, recovery, and application of recovered water.
    c) Evapotranspiration rates and irrigation demand based on ITRC METRIC data (ITRC 2017).
    d) Urban population and per capita demand, including addition of an urban zone for Metropolitan Bakersfield.
    e) Addition of groundwater extraction wells for water banking projects.
2) Interim Review
    a) The Woodard & Curran Peer Review Team.
    b) Subbasin water districts and purveyor’s local data review.
    c) Stakeholder input.
3) Phase 2 revisions address components of Local Significance that generally require modifications of input data and parameters within the existing C2VSim model input file structure. These include:
    a) Local water sources and demands of significance to individual Districts/GSAs.
    b) District pumping for in-district delivery via surface water canals where significant.
    c) District recharge operations utilizing canals, stream channels, and basins.
    d) Wastewater disposal and land application.
    e) Review and limited adjustment of model parameters.
4) Interim Review by same reviewers listed in item 2.

5) Phase 3 revisions include addressing comments and incorporating new data from the Interim Reviews.

6) Interim Review by same reviewers listed in item 2.

7) Tabulate model-derived water budgets for Peer-Review and GSP Use.

In each update phase, historical and current water budgets for zones representing water agency service areas were produced with the revised C2VSimFG-Kern model incorporating corrected local data. These water budgets were shared with participating agencies for review, to ensure that C2VSimFG-Kern correctly represented local water balances. Where necessary, participating agencies provided additional data which was incorporated into C2VSimFG-Kern.

Internal Review Process

Todd Groundwater and Hydrolytics LLC worked collaboratively on this model revision, water budget development and the projected future scenarios. Throughout this work, efforts were applied to improve data management to develop a systematic process for generating model input files. Using this approach, internal review could be conducted with each firm reviewing the contributions from the other. The goal was to accurately represent the data provided by the Kern County agencies in the model.

Due to schedule constraints, a thorough internal review of the projected future model scenarios was not completed prior to the submission of the Public Review Draft of the model results on August 30, 2019. A thorough review of all input for the projected future scenarios was conducted in September and October 2019. During this review, several issues were identified and corrected. As a result, the results in this report vary from those provided in the August 2019 Public Review Draft. Although the numbers changed, the overall conclusions from the C2VSimFG-Kern simulations remained essentially the same.

Model Modifications

☑ **23 CCR § 354.18(f)**

In general, the C2VSimFG-Kern was revised to better represent the managed water supply and demand for the Subbasin. During the course of this revision, several issues were identified with the hydrogeological conceptual model and simulation parameters that affected the historical water budget. The following sections summarizes modifications made in C2VSimFG-Kern to improve the model performance. Other issues identified regarding the hydrogeological conceptual model, model setup and simulation parameters that were not addressed in C2VSimFG-Kern but are recommended to be modified for future model updates, are listed in **Section 9.7.5**. A summary of the changes that were made in C2VSimFG-Kern are provided below.

Streambed Parameters

In the Subbasin, the Kern River and Poso Creek are the two largest streams. Both have multiple stream gauges along their courses including ones near where they enter the Subbasin from the Sierra Nevada. These are the only streams that are simulated in the model using the IWFM stream module. Both are losing streams where surface water recharges groundwater but due to the great depth to groundwater in the principal aquifers they are not considered interconnected with the principal aquifer groundwater system, except during limited periods near the major water banking operations west of Bakersfield when multi-year periods of recharge operations produce high groundwater levels.

As a part of the C2VSimFG-Kern update, the simulated recharge from the Kern River and Poso Creek were compared to changes in stream gauge measurements and estimated streambed losses to evaluate how well the model was simulating streambed seepage. For much of the Kern River, the amount of streambed seepage is estimated based on daily weir information and is documented in the annual Kern River Hydrographic Reports. The streambed parameters used in C2VSimFG Beta do not provide a comparable volume and distribution of seepage along the Kern River streambed. In dry years, streamflow was not reaching far enough downstream whereas in wet years the seepage was too low. Similarly, the Poso Creek streambed seepage showed similar issues based on comparisons to differences in stream gauge data along its course.

To address this, the Kern River and Poso Creek streambed parameters were manually modified until a reasonable approximation of the measured streambed seepage was achieved by C2VSimFG-Kern. In general, the streambed conductance was lowered whereas the stream wetted perimeter was increased. This provides the best balance in matching the measured dry, average, and wet years flows in both streams.

Part of this issue is that C2VSimFG--Beta uses a simple form of the stream module in the simulation. This approach appears to work sufficiently well for the continuously flowing streams in the northern parts of the Central Valley but is not sufficient for simulating the highly variable flows that occur on the Kern River and Poso Creek. It is recommended that future revisions to C2VSimFG-Kern further evaluate issues in simulating streamflow and seepage in the Kern River and Poso Creek (see **Section 8.5**). This may include incorporating more advanced streamflow simulation features that are available in IWFM but that have not been utilized in C2VSimFG-Kern.

Small Watershed Runoff

In reviewing the small watershed contributions, it was determined that the runoff does not represent the variable nature of runoff in an arid region. Although this was not part of the originally planned model revisions, it affected the model results. Todd

Groundwater revised the corresponding model parameters to be more representative of the local arid conditions in Kern County.

Runoff of precipitation from the surrounding small watersheds is calculated within C2VSimFG-Kern using methodology included in IWFM that is based on the SCS Curve Number Method (NRCS, 2004). The C2VSimFG-Beta results showed a steady baseflow that contributed water to the Subbasin continuously and did not show the appropriate variation in runoff expected between wet, average, and dry years in the arid environment.

Two major issues were identified and revised. First, the SCS curve number was changed to allow a higher percentage of runoff in wet years to capture the flashy nature of runoff from these watersheds during differing climatic conditions. Second, IWFM uses a localized soil moisture water budget; however, soil, ET, and other parameters are set that allow for the continuous outflow from the basins. These were changed to more appropriate values that limit baseflow from the very small watersheds while allowing baseflow from the larger watersheds. Parameters were varied to better match estimated watershed runoff from a local USGS study (Nady and Larragueta, 1983).

Root Zone Parameters

Areas with low permeability soils, such as lake beds and shallow clay areas, were found to have overly high volumes of deep percolation that required additional groundwater pumping to meet the overall water demand for irrigation. This issue was noted by Subbasin GSAs who recognized that the groundwater pumping and deep percolation from preliminary model results were significantly higher than what was found in practice. A review found areas of overlying hydraulic conductivity and other hydraulic parameters that caused this high percolation rate. Two types of issues were found. First, very high root zone parameters are present in parts of the Subbasin that are not consistent with local soil data. Second, the root zone hydraulic parameters for lakebed and other heavy clay soil areas are too high. These areas were manually adjusted to be more in line with observed conditions. A more rigorous development of root zone parameters should be considered in the future as this issue demonstrates that it is a sensitive parameter.

Land Use Modifications

The agricultural land use and crop type distribution in the model for early period (1974 to 1990 and 1992 to 1996) from C2VSimFG-Beta uses a regional distribution and does not accurately represent historical practices. This results in agricultural water use being distributed across the entire Subbasin including areas that do not have irrigated agriculture. To correct for this, land use and crop type data are modified to conform with irrigated agricultural areas in the early 1990s. The crop types are adjusted to be consistent with the Kern County Agricultural Commissioner reports for these years. This included capturing the appropriate crop types present in the Subbasin in the periods from 1974 through 1996. For example, there was a higher percentage of cotton produced during that period and a lower percentage of nut trees, which became one of the major crop types in the 2010s.

Westside Pumping Limits

Western Kern County contains large areas with poor groundwater quality. As a result, little or no agricultural or urban groundwater pumping occurs in this area. To simulate this, groundwater pumping was turned off in C2VSim-Kern in most of the areas with poor groundwater quality. However, in the Westside District Water Authority GSA, limited groundwater pumping does occur during critically dry years. To protect crop health, the poor-quality water must be blended with surface water to supplement the imported water supply. To simulate this condition, the groundwater pumping rate in the Westside District Water Authority GSA is estimated to be 10 percent of the surface water deliveries, and the automated groundwater pumping adjustment in C2VSimFG-Kern was turned off for these areas.

Subsequent to the completion of the historical model, GSP developers in the WDWA GSA refined their estimate of groundwater pumping used to blend with delivered surface water to about 3,000 AFY on average, which is considerably lower than that used in the historical model. The Westside GSA GSP developers included a management action to further refine the estimated groundwater use in the WDWA GSA. Therefore, the original assumption was left in this version of the historical model. The results of WDWA GSA's pumping evaluation will be included in future model updates.

Kern Wildlife Refuge Pumping

C2VSimFG-Beta enabled groundwater pumping in the model elements representing the Kern National Wildlife Refuge (Refuge). The Kern National Wildlife Refuge Water Management Plan (USBR, 2011) indicates that during the simulation time period, the Refuge was sustained entirely on imported surface water and occasional diversions of Poso Creek flood waters. No groundwater was pumped at the Refuge during the simulation period 1985 to 2015. Groundwater pumping was used at some time in the past. Groundwater pumping and automated groundwater pumping adjustment are turned off for all model elements in the Refuge.

In addition to the Refuge, former rice fields and other areas are currently used for sustaining ponds at private duck hunting clubs in the northwestern portion of the Subbasin. Water use data for these operations were not available during the development of the historical model. This water includes a combination of surface water and groundwater, and this volume is considered to be very small relative to the overall Subbasin water use. GSP developers included a management action to further refine the estimated water use for these facilities that will be addressed in future updates.

Recommendations for Future Improvements to C2VSimFG-Kern

The C2VSimFG-Kern model performs well in most parts of the Subbasin, producing simulated water budget components that generally match historical values compiled by local agencies. C2VSimFG-Kern simulated groundwater levels provide a reasonable approximation of observed groundwater levels in the central part of the Subbasin. The model is well suited in most parts of the Subbasin for estimating the impacts of management actions on Subbasin groundwater storage and is also well suited as a planning tool in meeting SGMA compliance.

During the model update, several outstanding issues were identified that are currently being addressed in future updates to C2VSimFG-Kern. These data gaps are being addressed under the grant funded Basin Study and Evapotranspiration Analysis & Study grant components (Section 9.1.5). This grant period is October 2022 to October 2025.

- **Improve streamflow simulations of the Kern River and Poso Creek.** Flows in the Kern River channel, including local stream-groundwater interactions, are not well replicated and surface water diversions are not dynamically simulated. Some rejected recharge occurs in the Kern Fan area in very wet years, with significant outflow of groundwater to the Kern River especially in the Kern Fan banking area (i.e., rejected recharge). This has been an ongoing issue and needs to be addressed for the projected future water budgets so that banking recharge volumes can be better matched in the model. It is recommended that future revisions to C2VSimFG-Kern further evaluate issues in simulating streamflow and seepage in the Kern River and Poso Creek (see **Section 8.5**). This may include incorporating more advanced streamflow simulation features that are available in IWFM but that have not been previously utilized in developing C2VSim models by DWR. Changing the stream simulation feature may require development of a local Subbasin model.
- **Improve the geologic and hydrogeologic conceptual model of the Kern County portion of the Central Valley.** A hydrogeologic conceptual model is a framework for understanding where groundwater exists, where it flows, and how groundwater interacts with surface water bodies and the land surface. A geologic conceptual model provides a framework for understanding the geologic features that control groundwater movement. Quantitative analysis of Subbasin groundwater flow is severely hampered by the lack of detailed geologic and hydrogeologic conceptual models of the areas outside the central alluvial basin. Geologic and hydrogeologic conceptual models will provide a foundation for the quantitative analysis of the groundwater flow system, and the framework for modeling the system. Key steps are:

- Develop detailed geologic and hydrogeologic conceptual models of the Subbasin.
- Identify the locations and characteristics of natural features that affect groundwater recharge and movement (faults, ridges, clays).
- Understand water occurrence and movement in areas outside the central Subbasin.
- Develop water quality maps (natural constituents and anthropogenic constituents).
- Modify the Subbasin model to conform to the updated conceptual models.

- **Simulation of deep percolation and small watersheds.** Unreasonably high deep percolation (return flows) of the applied water in some areas has led to unreasonably elevated pumping rates to compensate. One problem is high root zone hydraulic parameter values in certain areas that were identified and corrected to better reflect local soil conditions. Because the excess pumping was returning to groundwater, the change has little effect on the Subbasin change in storage, but the pumping and deep percolation are now more in line with local estimates. Root zone hydraulic parameters should be redeveloped throughout the Subbasin to assure model values are representative of actual values.
- **Root Zone Parameters,** Areas of overly high root zone hydraulic parameters led to high volumes of deep percolation that required additional groundwater pumping to meet the overall water demand for irrigation. A review found areas of overlying high soil hydraulic conductivity and other soil parameters produced percolation rate that were too high. These areas were manually adjusted to be more in line with observed conditions. A more rigorous development of root zone parameters should be considered in the future as this issue demonstrates that it is a sensitive parameter.
- **Investigate development of a stand-alone Subbasin model.** The C2VSim model provided by DWR and updated with local data is adequate for GSP preparation. However, this model may not meet all the groundwater modeling needs of Subbasin stakeholders. In addition, running a full Central Valley simulation model imposes longer model run times and reduces model flexibility. Stakeholders should undertake a comprehensive study to develop a list of their integrated (groundwater and surface water) modeling needs, and then decide whether further improving C2VSimFG-Kern or developing a new integrated hydrologic model is the best way to address the Subbasin modeling needs.
- **Adjust the finite element grid to honor water management boundaries.** The C2VSimFG-Kern model grid is a randomly generated grid that does not conform to any local features other than natural surface water channels. This

limits the spatial accuracy of model inputs and the precision and flexibility of water budget outputs. Adjusting the grid to match district and agency boundaries, historical delivery areas, water management units within districts, and geologic and hydrologic features would greatly enhance model capabilities.

- **Quantify boundary flows.** Significant uncertainty exists regarding the rates and timing of groundwater flows into the Subbasin from surrounding watersheds, and groundwater flows from the Subbasin to Kings and Tulare counties to the north. Reliable estimates of boundary flows will improve model performance in boundary areas.
- **Kern County Subbasin Boundary.** The GSAs in the Subbasin should consider when DWR updates the Bulletin 118 to investigate the "actual" Subbasin and to remove those peripheral lands where aquifer connectivity does not exist.
- **Utilize more complex water management features of IWFM.** The Kern Update process modified information within the existing C2VSimFG--Beta model structure to improve model performance within the Subbasin. The IWFM application has several features that could be further utilized to improve model performance.
  - Adjust the agricultural crops to better match the Kern County crop mix (for example, create separate crop categories for carrots, young and mature almonds, young and mature pistachios, etc.).
  - Implement multi-cropping with semiannual or quarterly land use.
  - Some C2VSim data are organized by DWR subregions, which represent heterogeneous areas with homogeneous data. Developing Subbasin subregions and organizing model input data by these subregions may provide a better representation of local hydrologic conditions.
- **Calibrate the improved model for the Kern County Subbasin**. DWR did not fully calibrate the Kern County portion of the C2VSim model, owing to both poor historical input data and a lack of calibration data sets. The Kern Update process significantly improved the historical data in the model, developed some calibration data sets, and included limited adjustment of model parameters. The updated model performs adequately in the central part of the Subbasin and poorly in areas outside the central part of the Subbasin. Once the above improvements are completed, the Kern County portion of the resulting model should be fully calibrated to ensure that it performs well throughout the Subbasin.

Future Work to Address Data Gaps

The Kern County Subbasin received a Round 1 sustainable groundwater management (SGM) grant for critically overdrafted basin under the Sustainable Groundwater

Management (SGM) Grant Program SGMA Implementation grant authorized by the California Budget Act of 2021 and Proposition 68 for projects that encourage sustainable management of groundwater resources that support SGMA. The contract between DWR and the representative for the Kern County Subbasin GSAs was signed on August 8, 2022. **Section 9.1.5** provides a summary of the grant components associated with addressing data gaps related to the water budget.

Hydrographs of Groundwater Elevations

Projected-Future Scenarios

Kern County Subbasin

Projected-Future Scenario Hydrographs

The C2VSimFG-Kern results were used to assess whether the simulated groundwater levels would meet the minimum threshold and measurable objective for each monitoring well. Because C2VSimFG-Kern is not fully calibrated, the results are presented as relative change (which does not require calibration) instead of simulated groundwater levels using the superposition method. Future change in groundwater levels have been determined for each of the 186 locations for each of the six projected future scenarios. The change is calculated starting with the simulated March 2015 groundwater levels from the model. The change in groundwater level is then applied to the measured March 2015 groundwater level at the monitoring location. The result was to superimpose the simulated change in groundwater levels from the projected future C2VSimFG-Kern scenarios relative to the measured March 2015 groundwater level.

In general, across most areas of the Subbasin, groundwater levels fall near or below the minimum thresholds without the SGMA projects and management actions but are typically above the minimum threshold for the scenarios that include the SGMA projects and management actions. The groundwater hydrographs for some locations, especially along the eastern and western Subbasin margins, show an unusual pattern that is likely influenced by issues with the hydrogeological conceptual model incorporated into C2VSimFG-Kern for these locations. The hydrographs for these areas are not considered to be representative of actual conditions that would physically occur. This is a limitation to the model. The model is currently undergoing a rigorous model update be conducted to revise the hydrogeological conceptual model to be consistent with that presented in the Subbasin GSPs. In addition, further calibration of C2VSimFG-Kern is recommended to update aquifer parameters in the Subbasin.

The Subbasin GSAs have defined 186 locations spread across the Subbasin. Minimum thresholds and measurable objectives have been assigned at each of these locations, and the hydrographs for all locations are provided following this text.

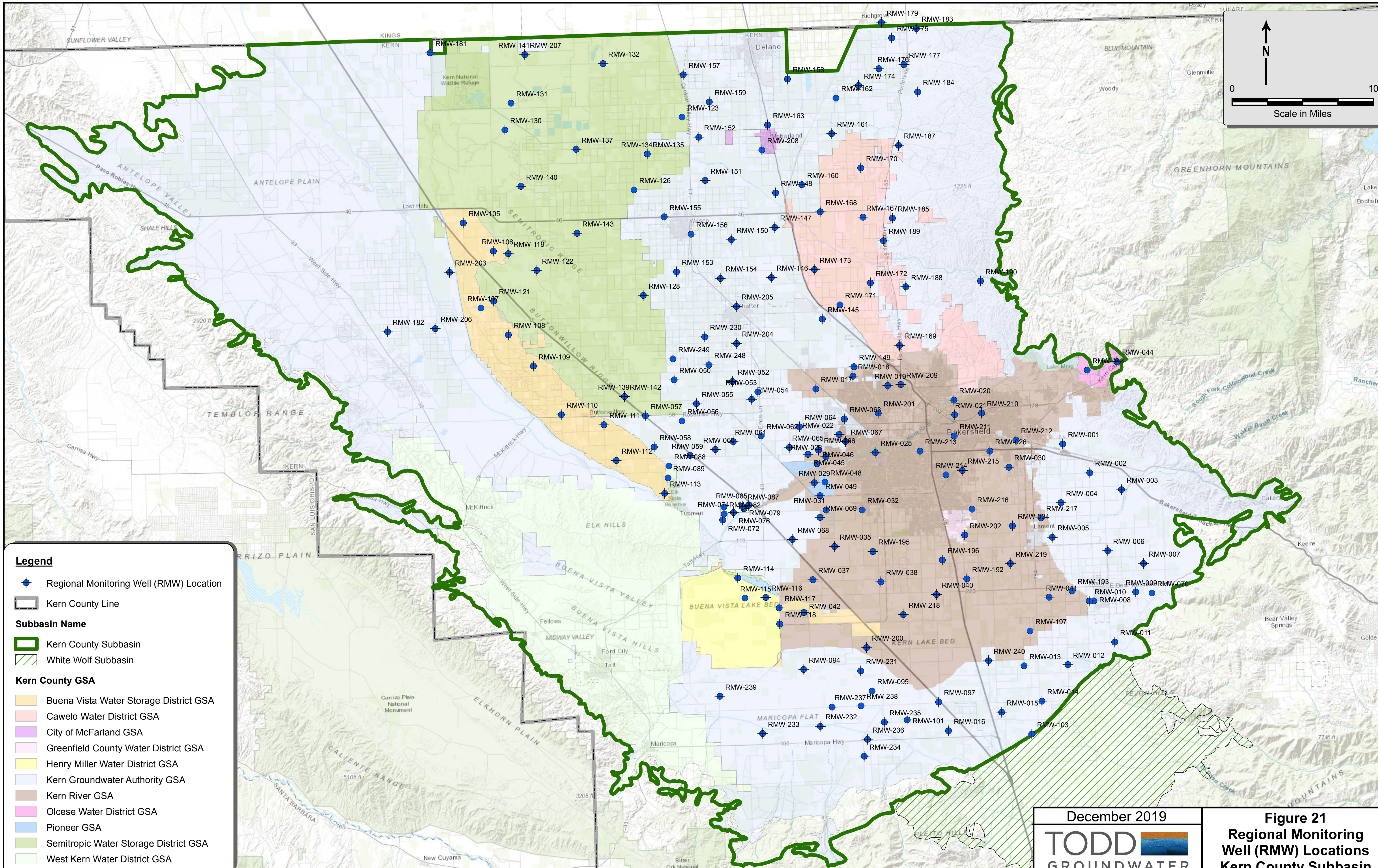
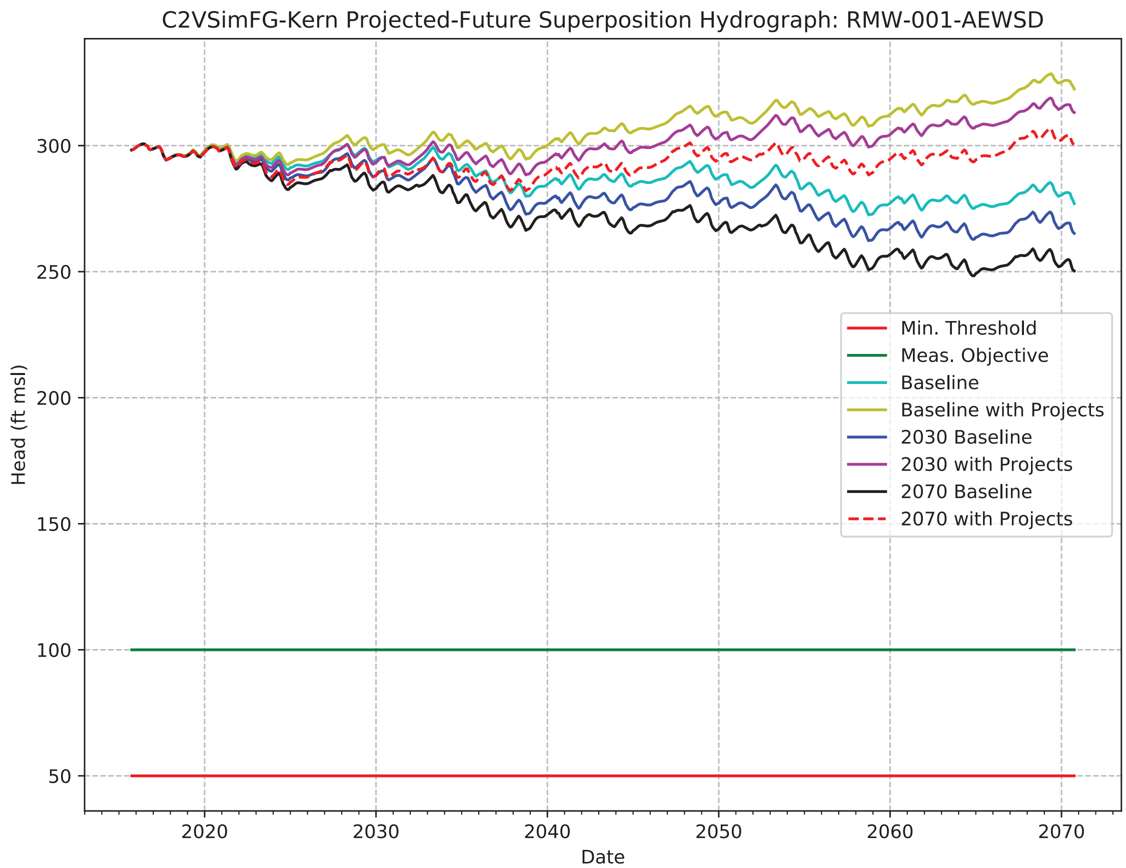
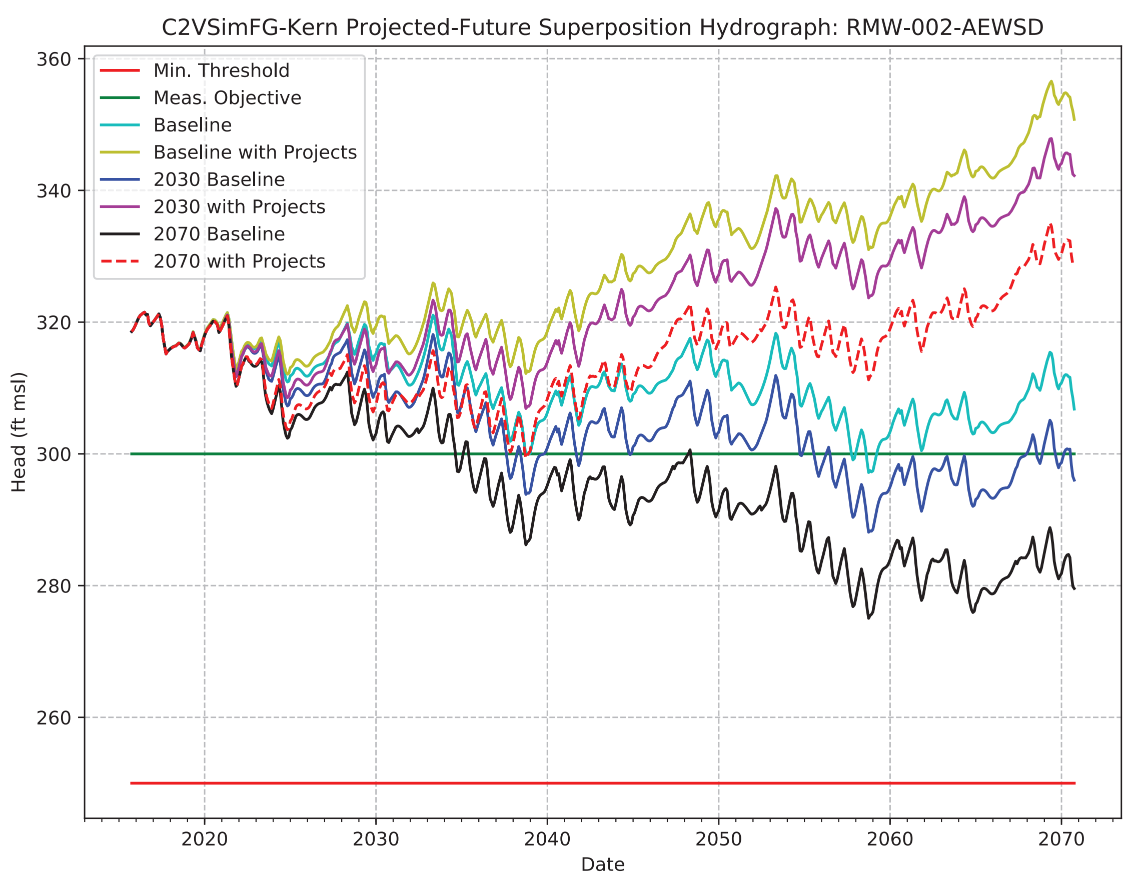


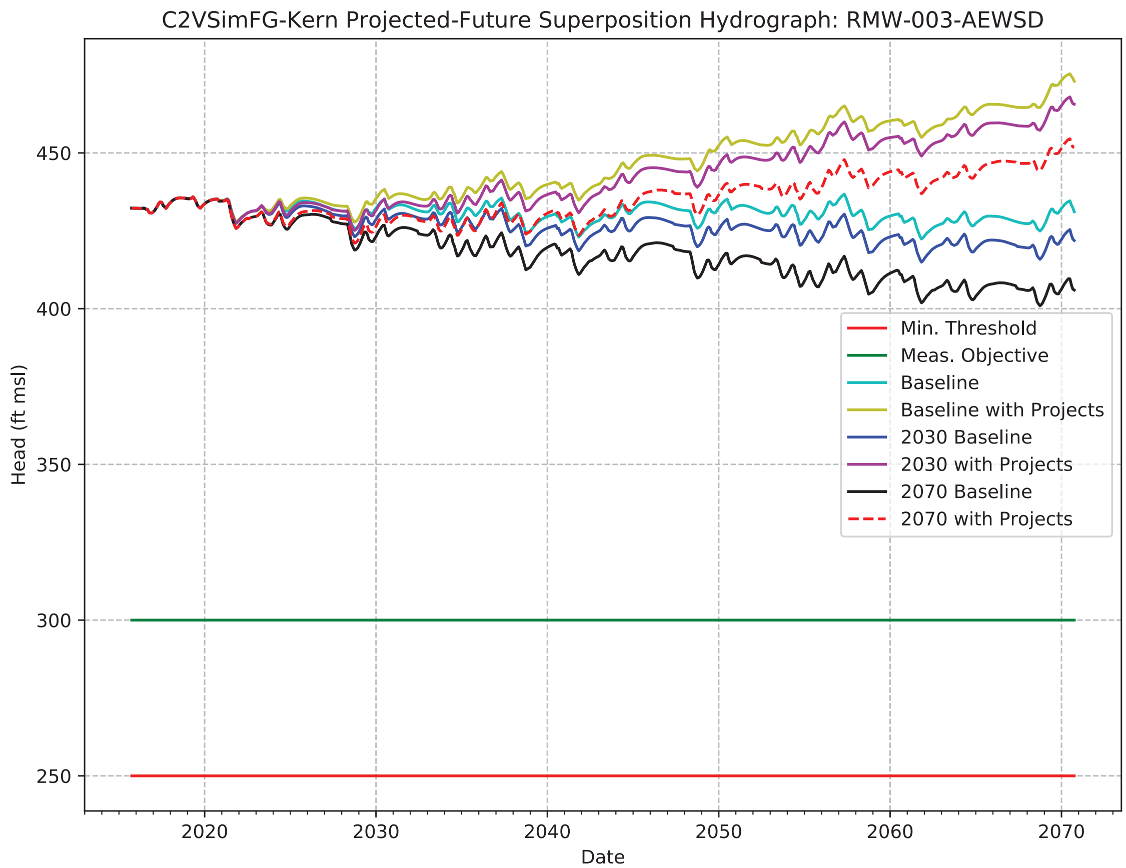
Figure 21
Regional Monitoring Well (RMW) Locations
Kern County Subbasin

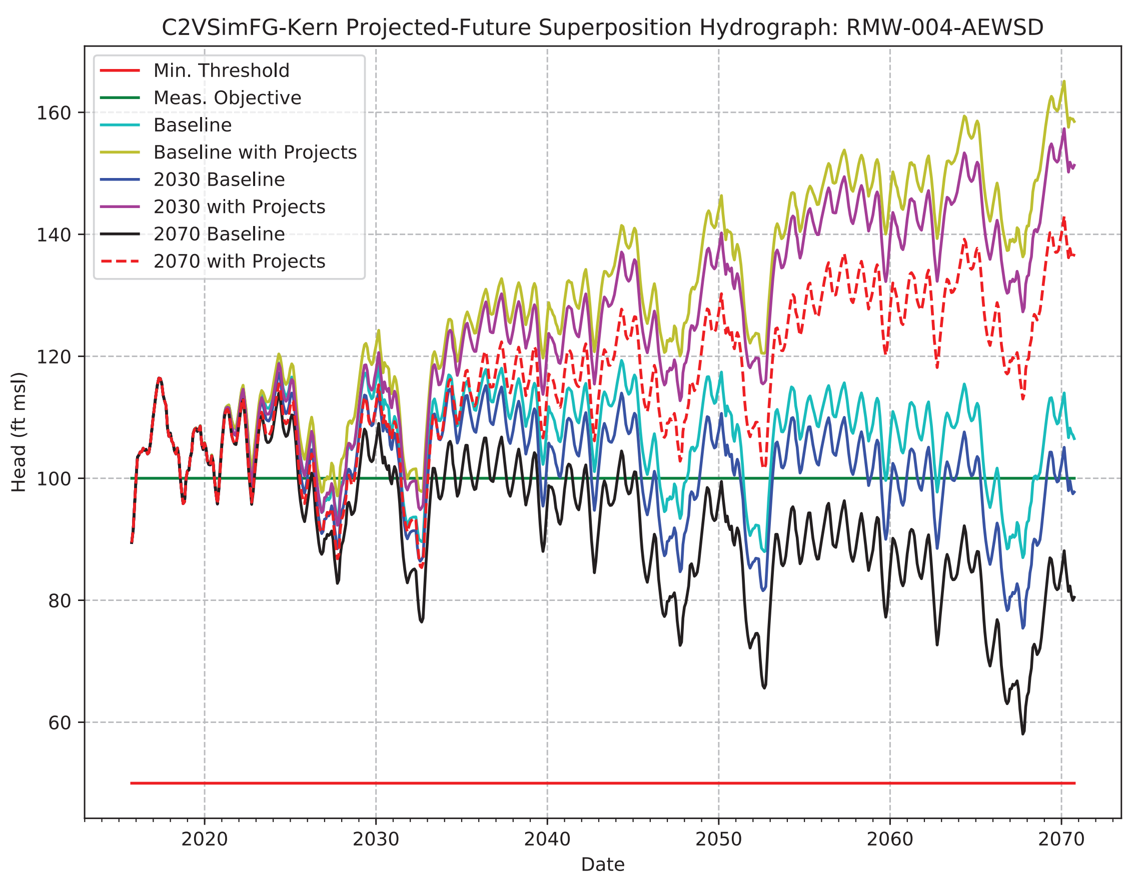
Projected-Future Scenario Hydrographs

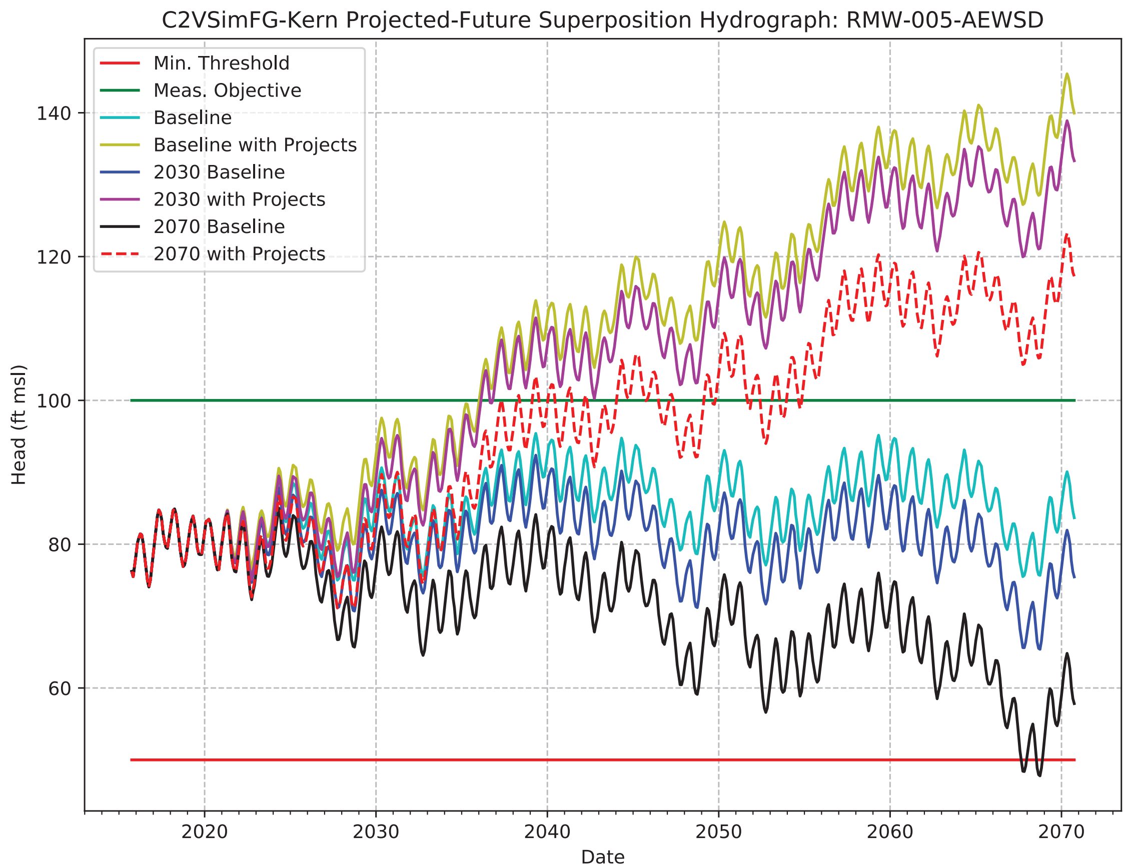
C2VSimFG-Kern Model


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-001-AEWSD
Head (ft msl)
Date
50
100
150
200
250
300
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-002-AEWSD
Head (ft msl)
Date
260
280
300
320
340
360
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-003-AEWSD
Head (ft msl)
450
400
350
300
250
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-004-AEWSD
Head (ft msl)
160
140
120
100
80
60
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-005-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
140
120
100
80
60
2020
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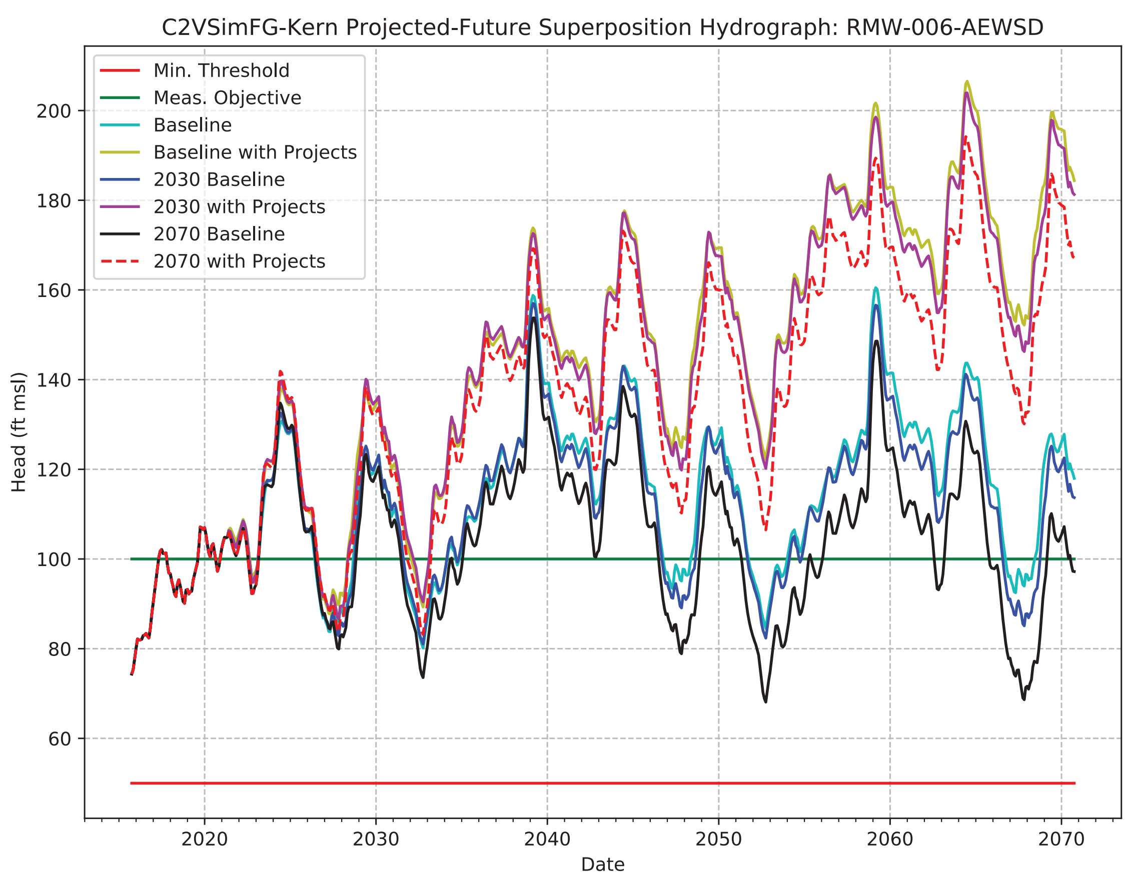
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-006-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
200
180
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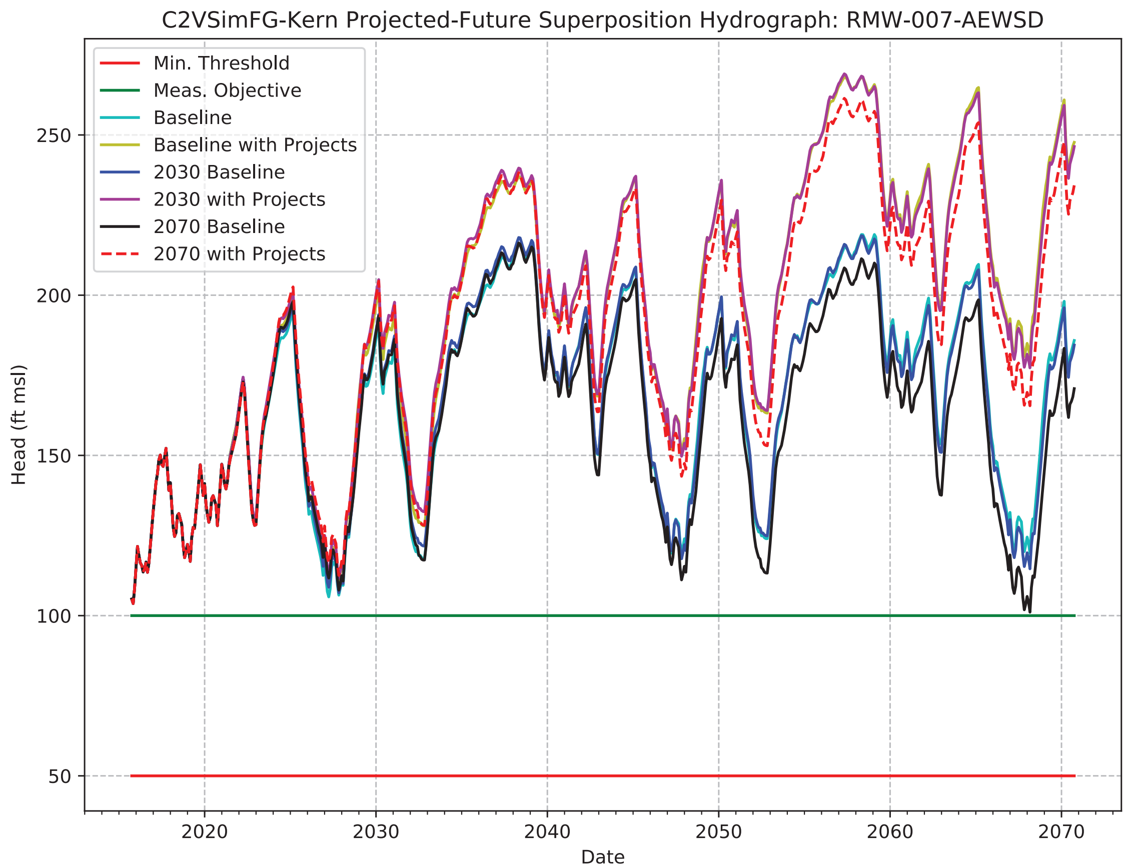
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-007-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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Head (ft msl)
Date
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100
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2020
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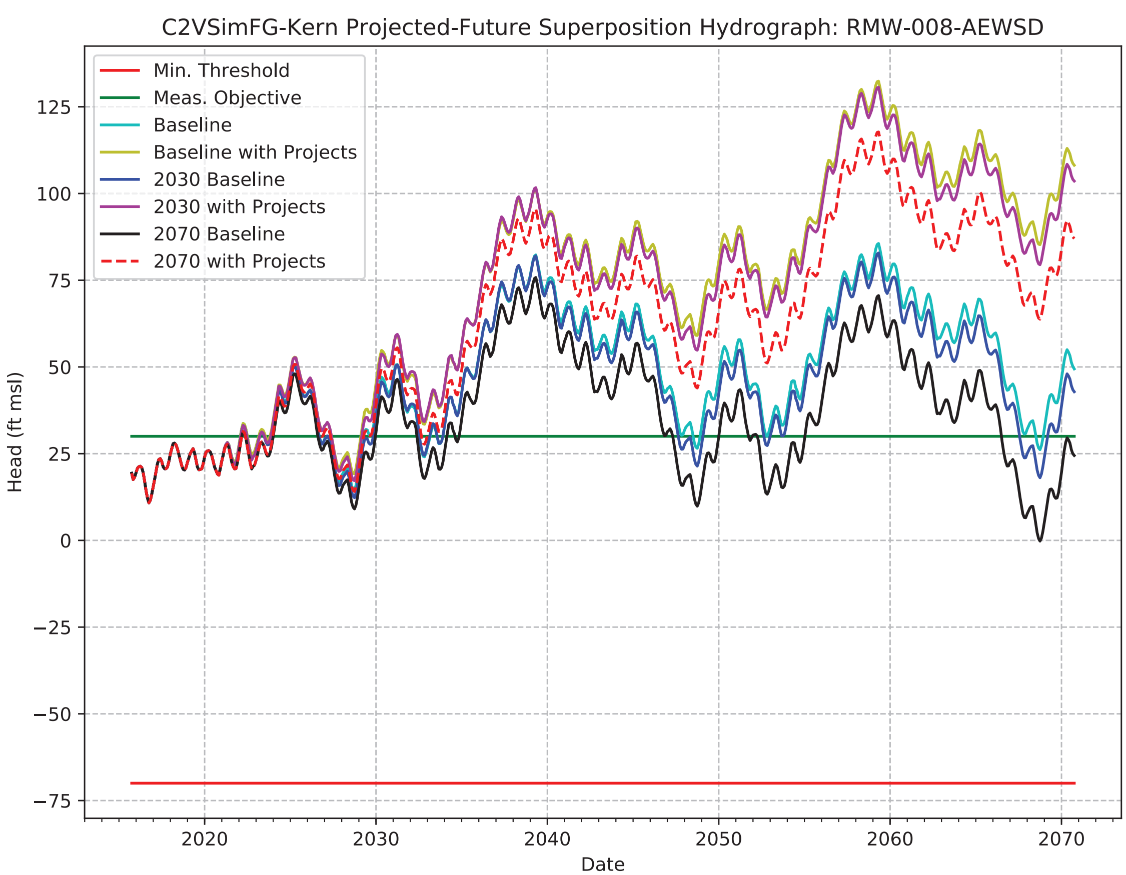
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-008-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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−50
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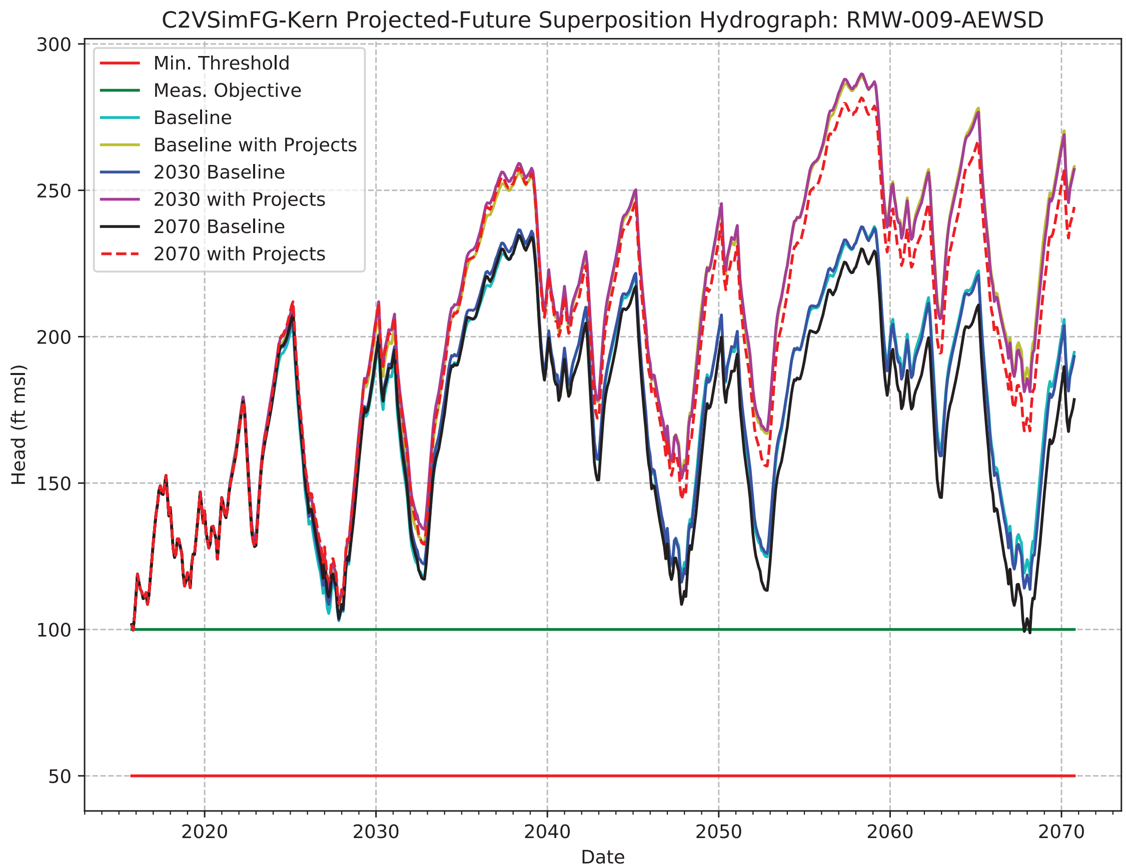
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-009-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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Head (ft msl)
Date
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50
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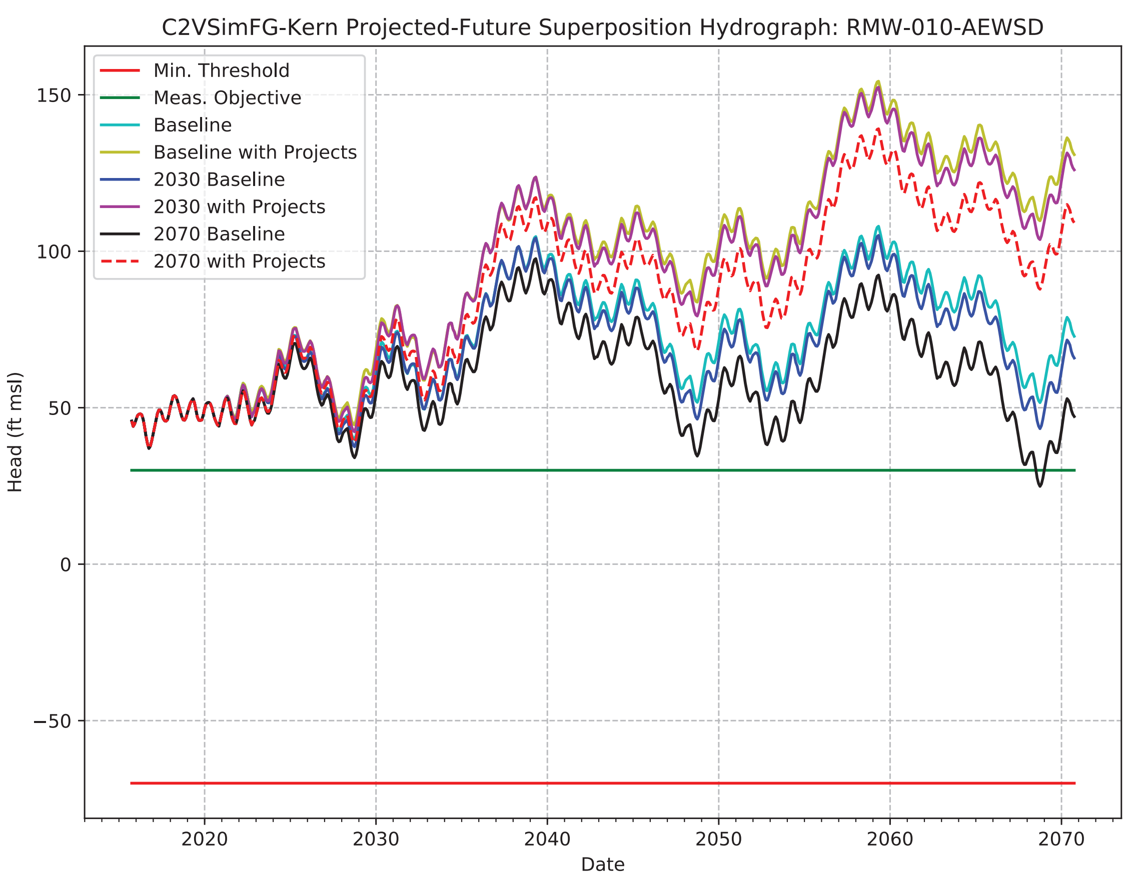
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-010-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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2070 with Projects
Head (ft msl)
Date
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2020
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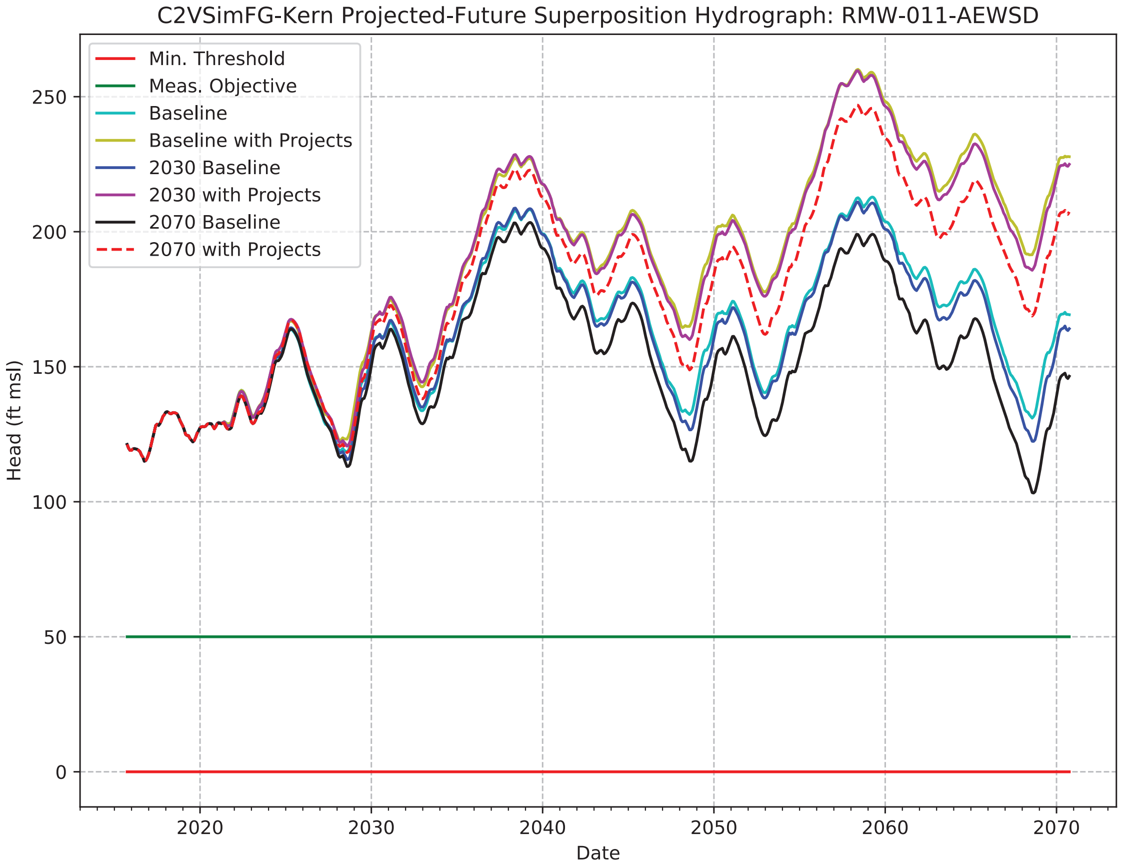
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-011-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
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2060
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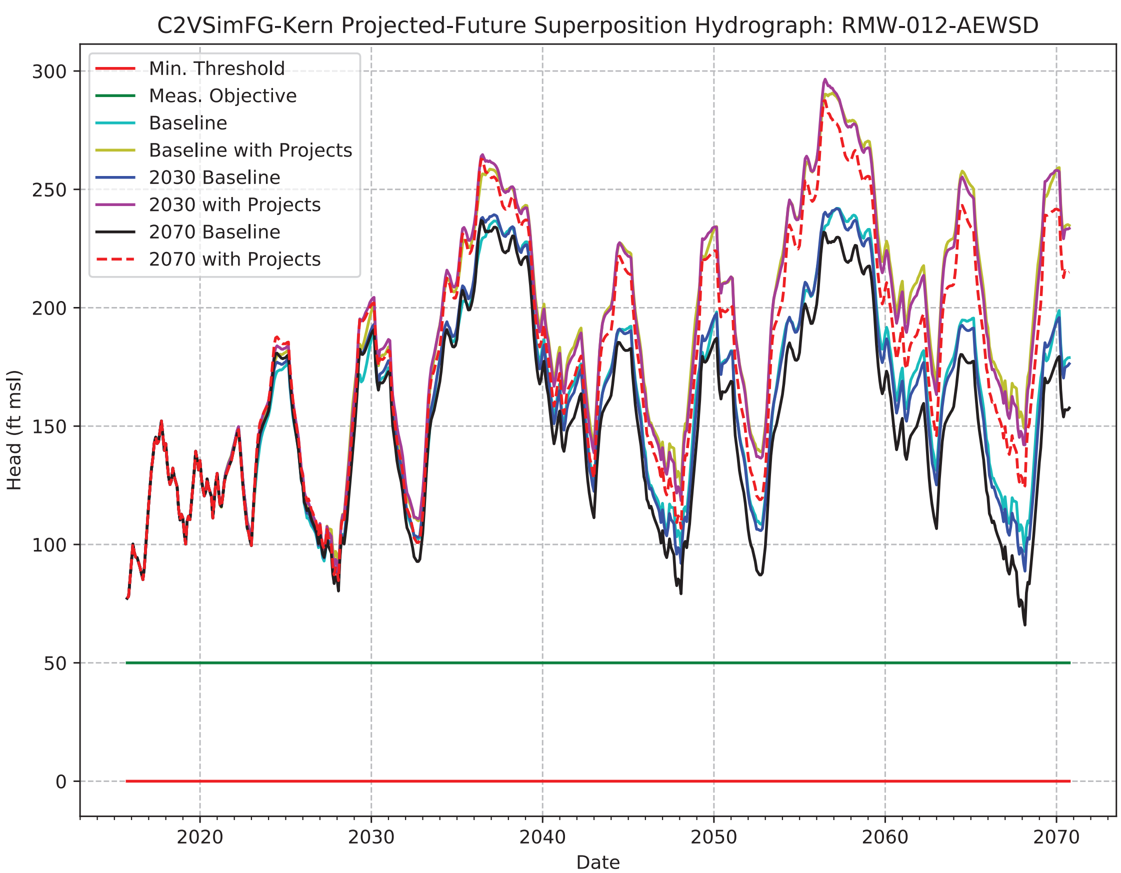
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-012-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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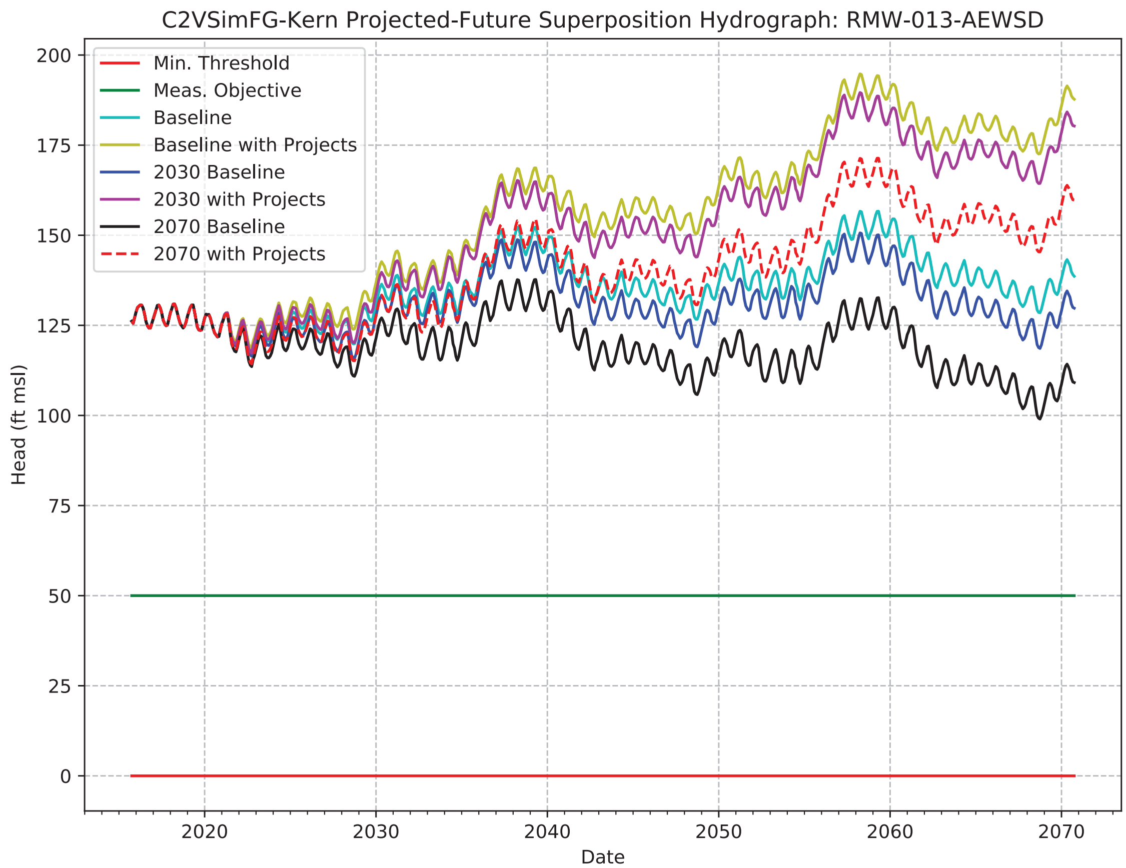
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-013-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
200
175
150
125
100
75
50
25
0
Date
2020
2030
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2060
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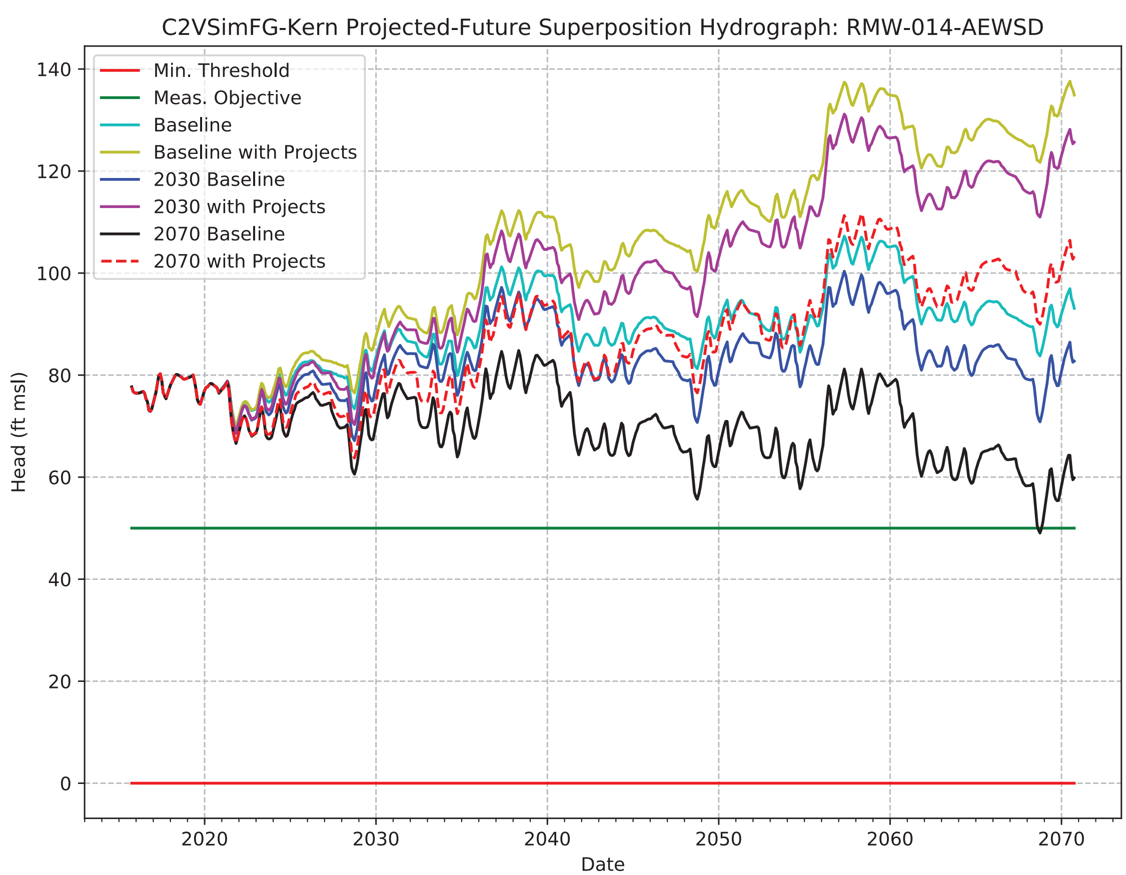
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-014-AEWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
140
120
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80
60
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20
0
Date
2020
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2060
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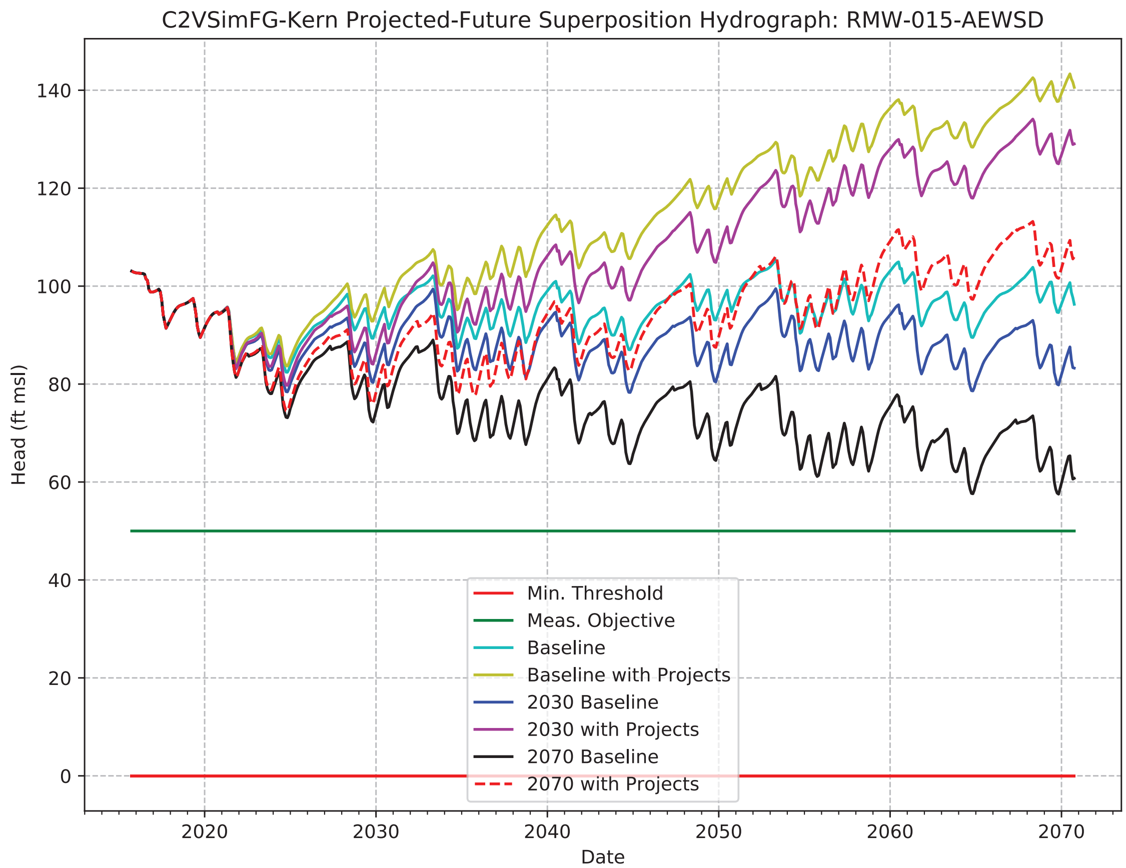
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-015-AEWSD
Head (ft msl)
Date
0
20
40
60
80
100
120
140
2020
2030
2040
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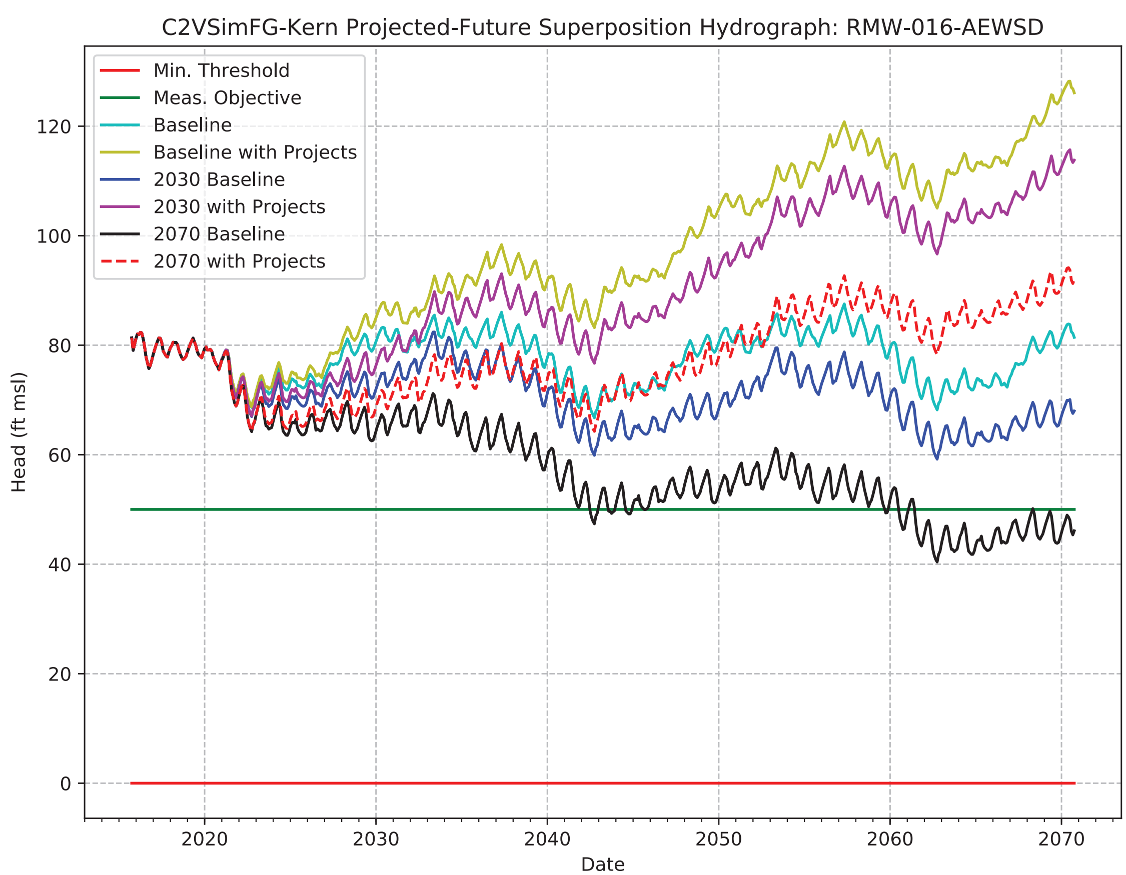
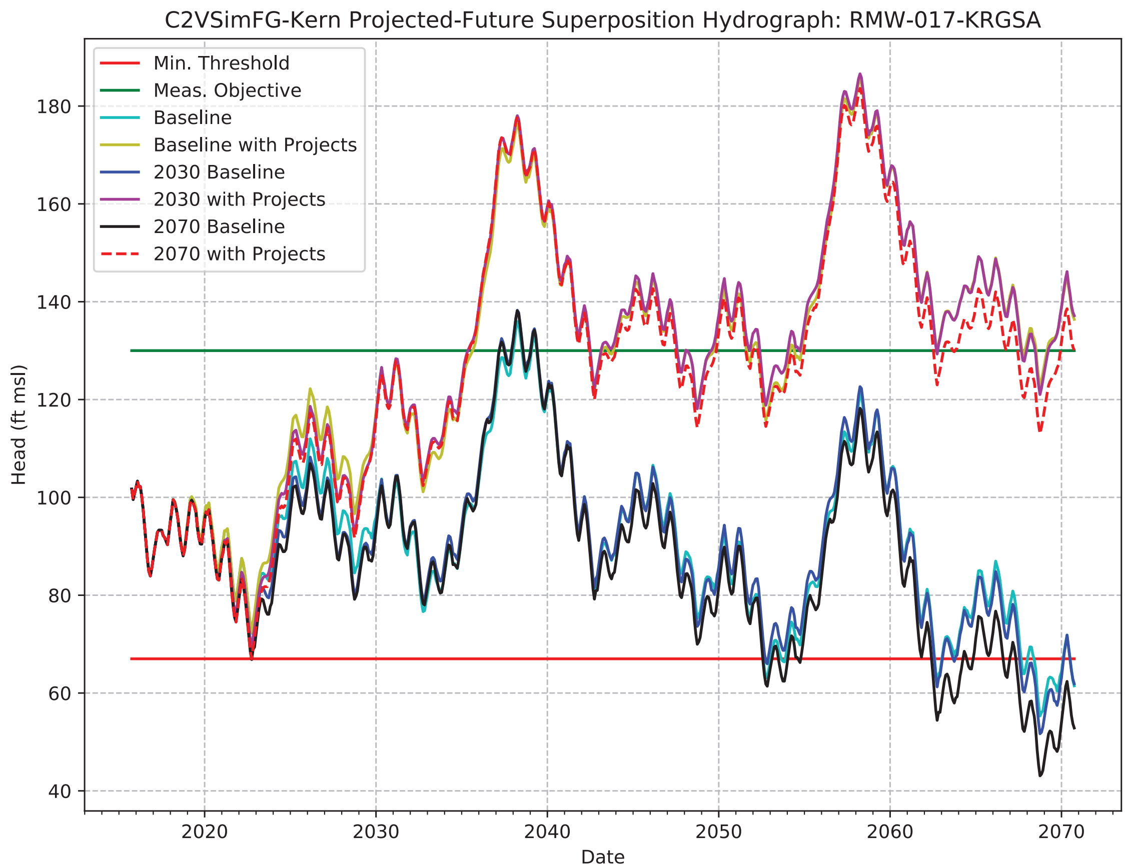
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-016-AEWSD
Head (ft msl)
Date
0
20
40
60
80
100
120
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-017-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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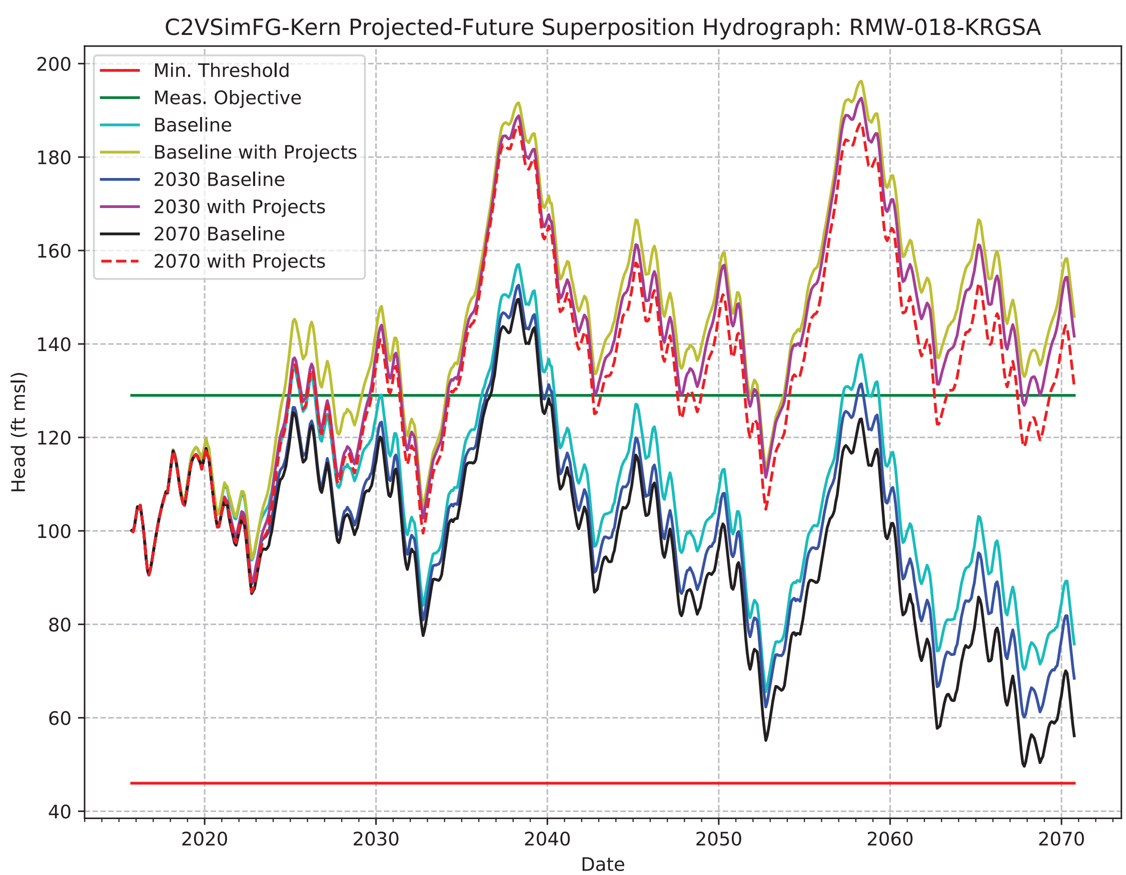
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-018-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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100
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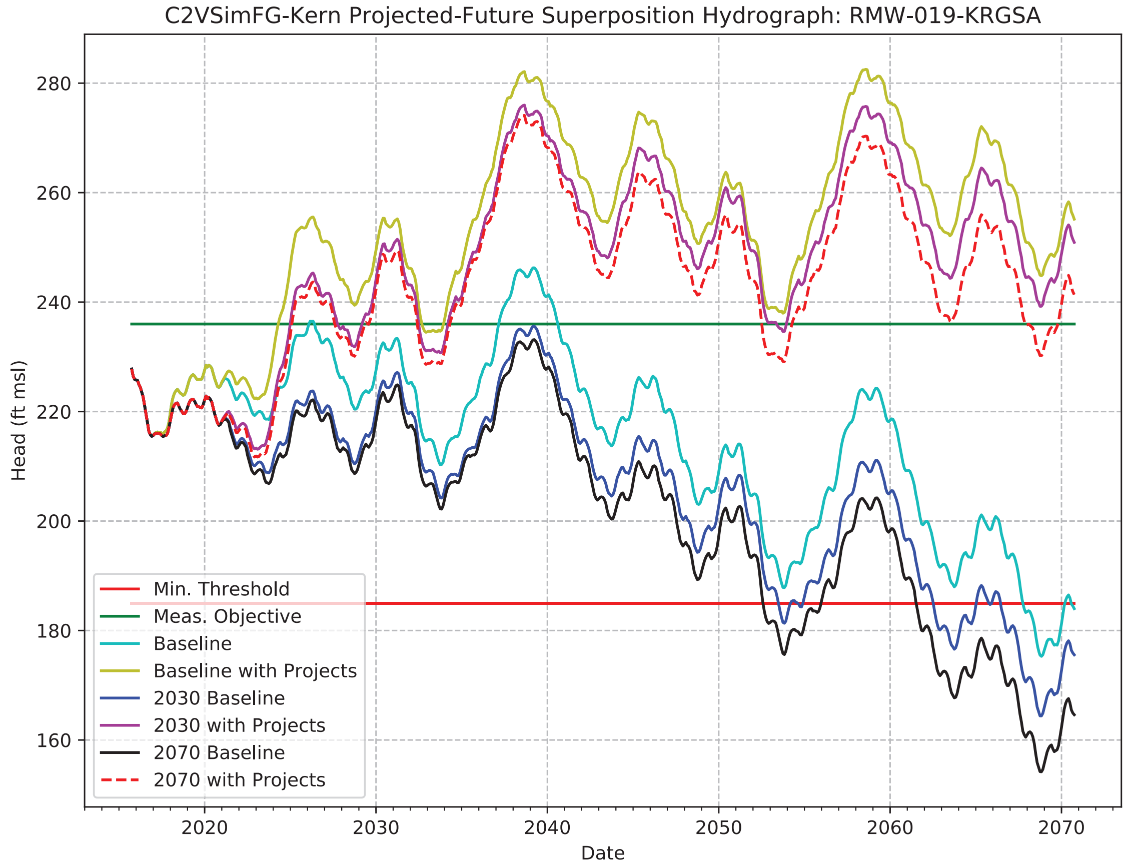
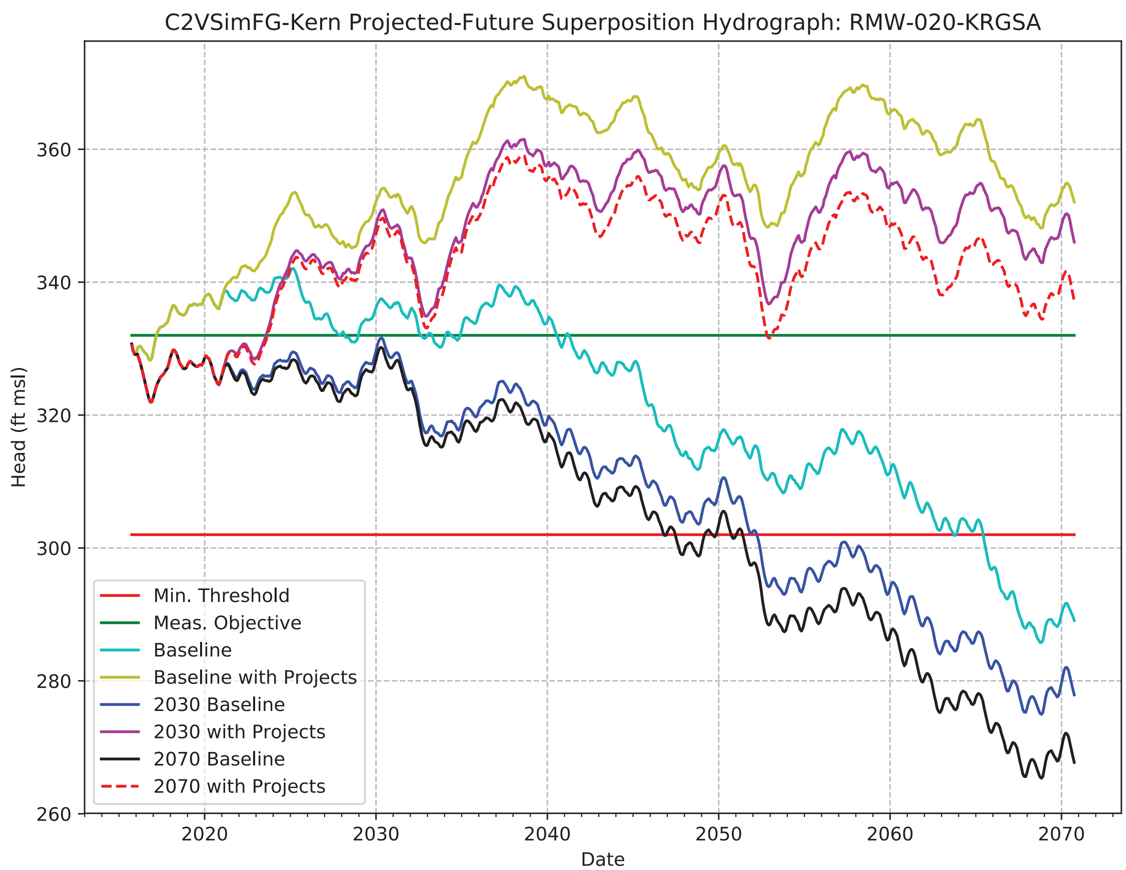
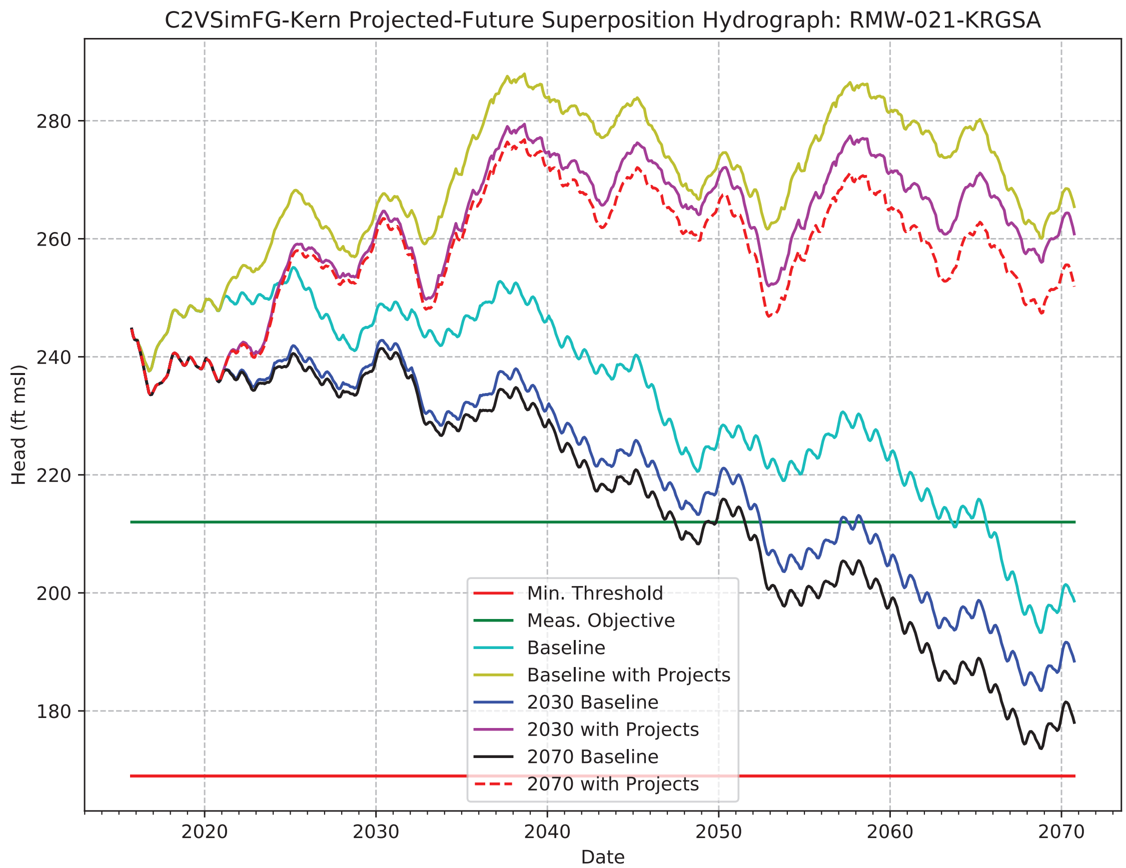
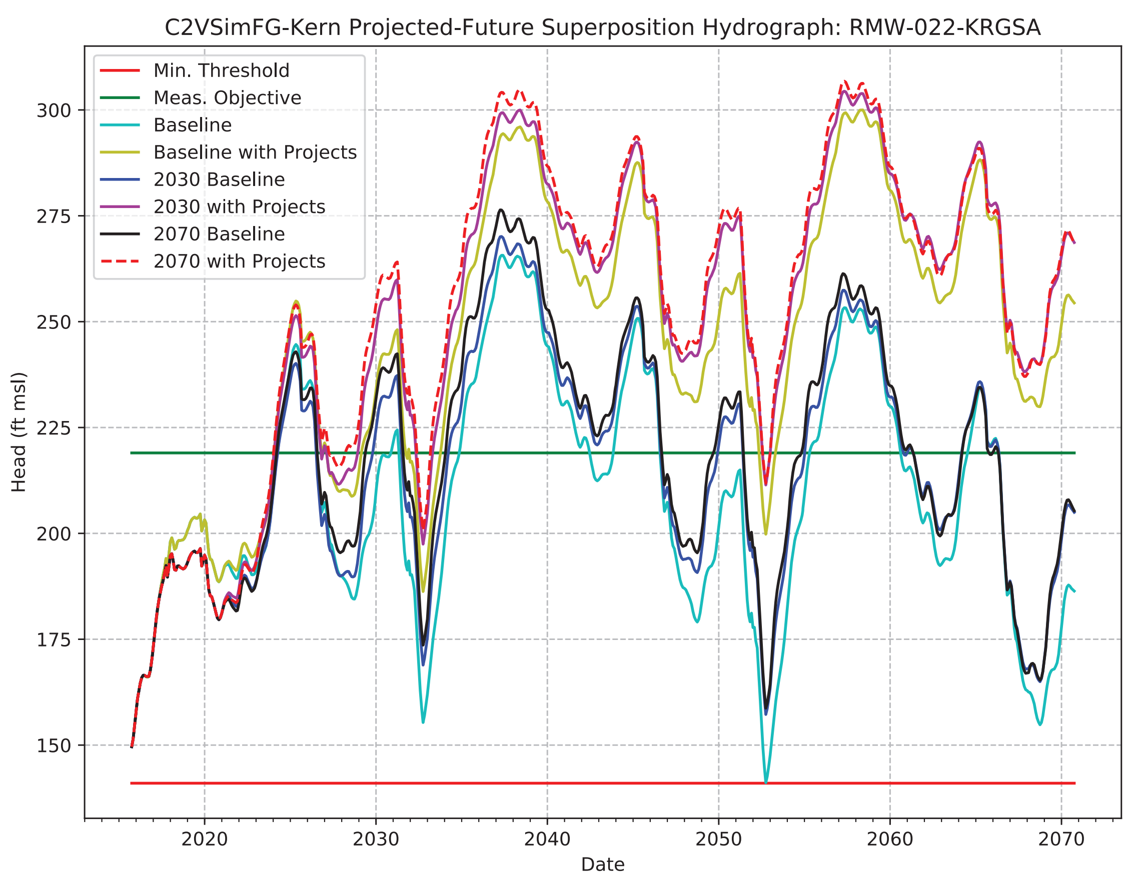
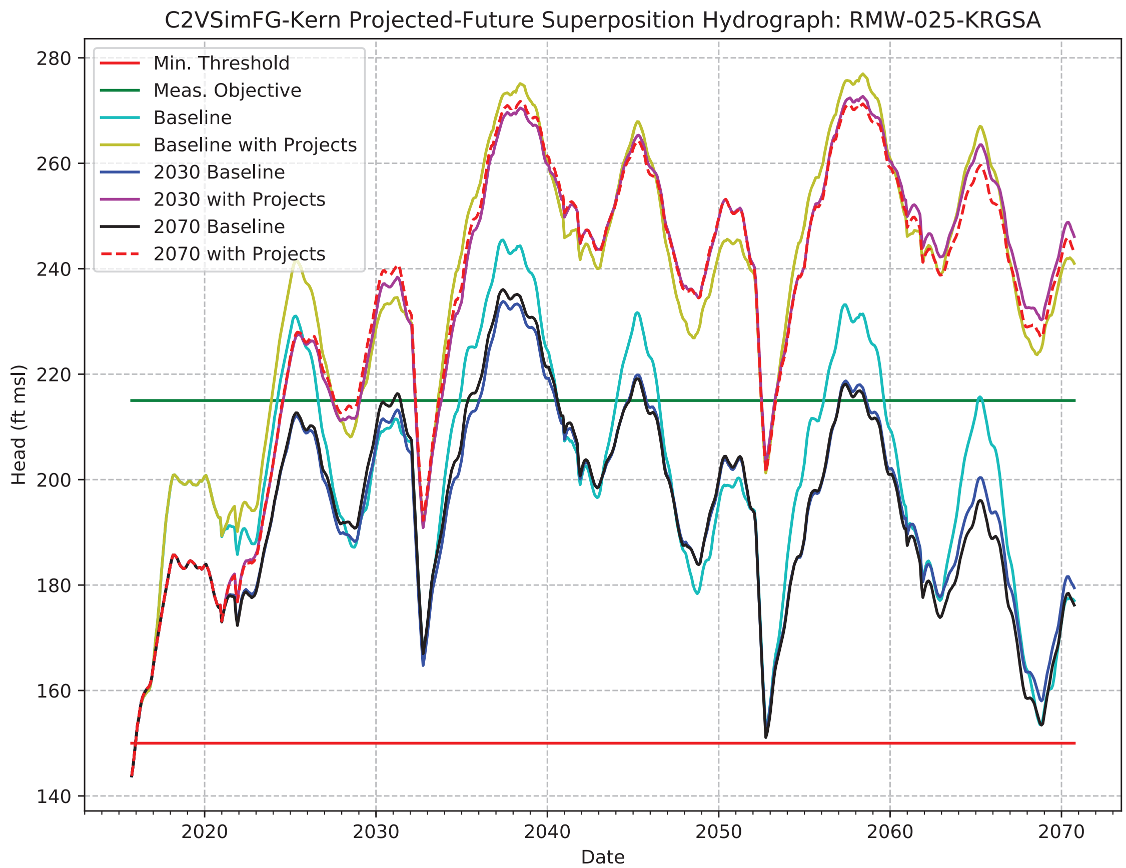
2050
2060
2070
Date

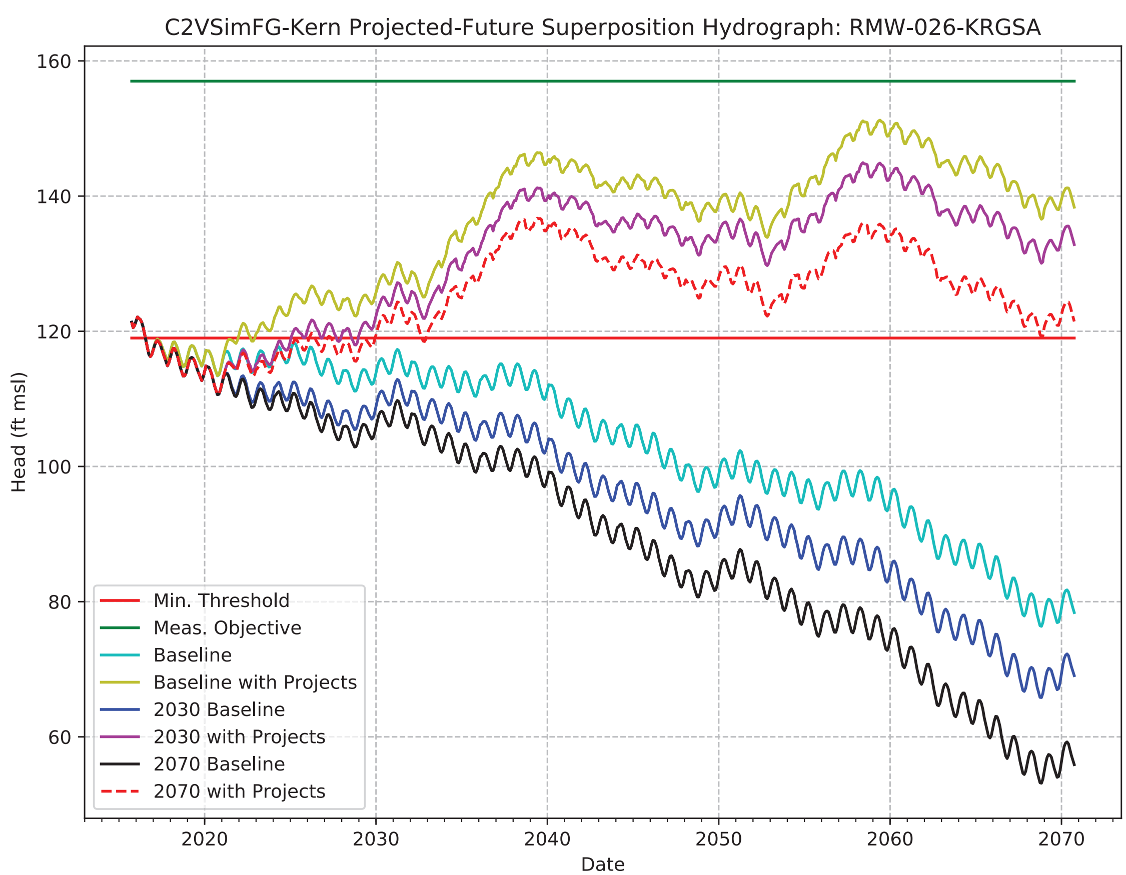

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-019-KRGSA
Head (ft msl)
280
260
240
220
200
180
160
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

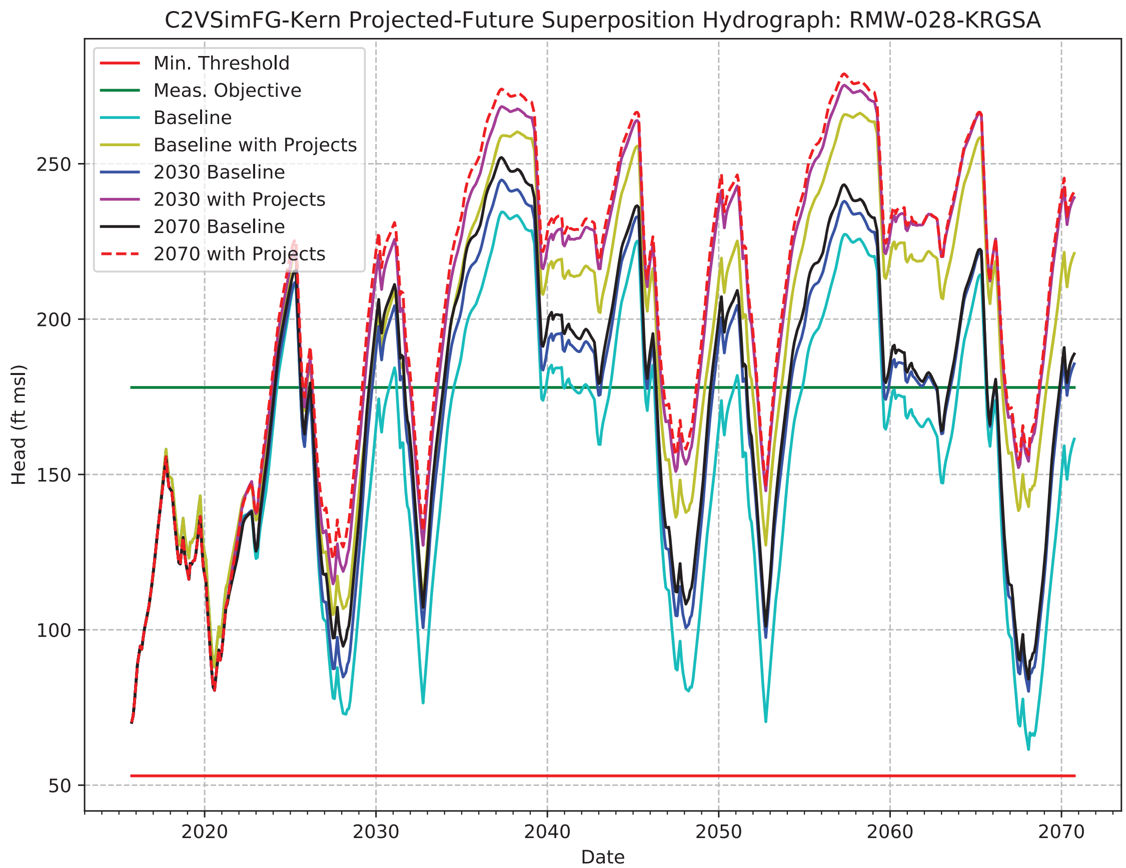

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-020-KRGSA
Head (ft msl)
360
340
320
300
280
260
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-021-KRGSA
Head (ft msl)
280
260
240
220
200
180
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-022-KRGSA
Head (ft msl)
300
275
250
225
200
175
150
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-025-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
140
160
180
200
220
240
260
280
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-026-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
60
80
100
120
140
160
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-028-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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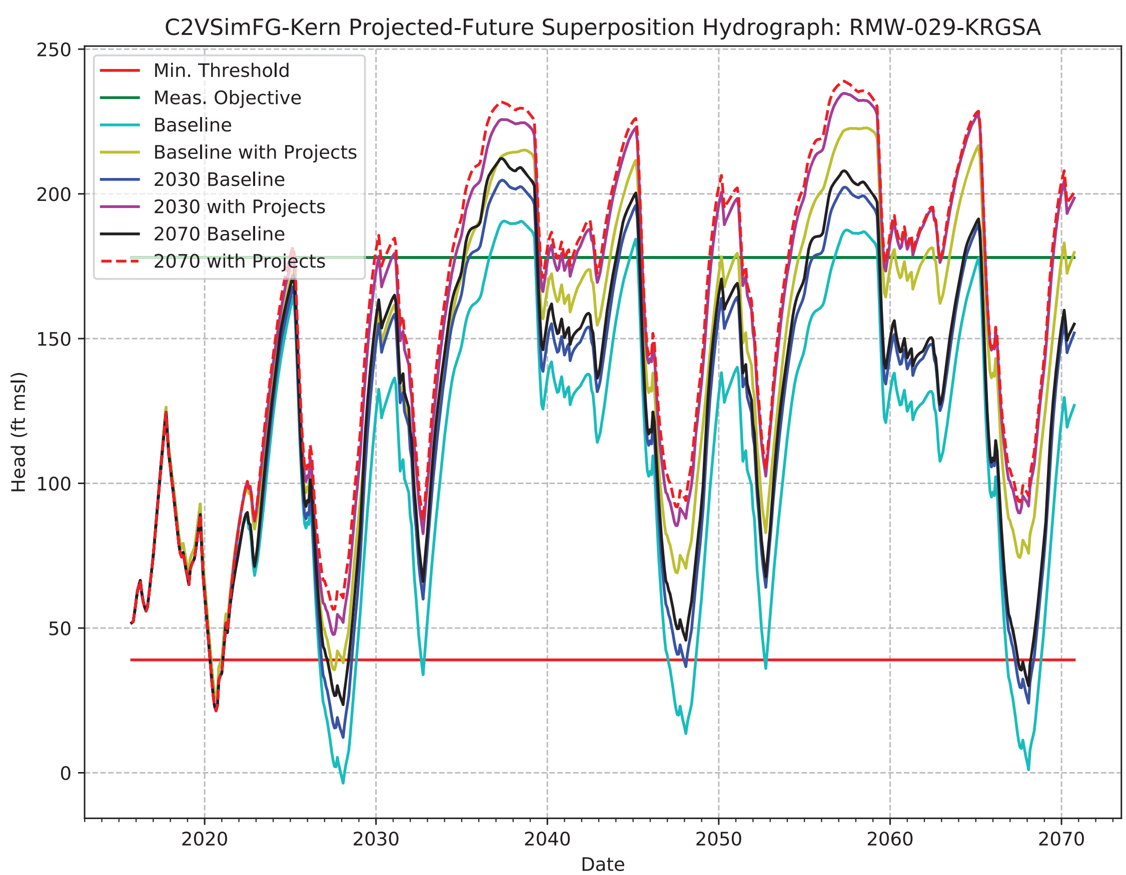
2050
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-029-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
250
200
150
100
50
0
2020
2030
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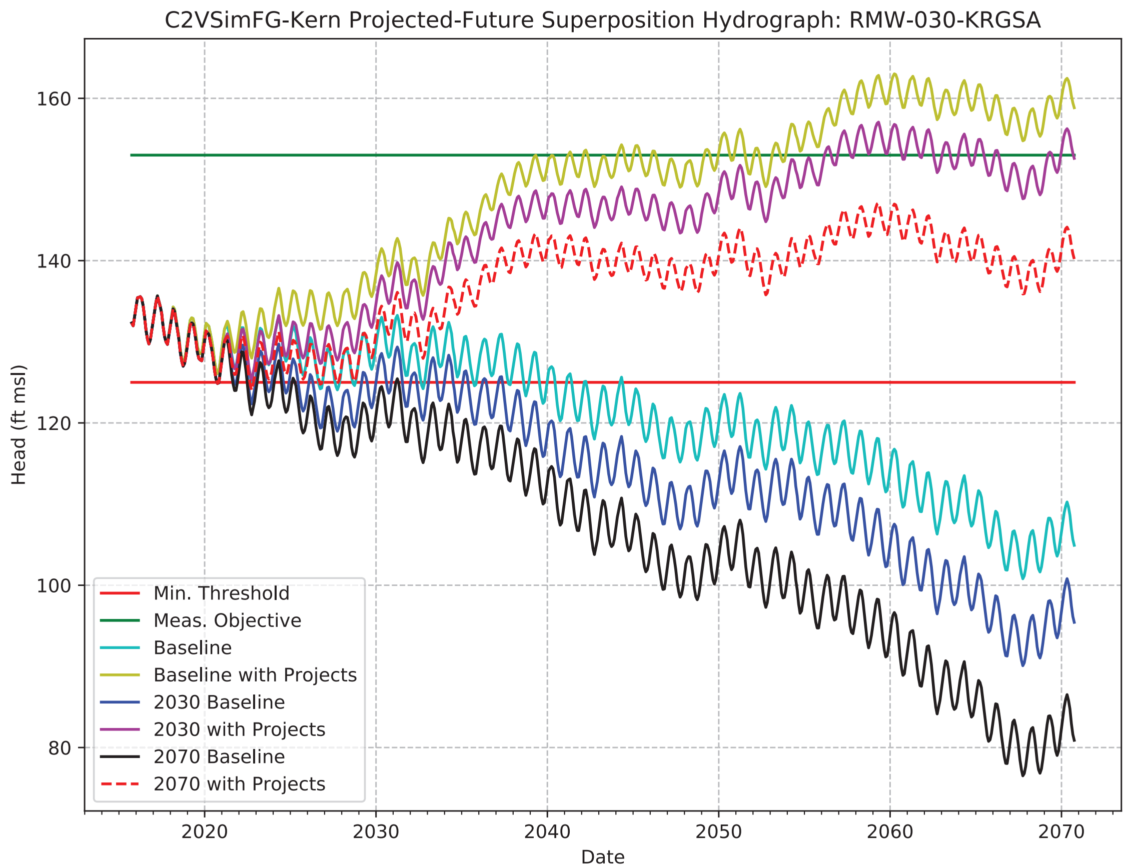
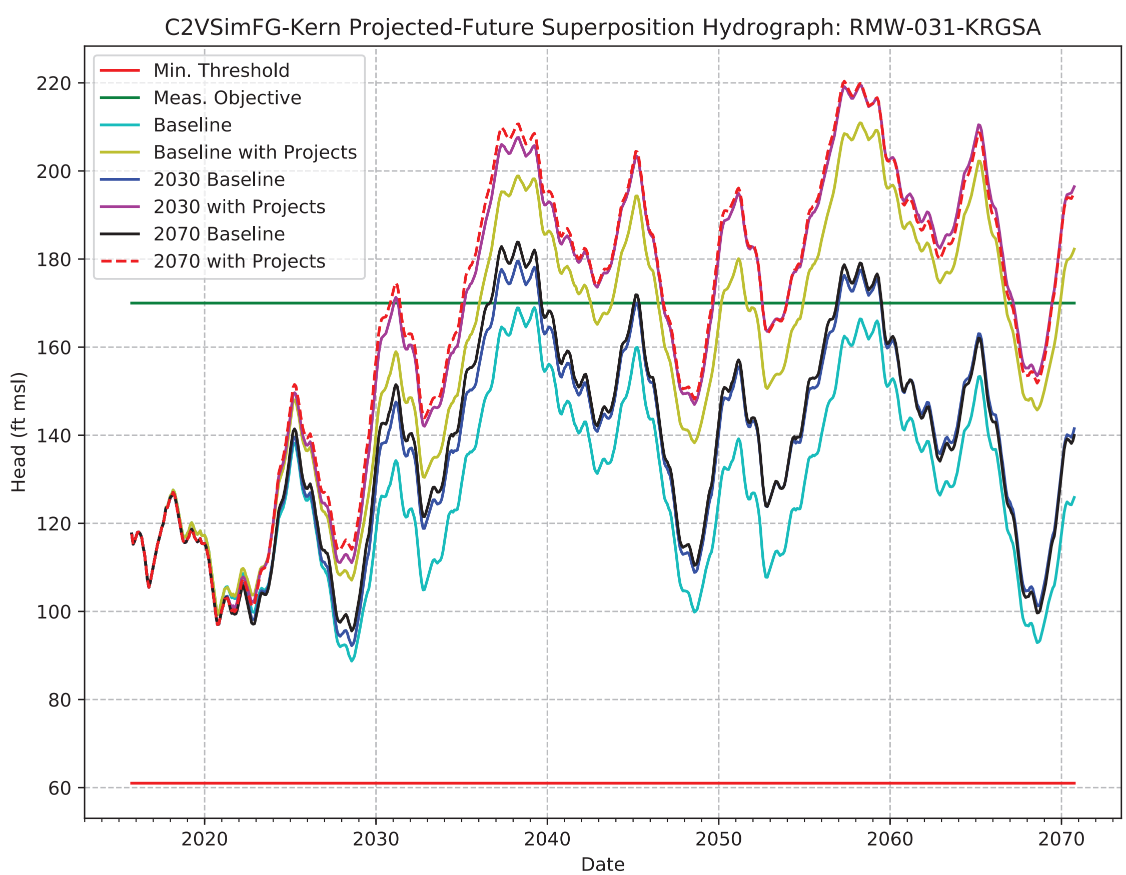
2050
2060
2070
Date



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-030-KRGSA
Head (ft msl)
160
140
120
100
80
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-031-KRGSA
Head (ft msl)
220
200
180
160
140
120
100
80
60
2020
2030
2040
2050
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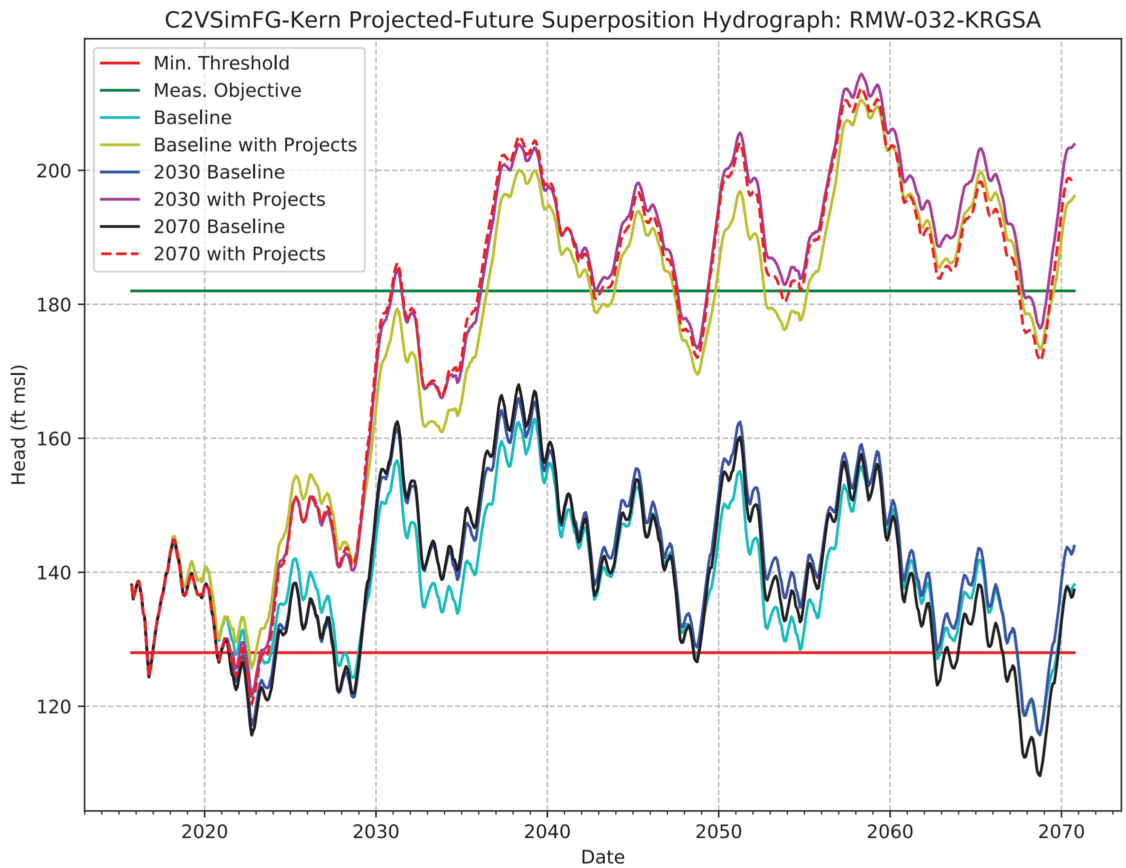
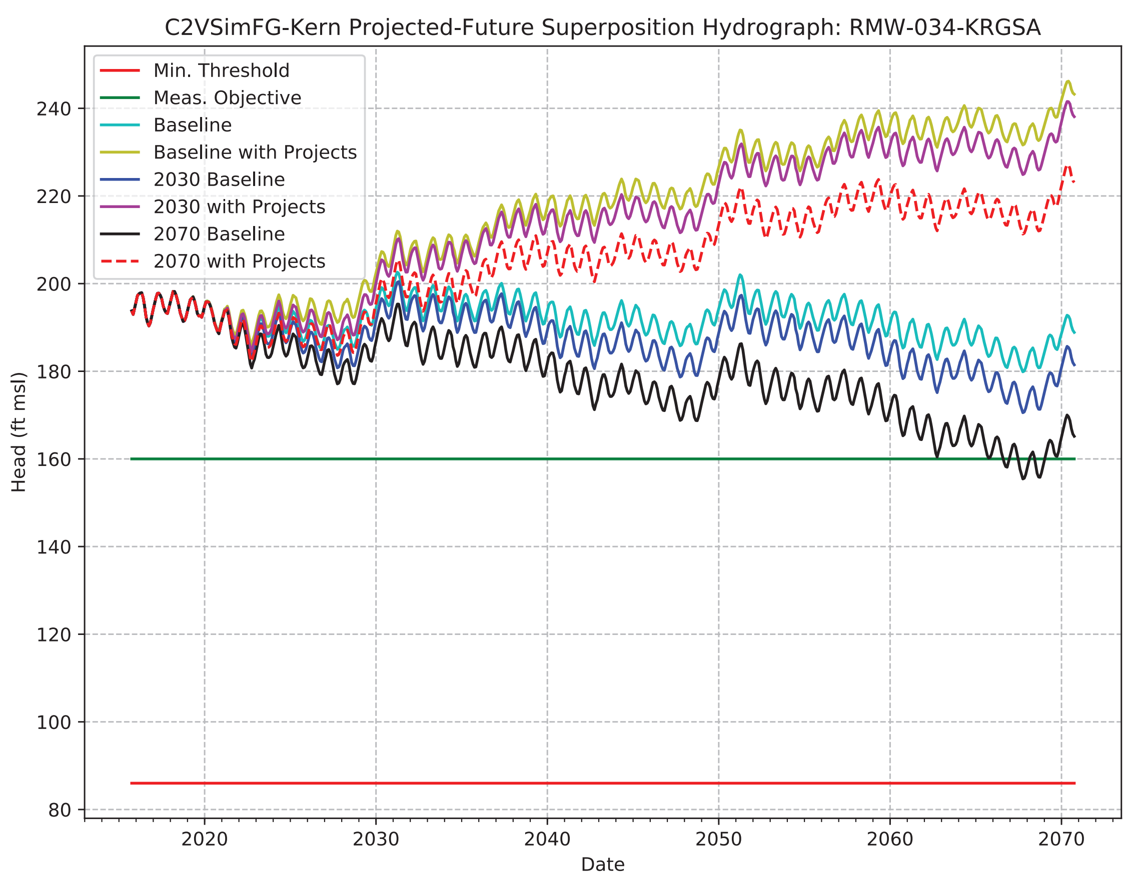
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-032-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
120
140
160
180
200
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-034-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
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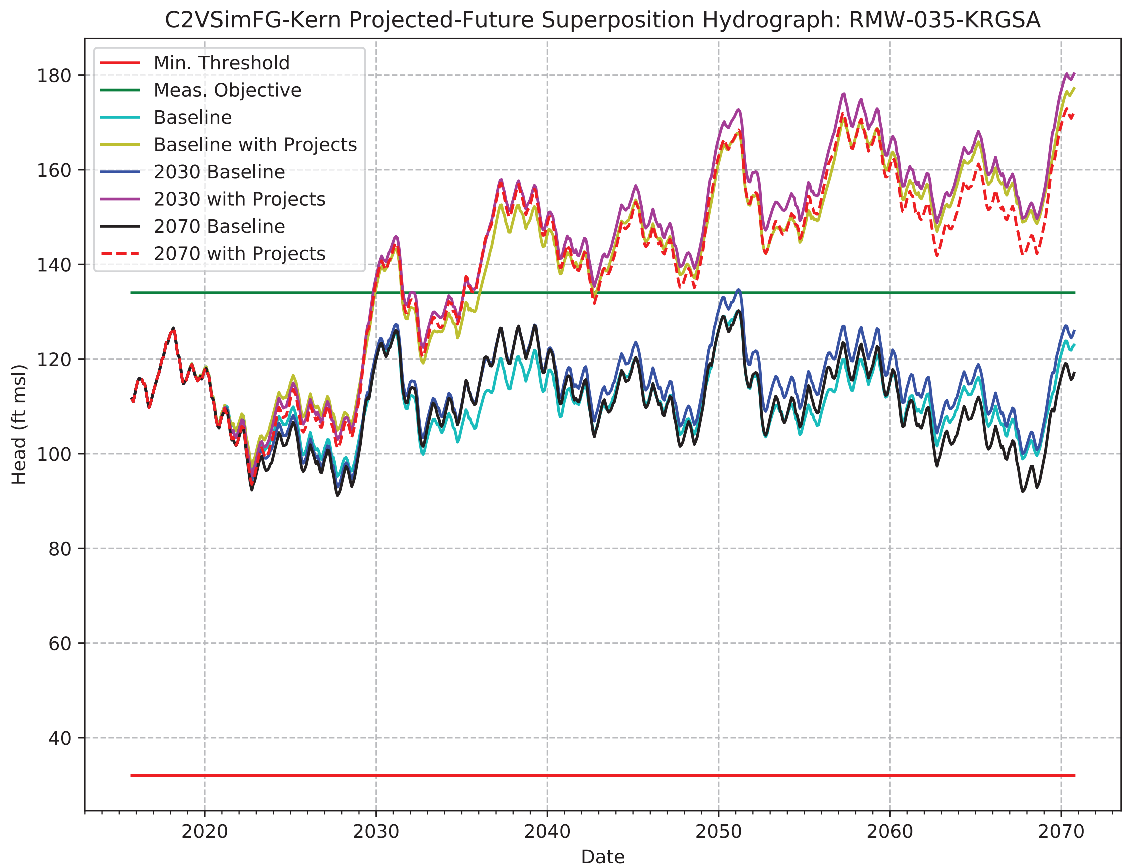
120
140
160
180
200
220
240
2020
2030
2040
2050
2060
2070



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-035-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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160
140
120
100
80
60
40
2020
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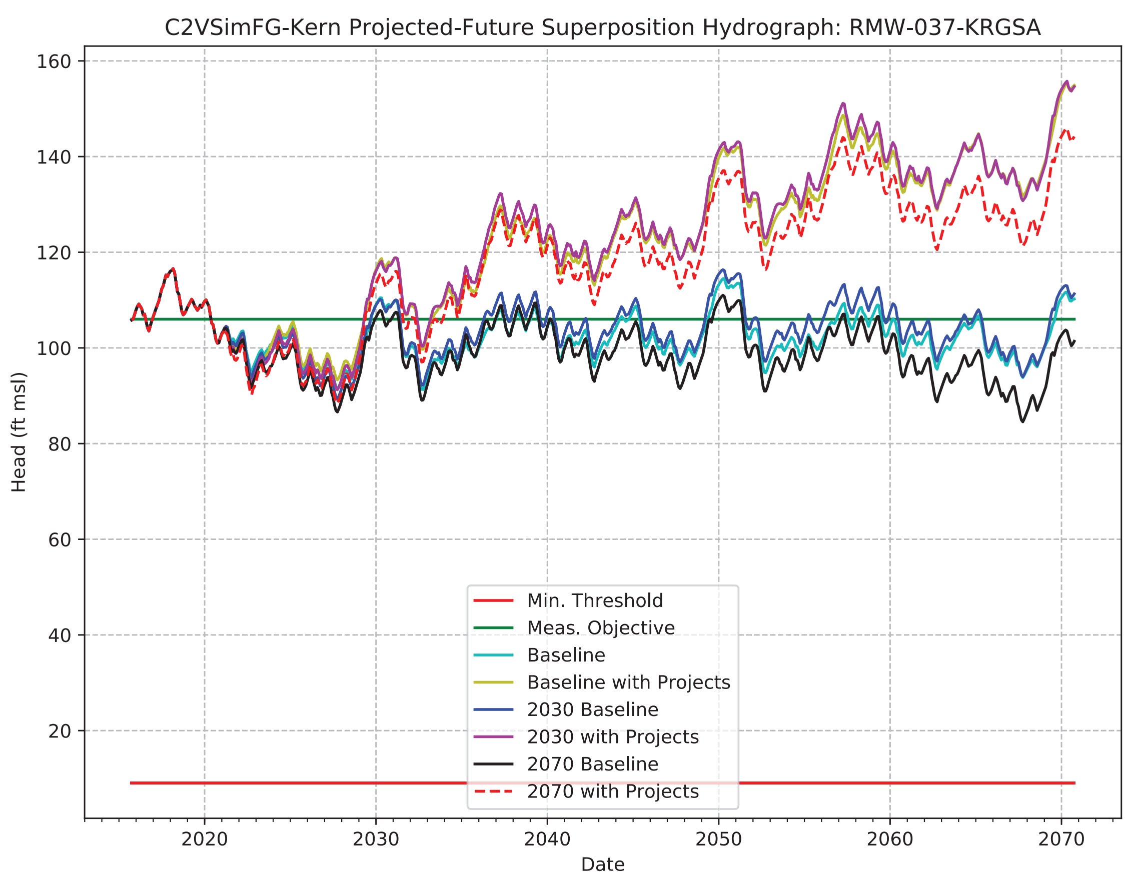
2050
2060
2070
Date



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-037-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
160
140
120
100
80
60
40
20
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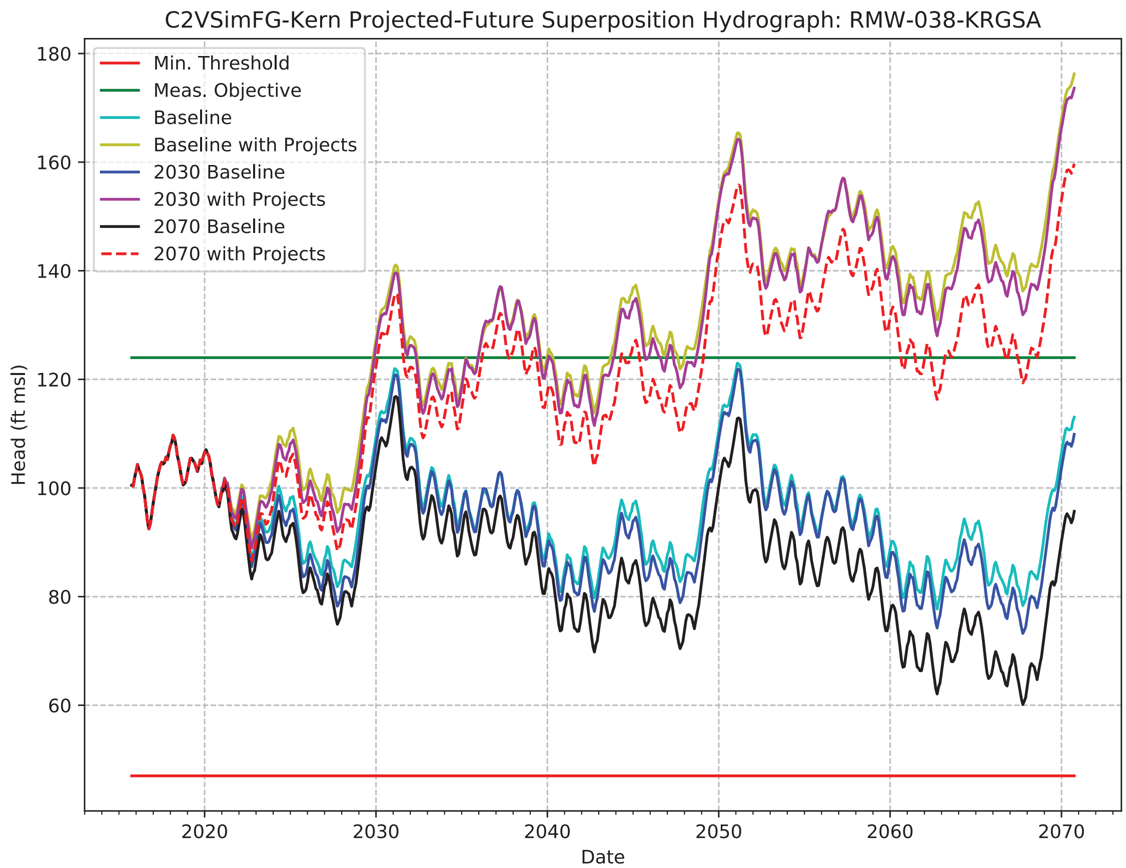
2050
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-038-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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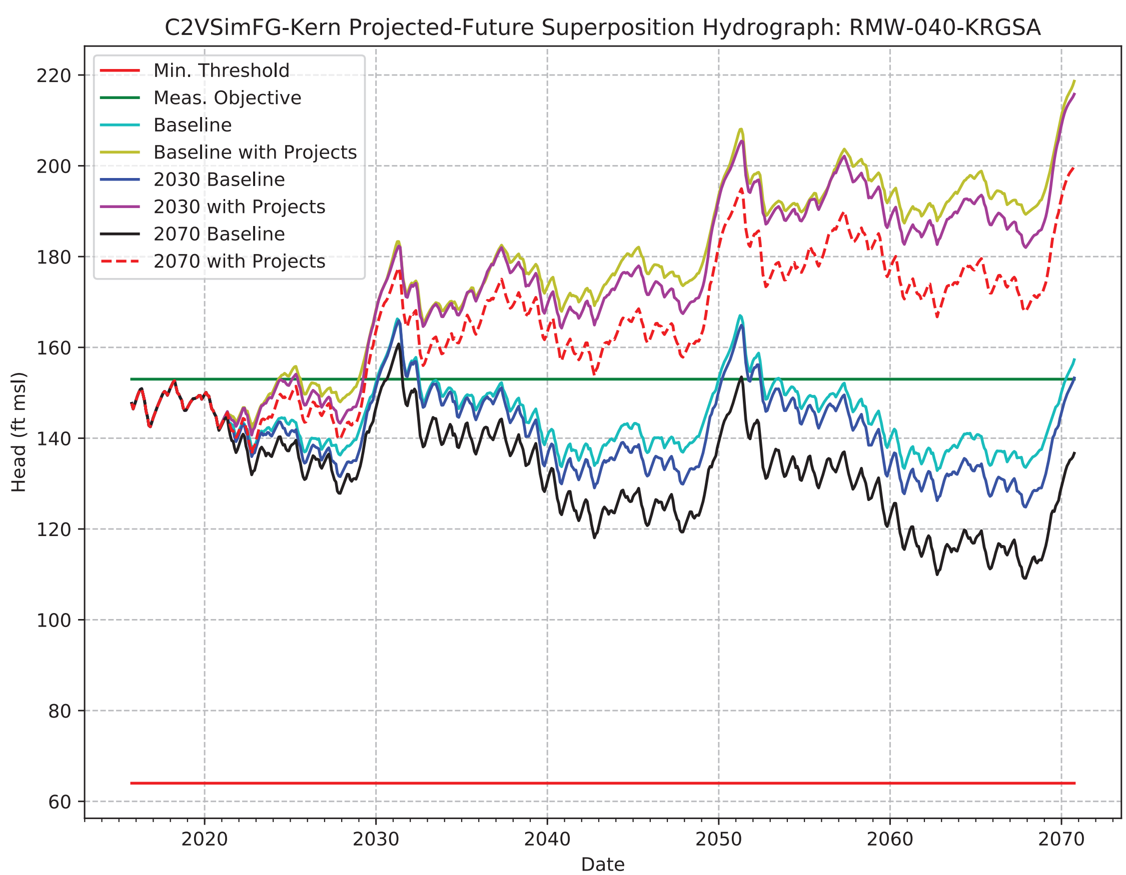
2050
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-040-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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200
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160
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120
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80
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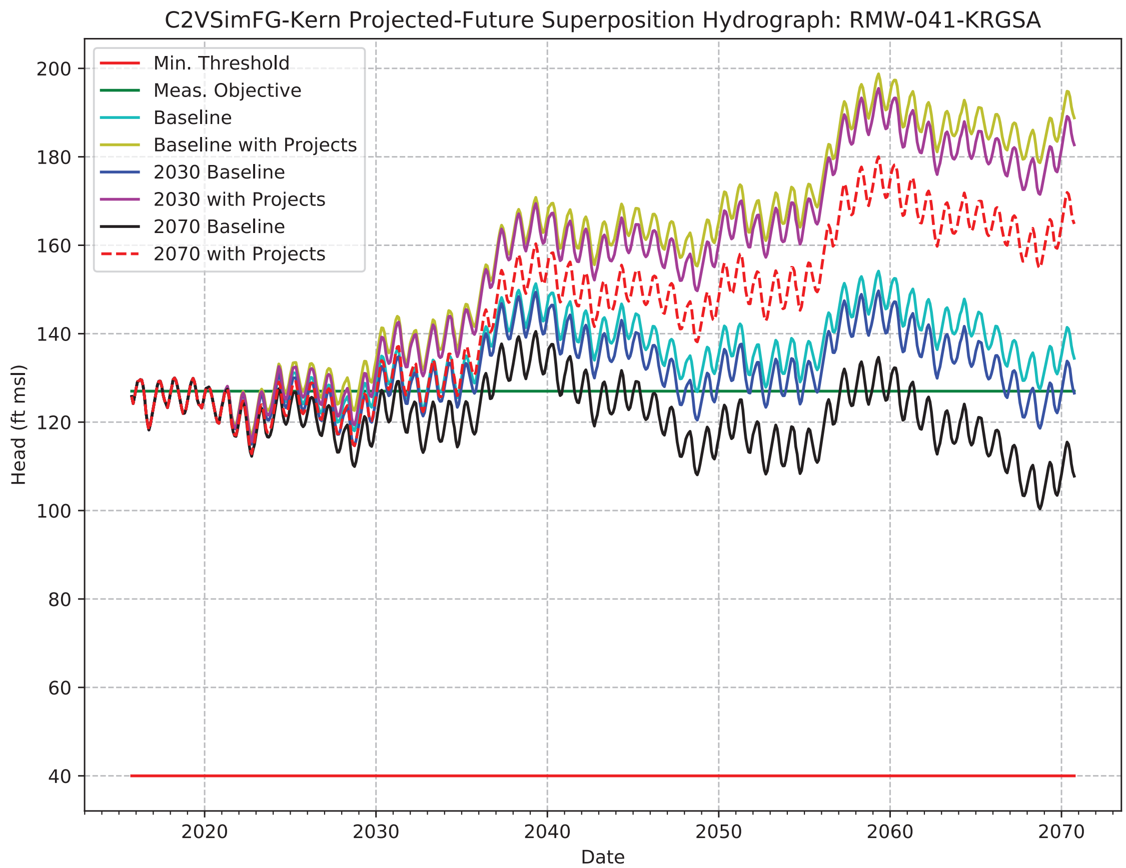
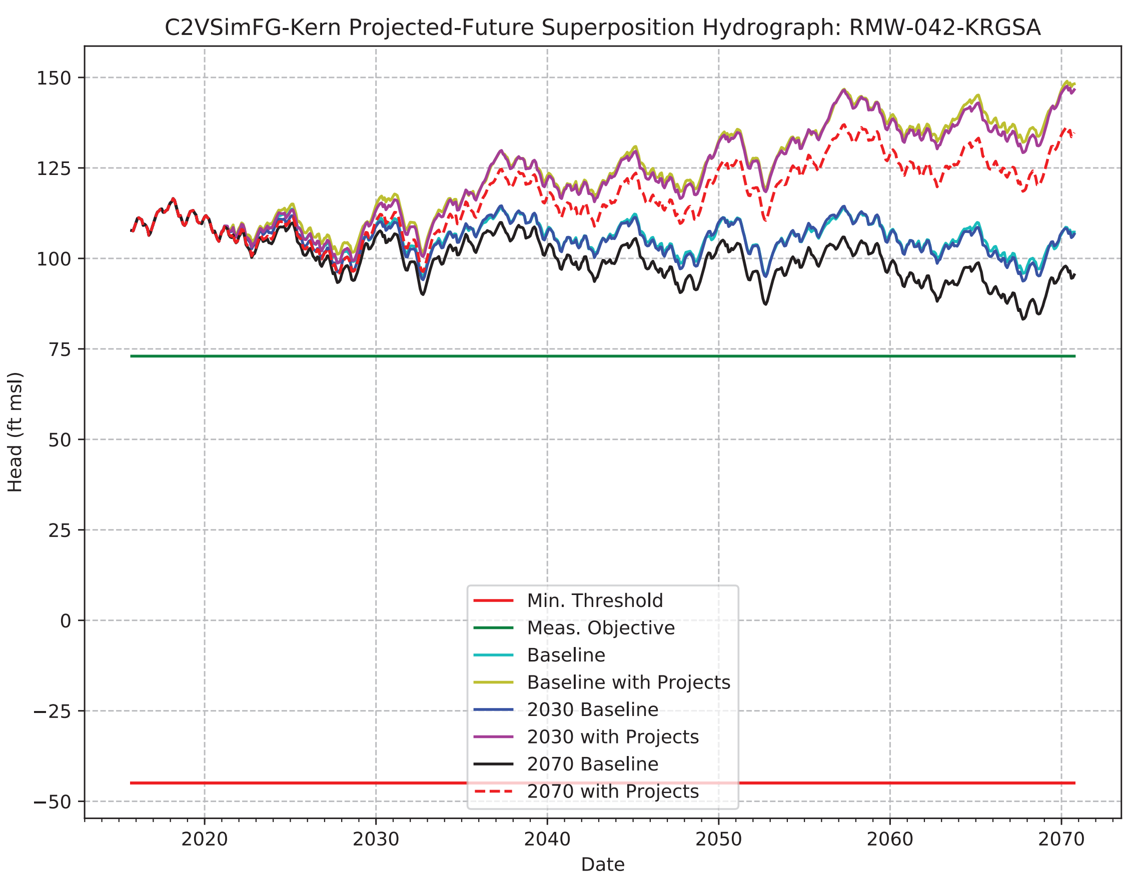
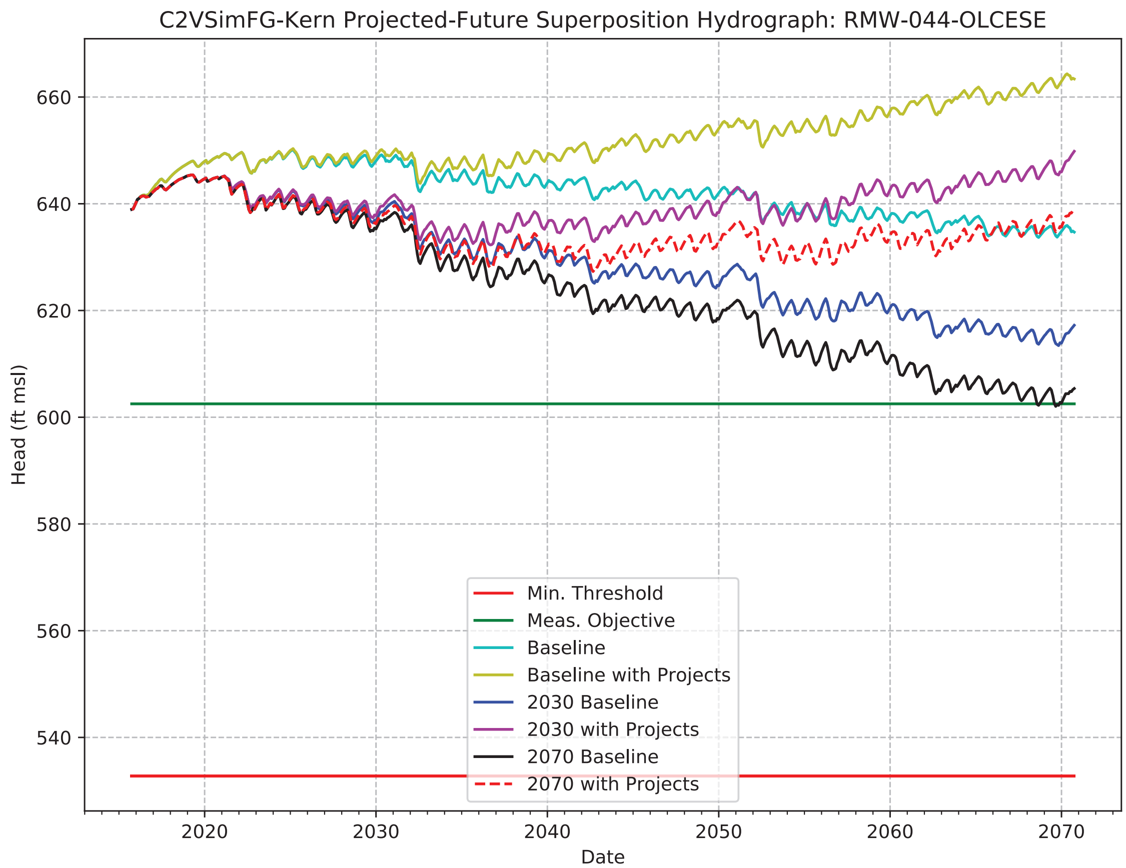
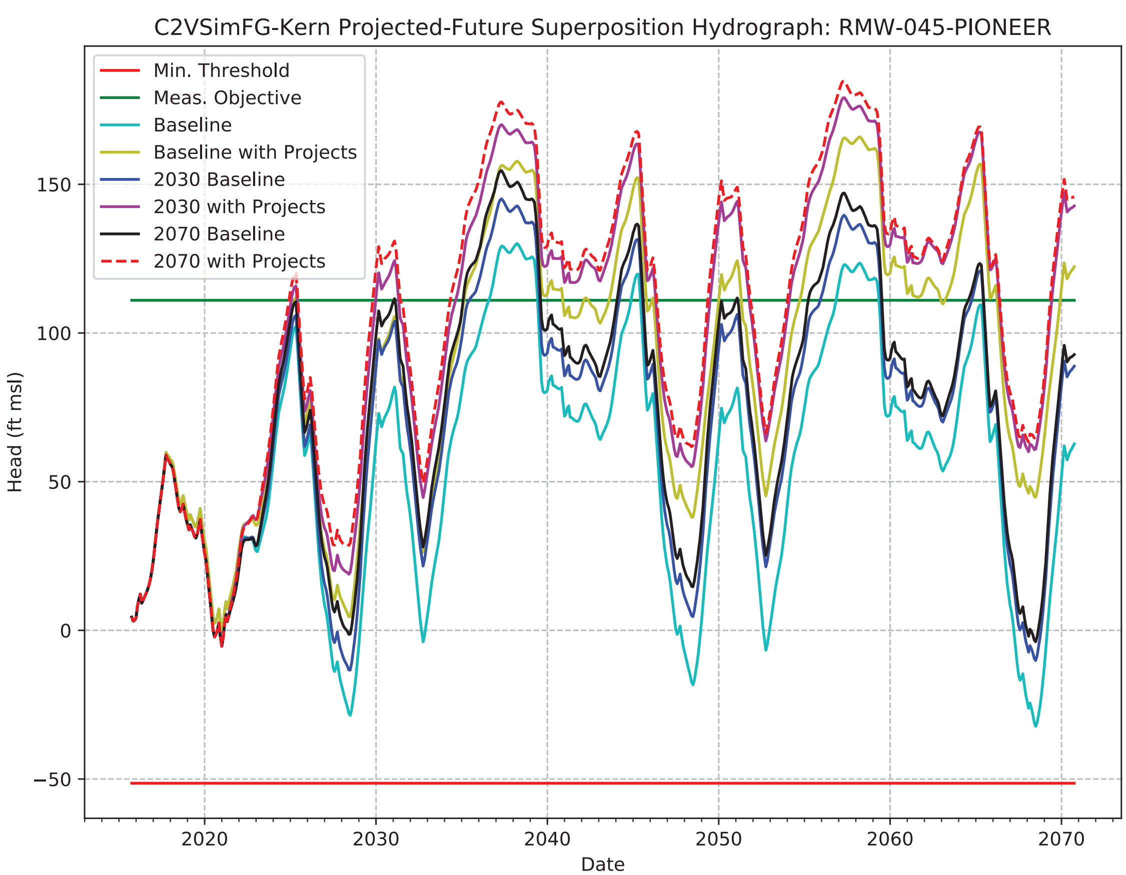
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-041-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date

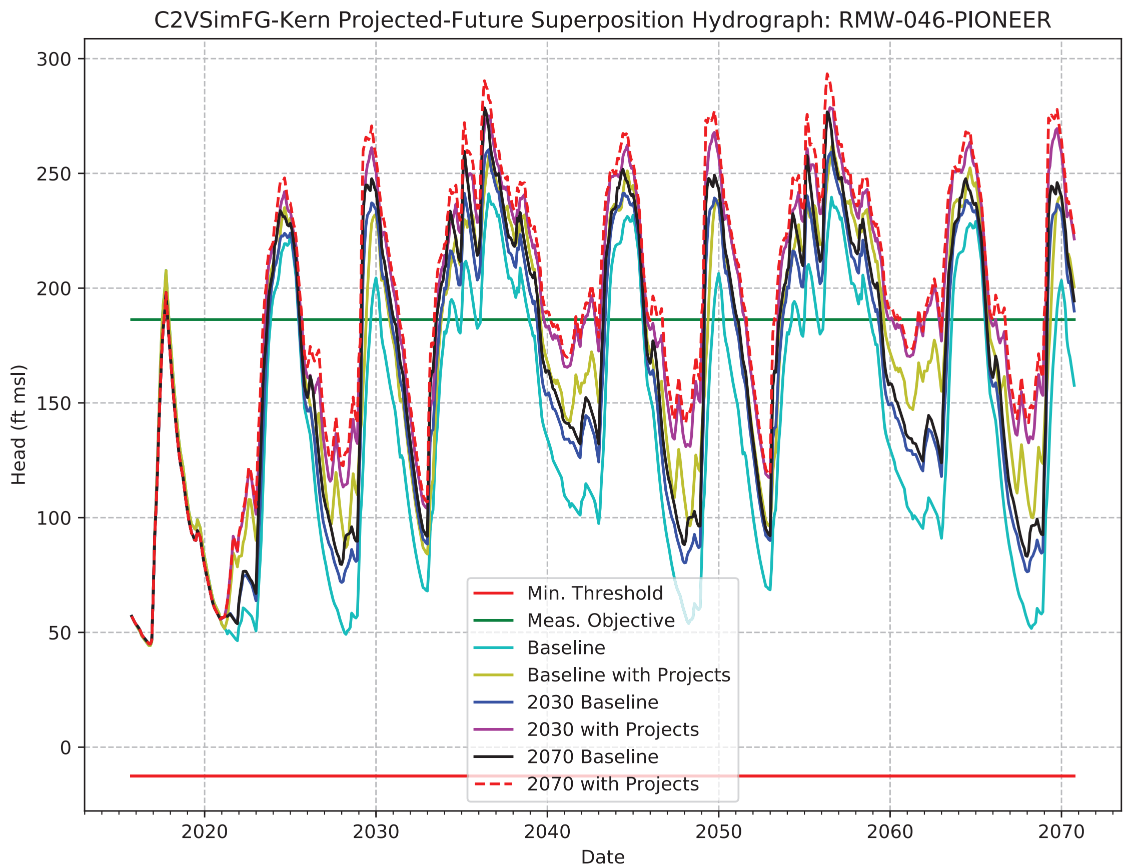

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-042-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date



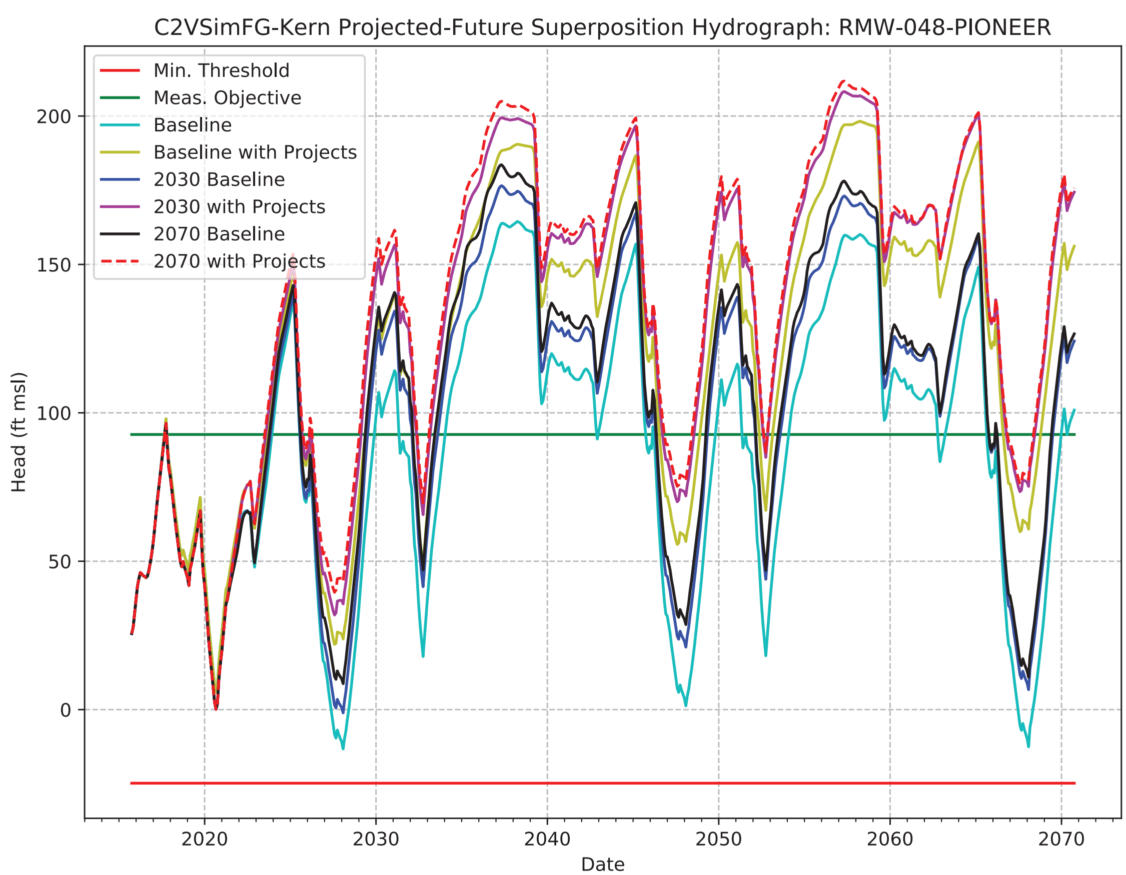
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-044-OLCESE
Head (ft msl)
660
640
620
600
580
560
540
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



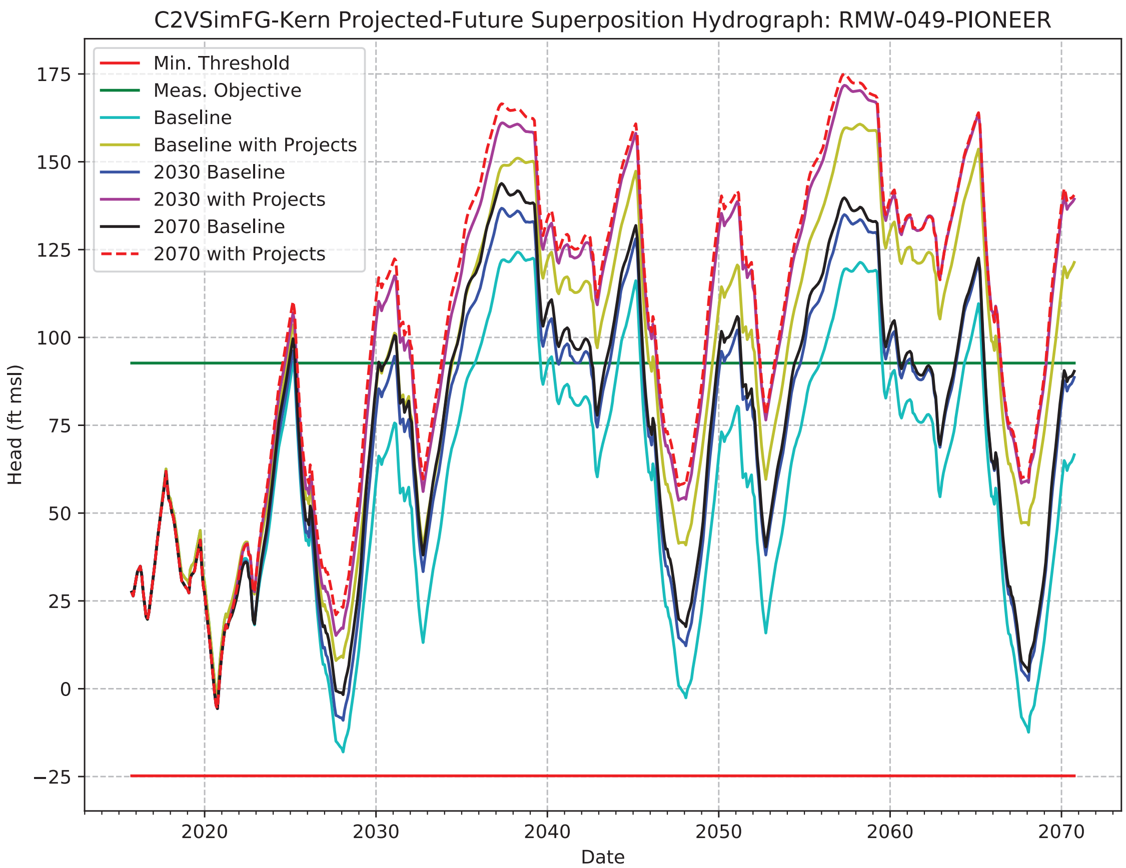
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-045-PIONEER
Head (ft msl)
150
100
50
0
−50
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

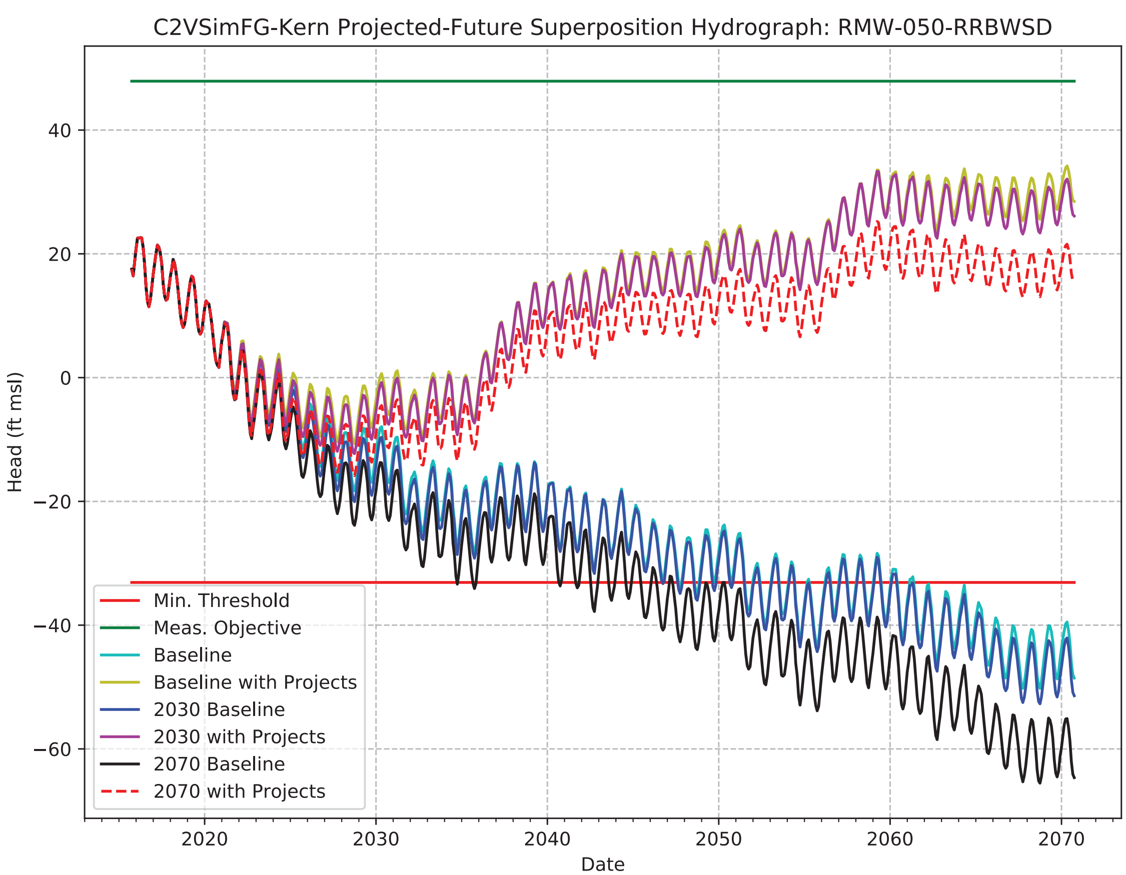


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-046-PIONEER
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-048-PIONEER
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-049-PIONEER
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
175
150
125
100
75
50
25
0
−25
2020
2030
2040
2050
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-050-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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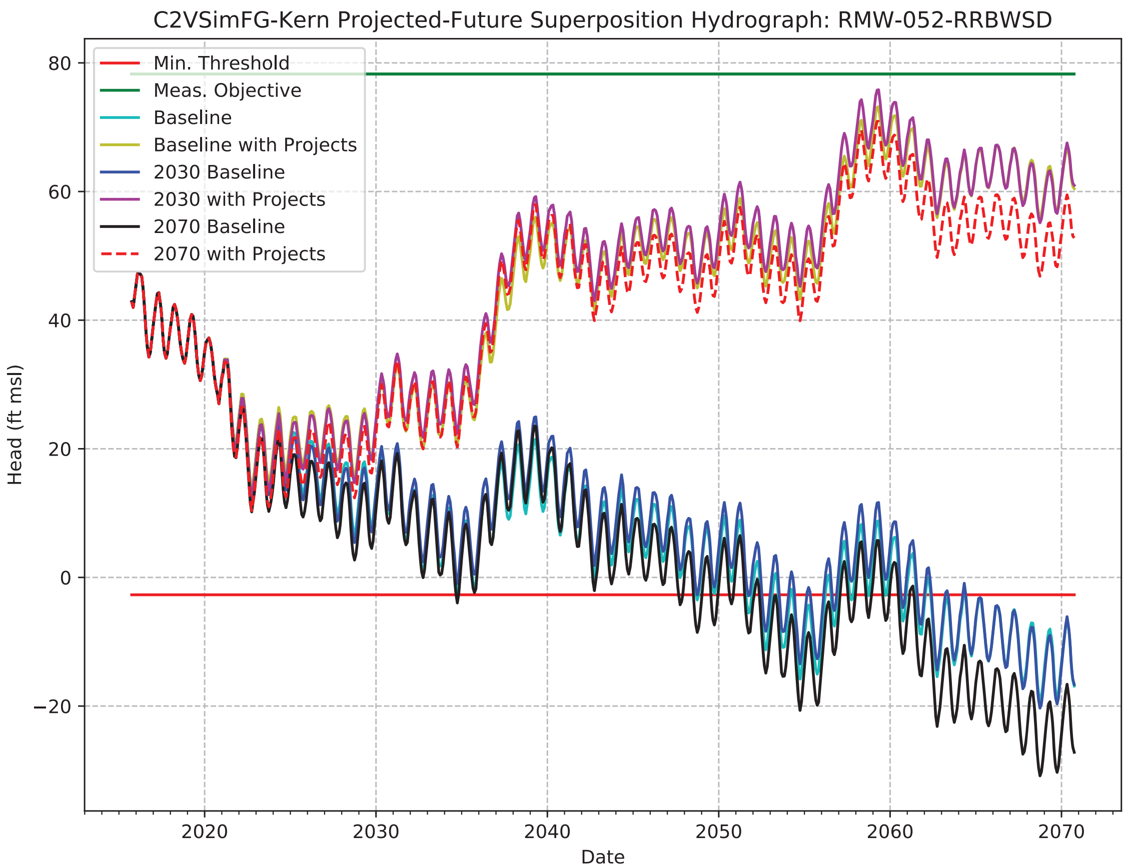

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-052-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
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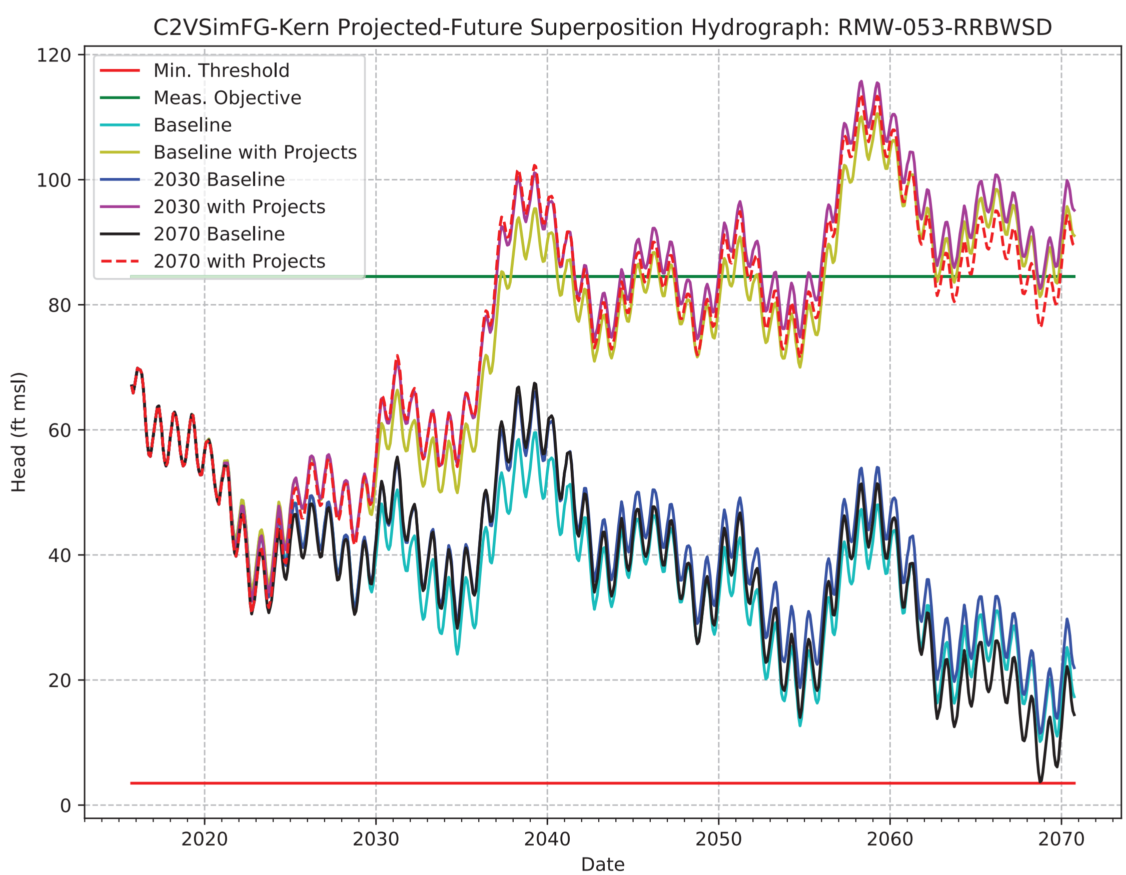

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-053-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
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Head (ft msl)
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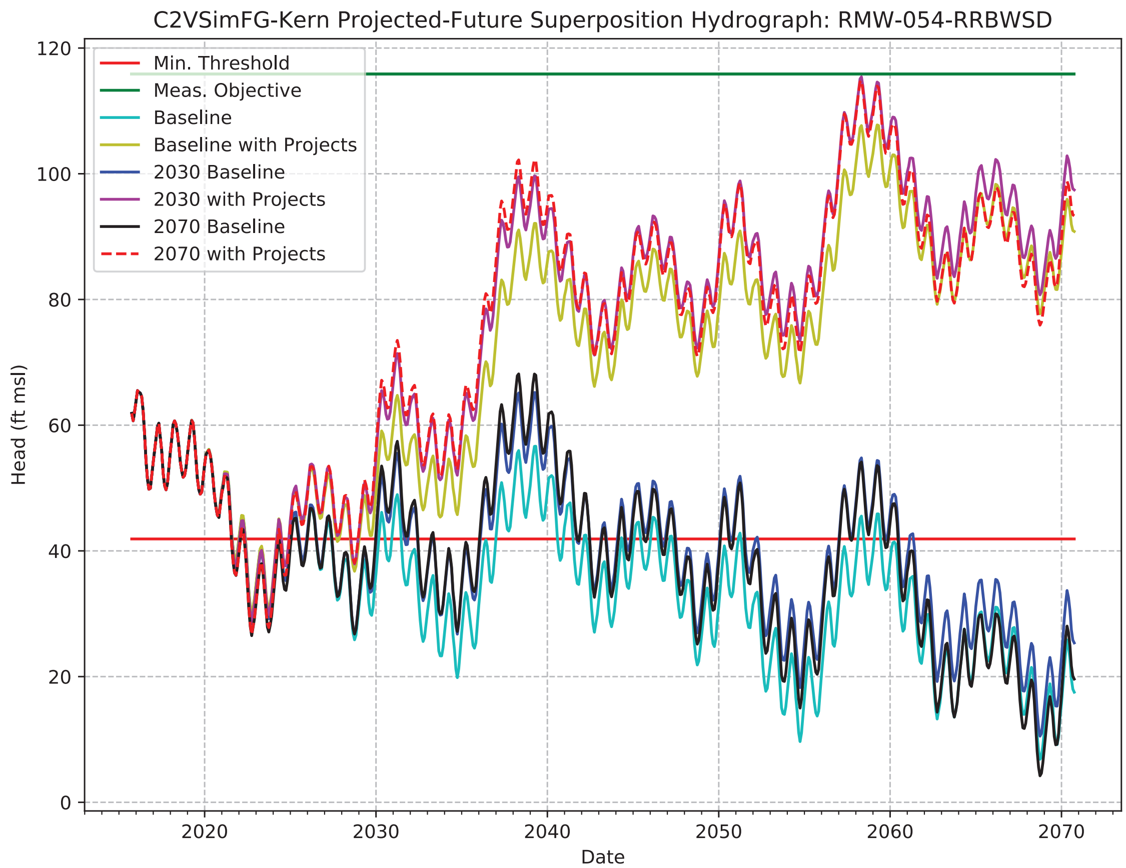
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-054-RRBWSD
Min. Threshold
Meas. Objective
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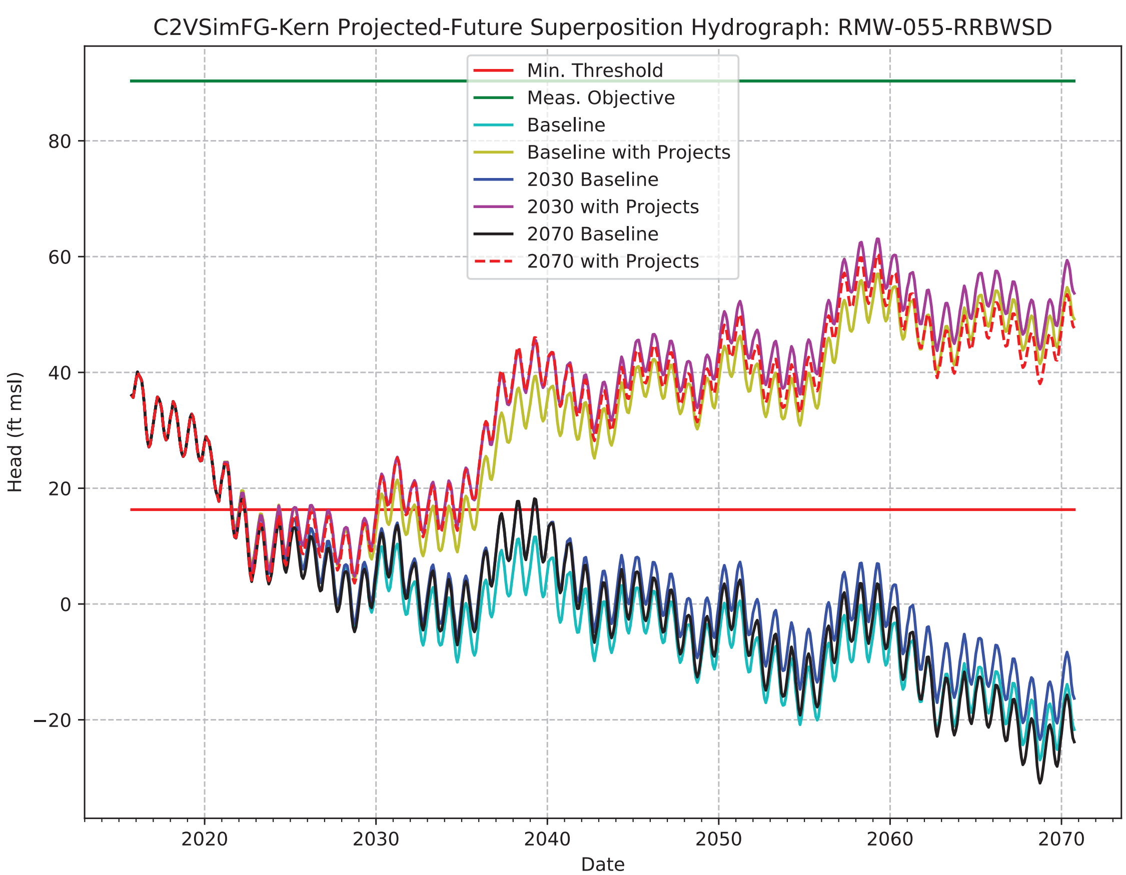
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Meas. Objective
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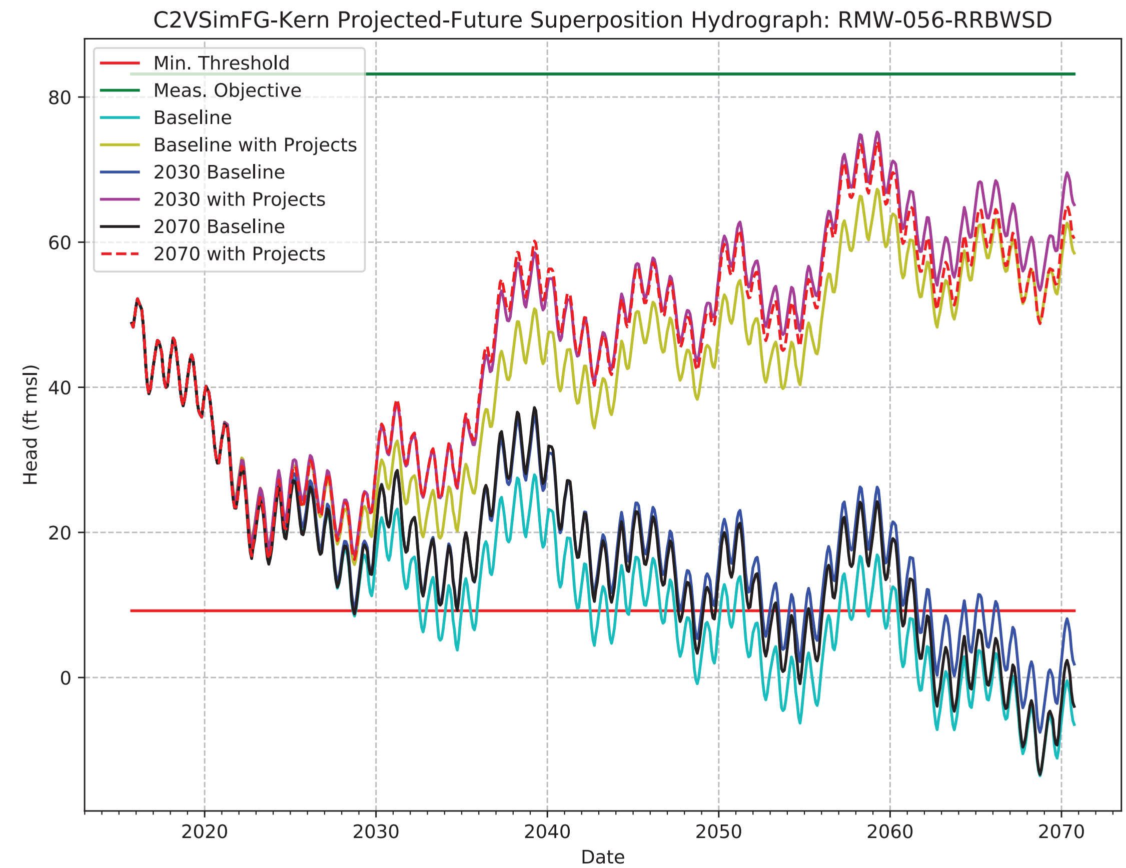
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-056-RRBWSD
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Meas. Objective
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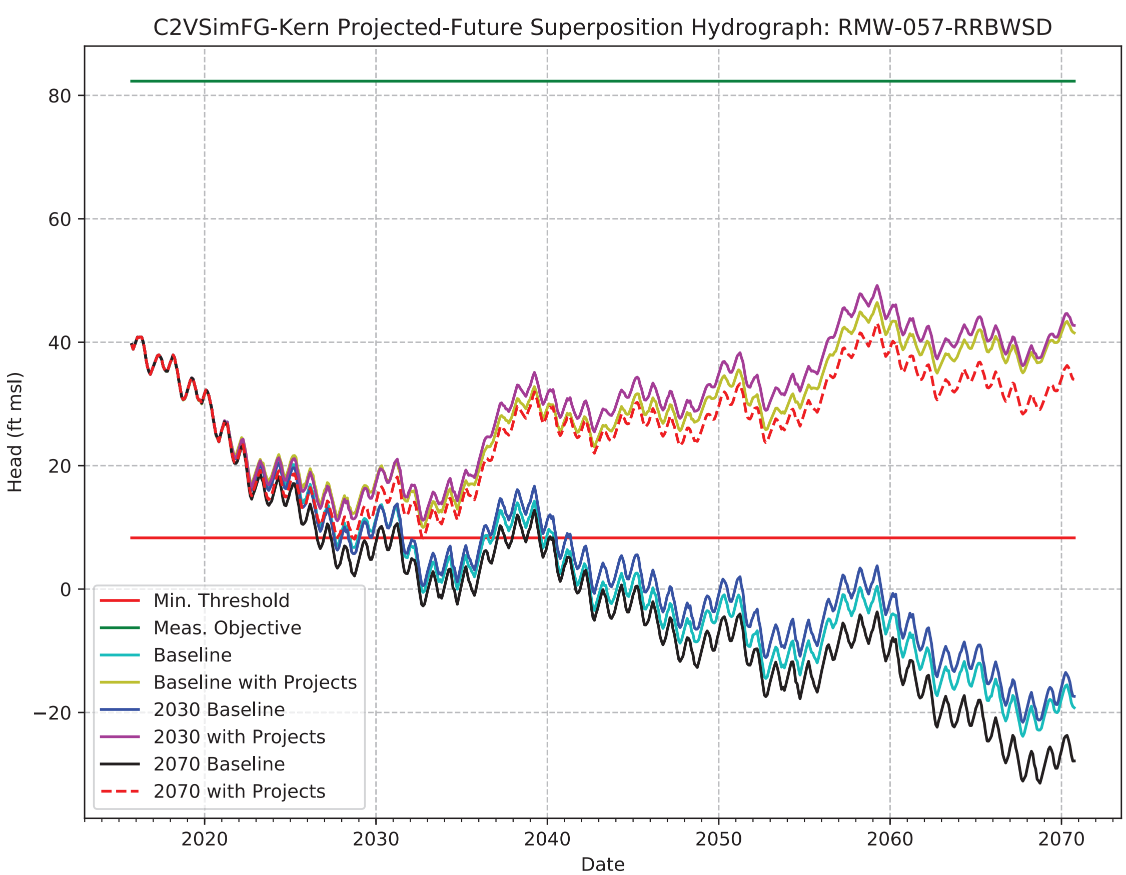
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-057-RRBWSD
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Meas. Objective
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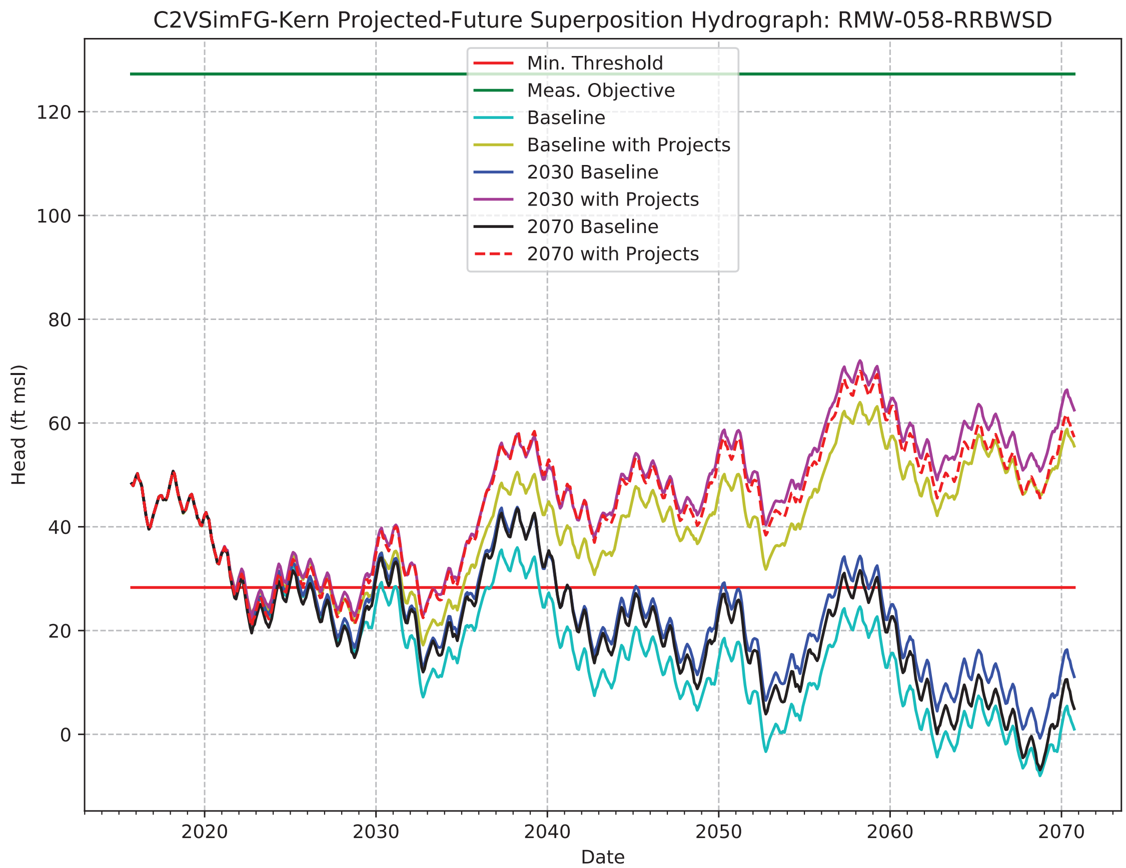
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-058-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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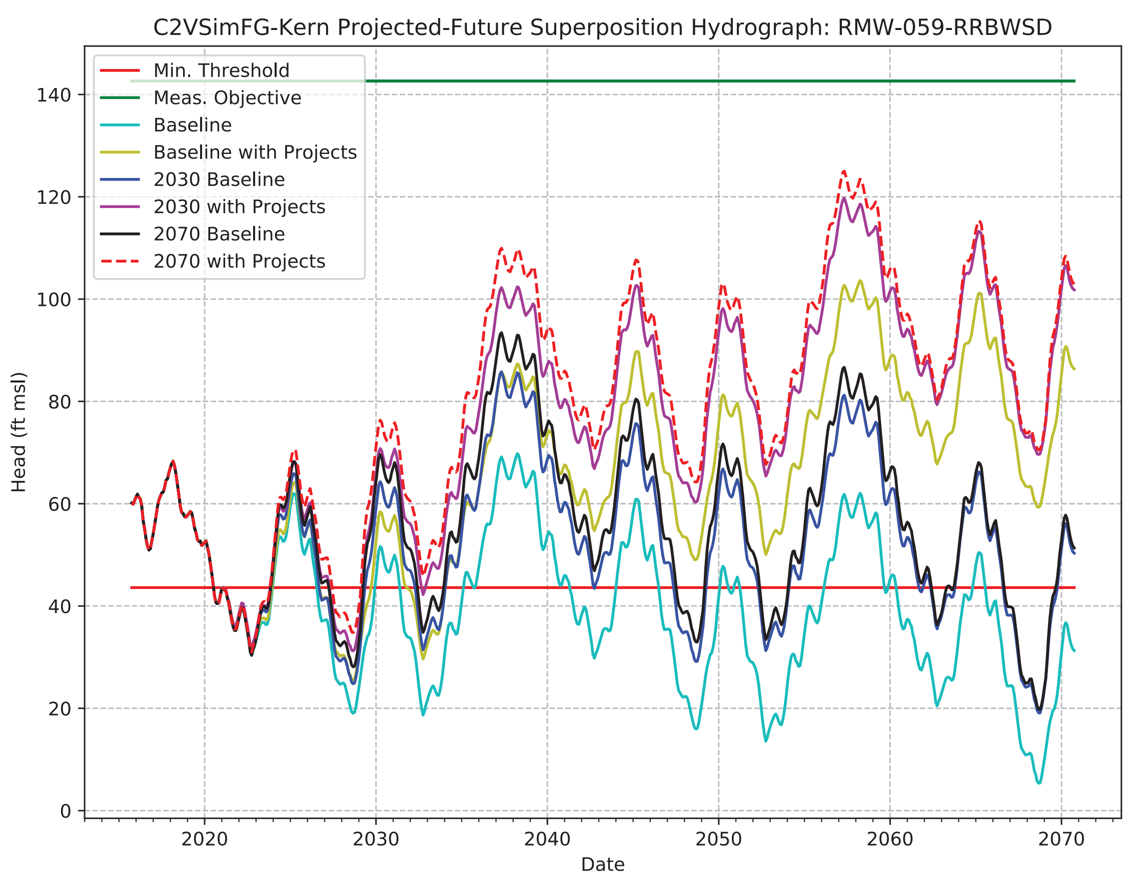
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-059-RRBWSD
Min. Threshold
Meas. Objective
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2030 Baseline
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2070 with Projects
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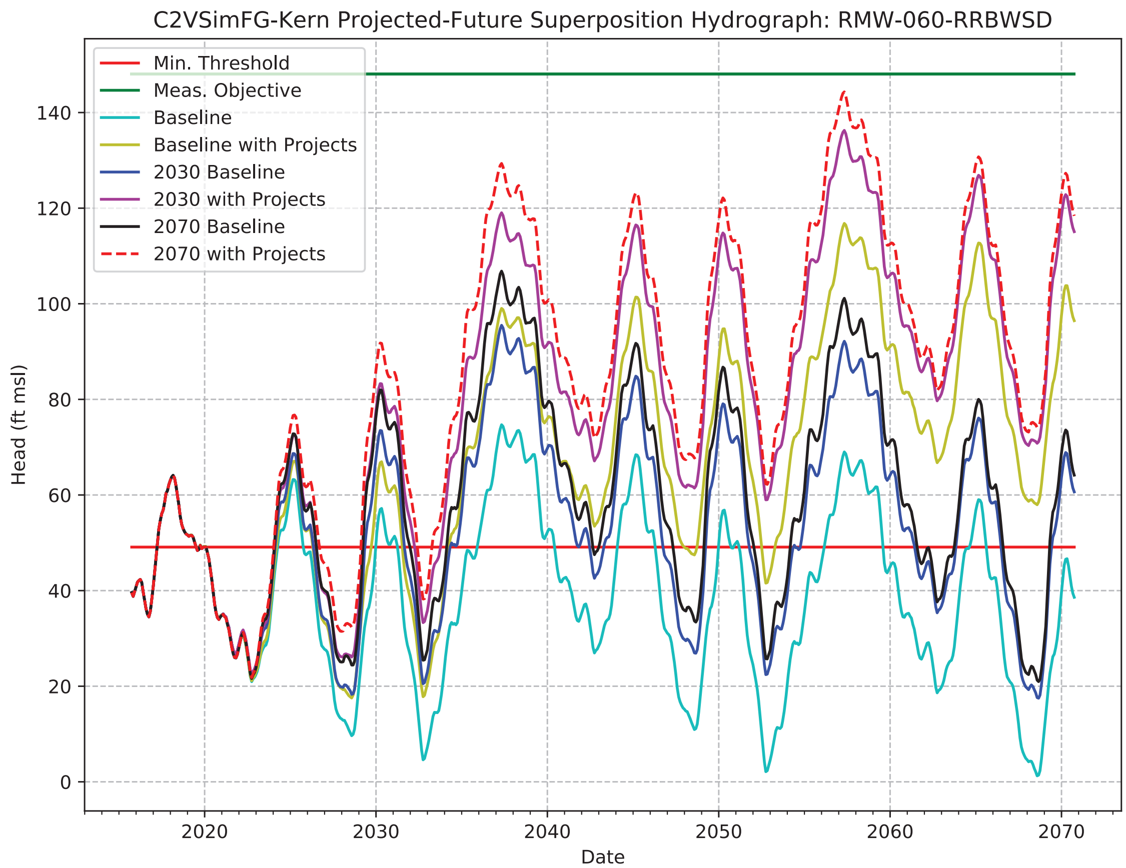
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-060-RRBWSD
Min. Threshold
Meas. Objective
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Baseline with Projects
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2070 with Projects
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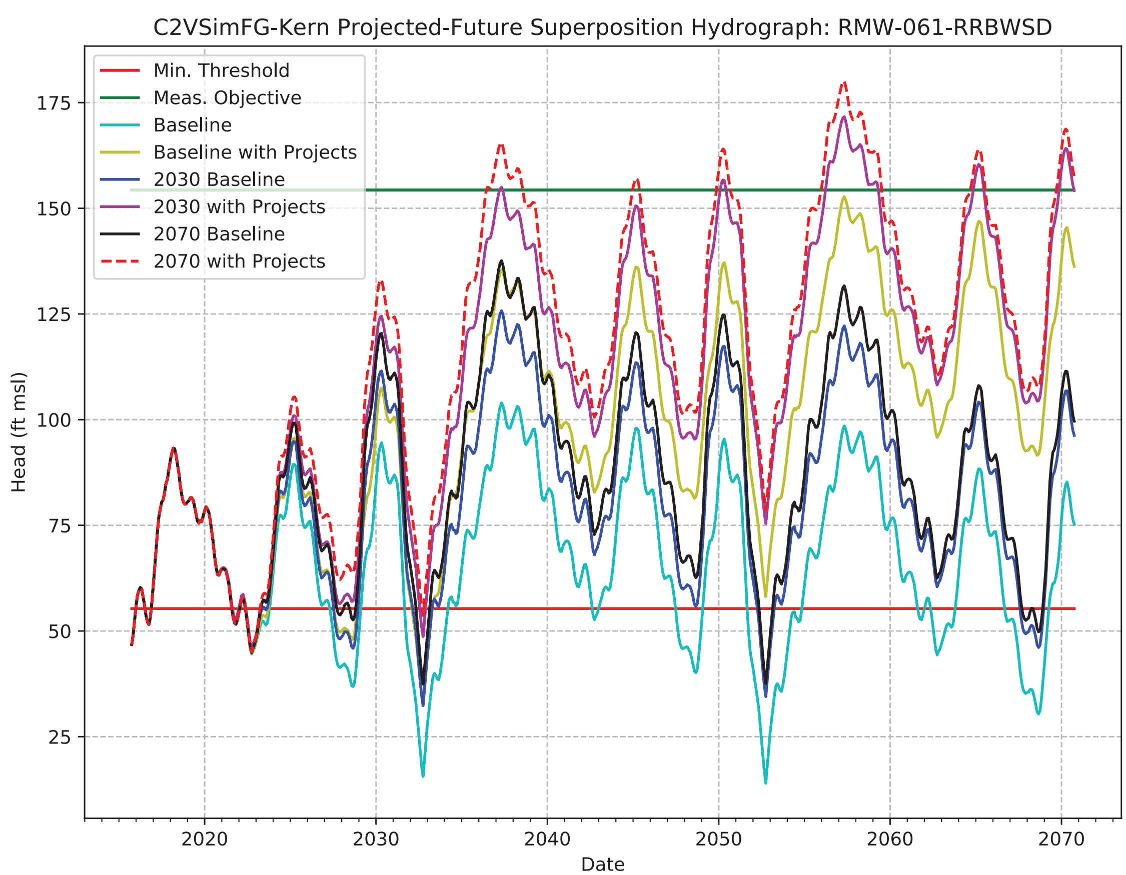
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-061-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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2070 Baseline
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2060
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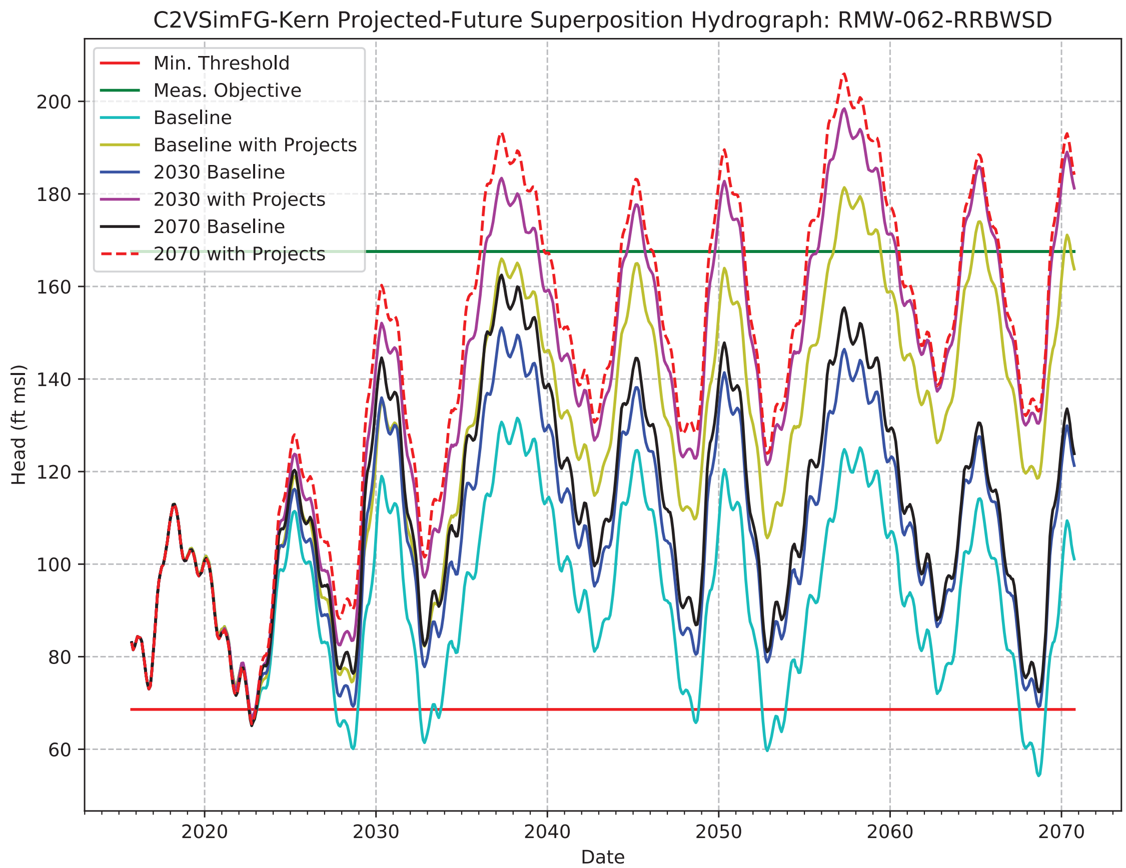
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-062-RRBWSD
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Meas. Objective
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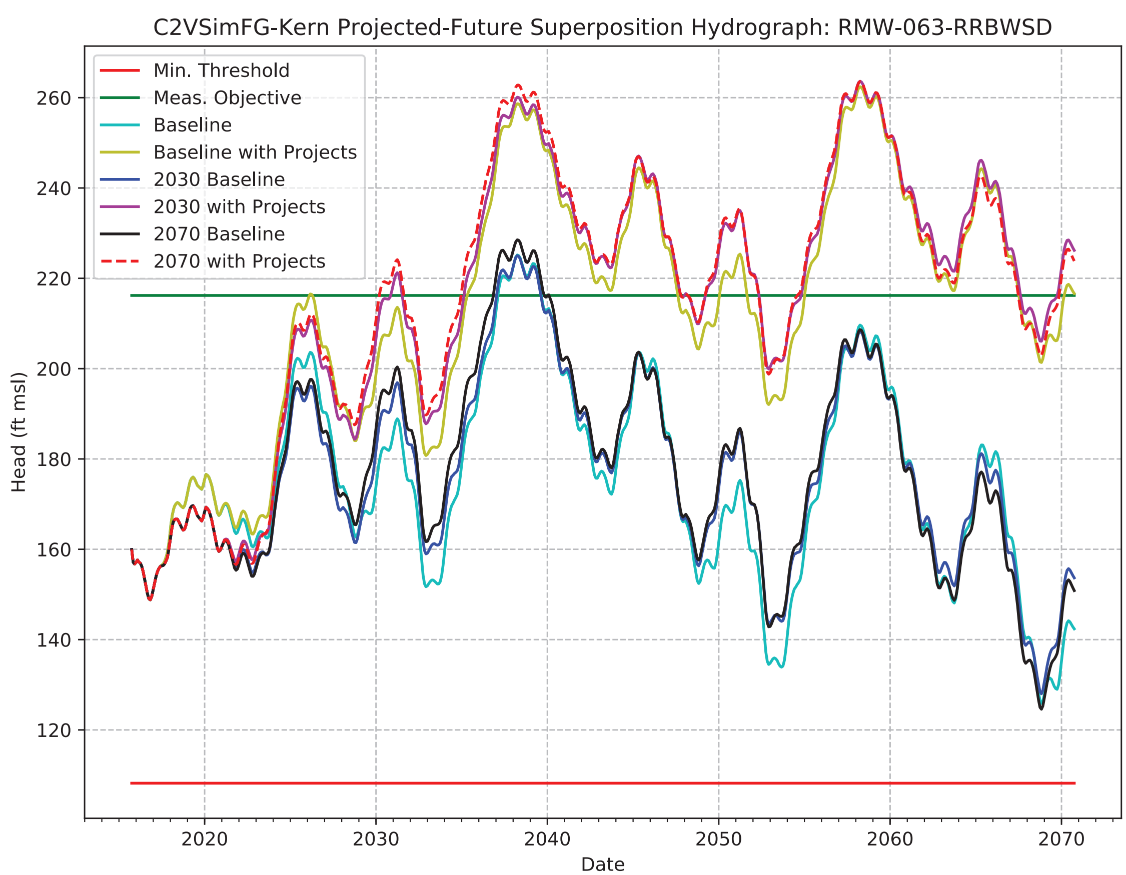
2070 Baseline
2070 with Projects
Head (ft msl)
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-063-RRBWSD
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Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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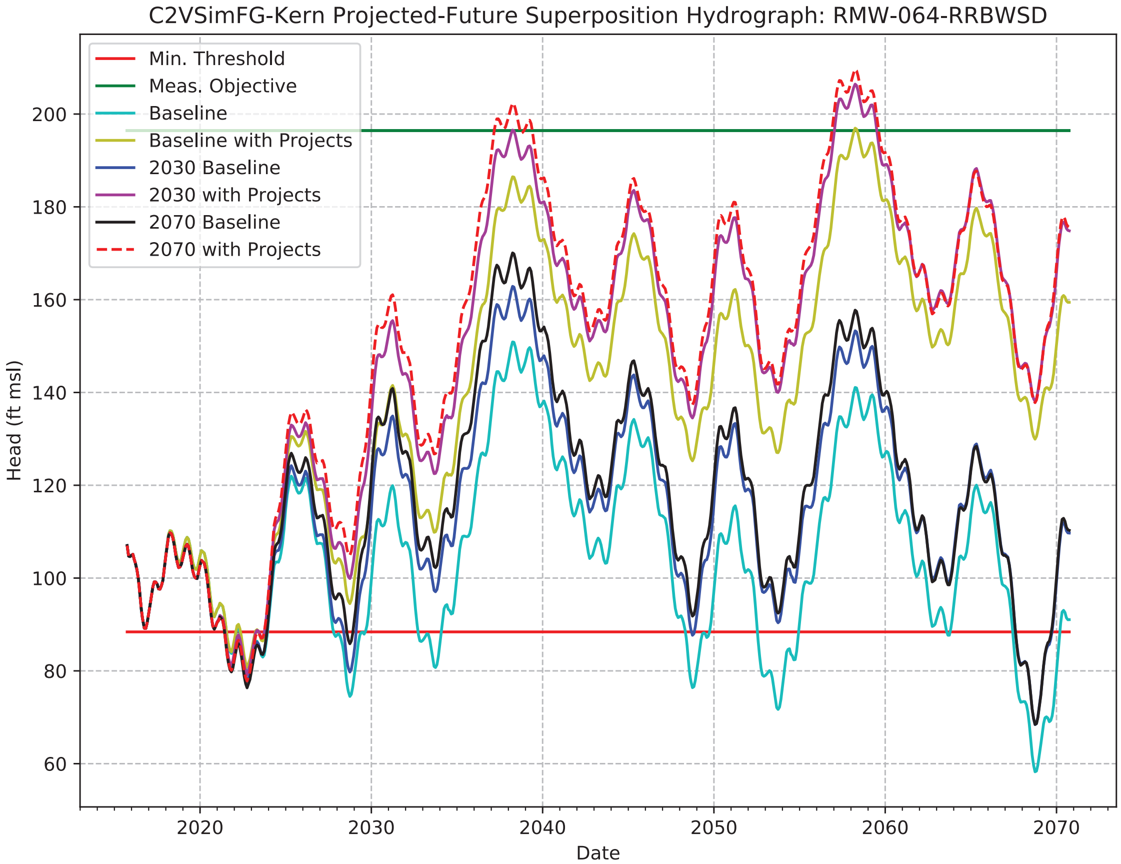
2070 with Projects
Head (ft msl)
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-064-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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2070 Baseline
2070 with Projects
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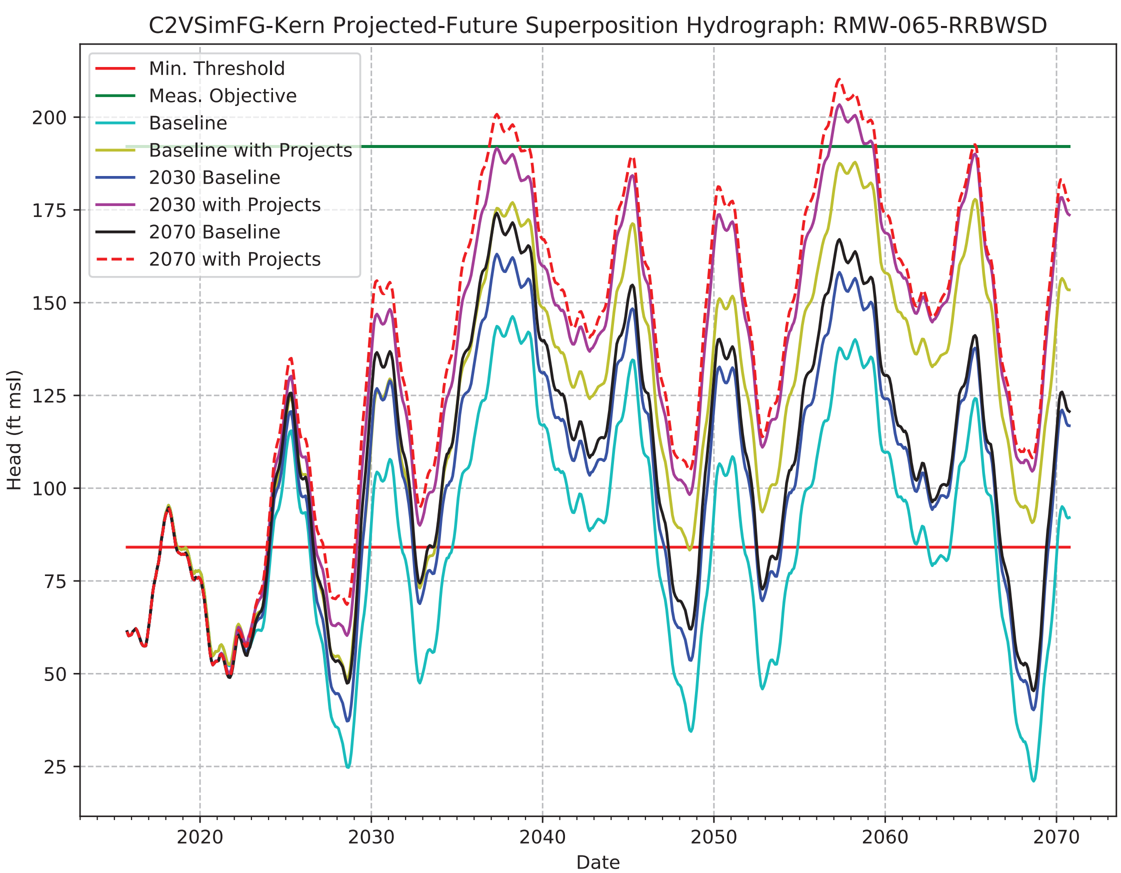
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-065-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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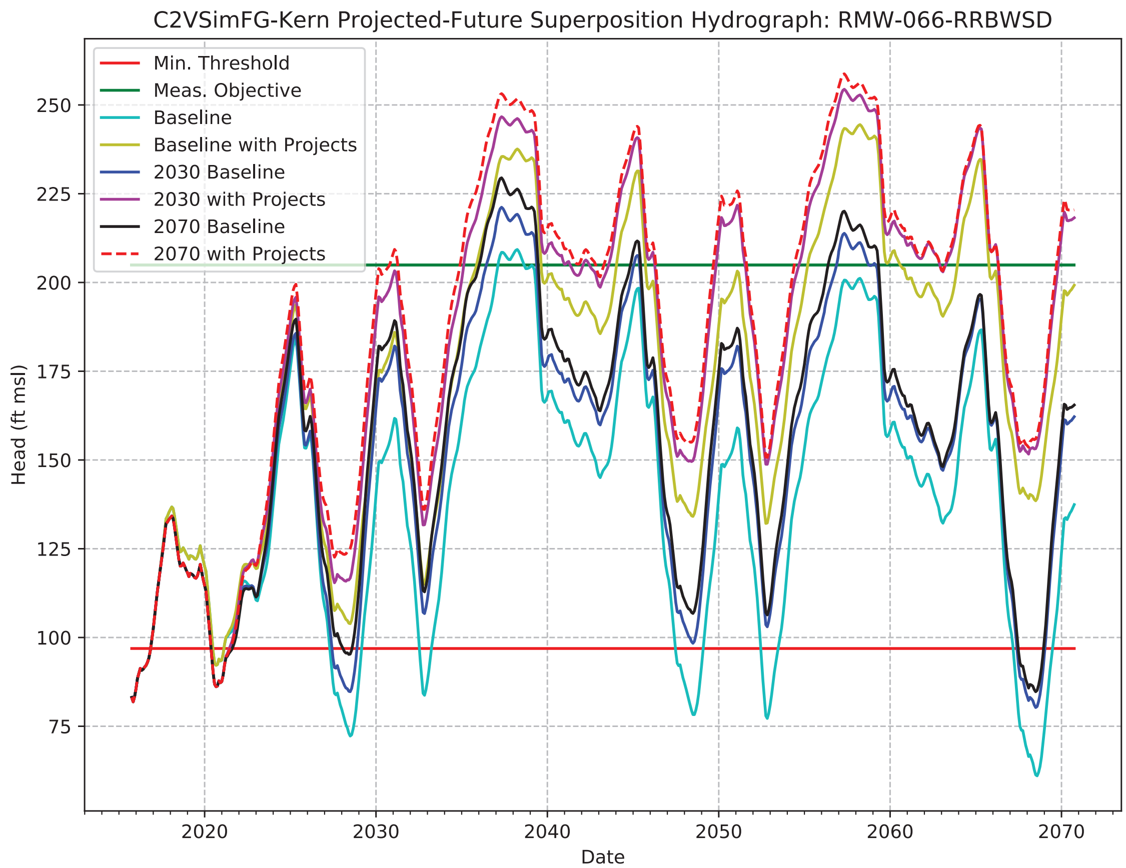
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-066-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
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125
150
175
200
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2020
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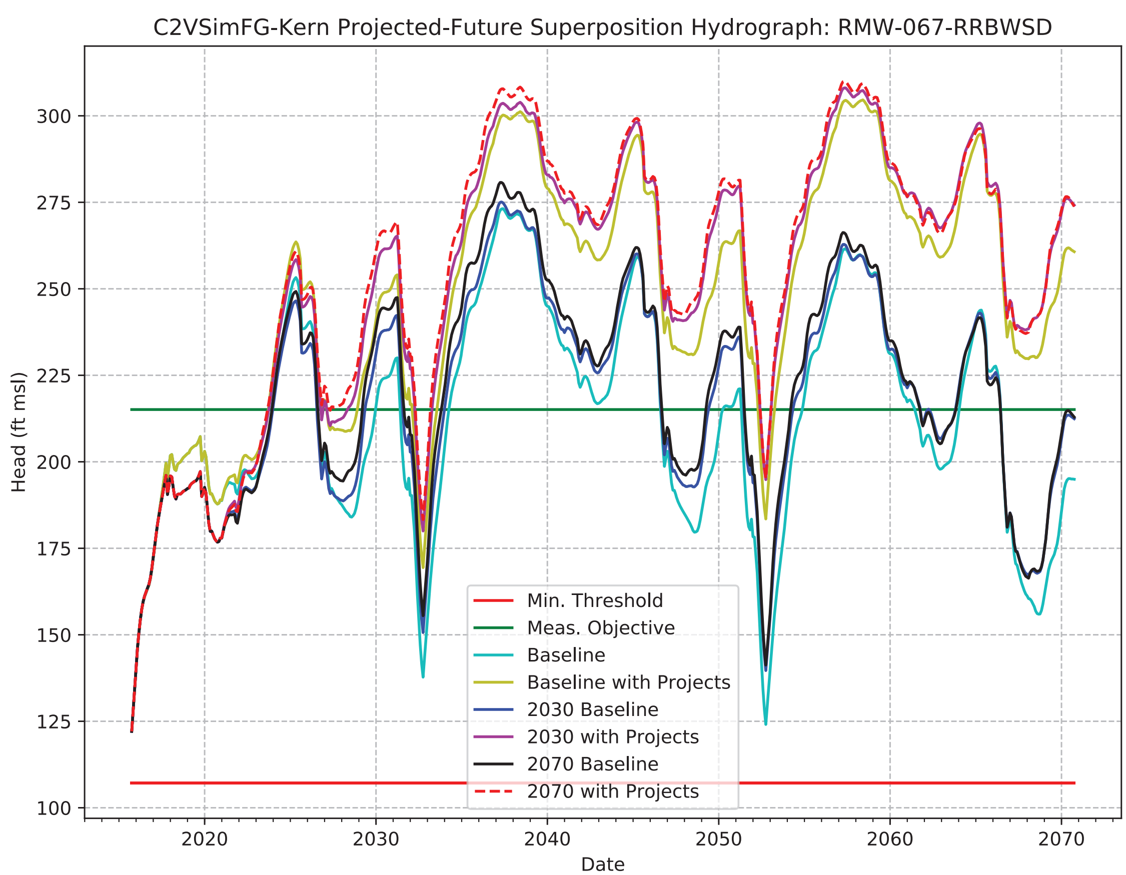
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-067-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
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2020
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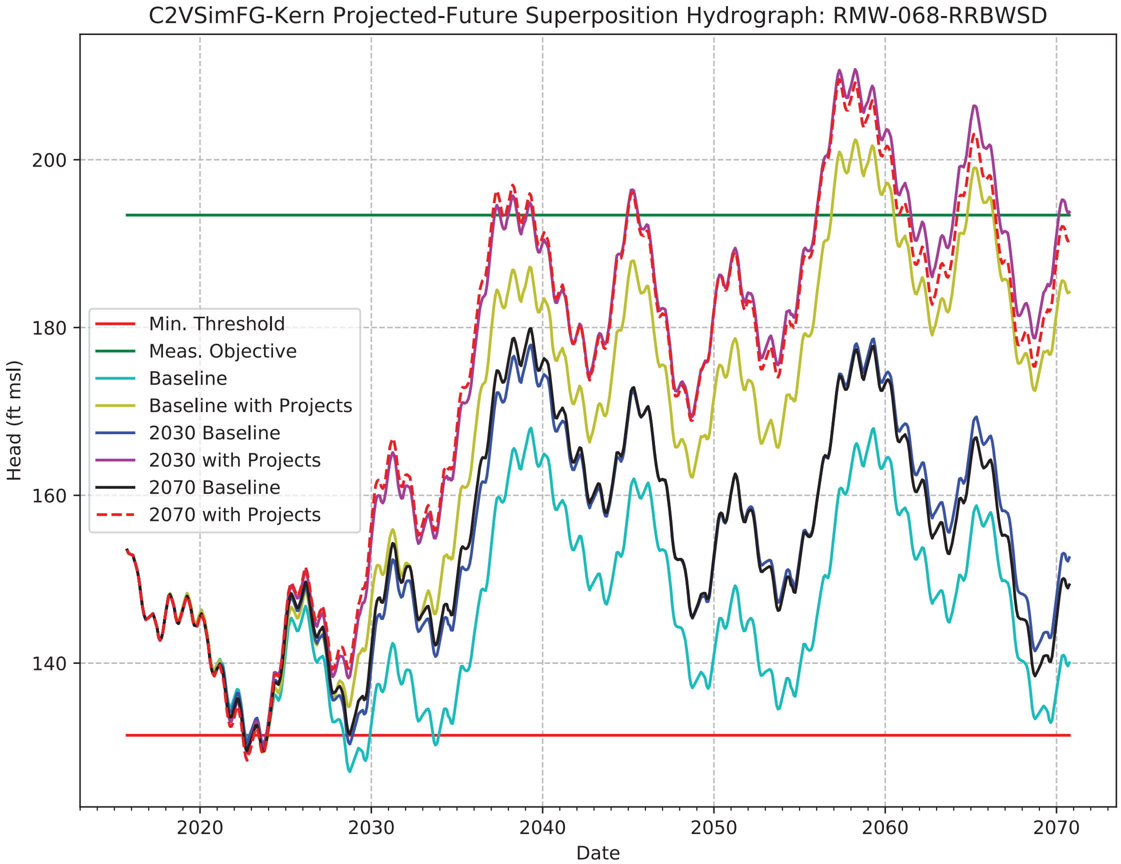
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-068-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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2070 with Projects
Head (ft msl)
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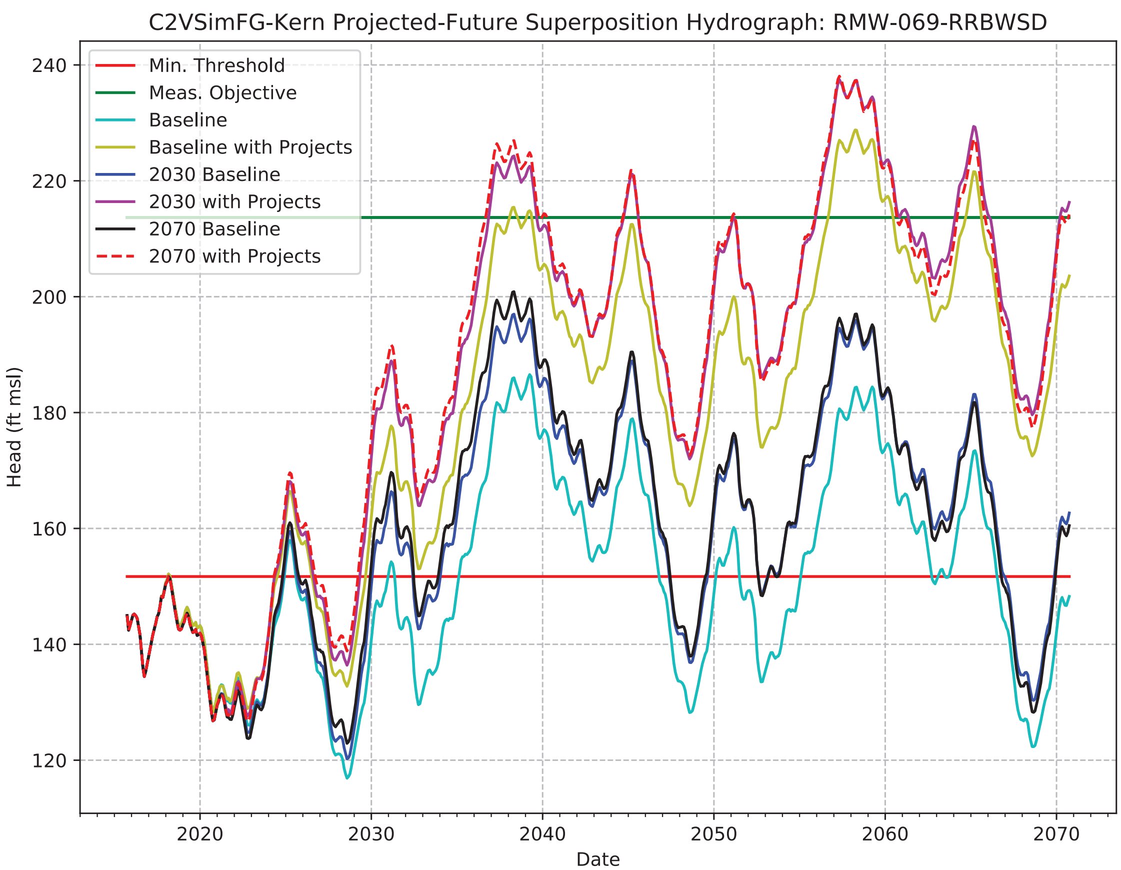
2060
2070
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-069-RRBWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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220
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180
160
140
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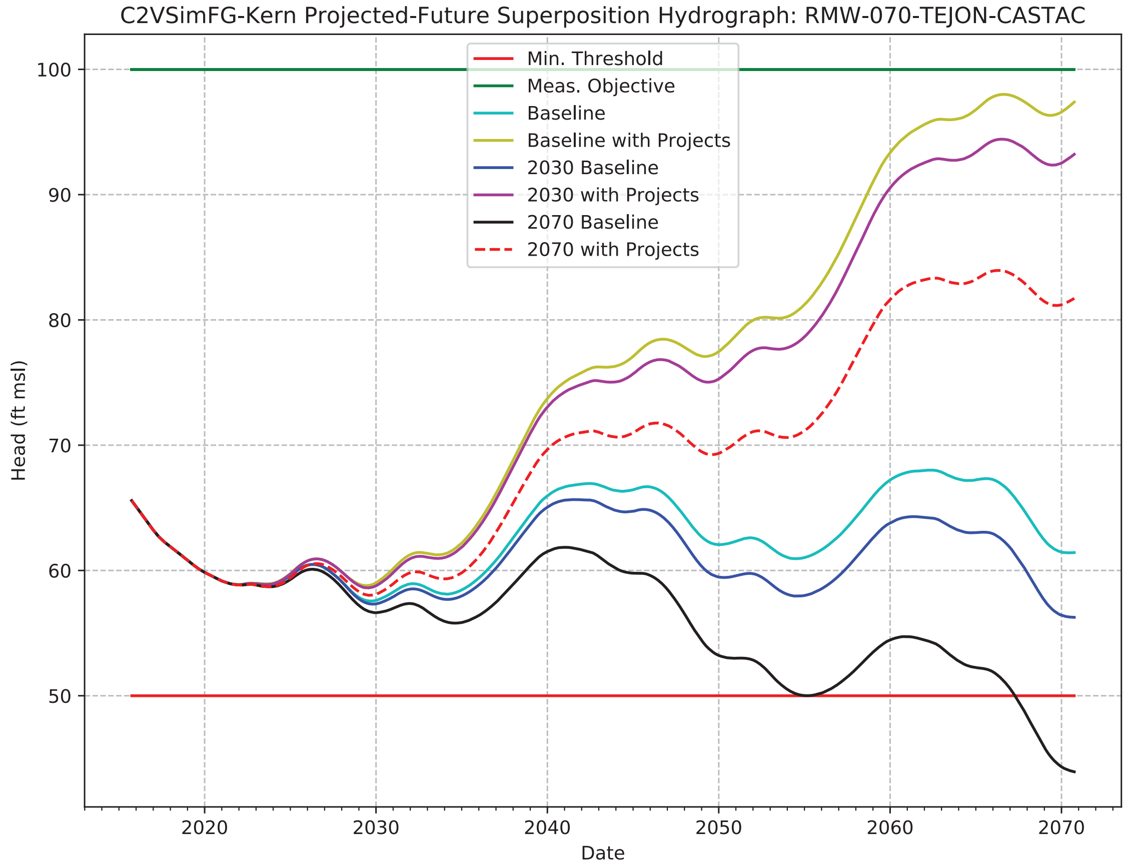
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-070-TEJON-CASTAC
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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Head (ft msl)
Date
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2020
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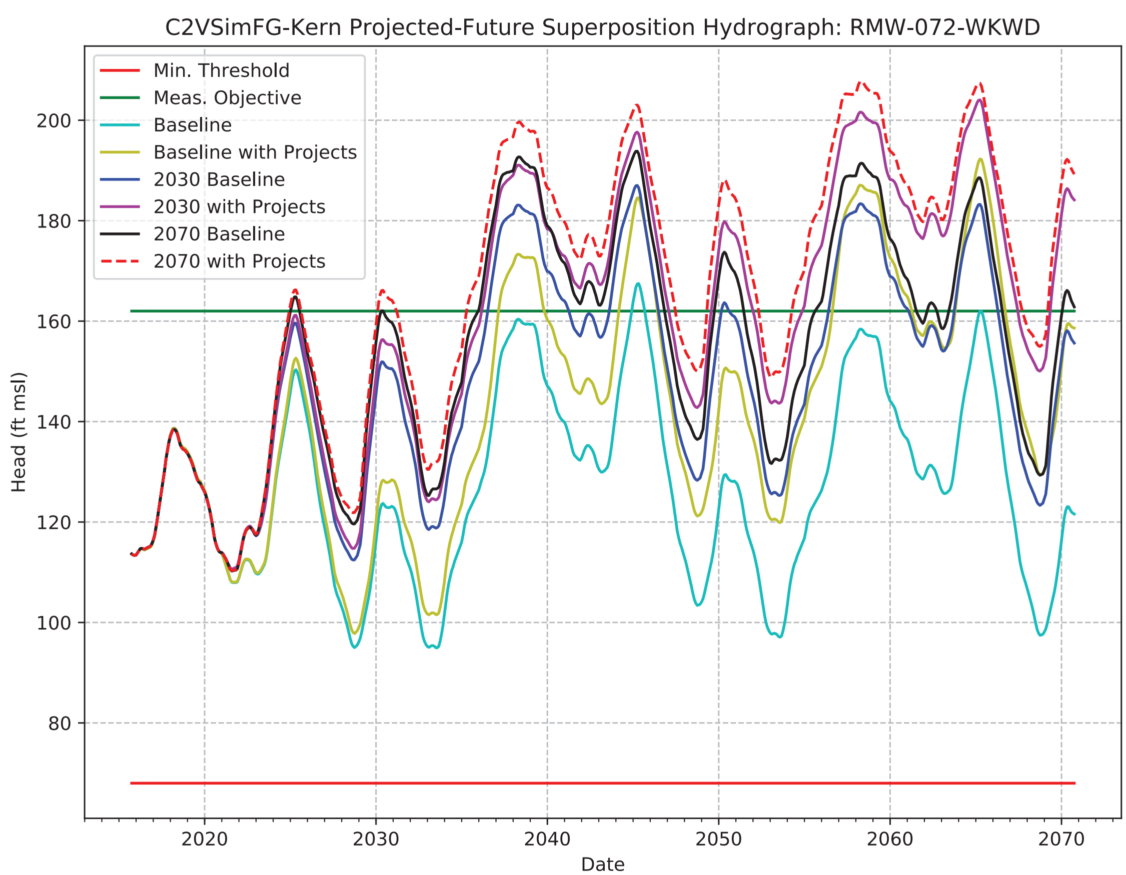
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-072-WKWD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
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80
2020
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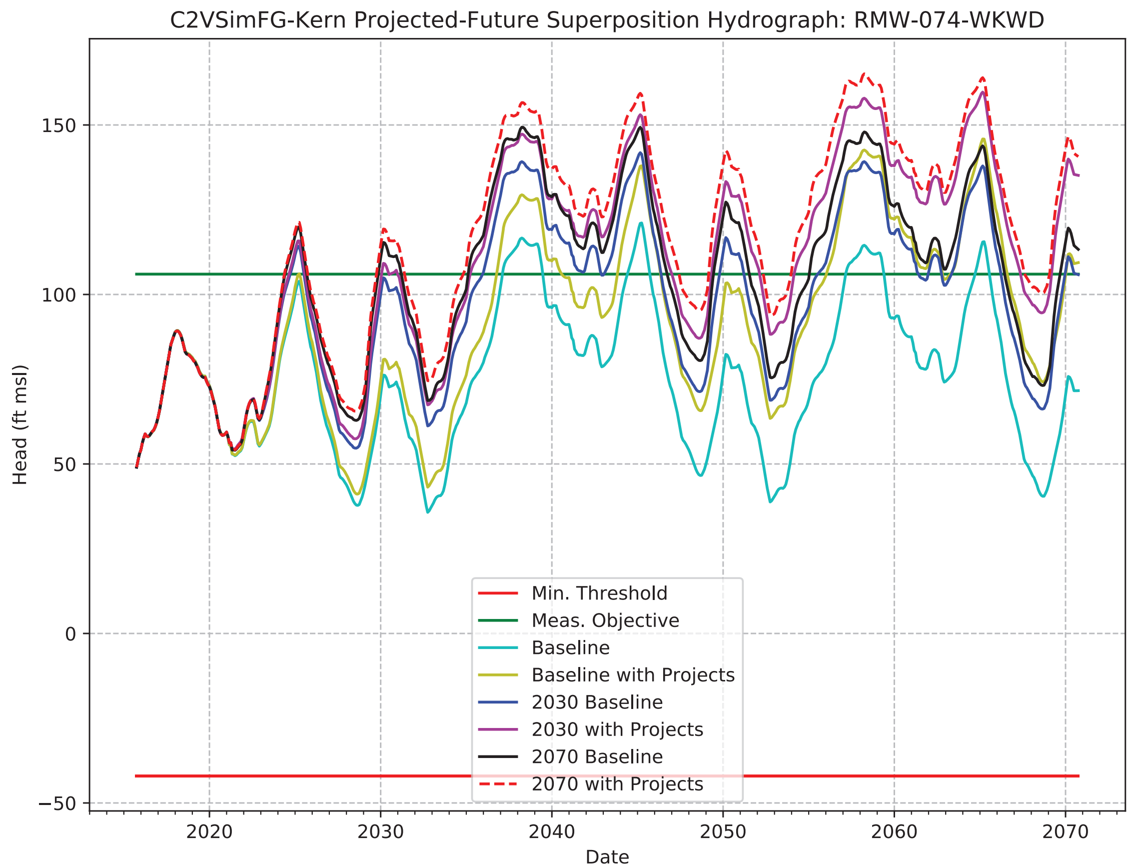
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-074-WKWD
Head (ft msl)
Date
150
100
50
0
−50
2020
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Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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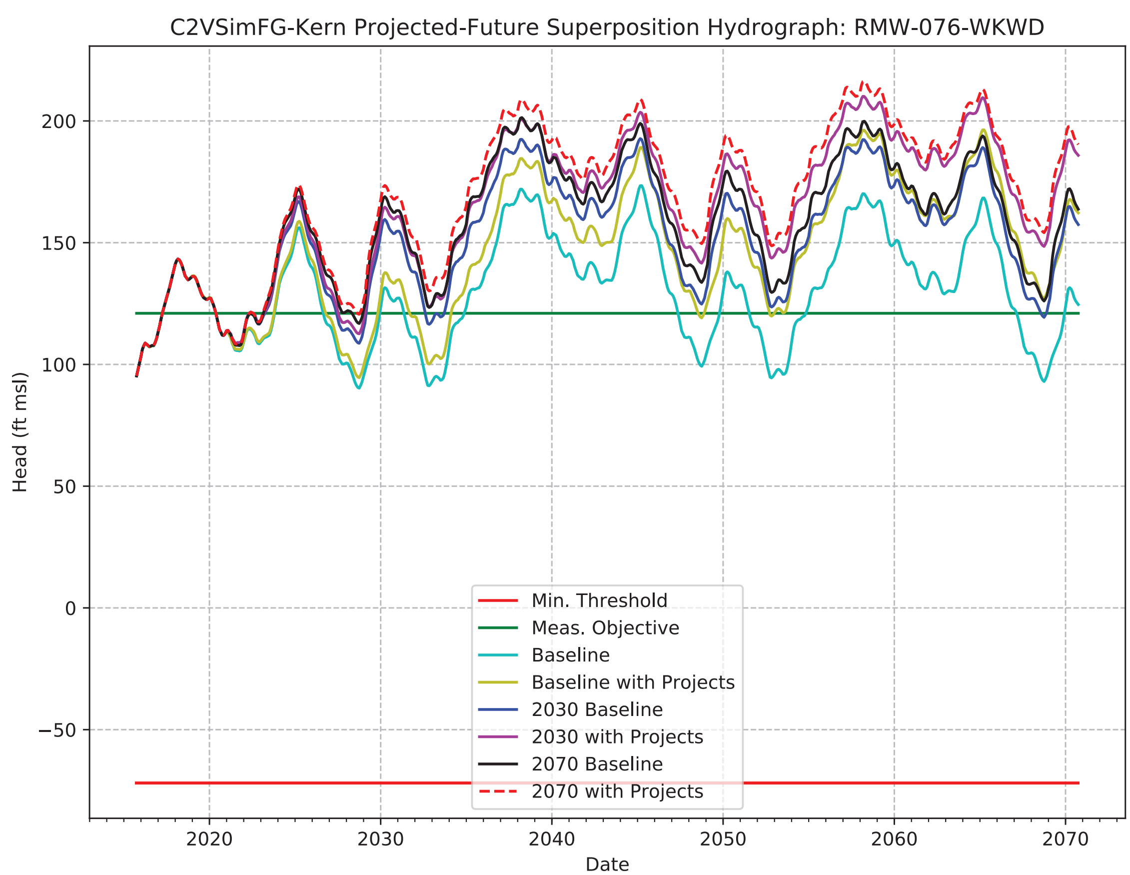
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-076-WKWD
Head (ft msl)
Date
200
150
100
50
0
−50
2020
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2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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2030 with Projects
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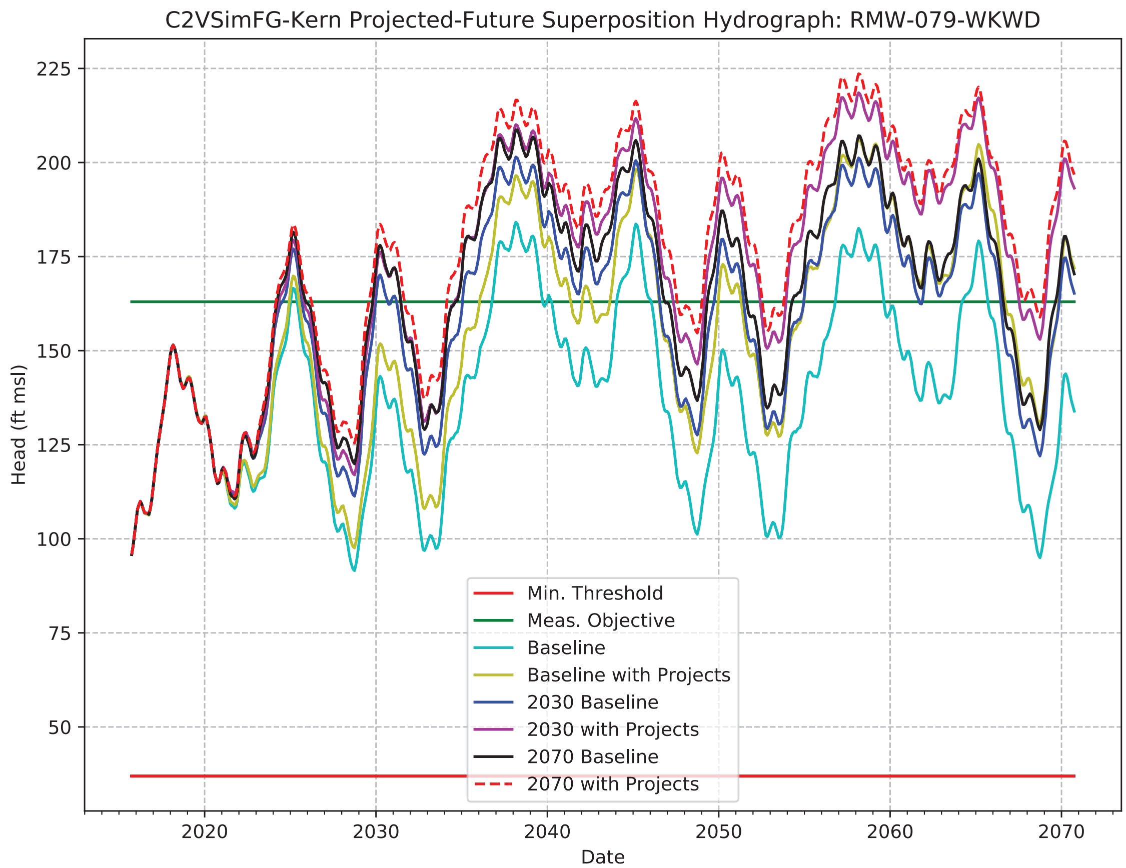

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-079-WKWD
Head (ft msl)
225
200
175
150
125
100
75
50
2020
2030
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Date
Min. Threshold
Meas. Objective
Baseline
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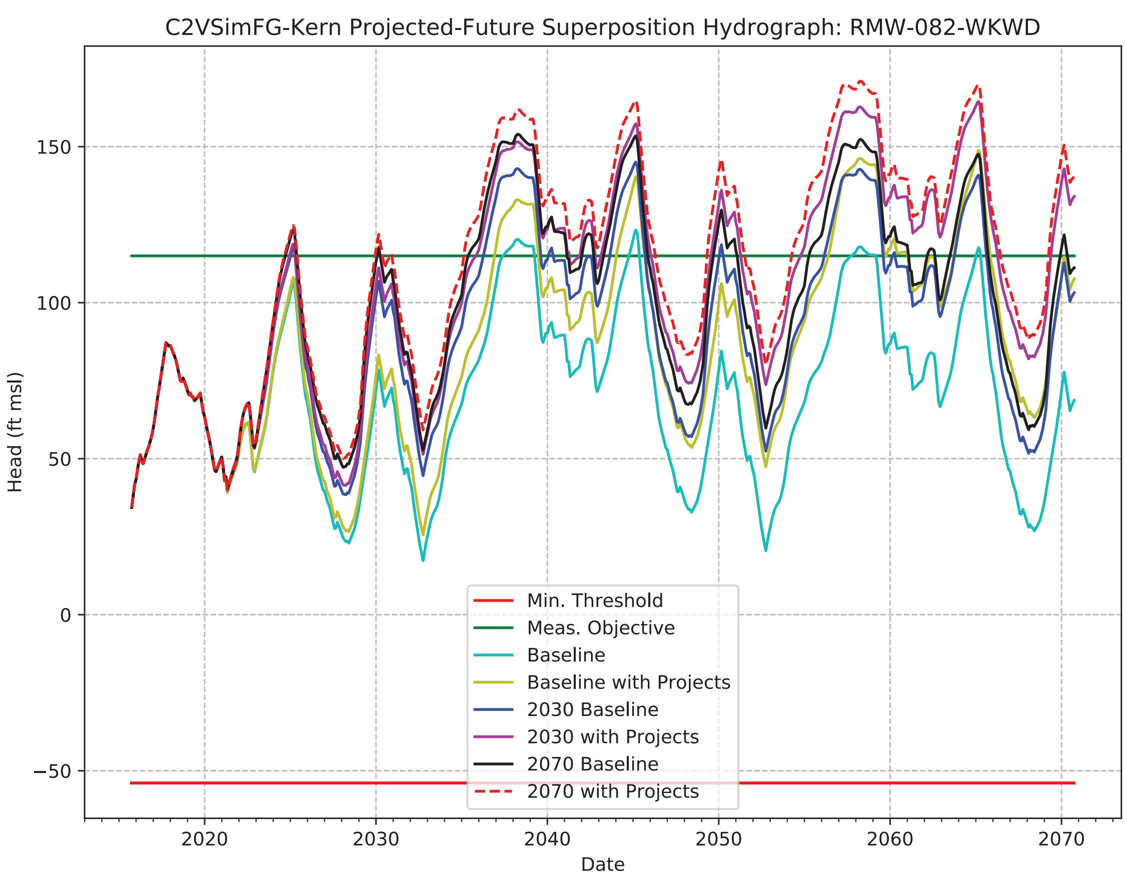

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-082-WKWD
Head (ft msl)
150
100
50
0
−50
2020
2030
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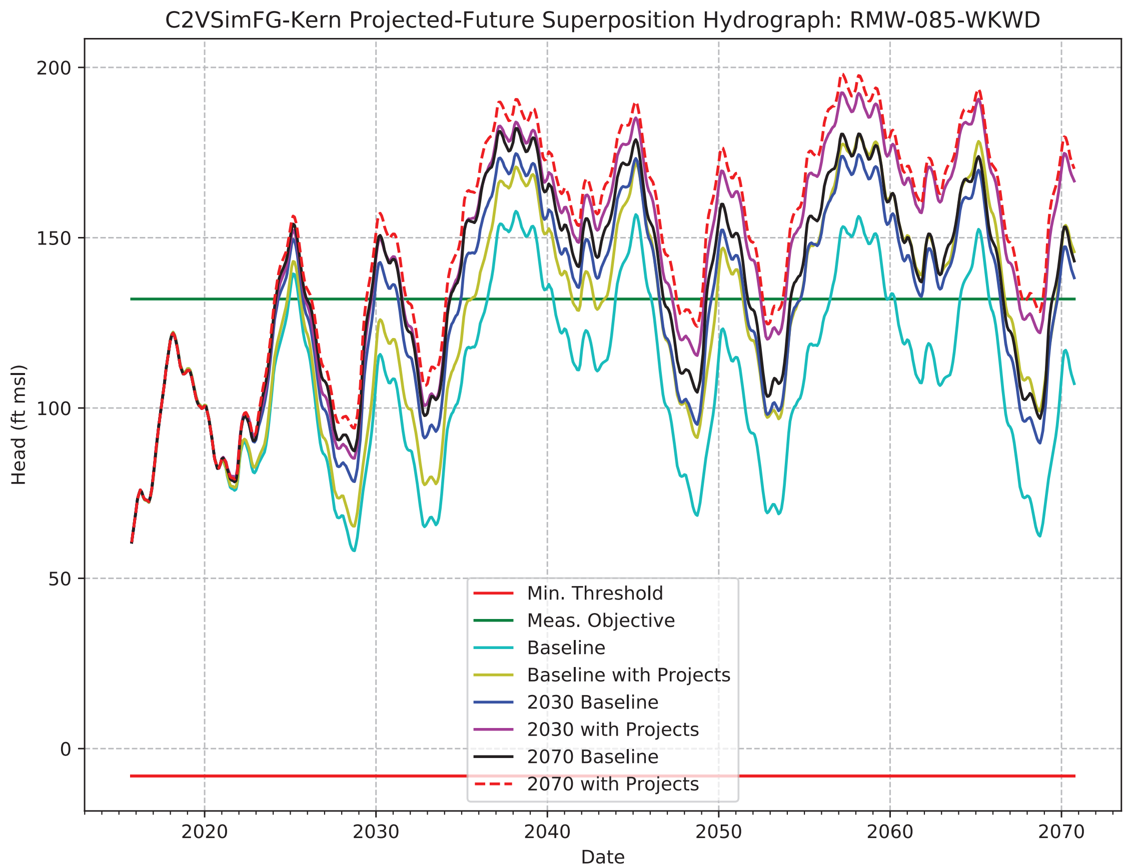
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-085-WKWD
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Date
Min. Threshold
Meas. Objective
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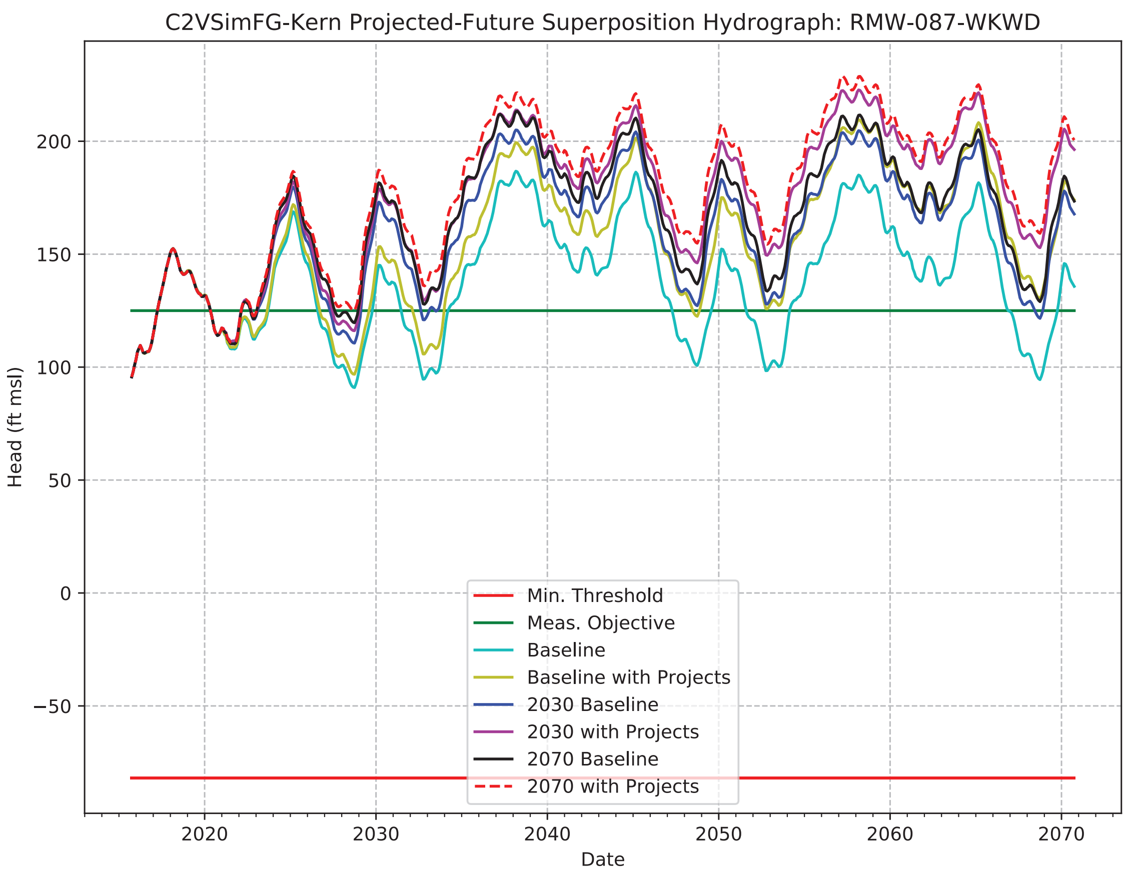
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-087-WKWD
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Date
Min. Threshold
Meas. Objective
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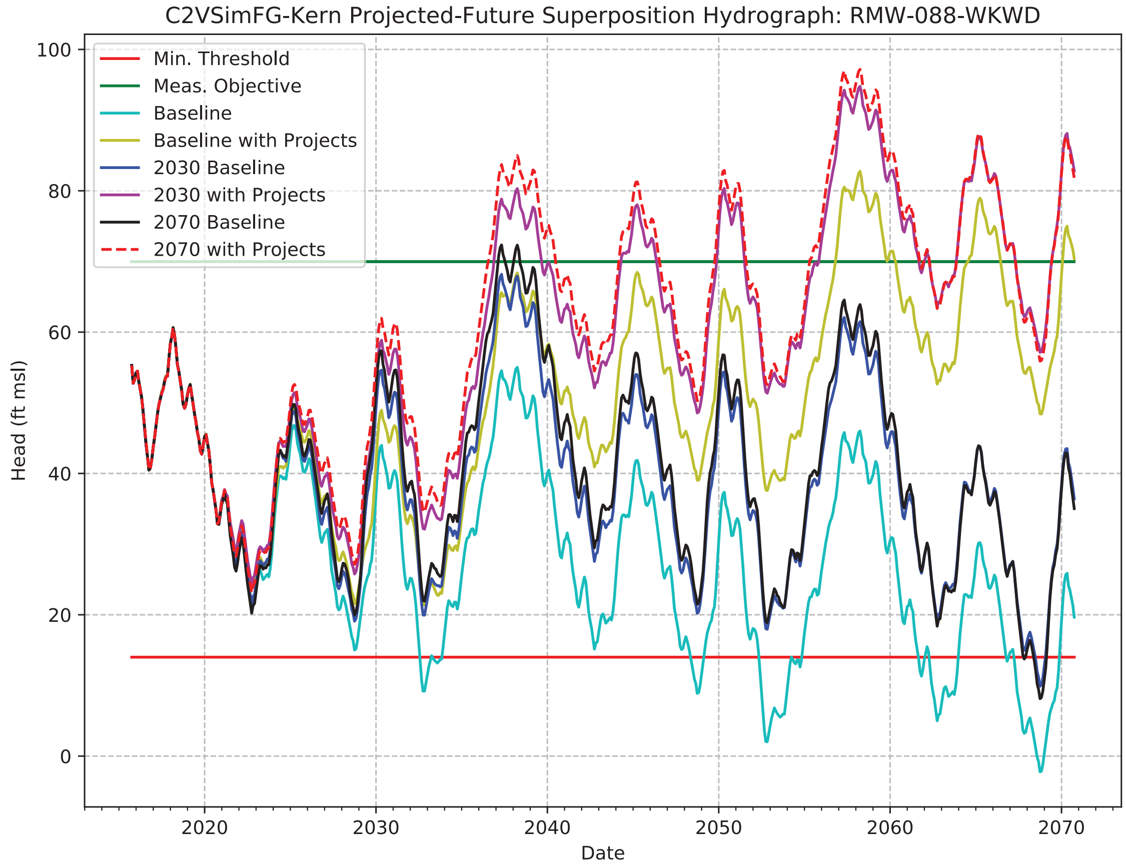
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-088-WKWD
Min. Threshold
Meas. Objective
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2030 with Projects
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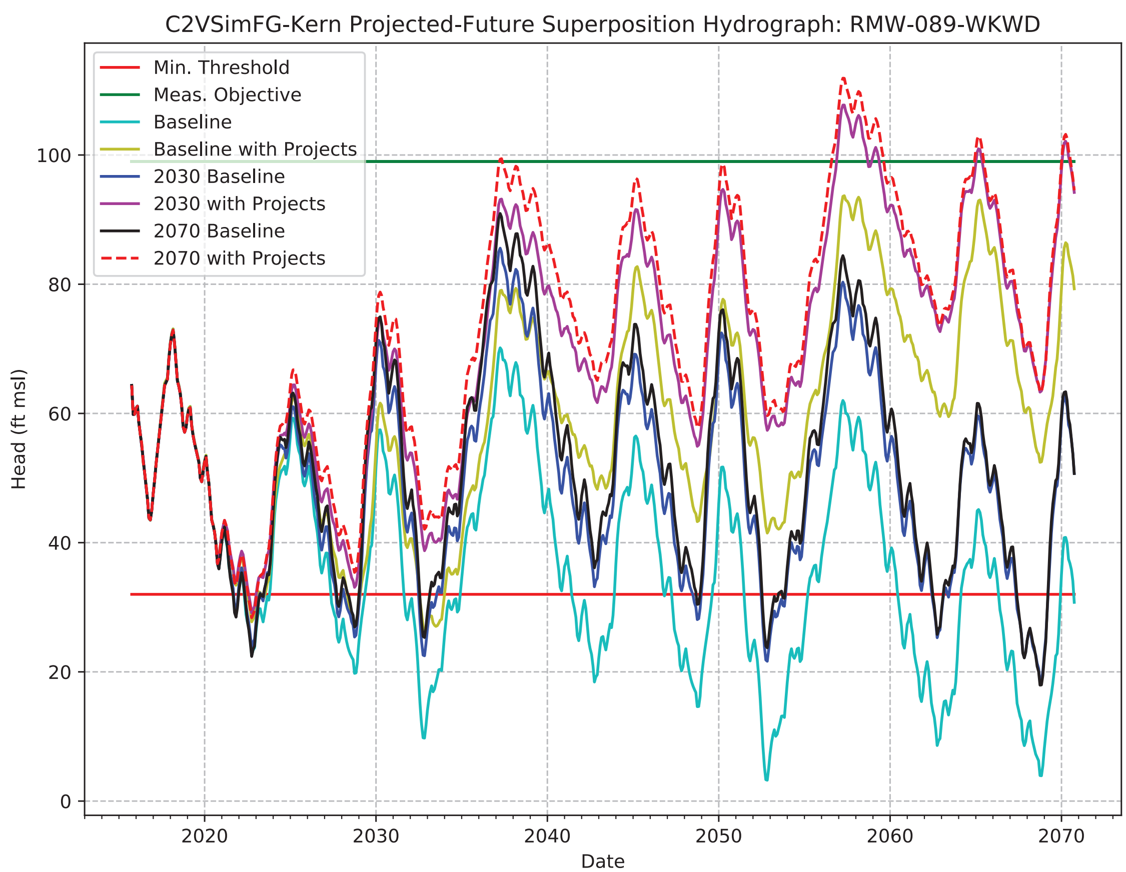
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-089-WKWD
Min. Threshold
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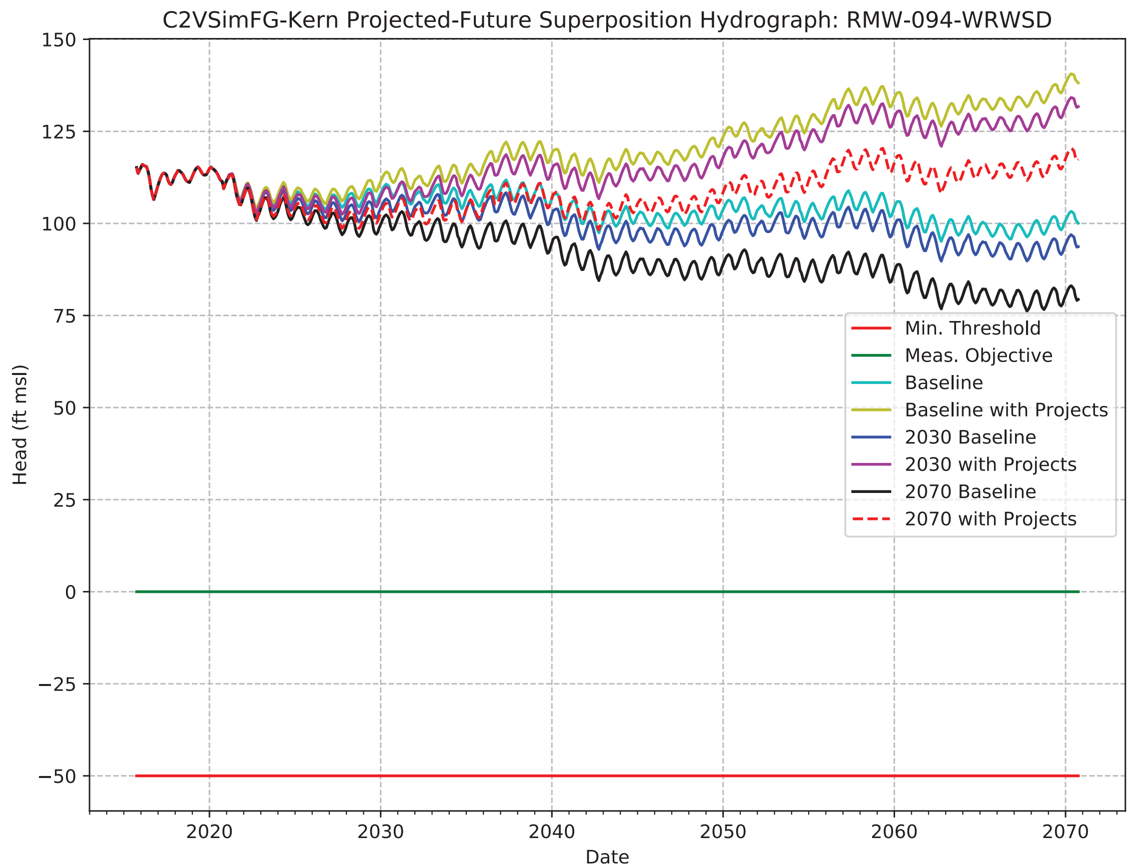
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-094-WRWSD
Head (ft msl)
Date
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50
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Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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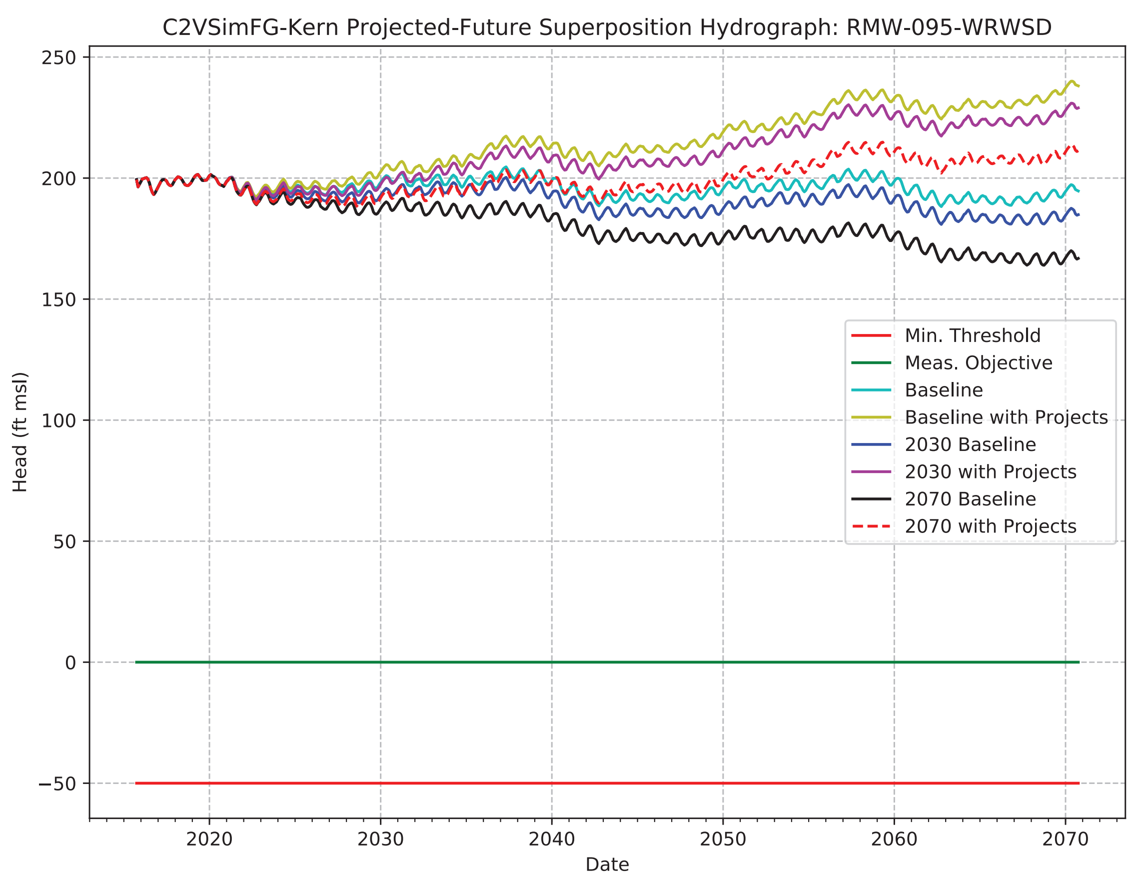
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-095-WRWSD
Head (ft msl)
Date
250
200
150
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−50
2020
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Min. Threshold
Meas. Objective
Baseline
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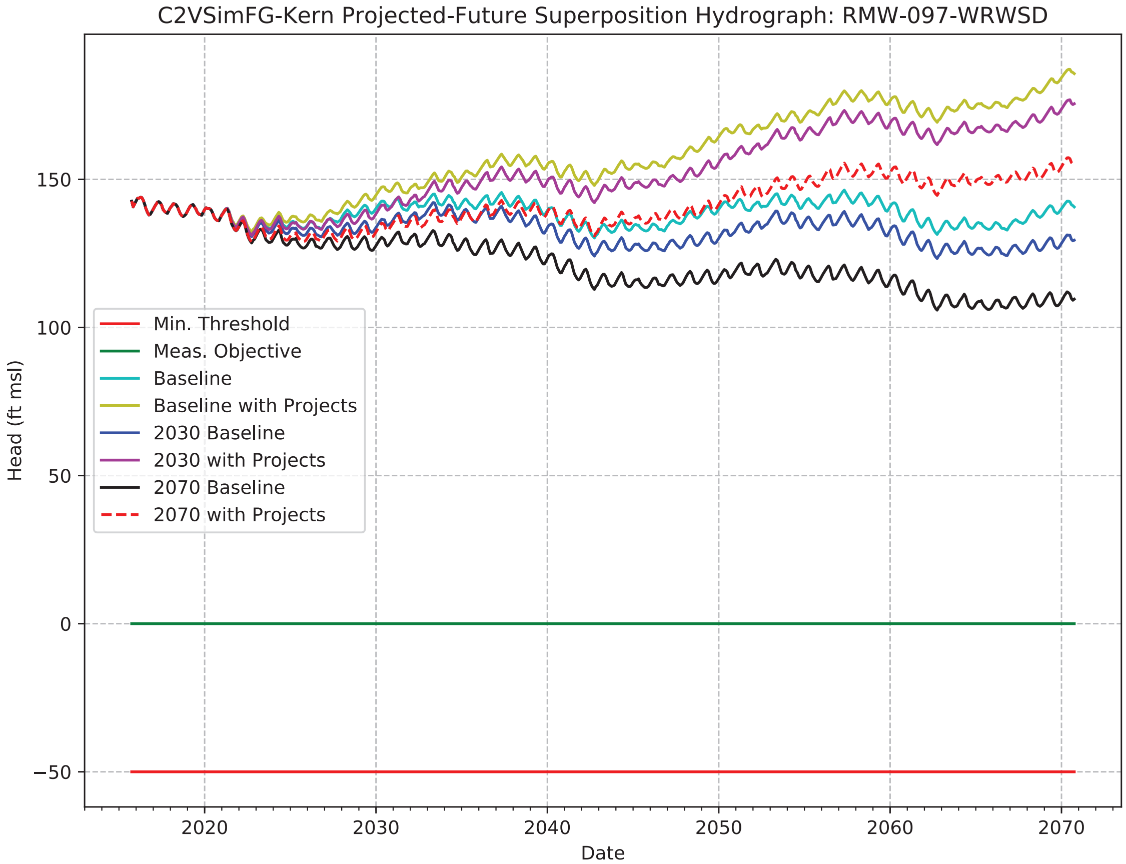
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-097-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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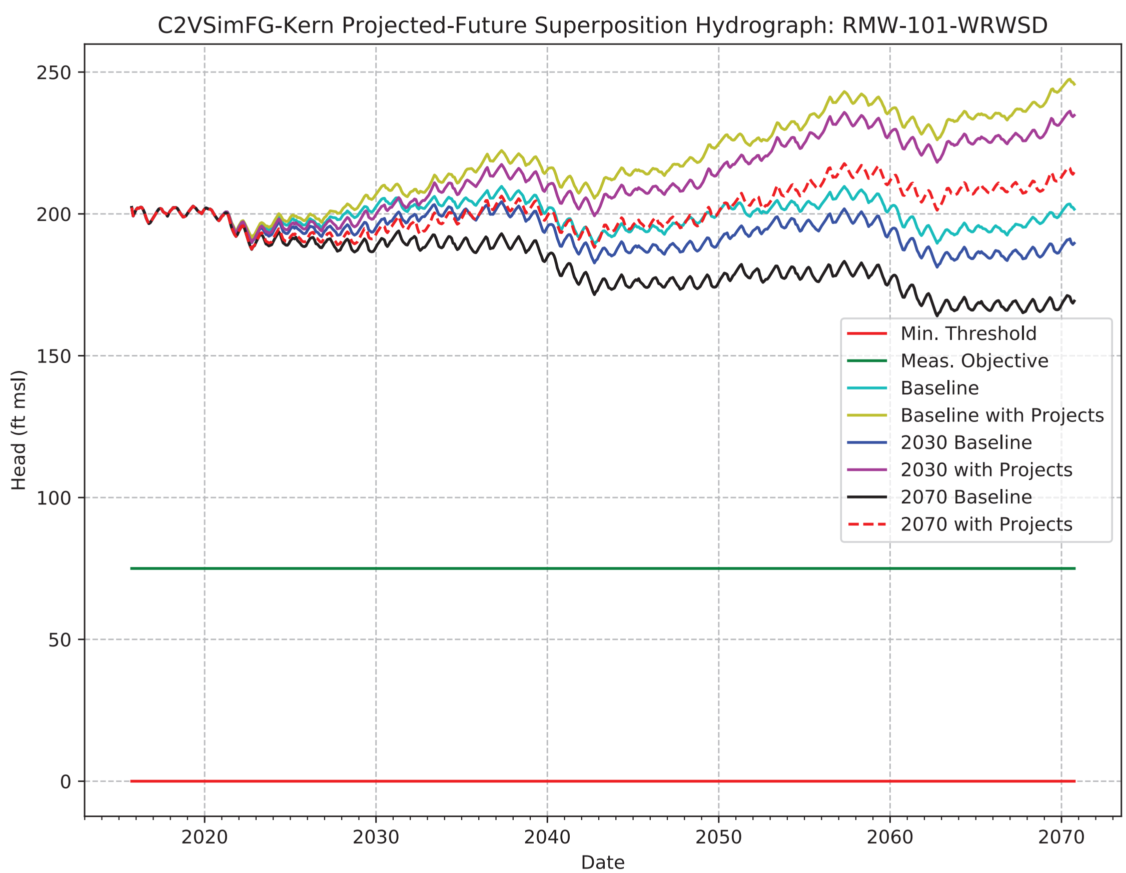
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-101-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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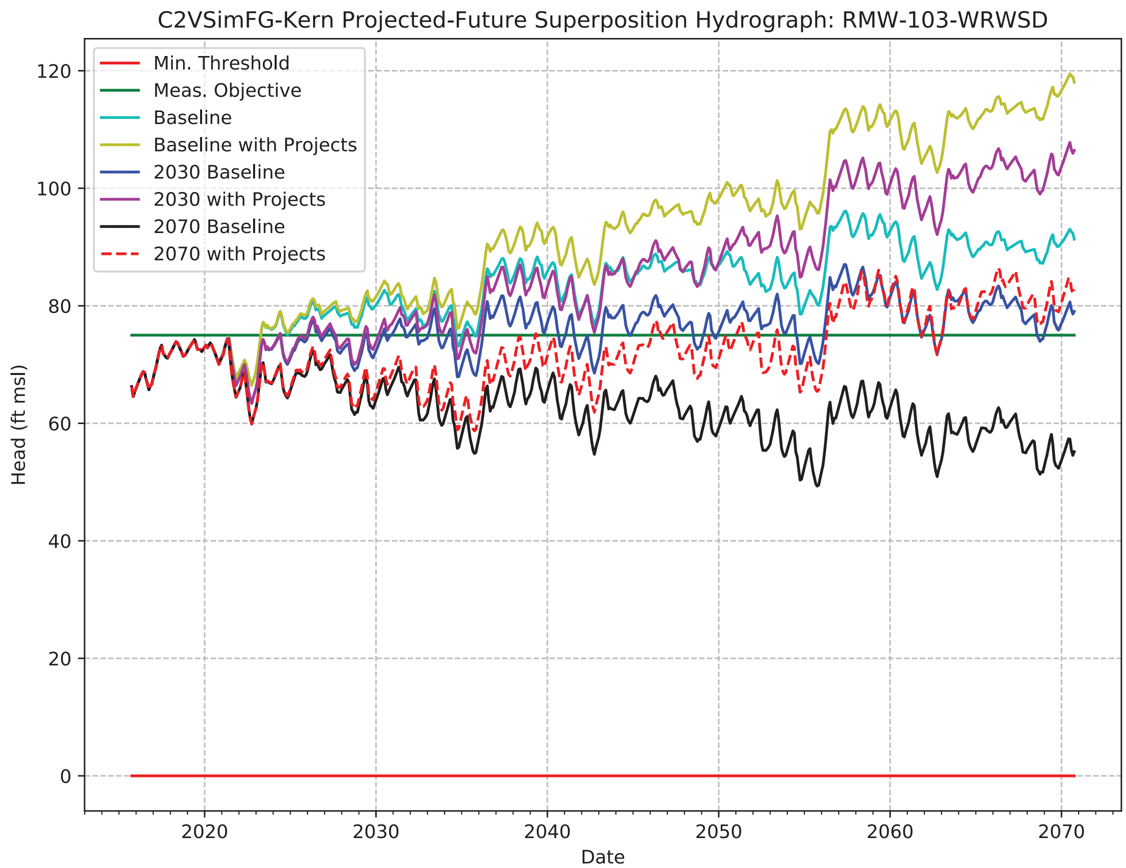
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-103-WRWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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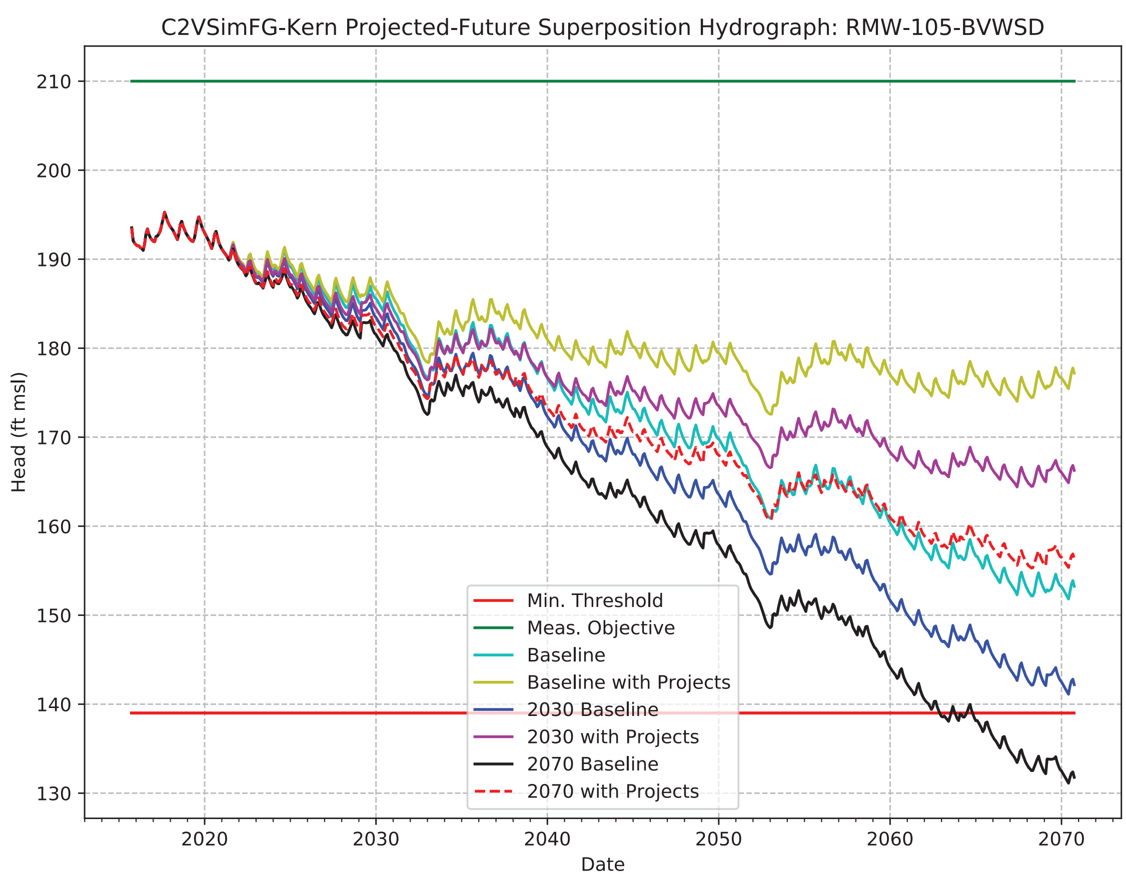
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-105-BVWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
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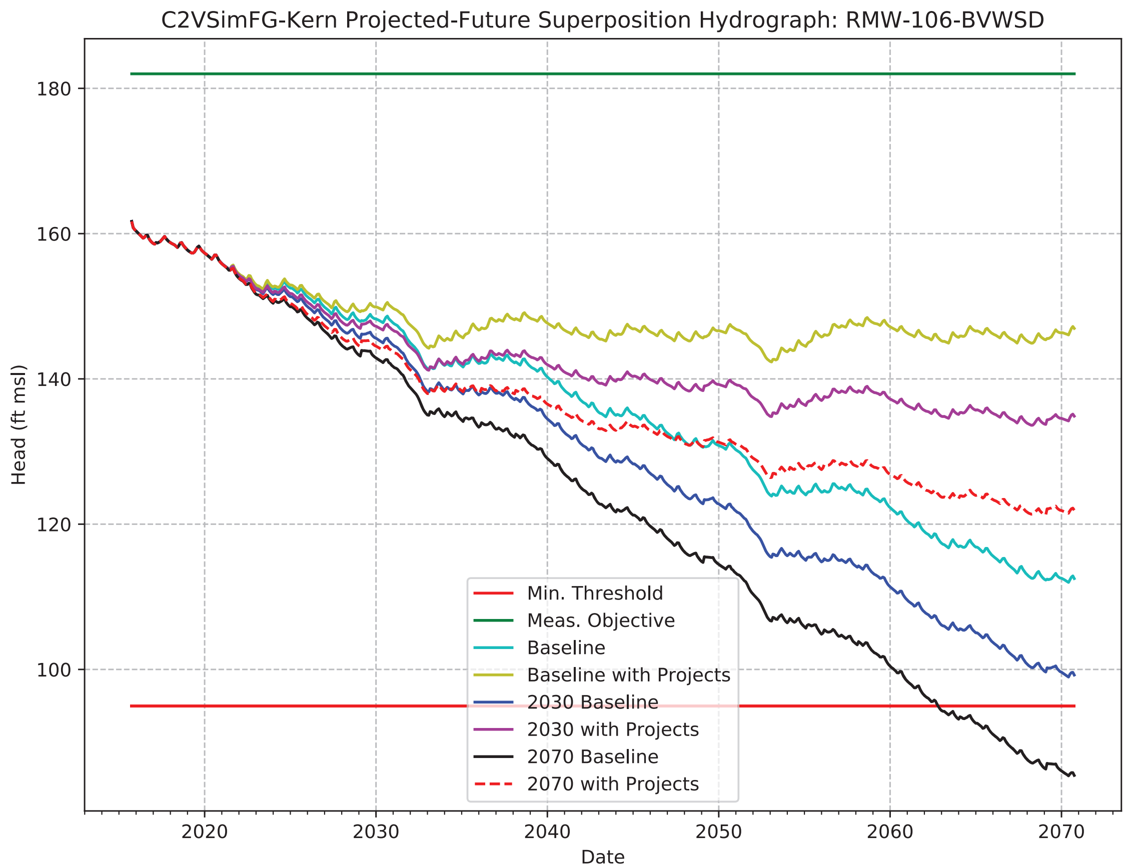
Date



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-106-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
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2030 Baseline
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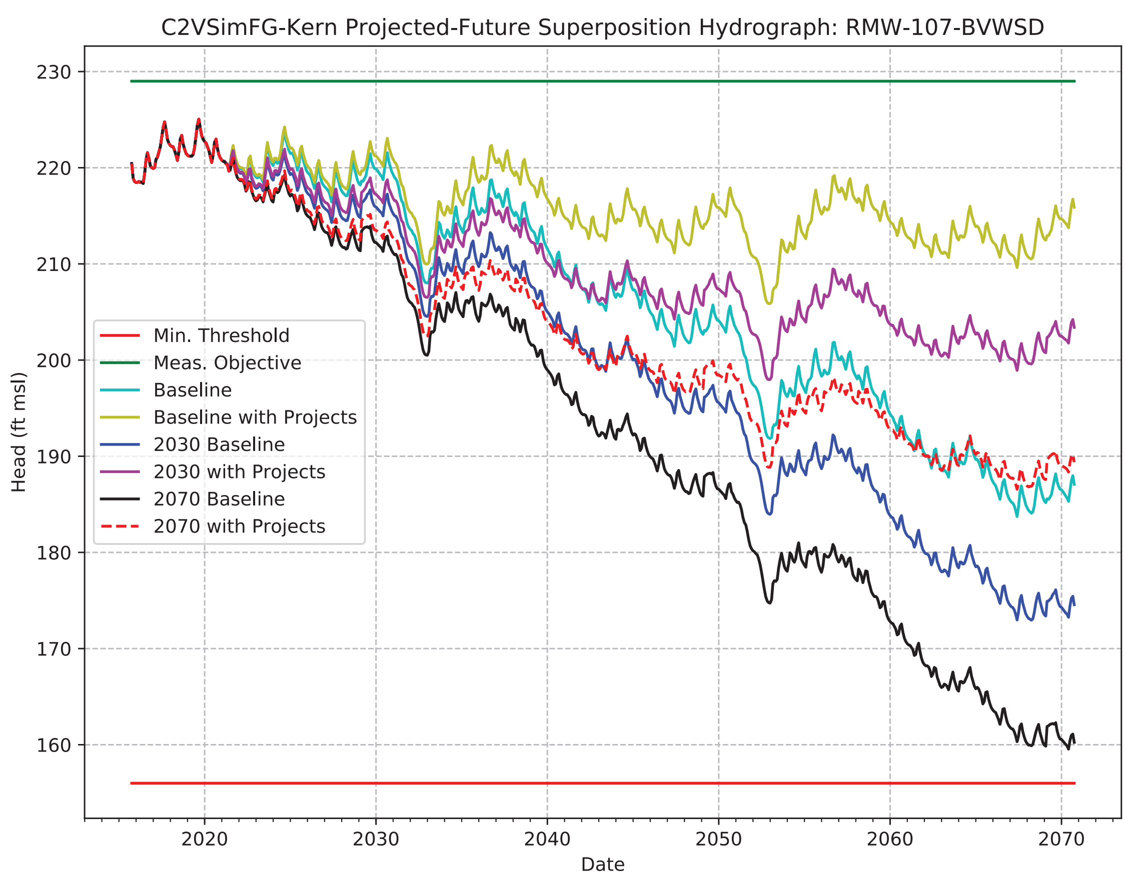
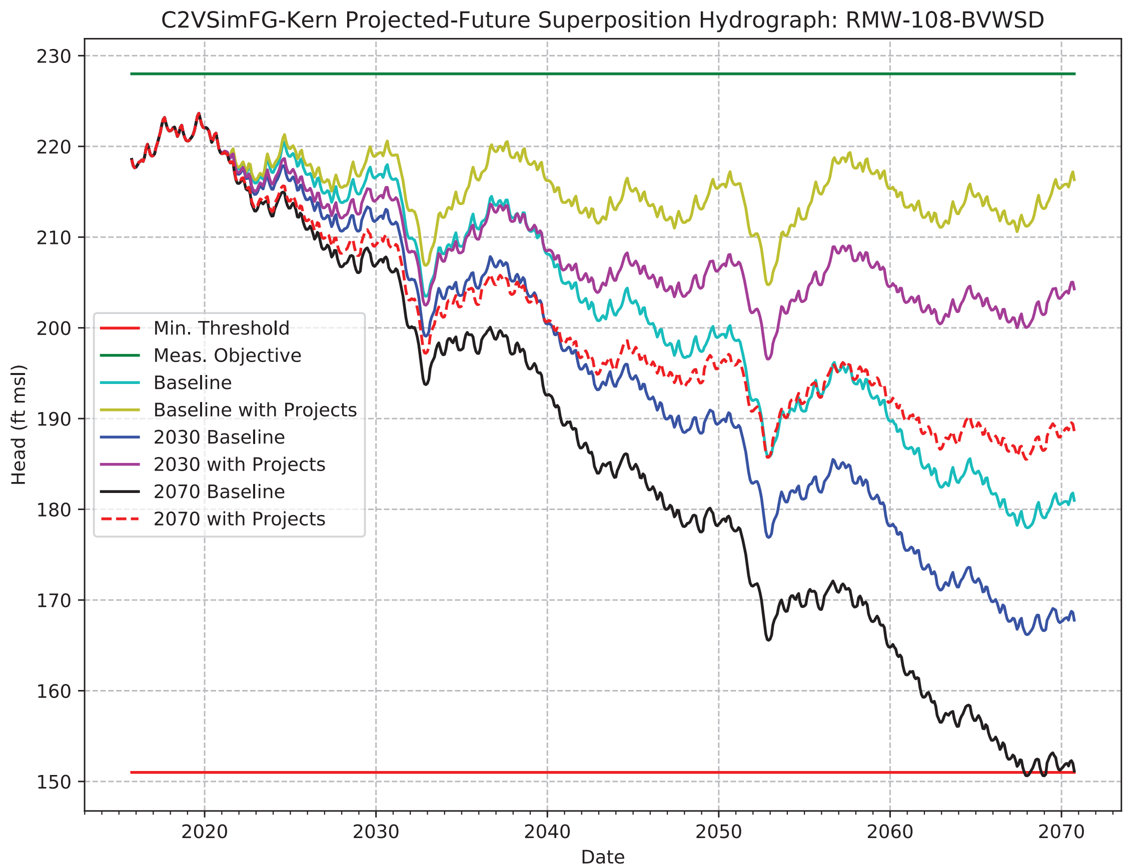
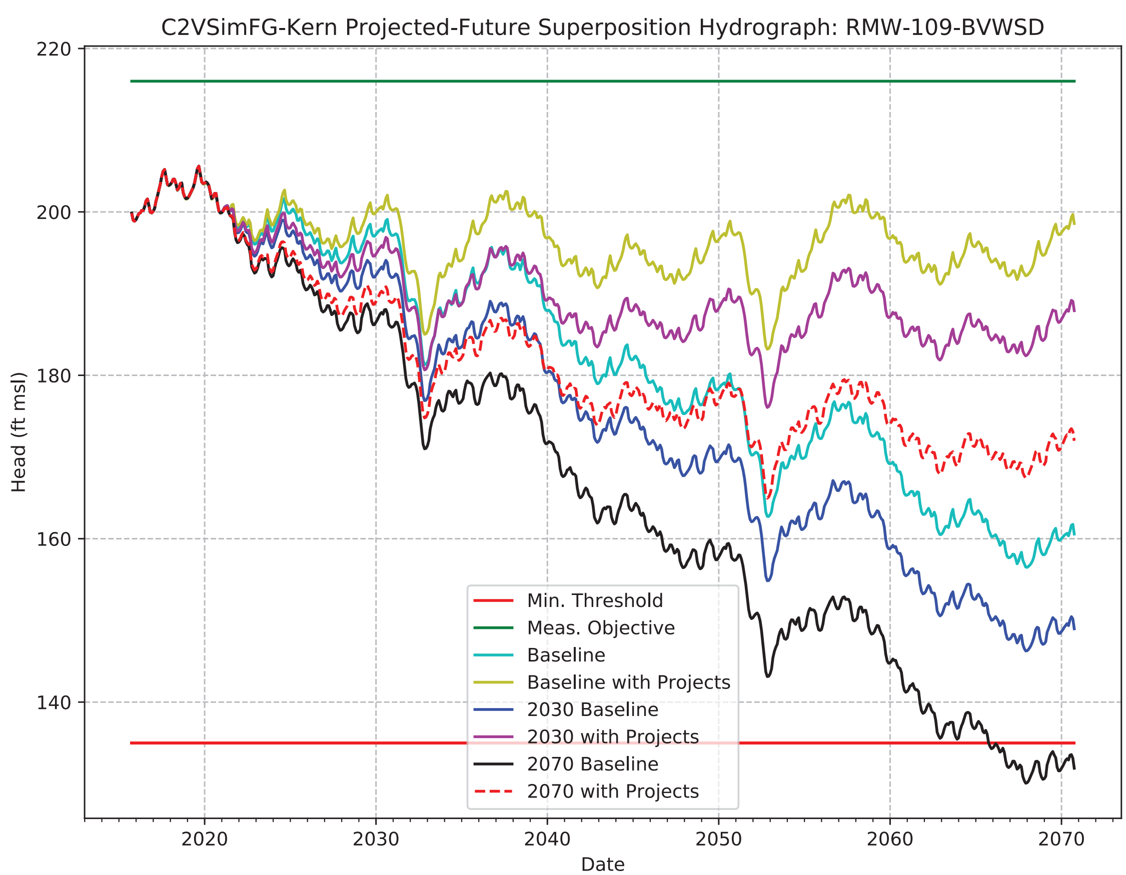
2070 with Projects



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-107-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-108-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-109-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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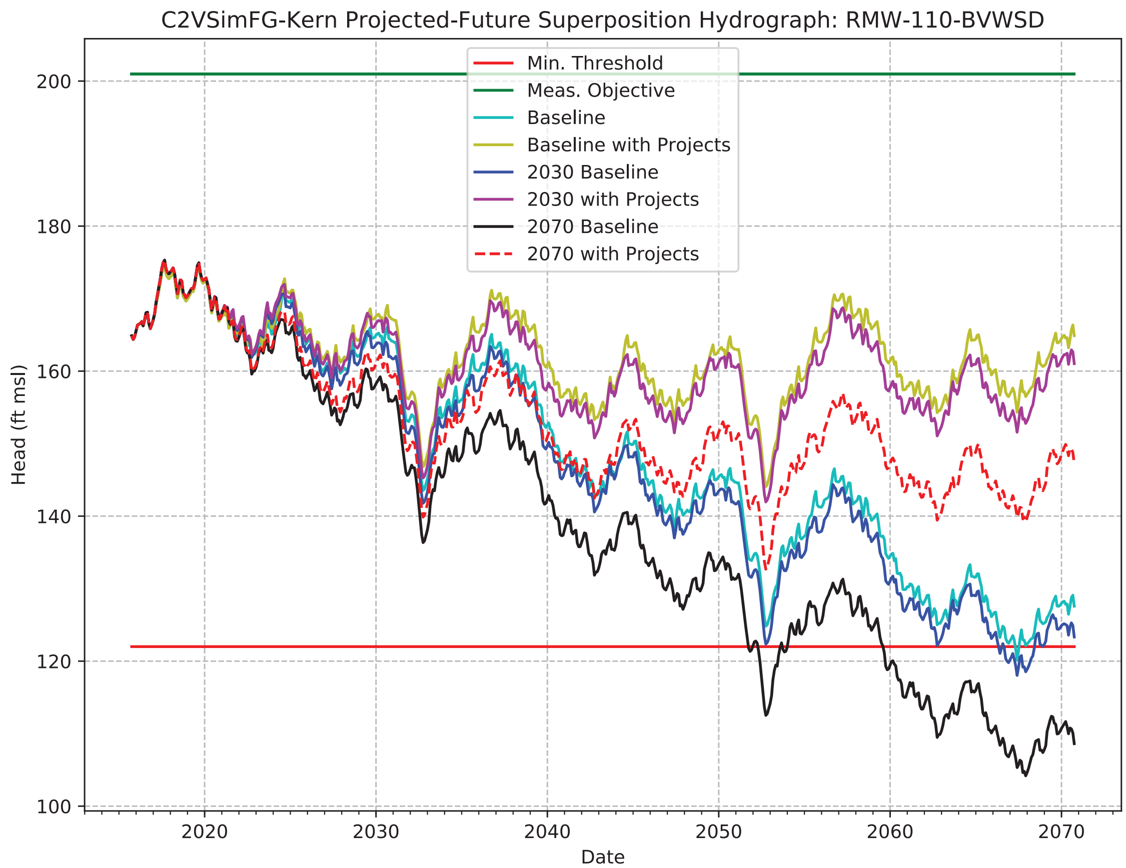
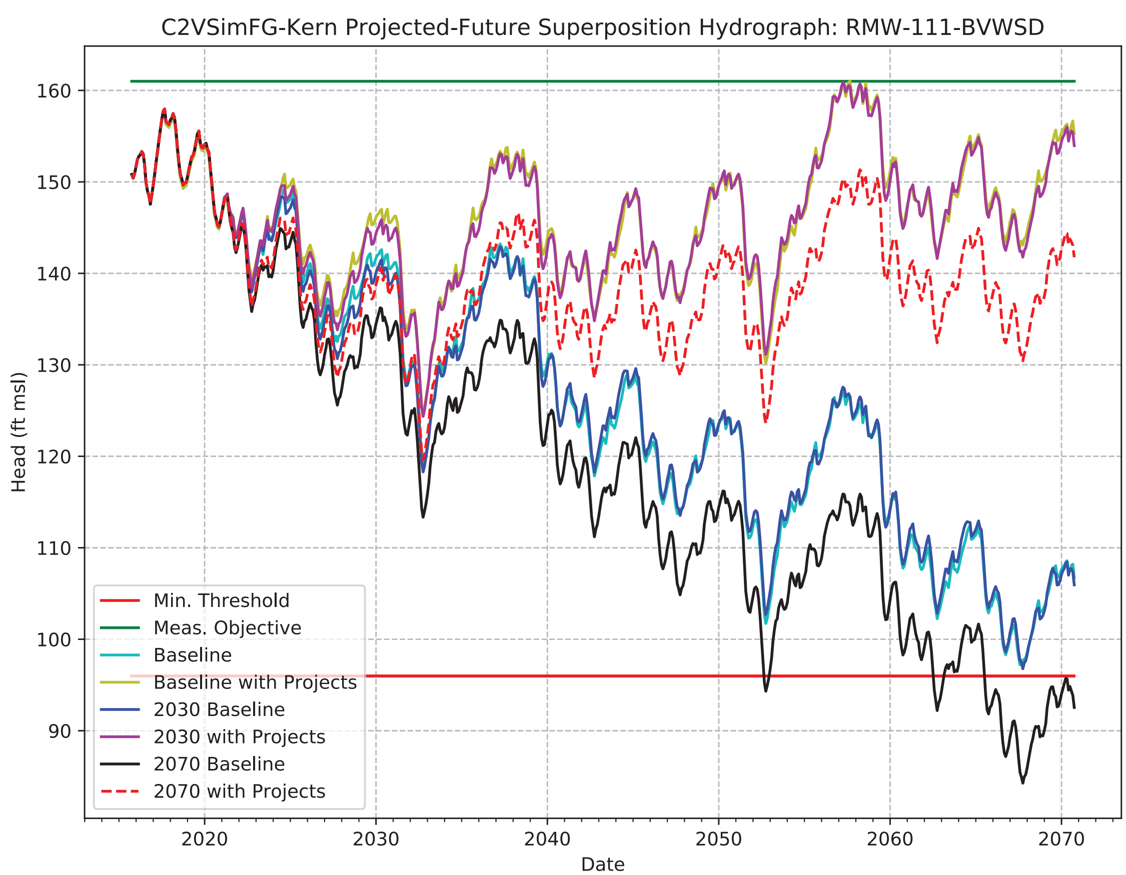
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-110-BVWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
100
120
140
160
180
200
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-111-BVWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
90
100
110
120
130
140
150
160
2020
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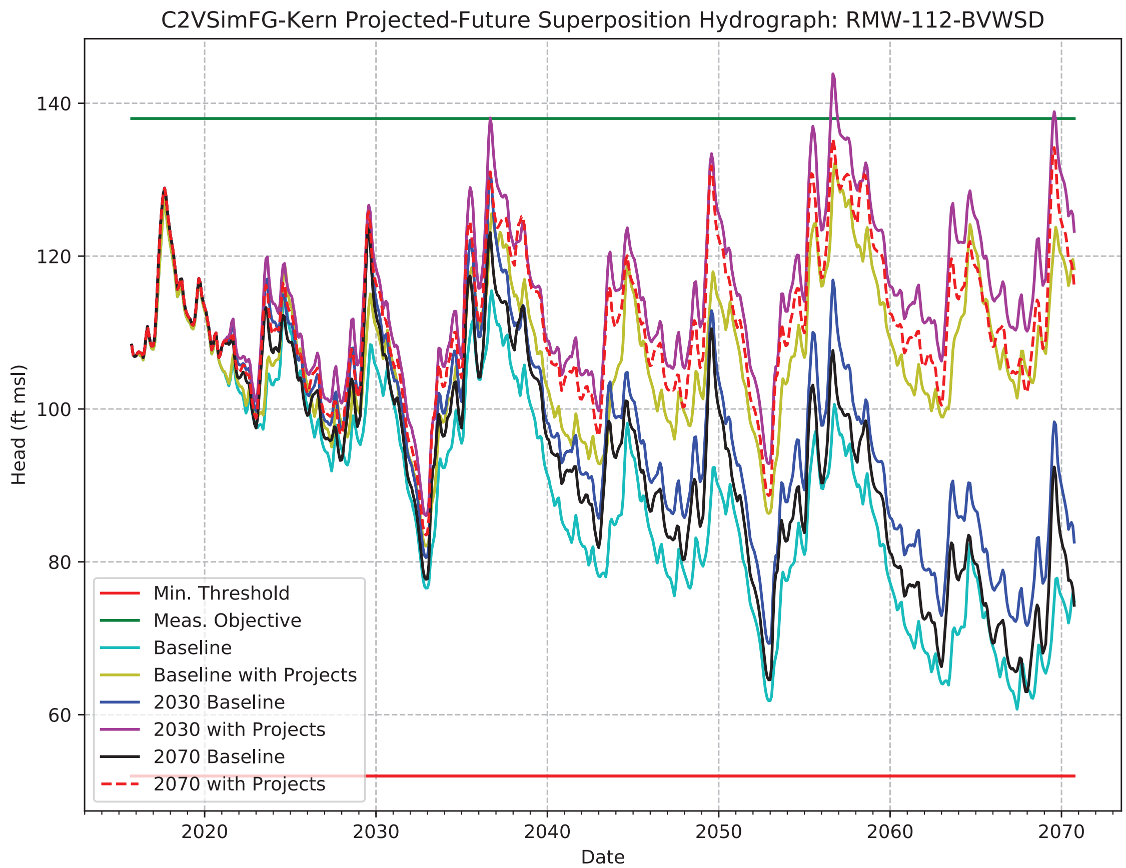
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-112-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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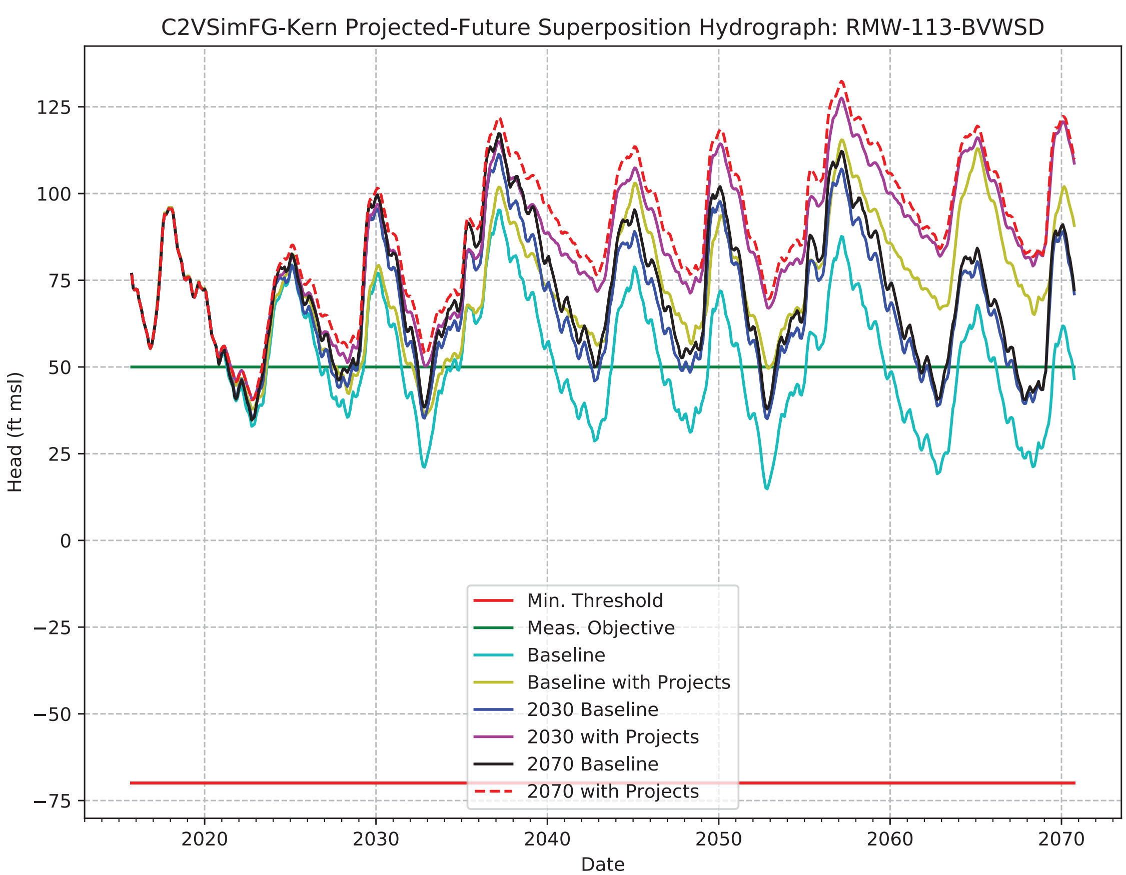
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-113-BVWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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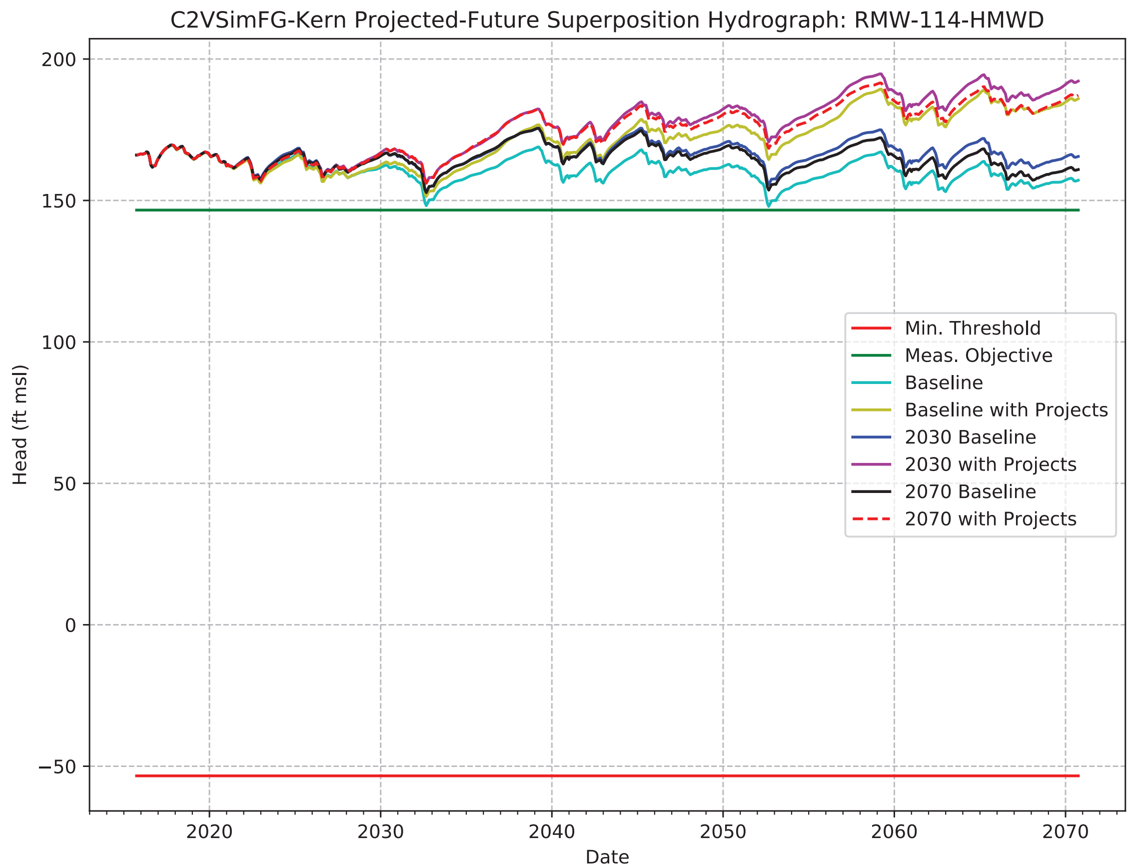
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-114-HMWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
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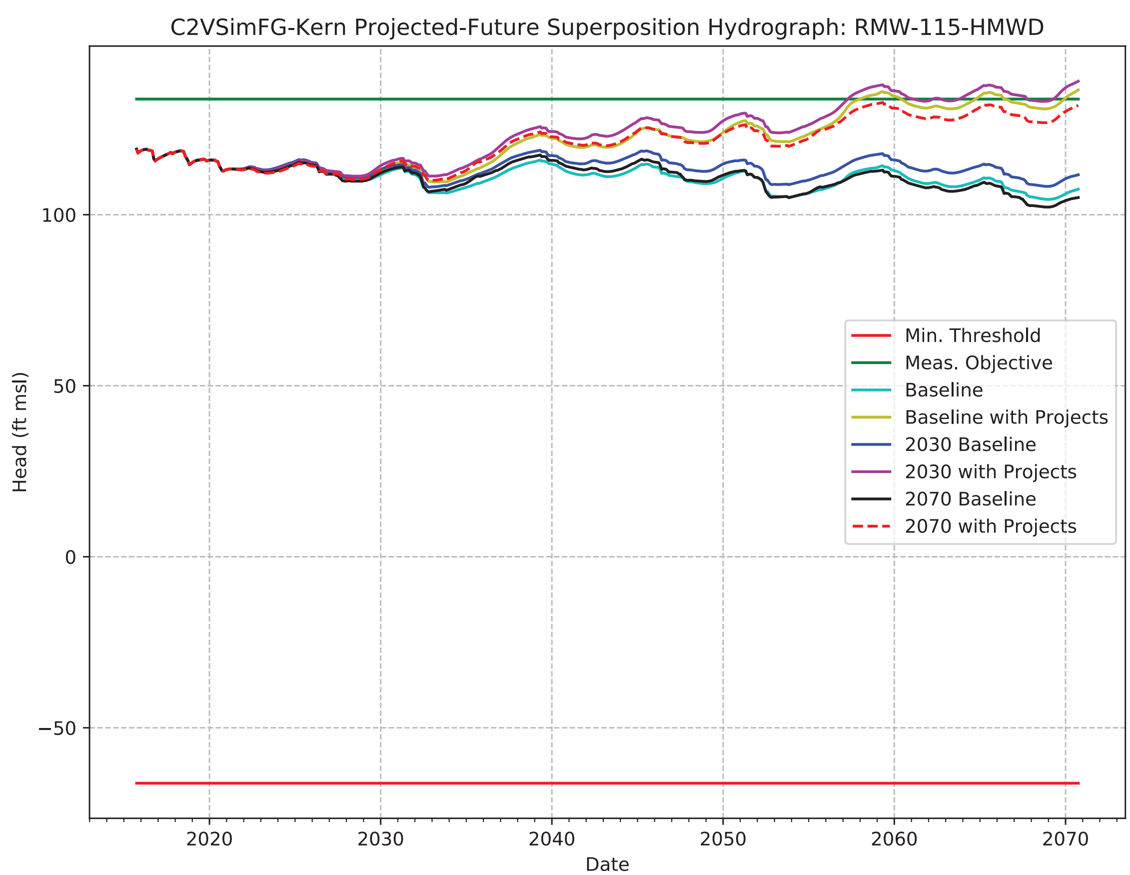
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-115-HMWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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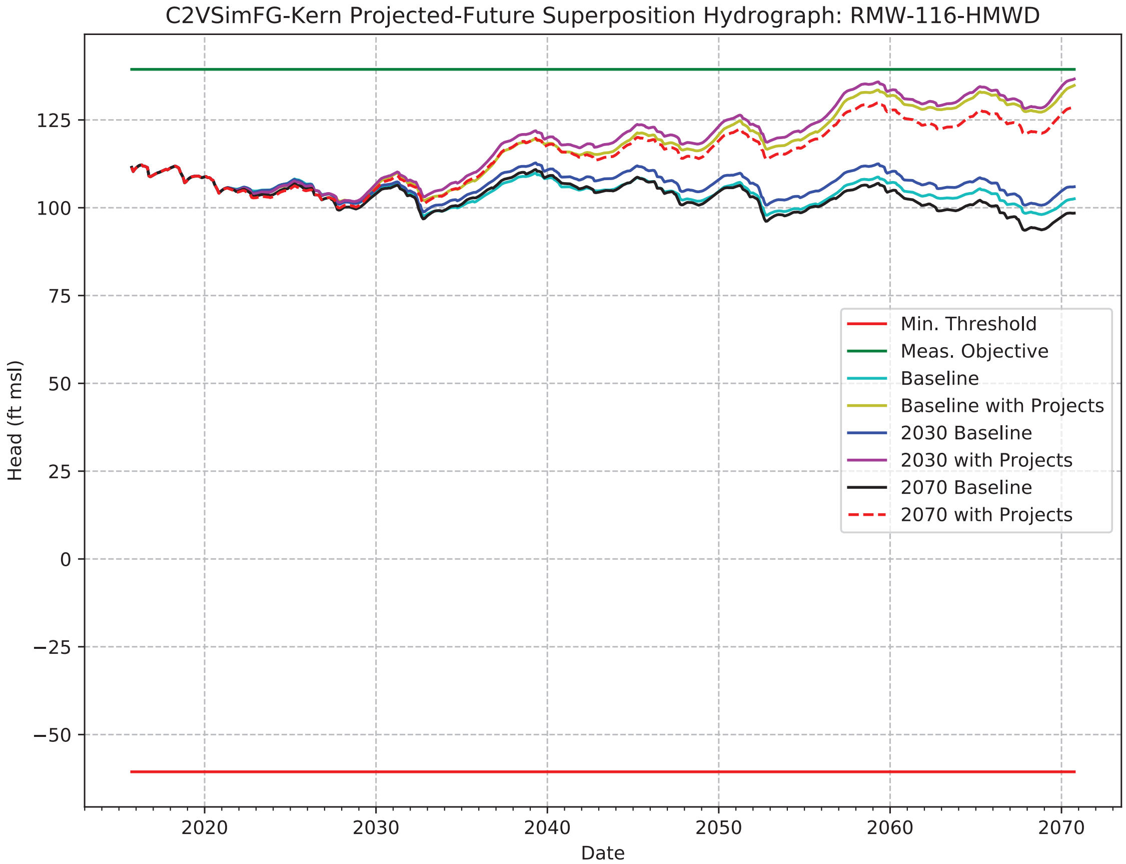
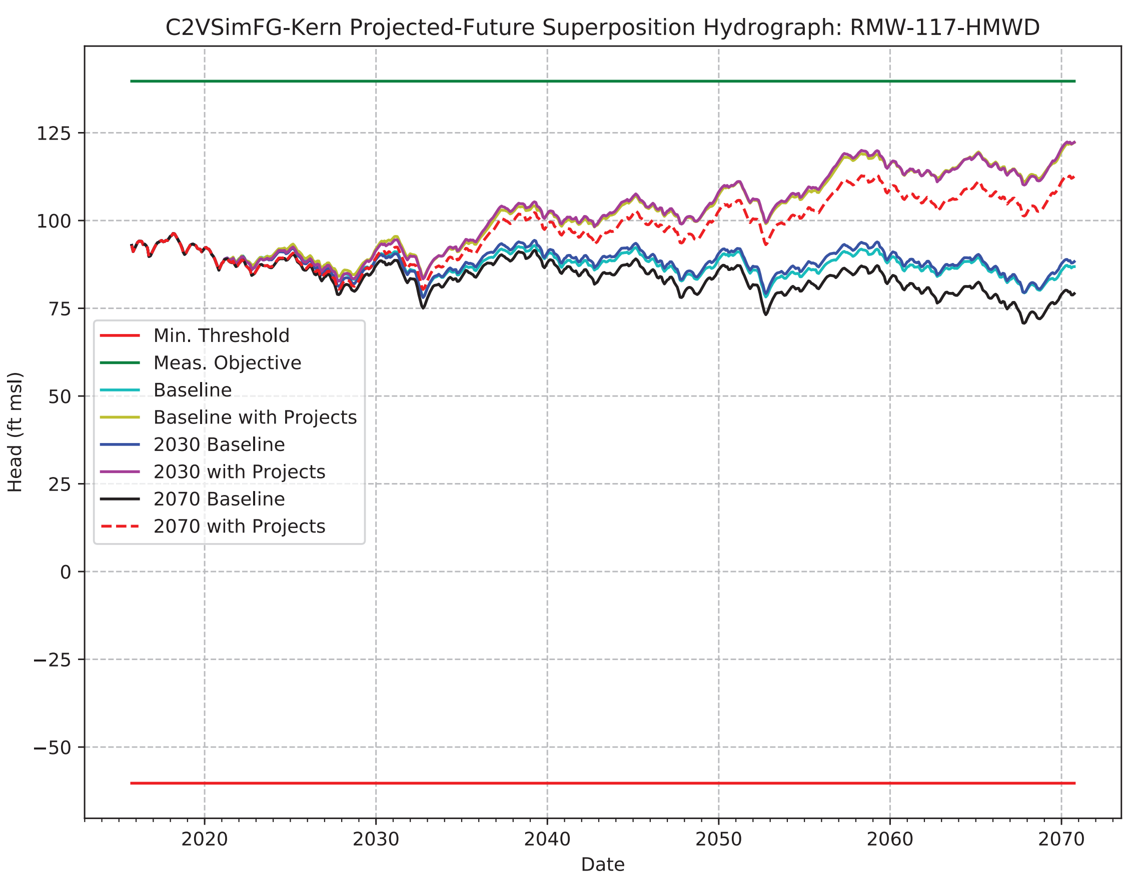


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-116-HMWD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-117-HMWD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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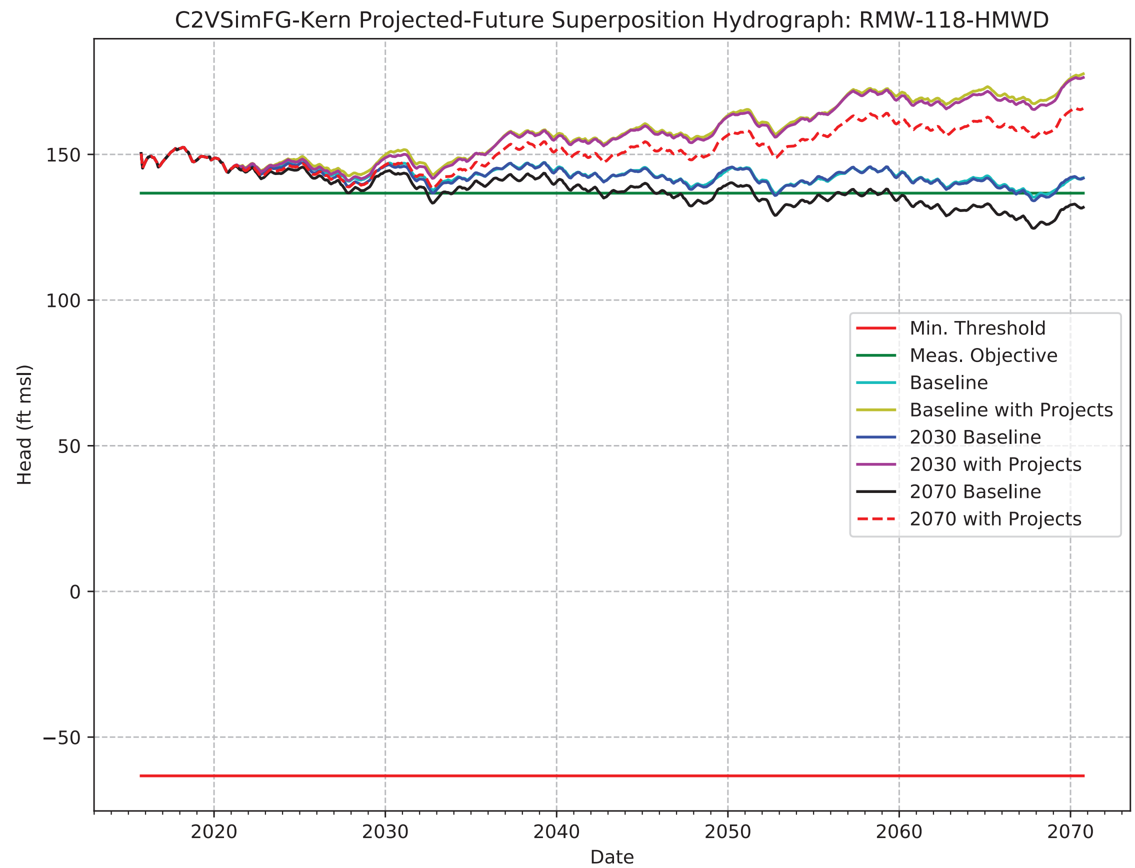
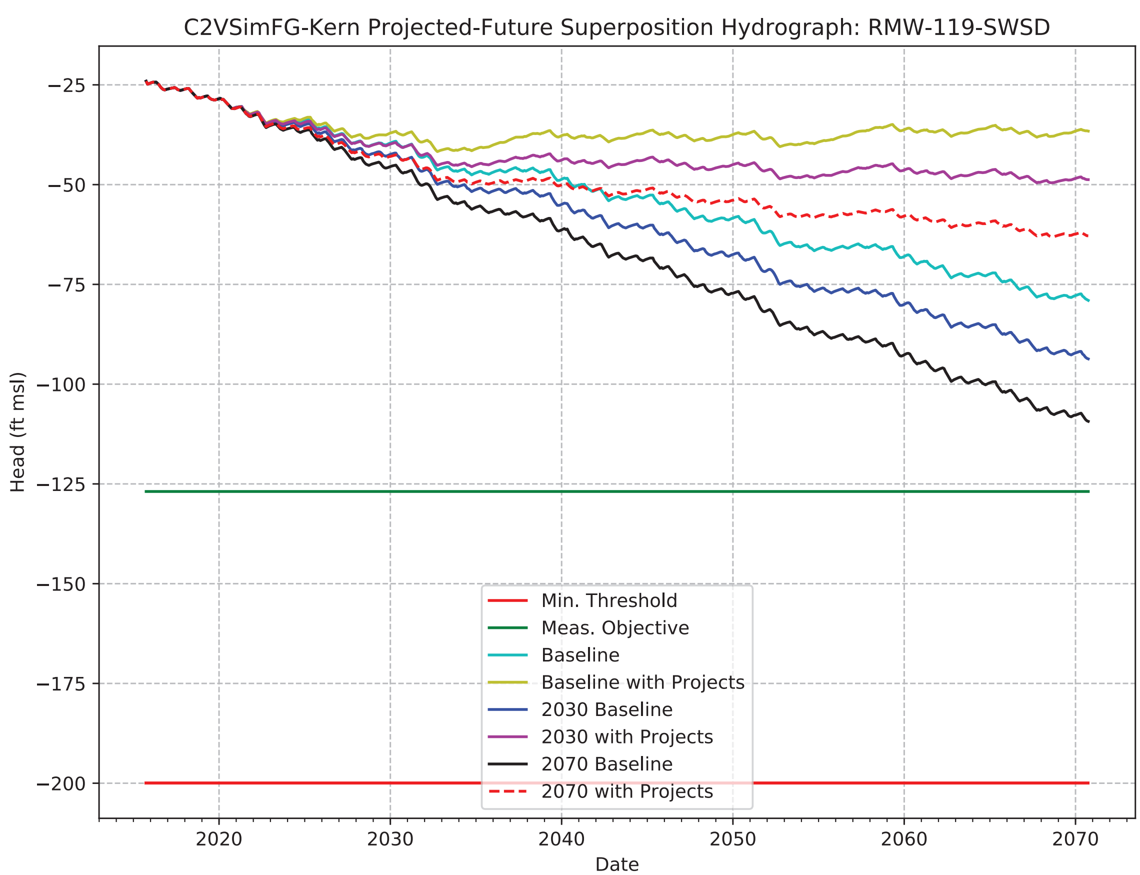
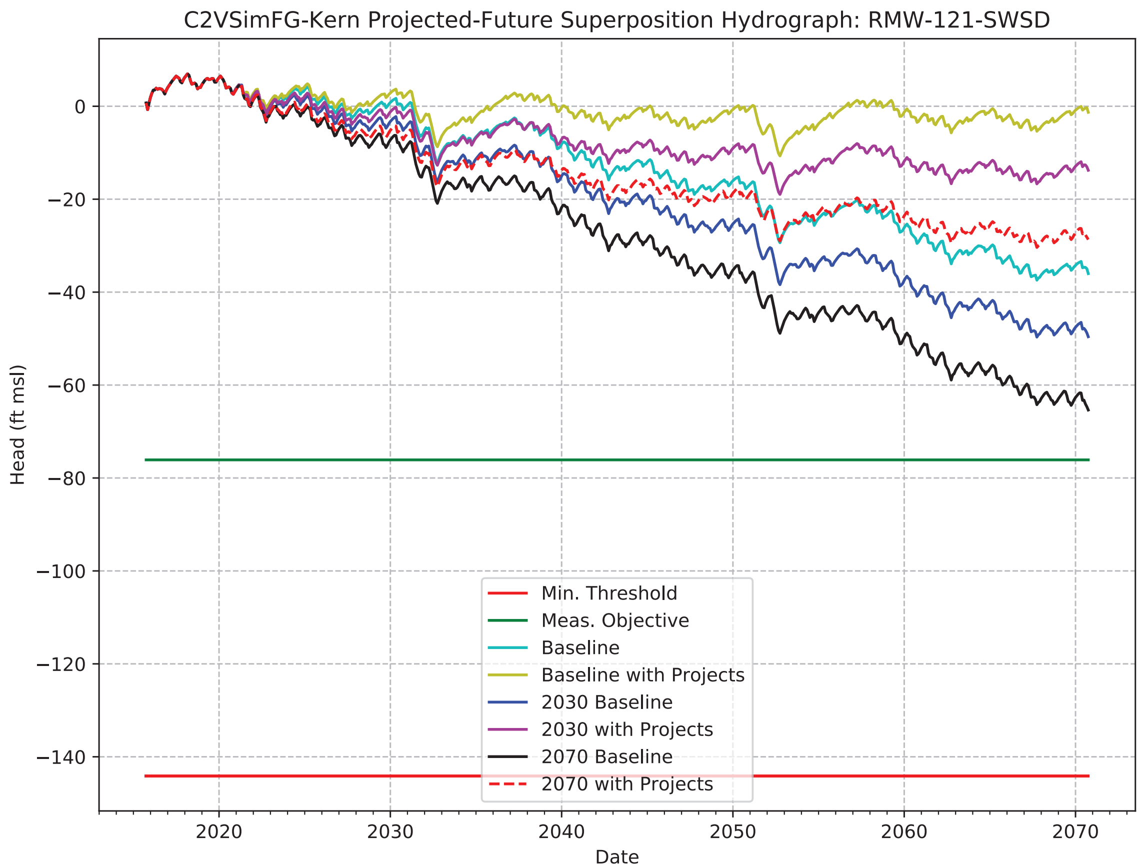
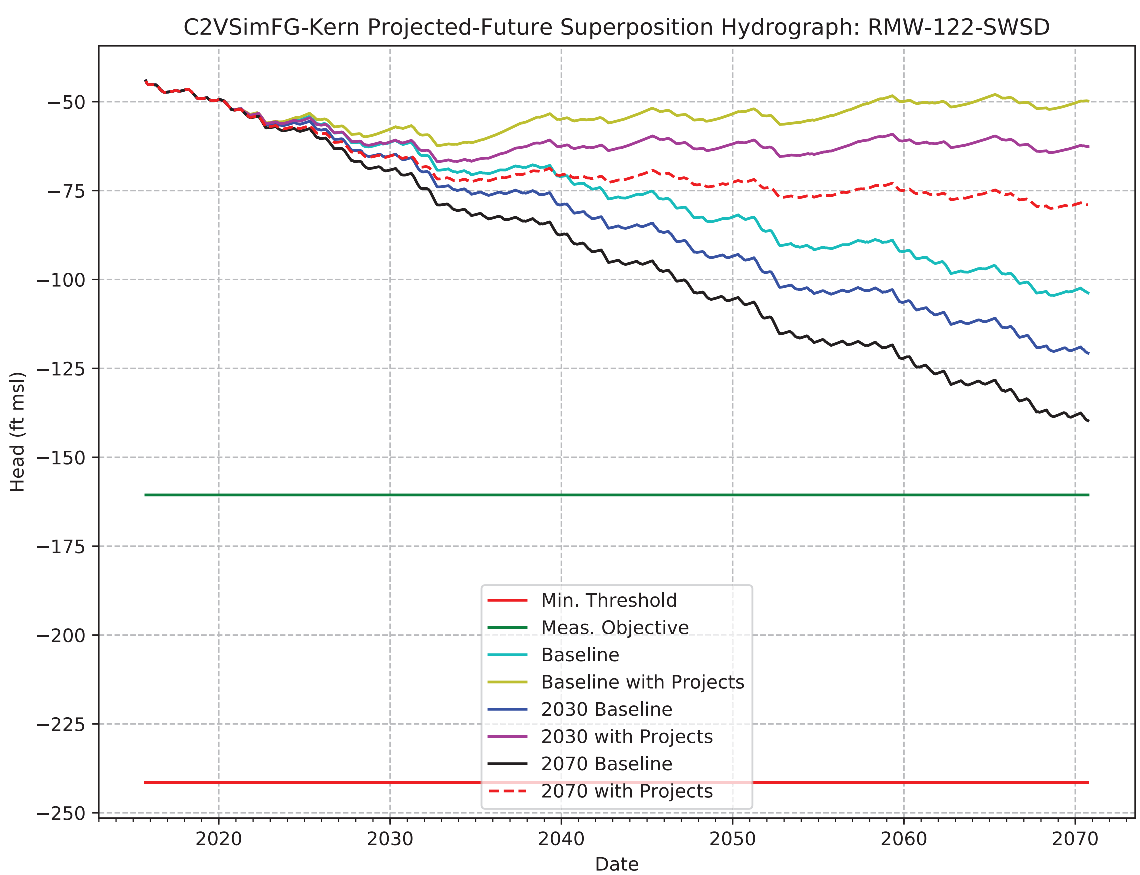
2070 with Projects
Head (ft msl)
Date


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-118-HMWD
Head (ft msl)
150
100
50
0
−50
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-119-SWSD
Head (ft msl)
−25
−50
−75
−100
−125
−150
−175
−200
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-121-SWSD
Head (ft msl)
0
−20
−40
−60
−80
−100
−120
−140
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-122-SWSD
Head (ft msl)
−50
−75
−100
−125
−150
−175
−200
−225
−250
2020
2030
2040
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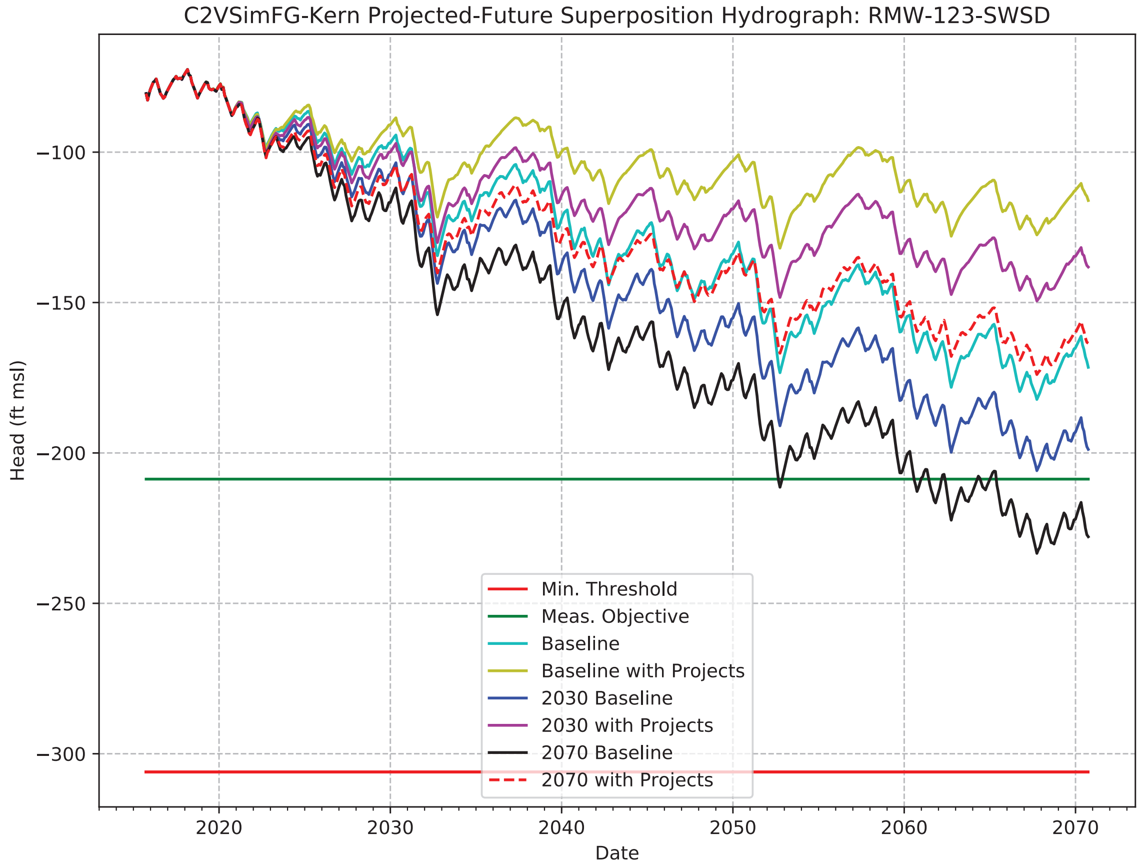
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-123-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
2020
2030
2040
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Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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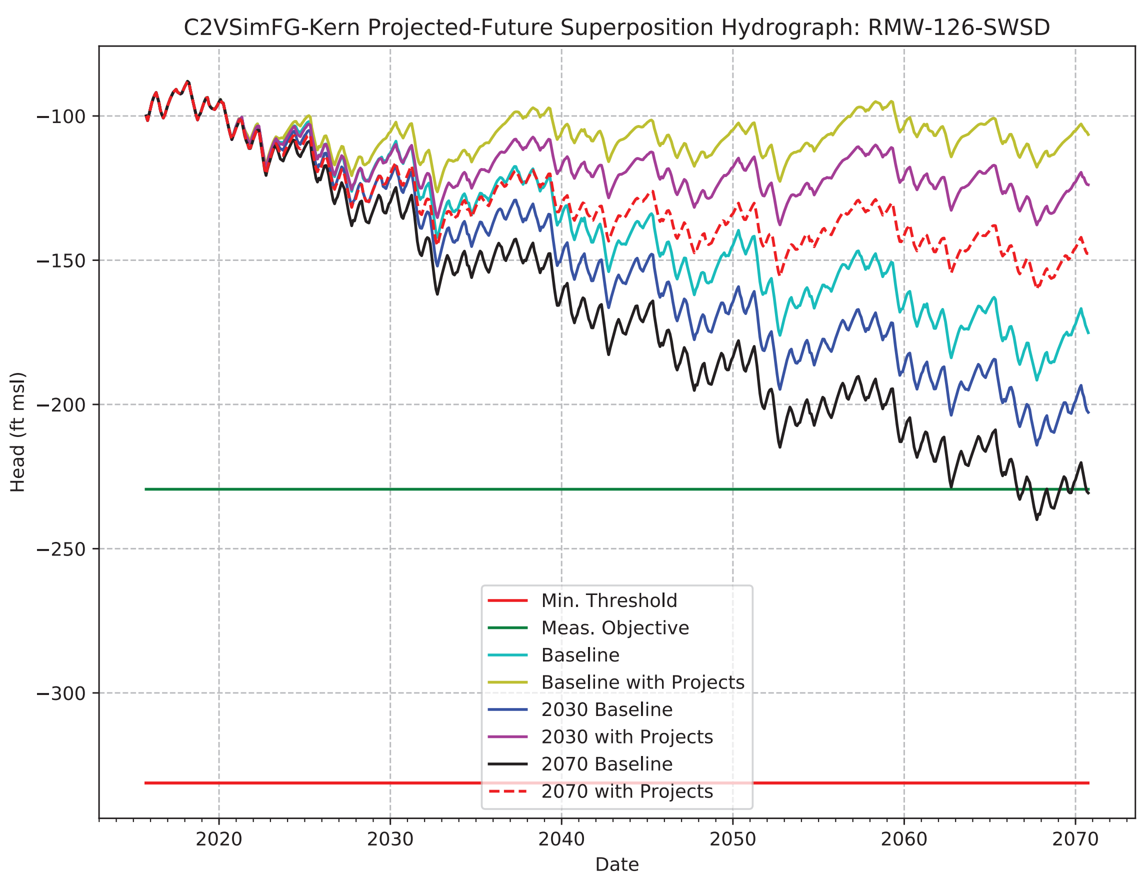
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-126-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
2020
2030
2040
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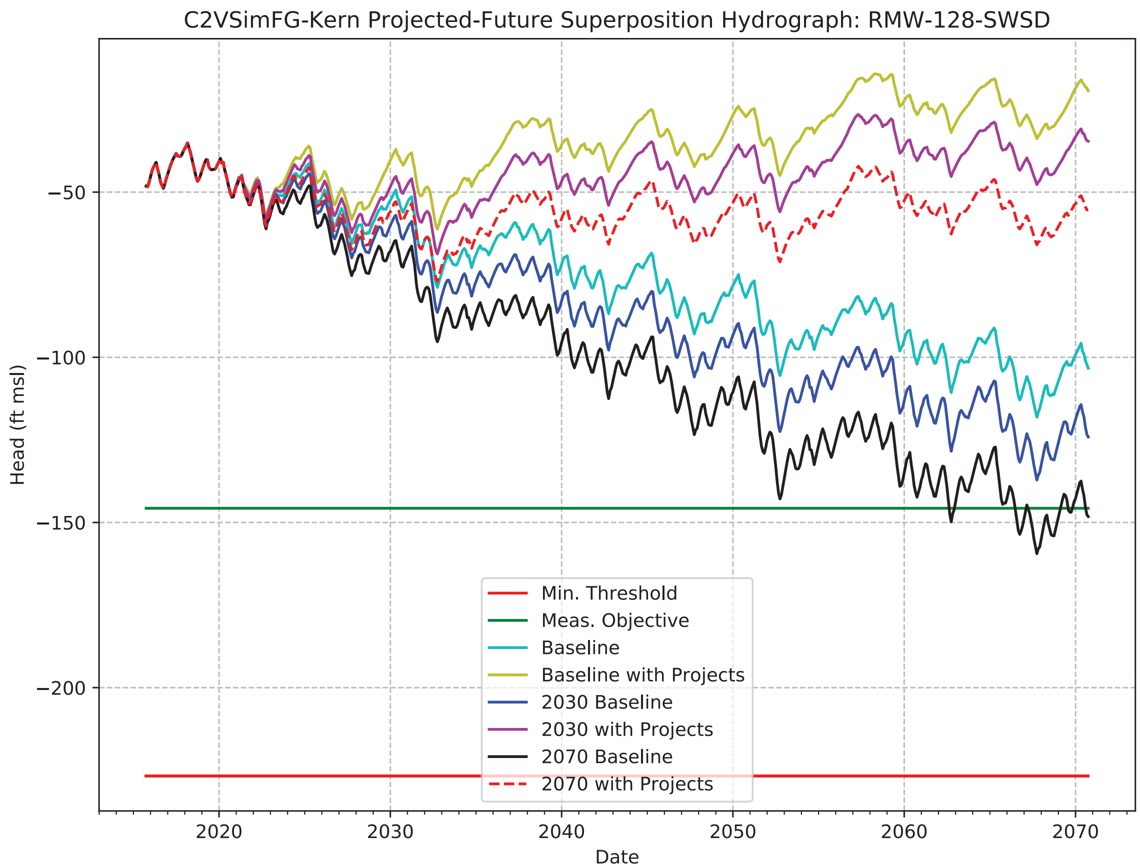
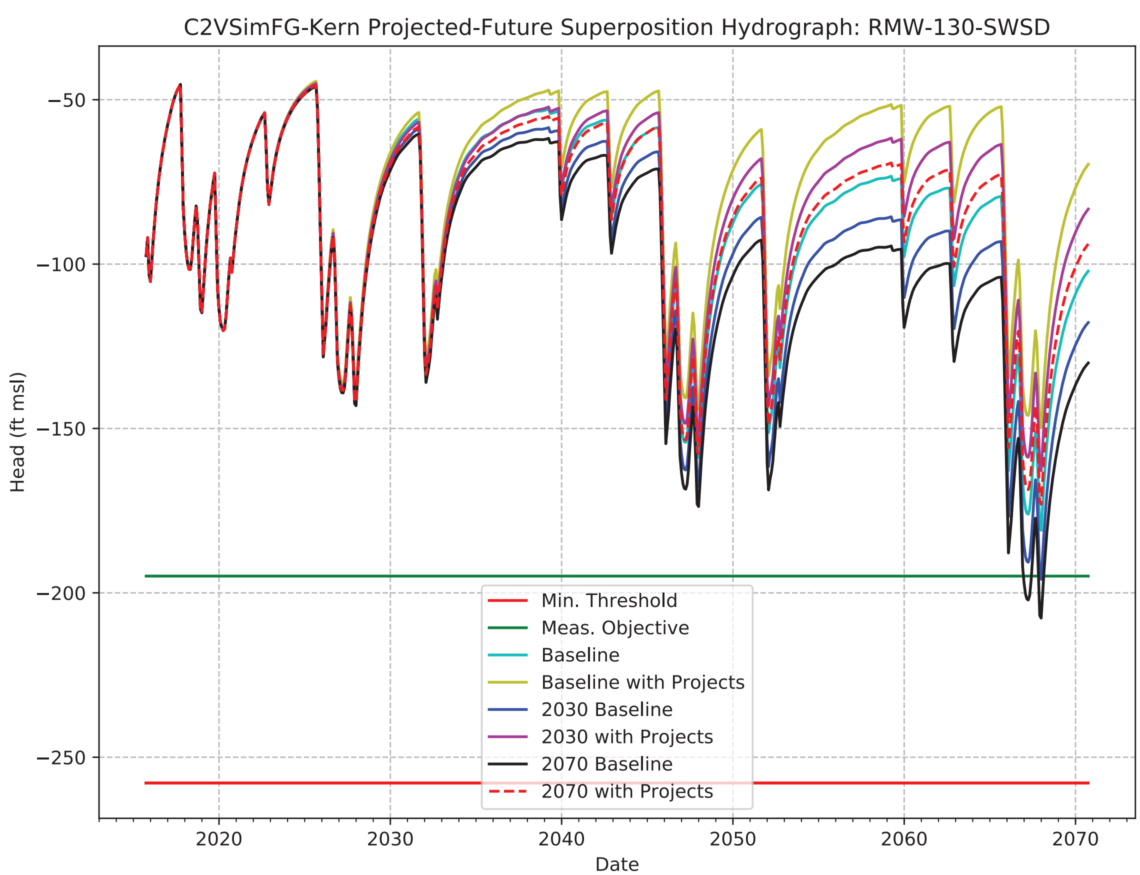
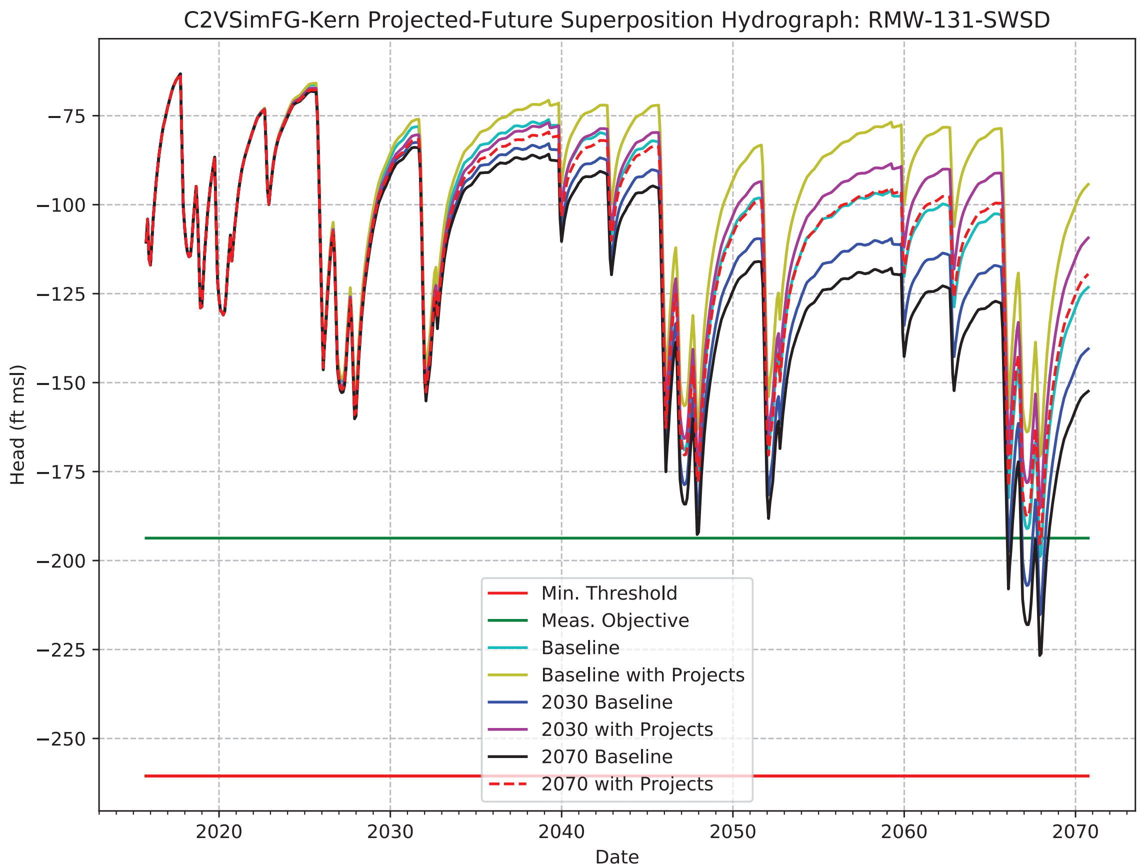
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-128-SWSD
Head (ft msl)
−50
−100
−150
−200
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-130-SWSD
Head (ft msl)
−50
−100
−150
−200
−250
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-131-SWSD
Head (ft msl)
−75
−100
−125
−150
−175
−200
−225
−250
Date
2020
2030
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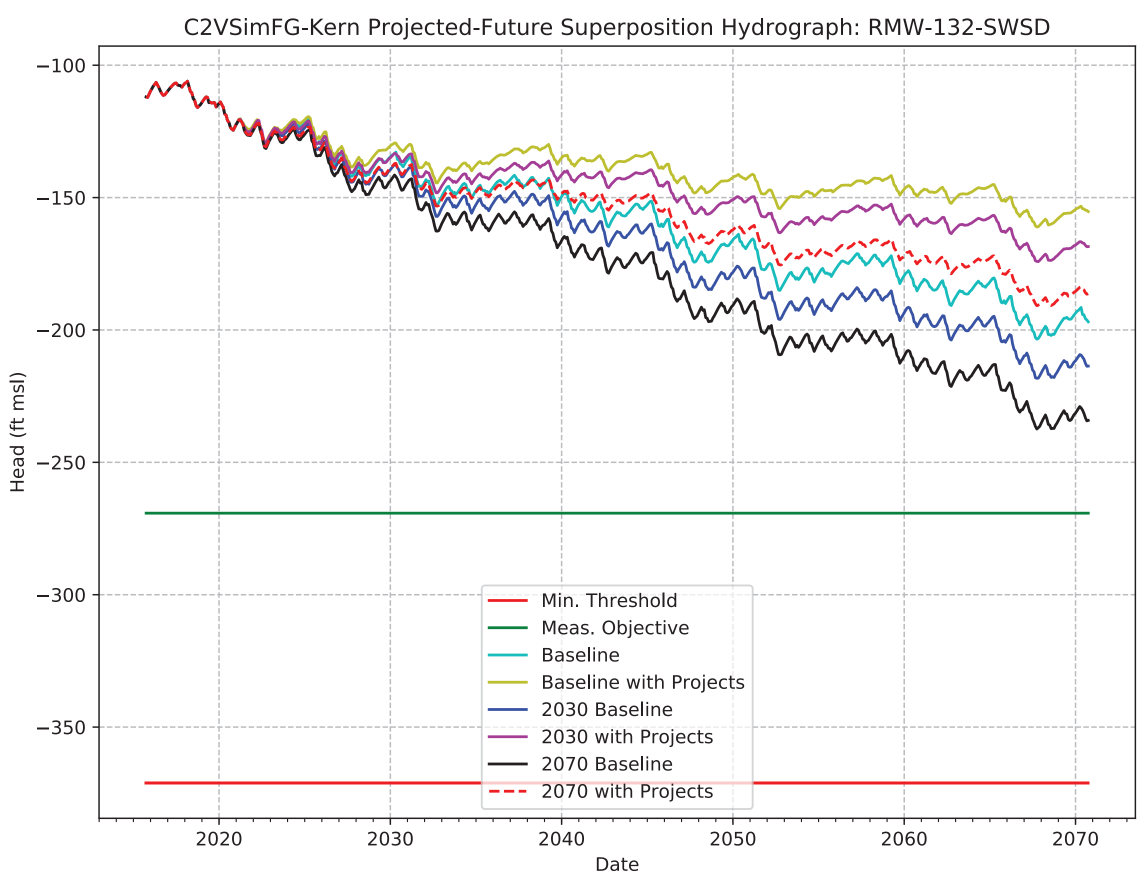
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-132-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
−350
Date
2020
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Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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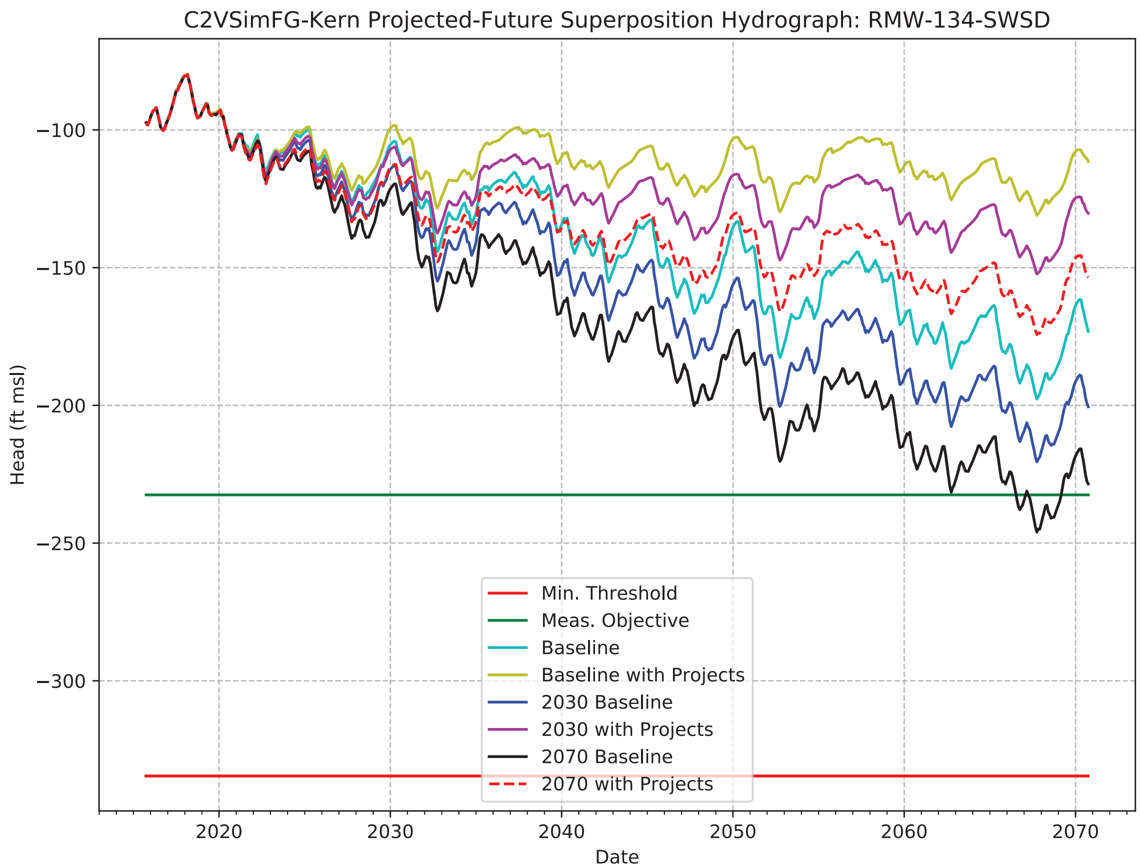
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-134-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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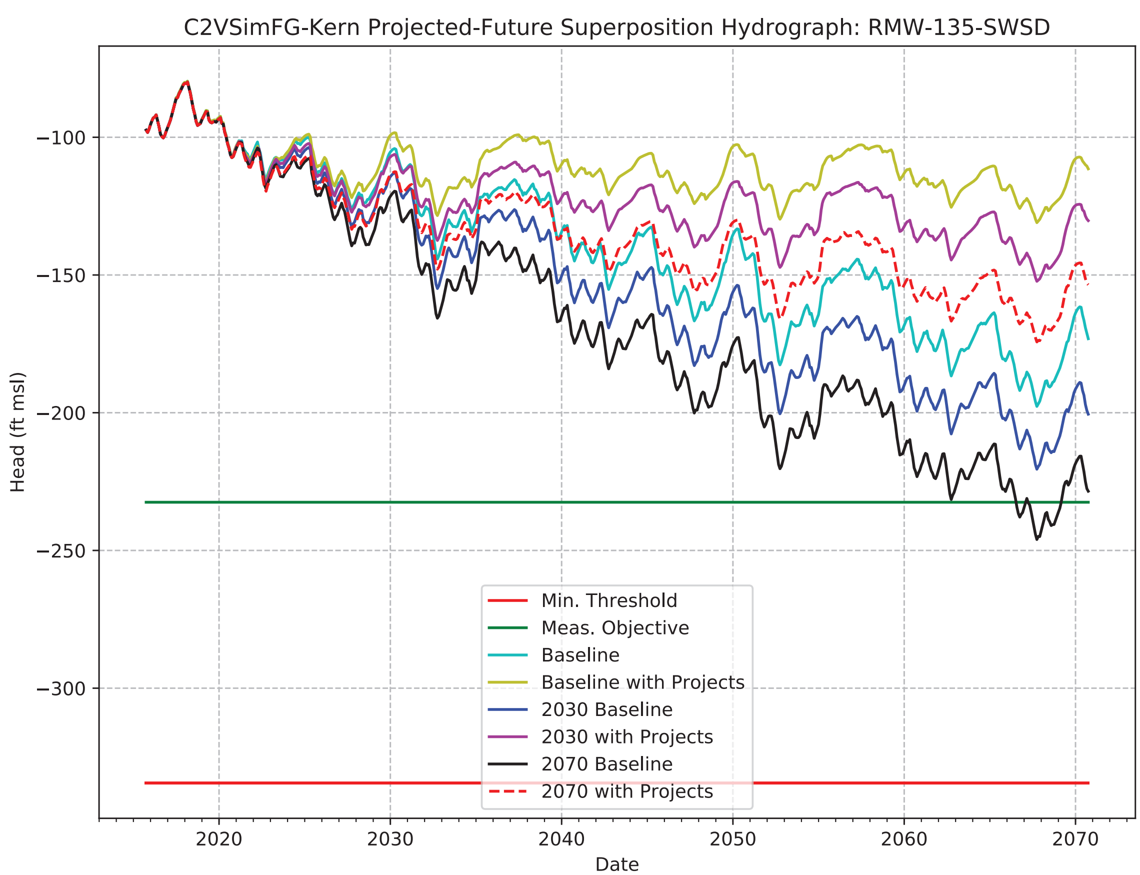
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-135-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
2020
2030
2040
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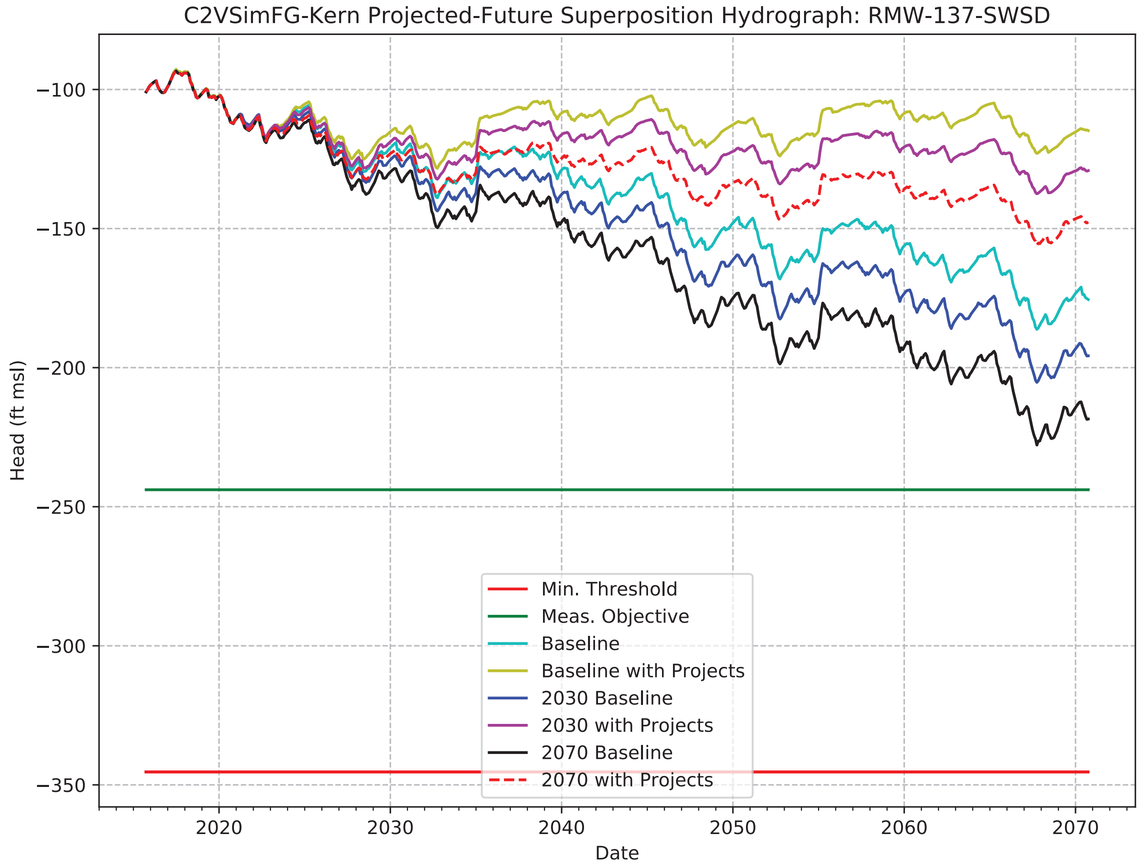
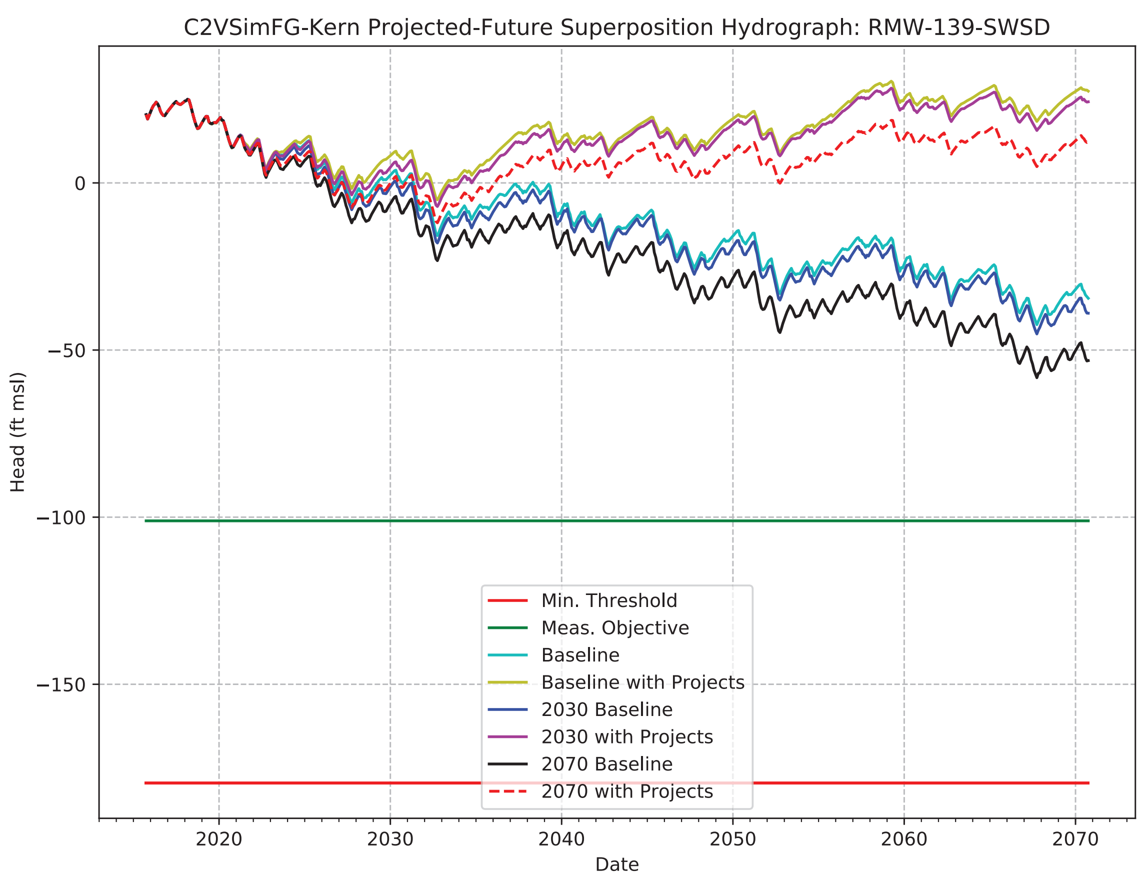
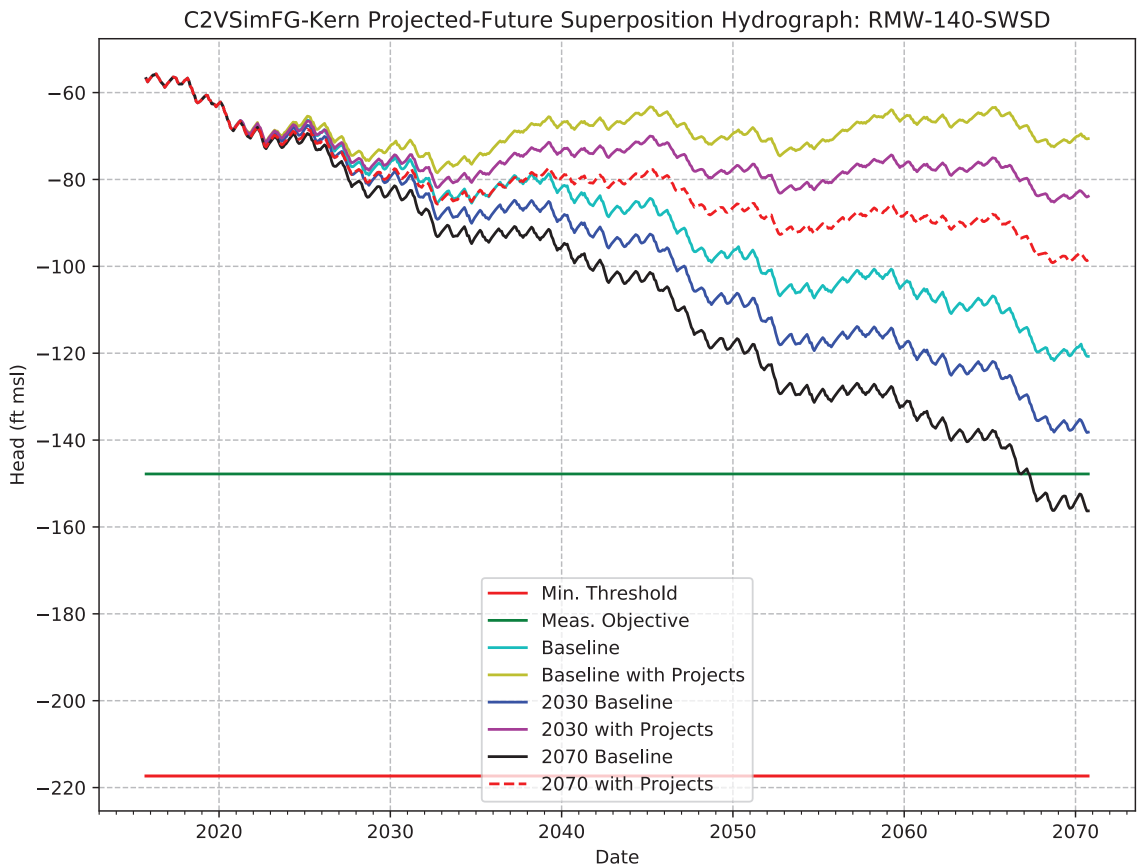
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-137-SWSD
Head (ft msl)
−100
−150
−200
−250
−300
−350
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-139-SWSD
Head (ft msl)
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-140-SWSD
Head (ft msl)
−60
−80
−100
−120
−140
−160
−180
−200
−220
2020
2030
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Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
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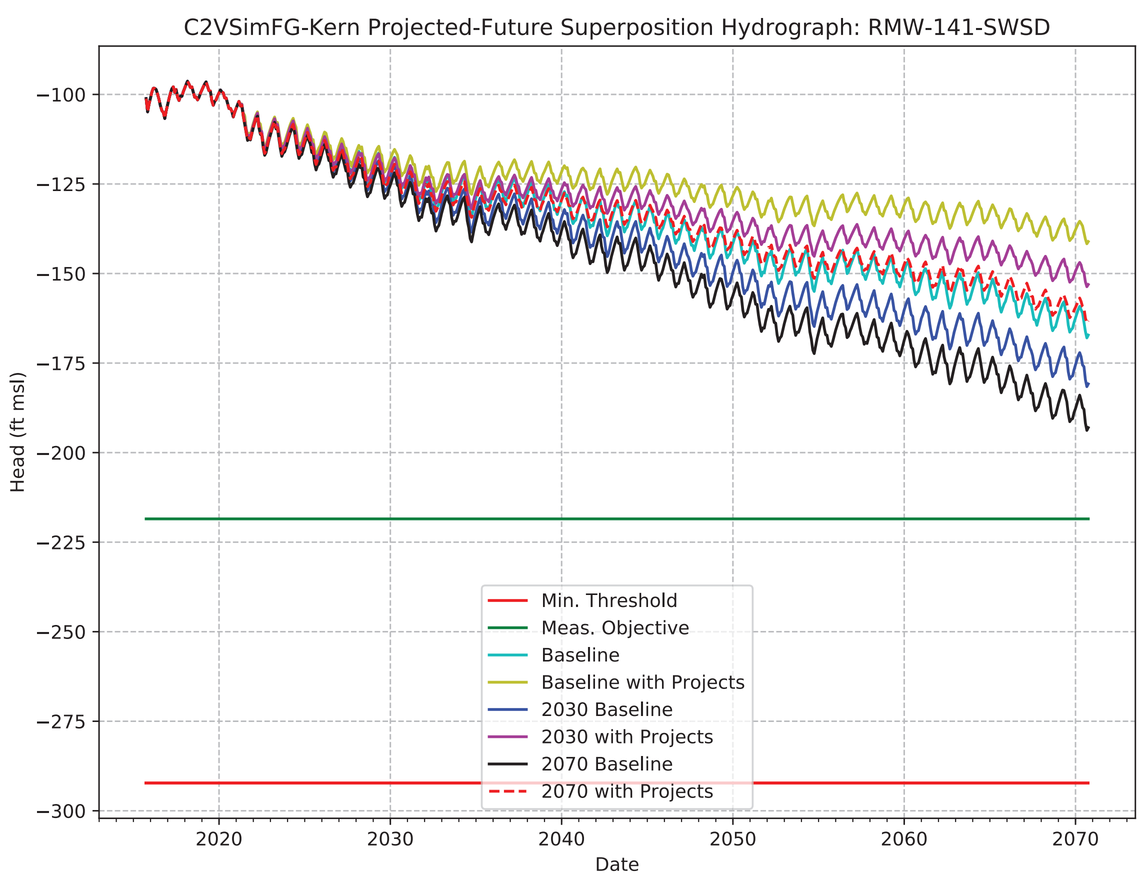
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-141-SWSD
Head (ft msl)
−100
−125
−150
−175
−200
−225
−250
−275
−300
2020
2030
2040
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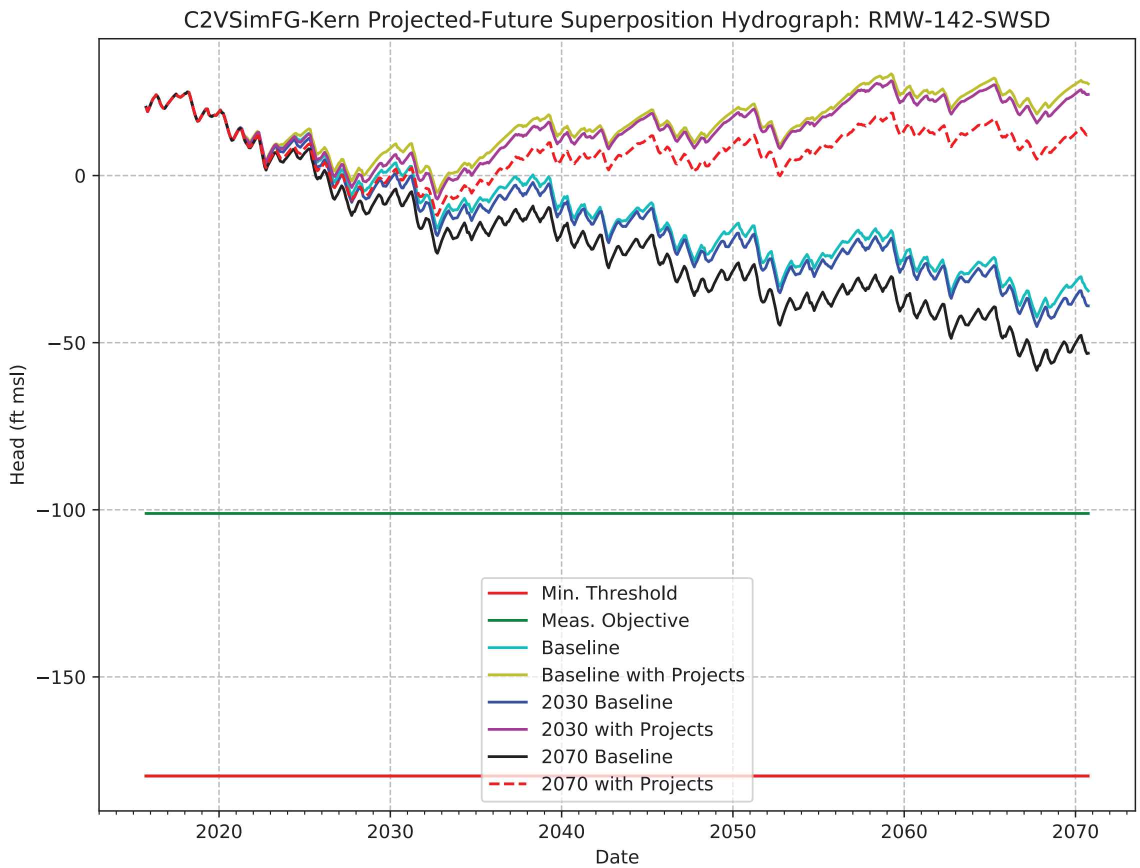
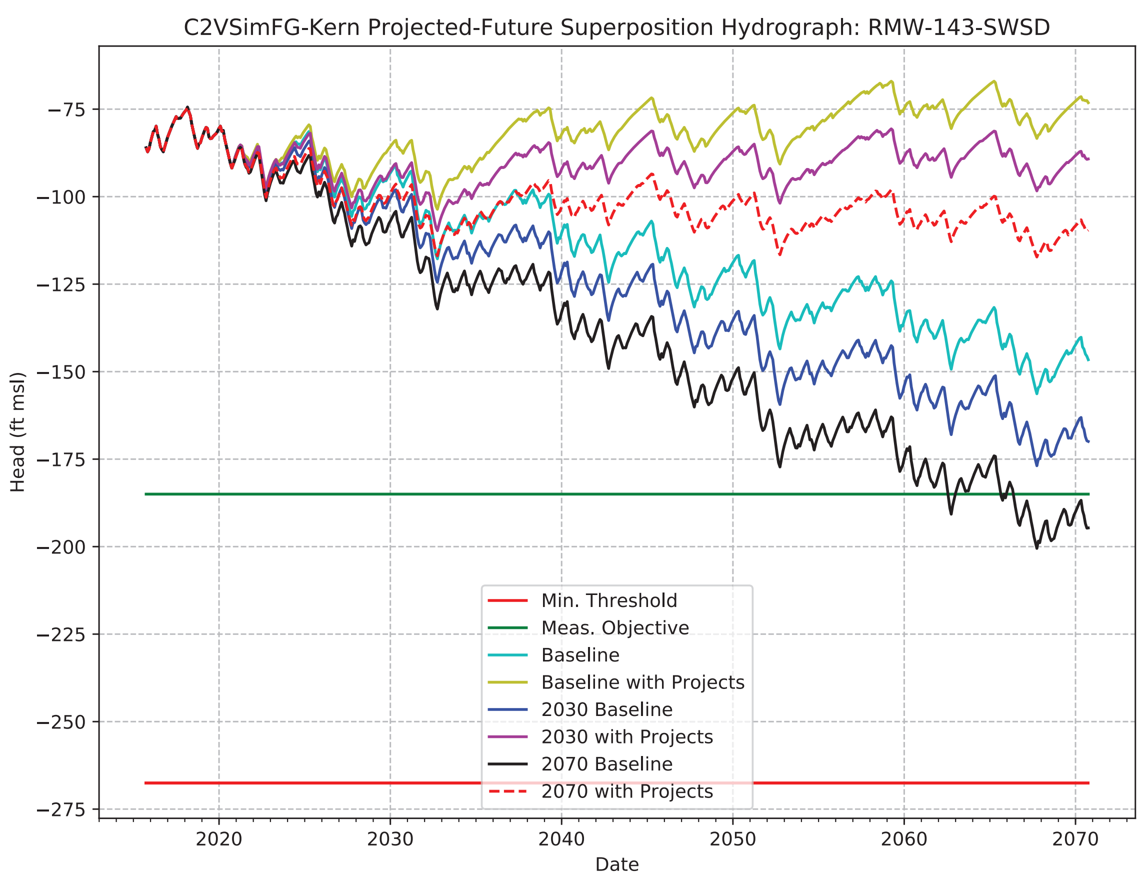
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-142-SWSD
Head (ft msl)
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-143-SWSD
Head (ft msl)
−75
−100
−125
−150
−175
−200
−225
−250
−275
2020
2030
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2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
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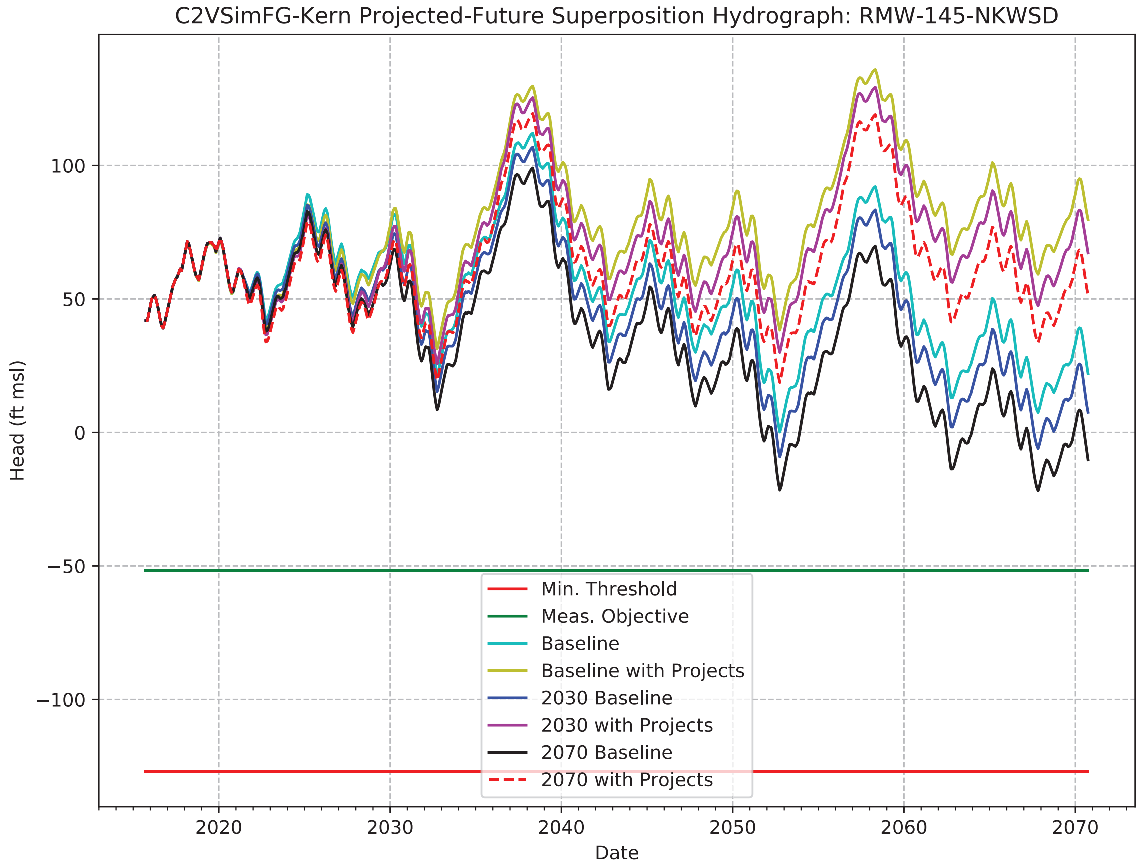
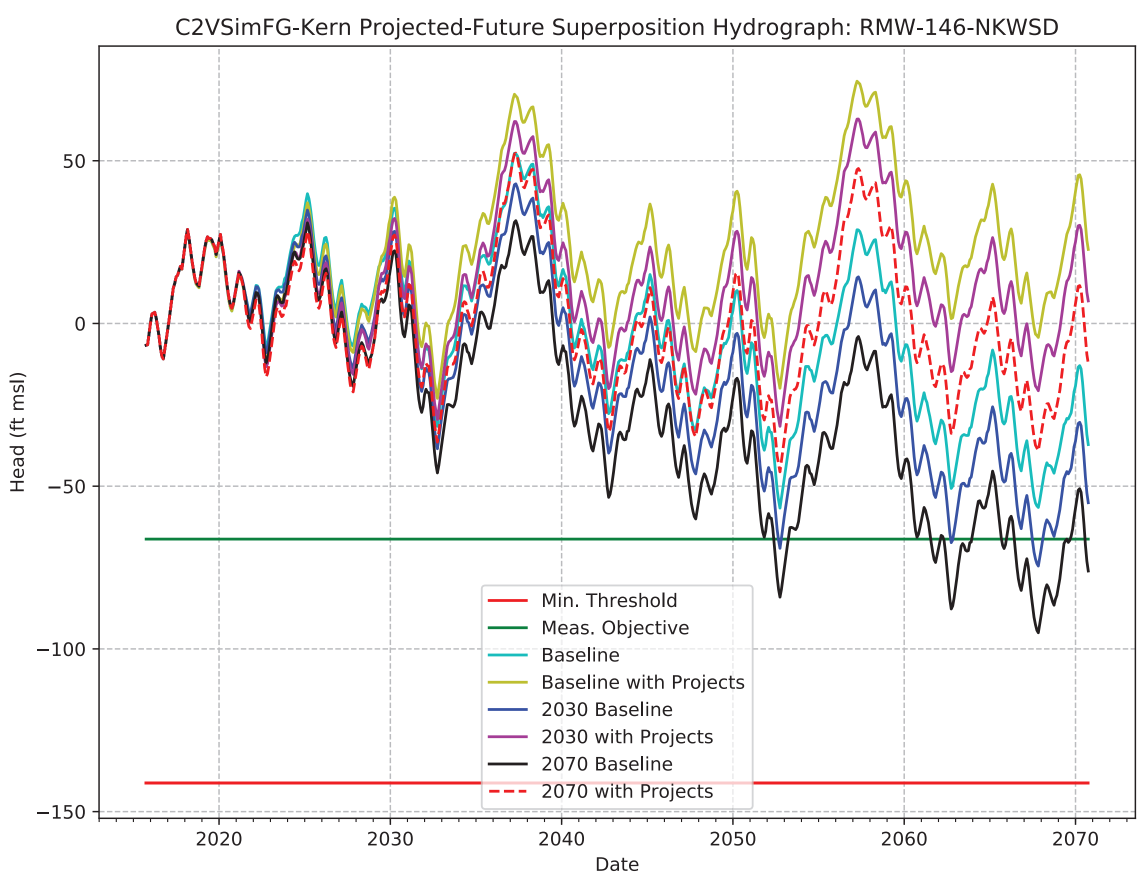
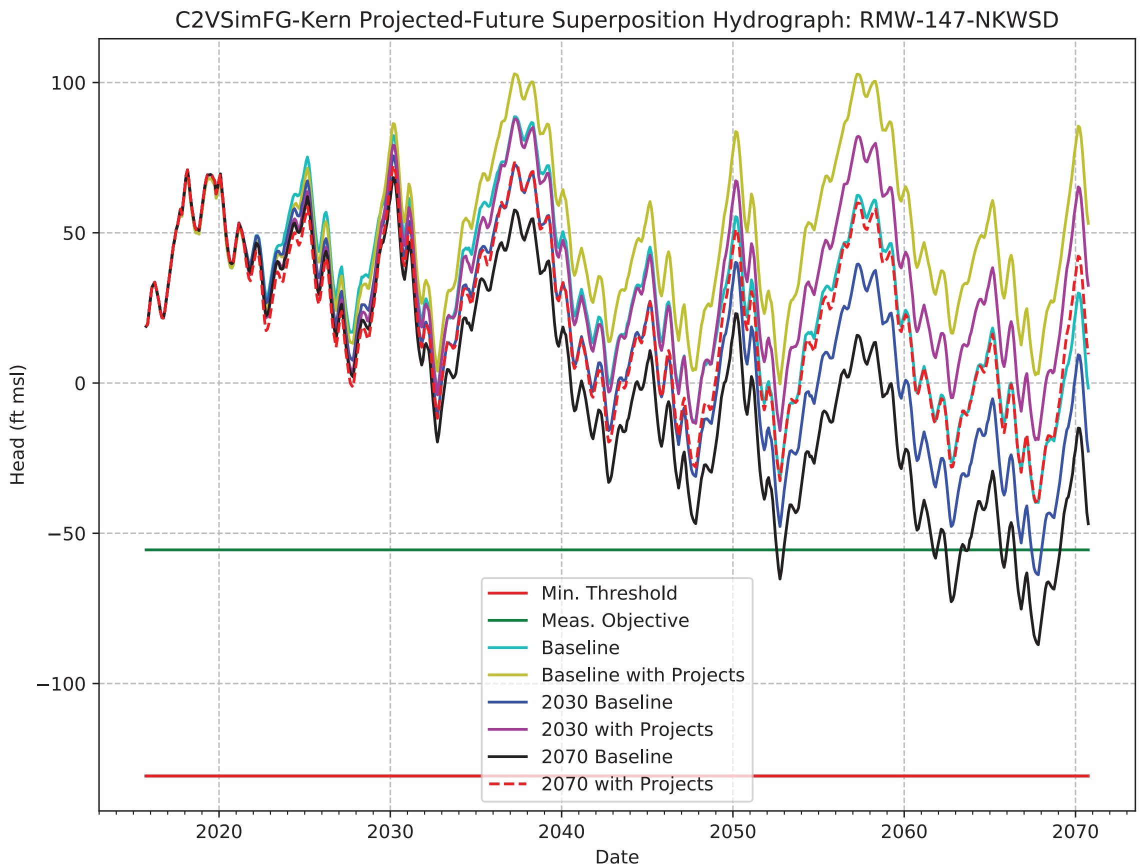
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-145-NKWSD
Head (ft msl)
Date
100
50
0
−50
−100
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-146-NKWSD
Head (ft msl)
Date
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-147-NKWSD
Head (ft msl)
100
50
0
−50
−100
2020
2030
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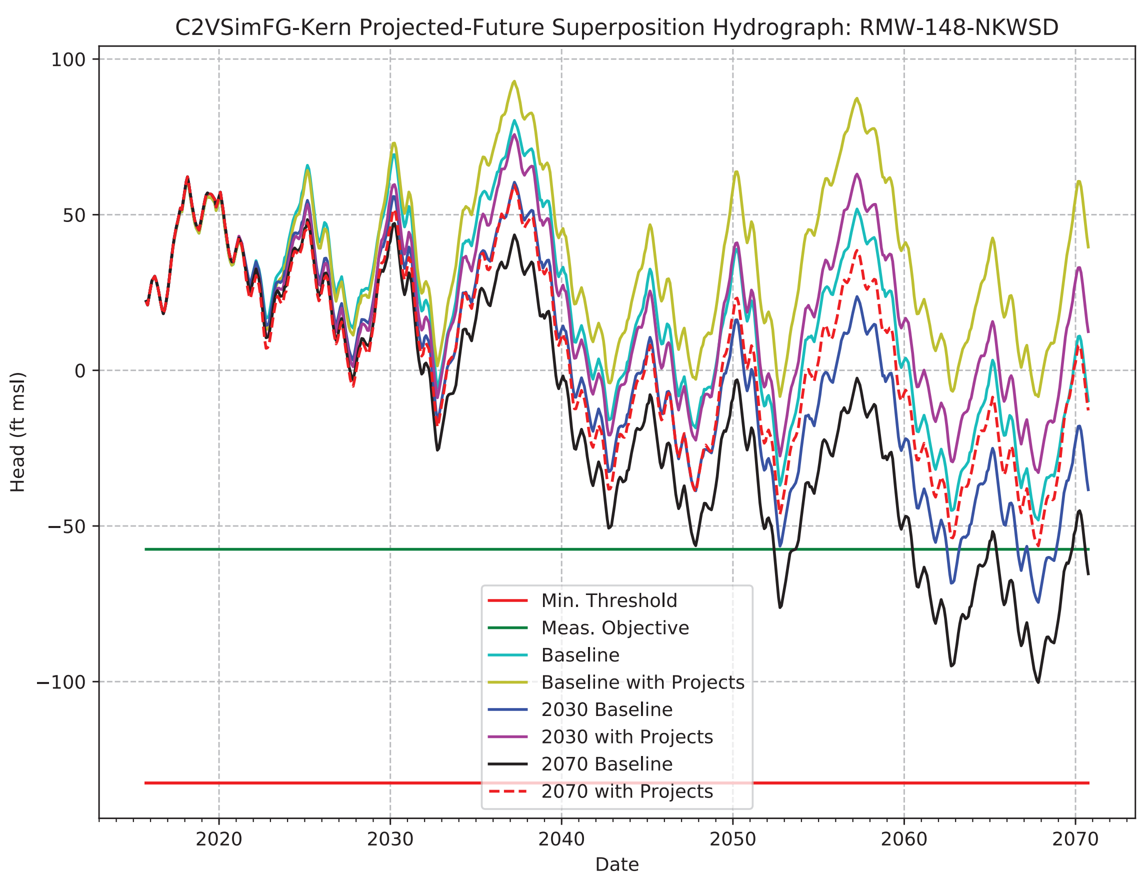
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-148-NKWSD
Head (ft msl)
100
50
0
−50
−100
2020
2030
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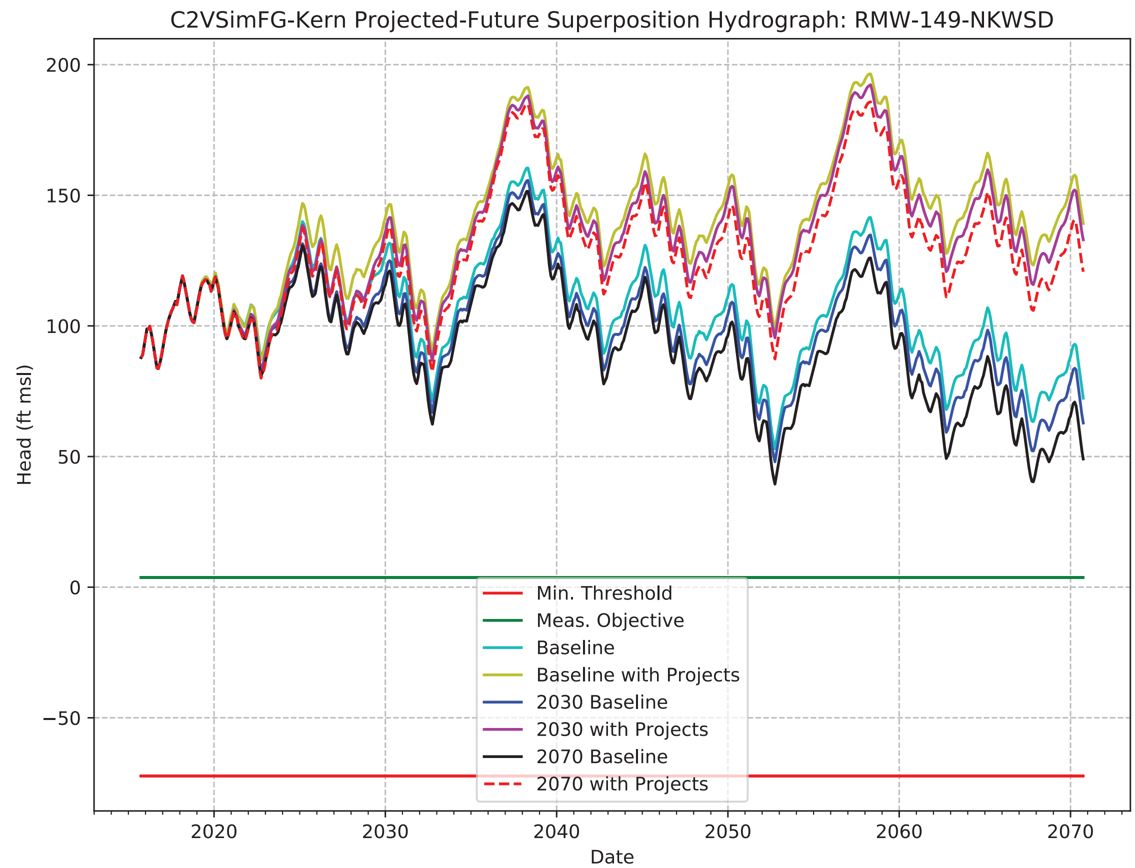
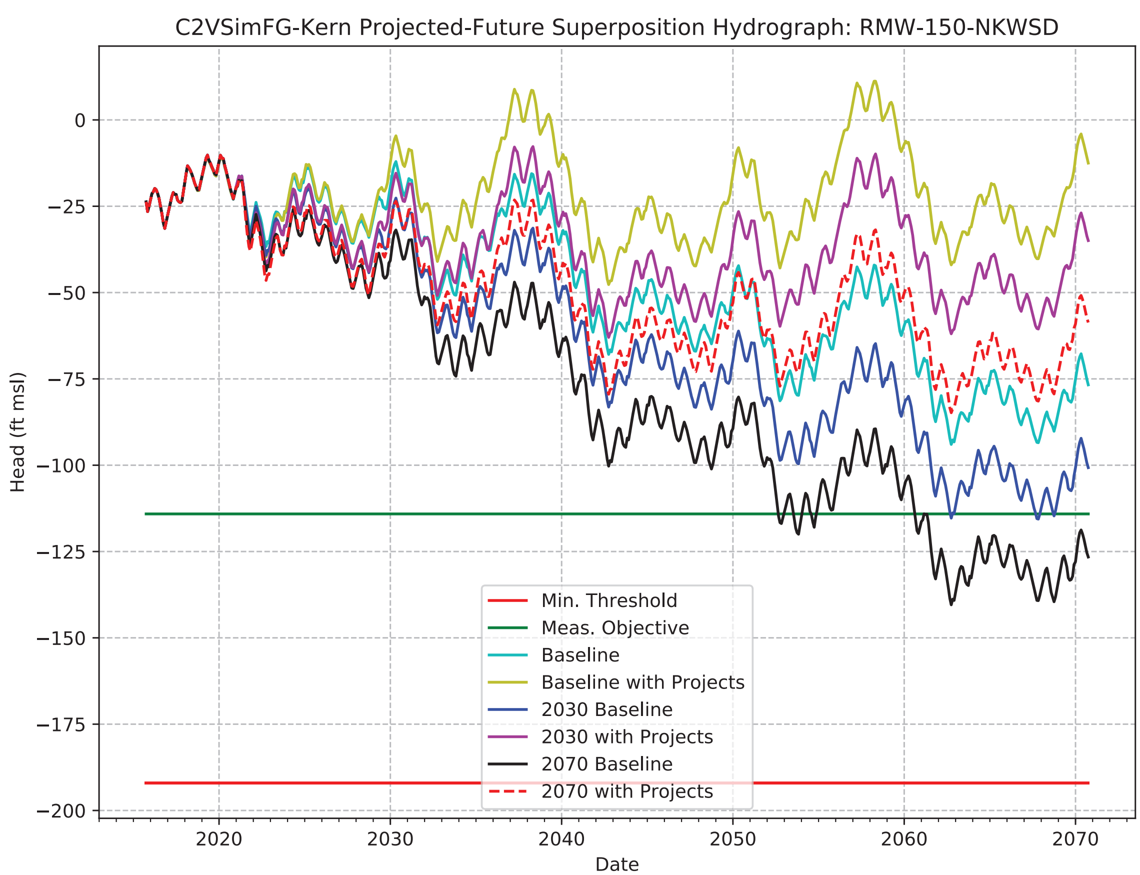
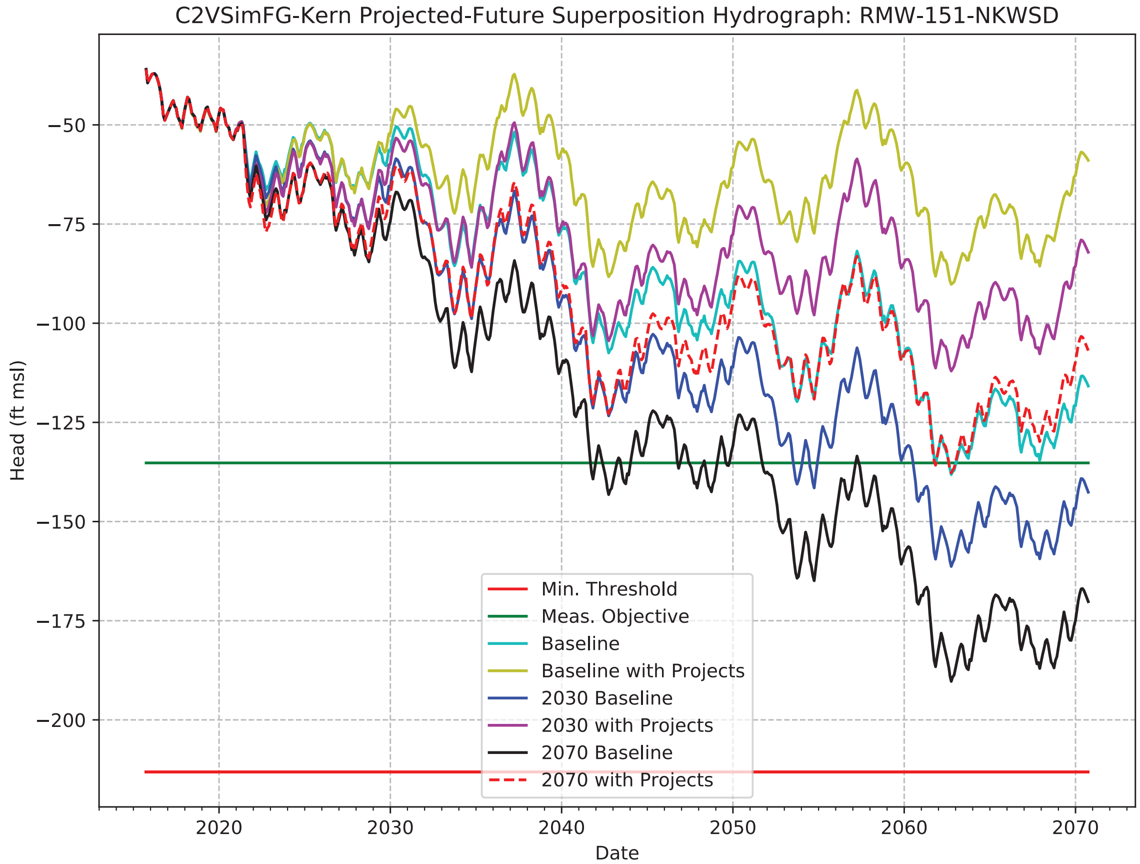
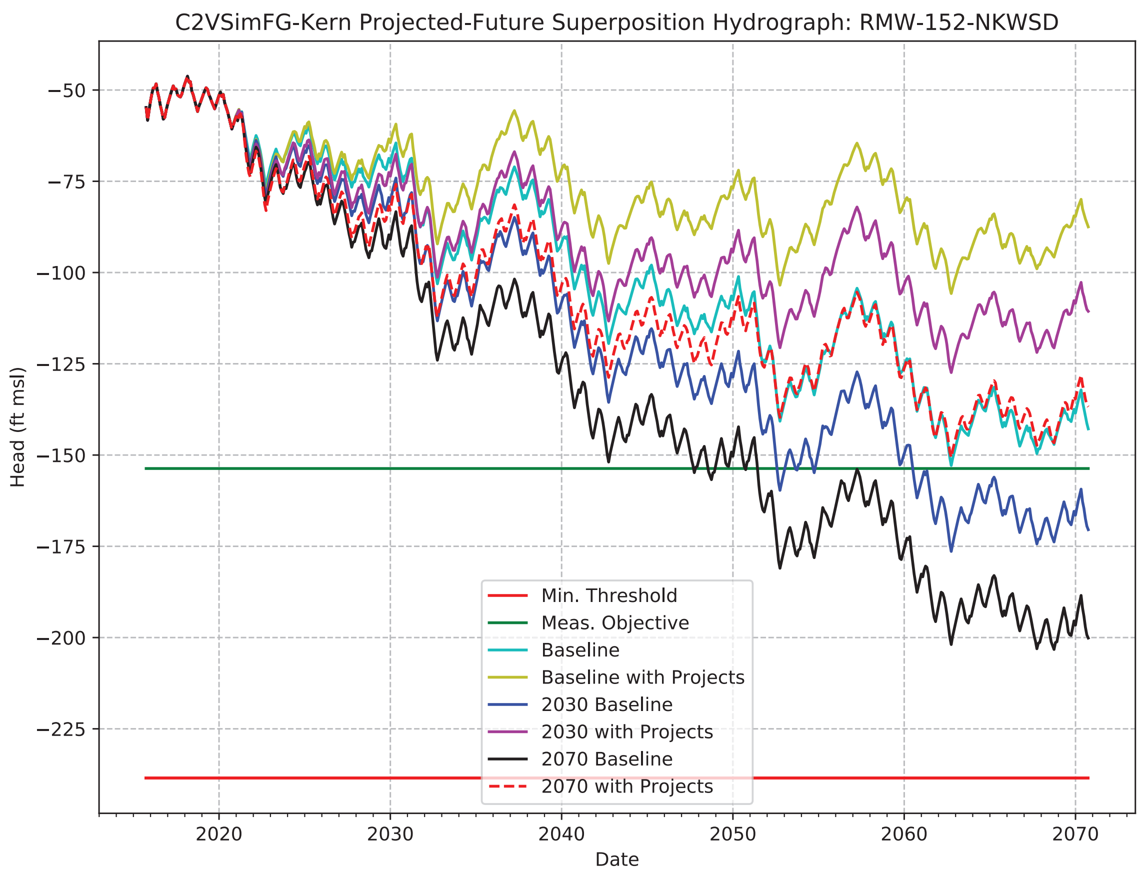
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-149-NKWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-150-NKWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-151-NKWSD
Head (ft msl)
−50
−75
−100
−125
−150
−175
−200
Date
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-152-NKWSD
Head (ft msl)
−50
−75
−100
−125
−150
−175
−200
−225
Date
2020
2030
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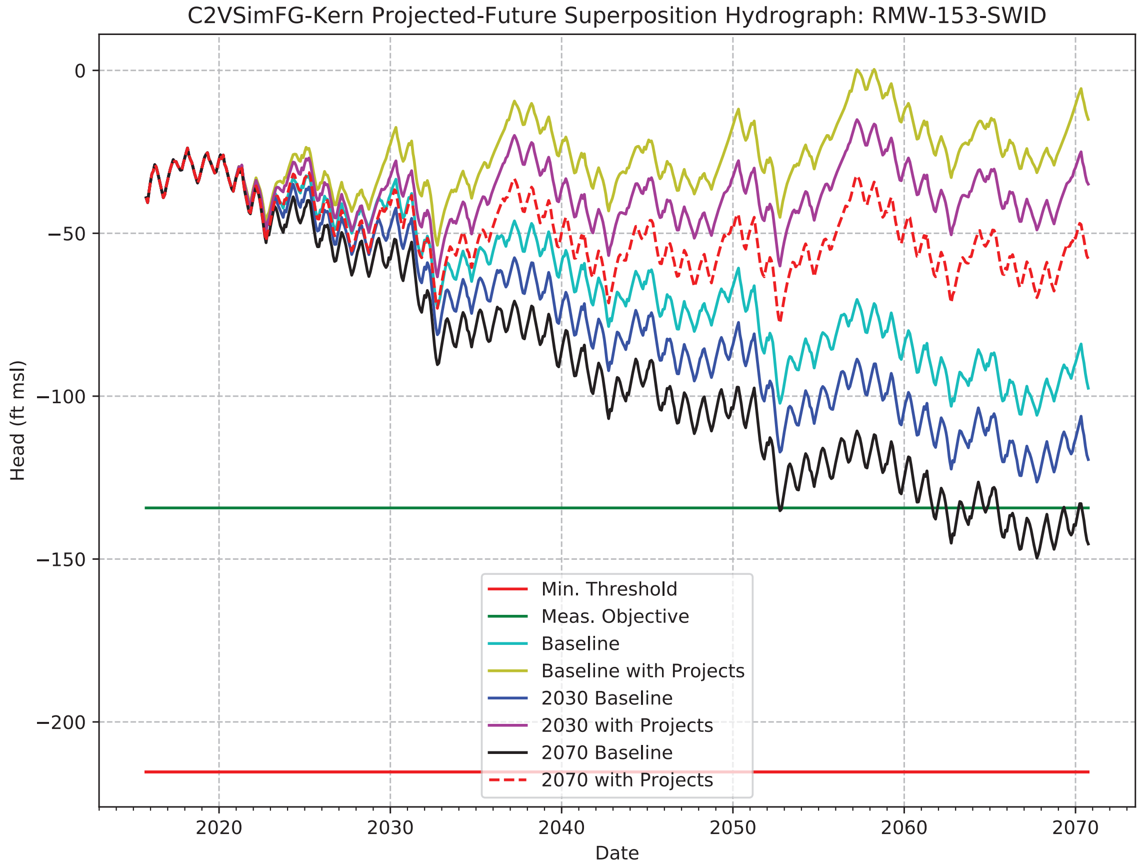
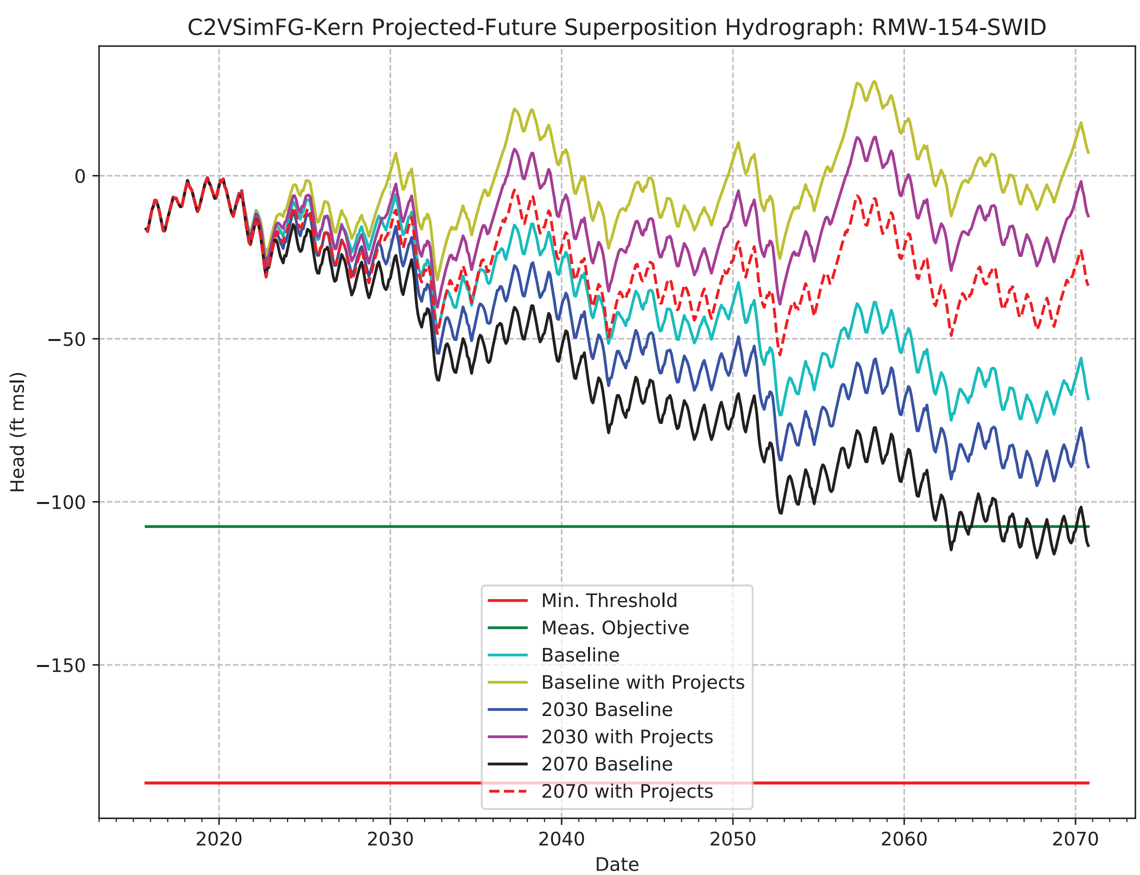
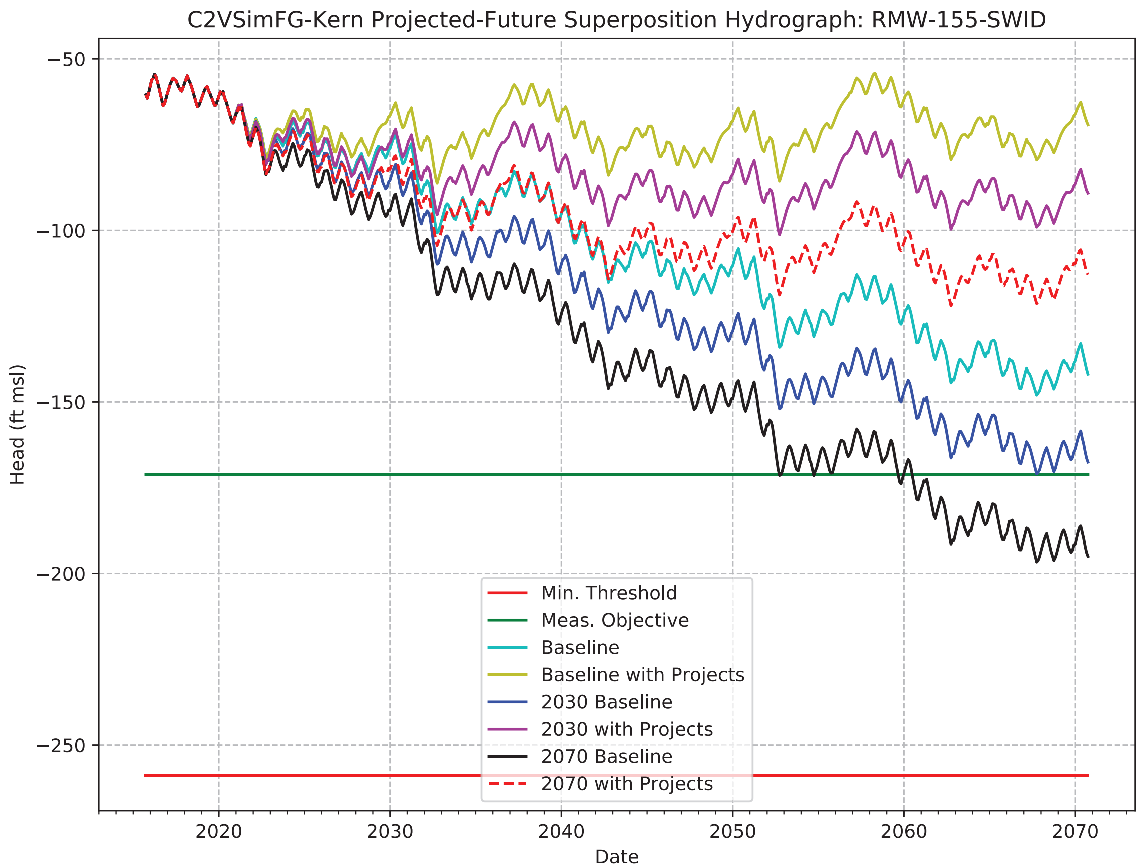
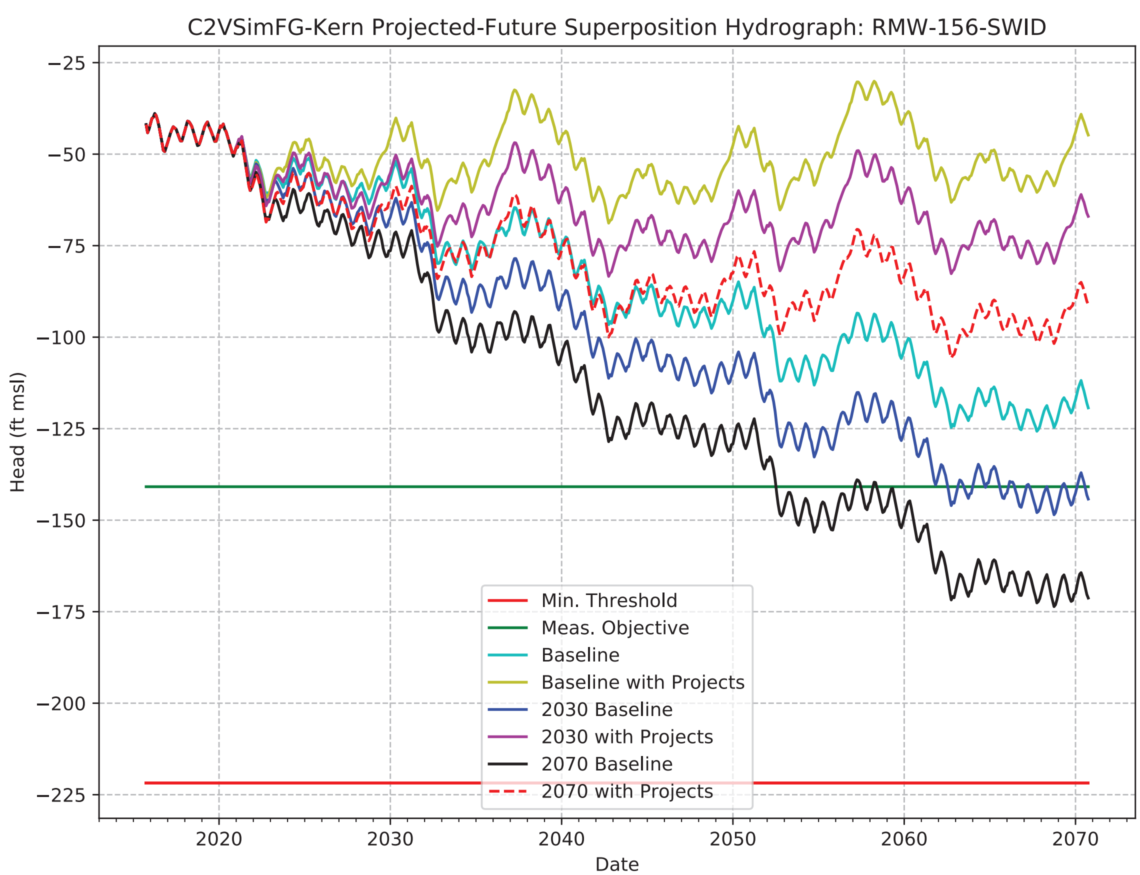
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-153-SWID
Head (ft msl)
0
−50
−100
−150
−200
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

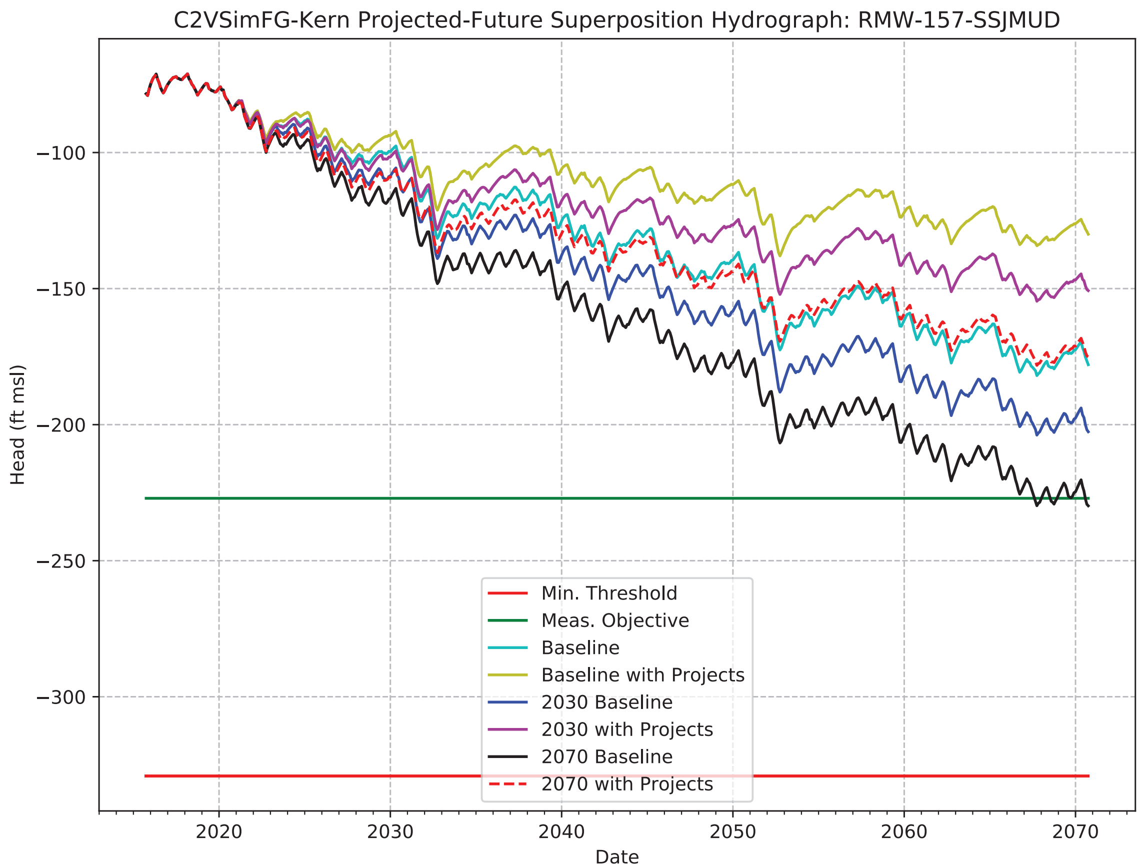

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-154-SWID
Head (ft msl)
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

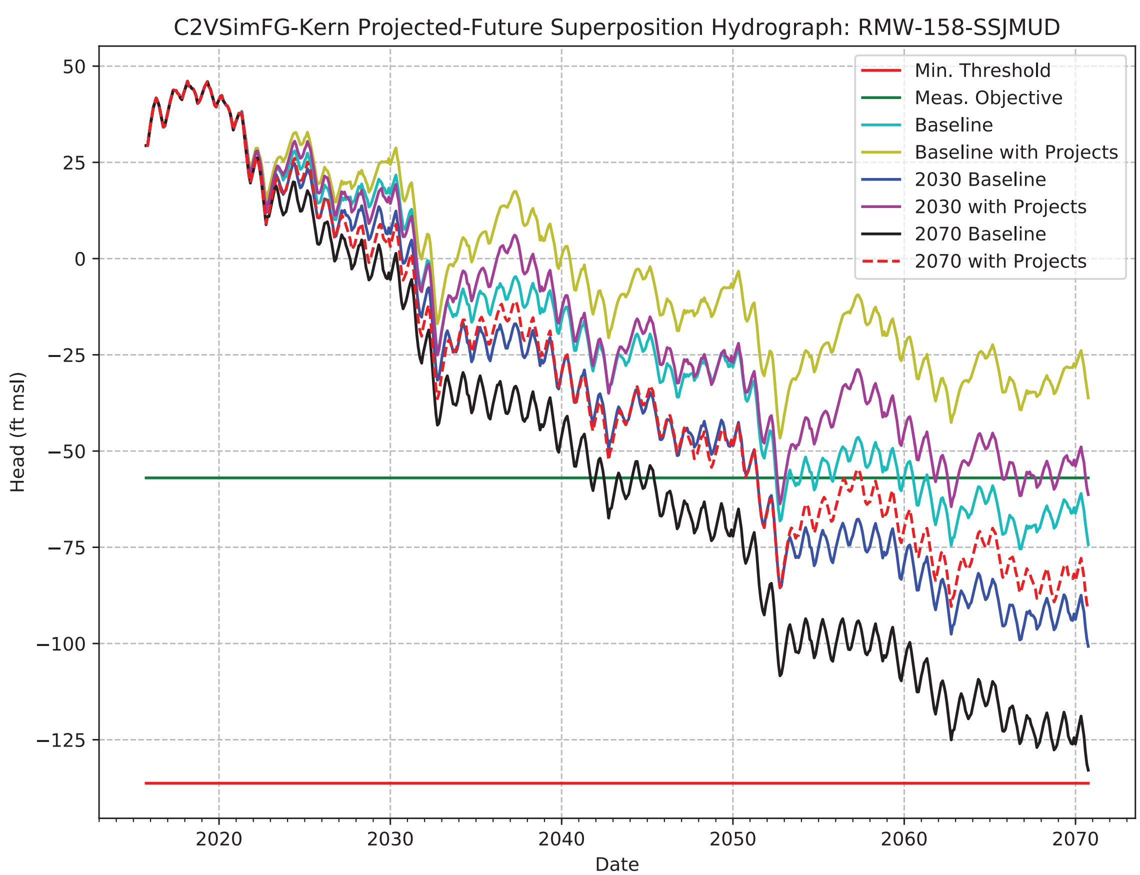


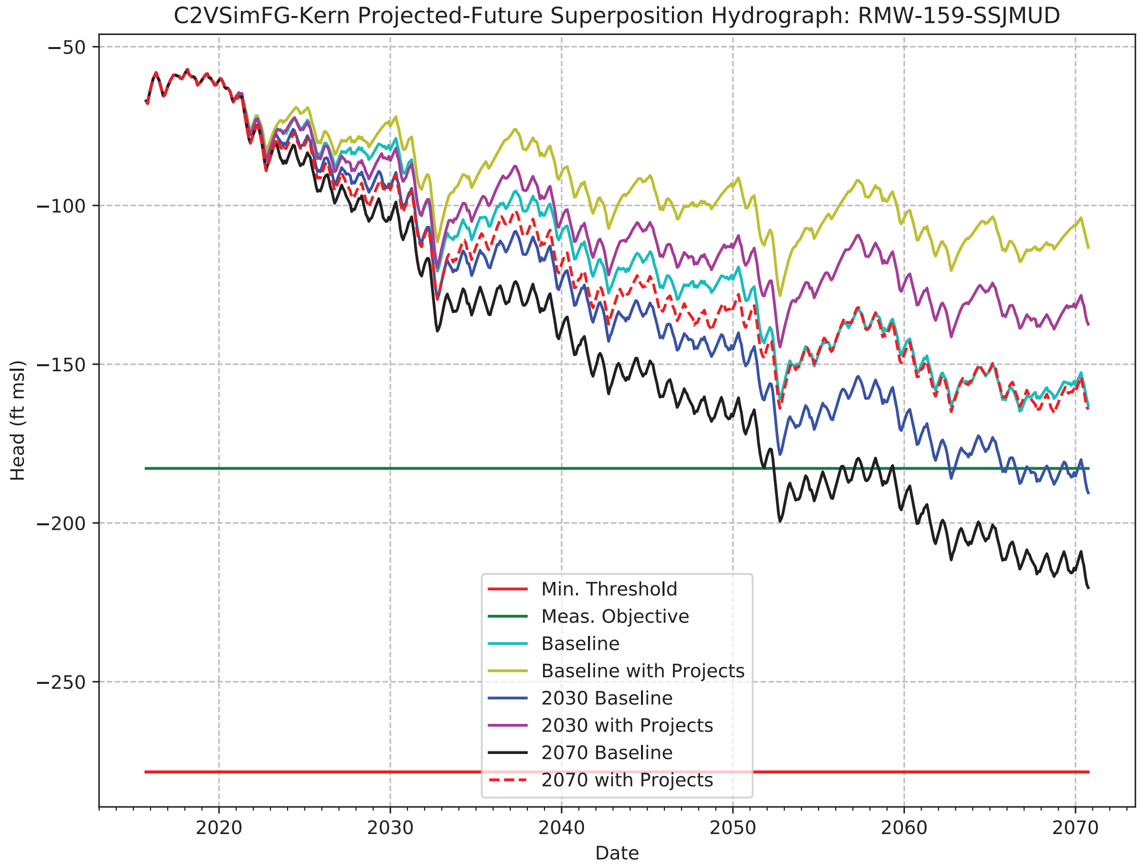
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-155-SWID
Head (ft msl)
−50
−100
−150
−200
−250
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

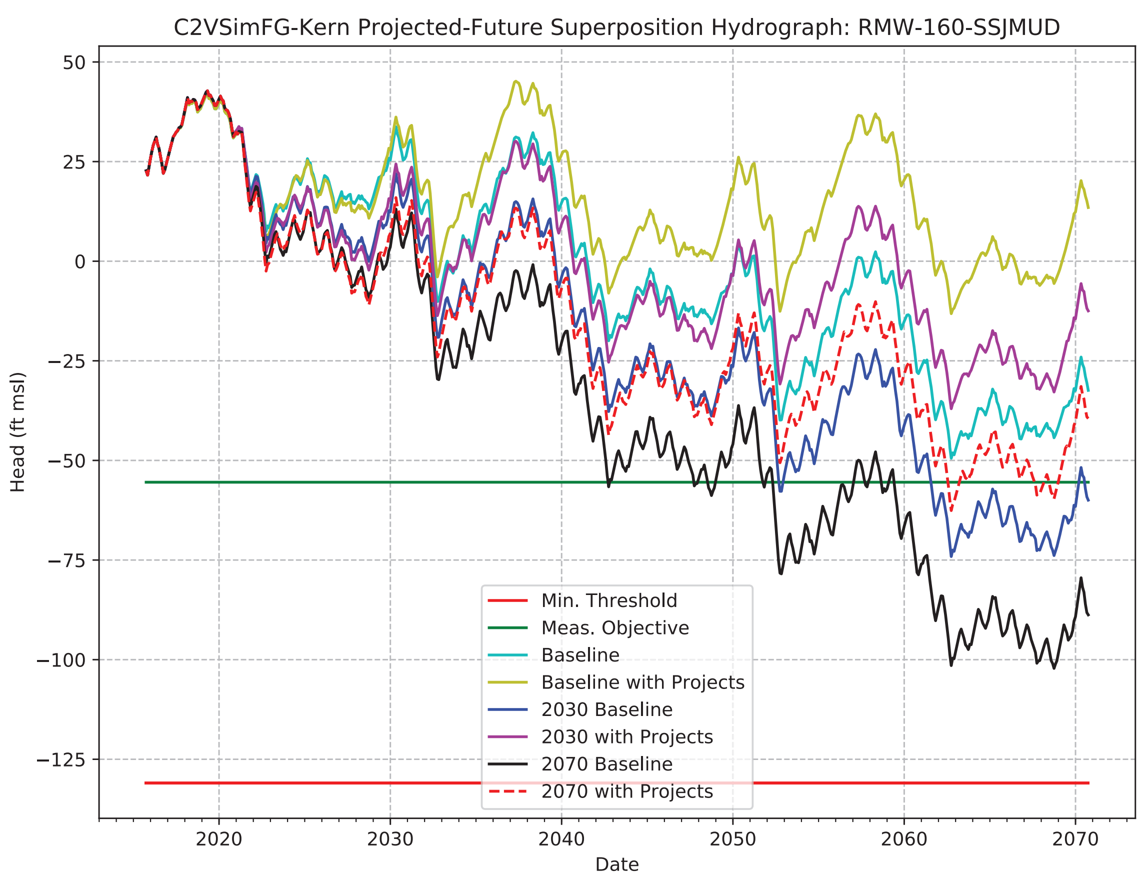


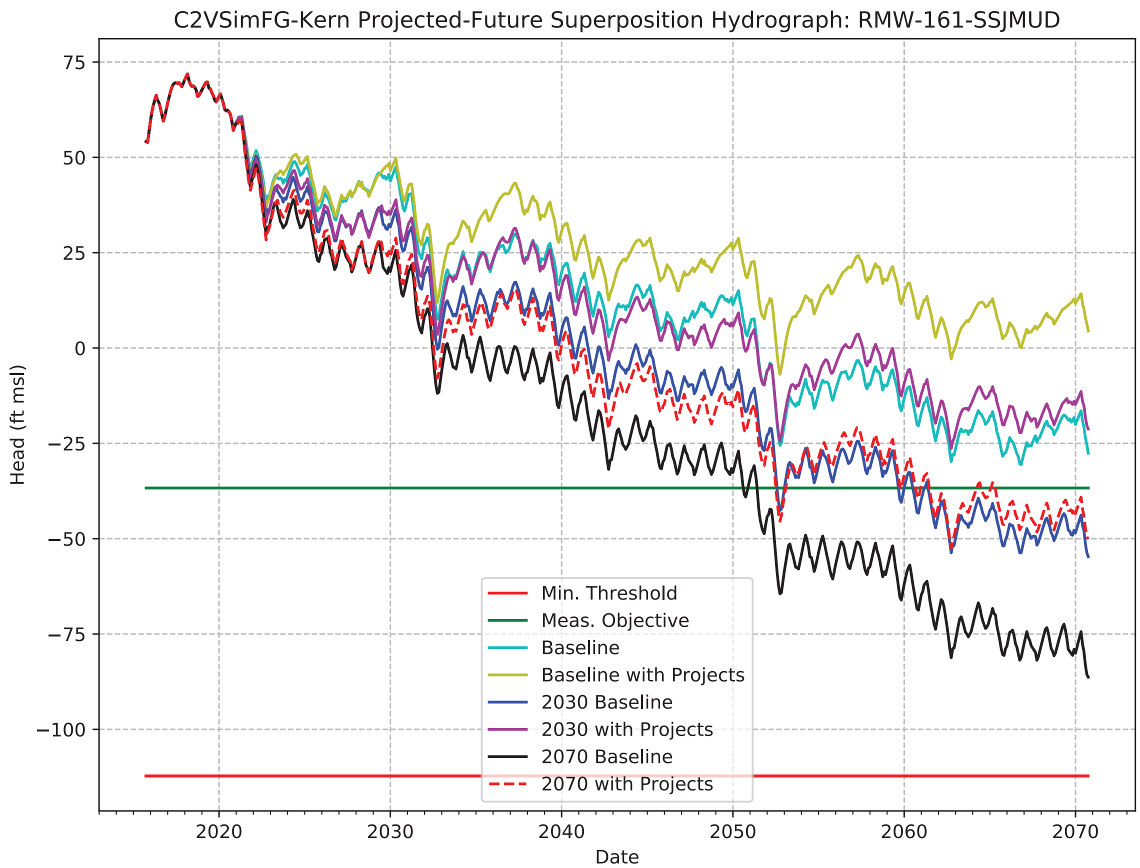
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-156-SWID
Head (ft msl)
−25
−50
−75
−100
−125
−150
−175
−200
−225
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

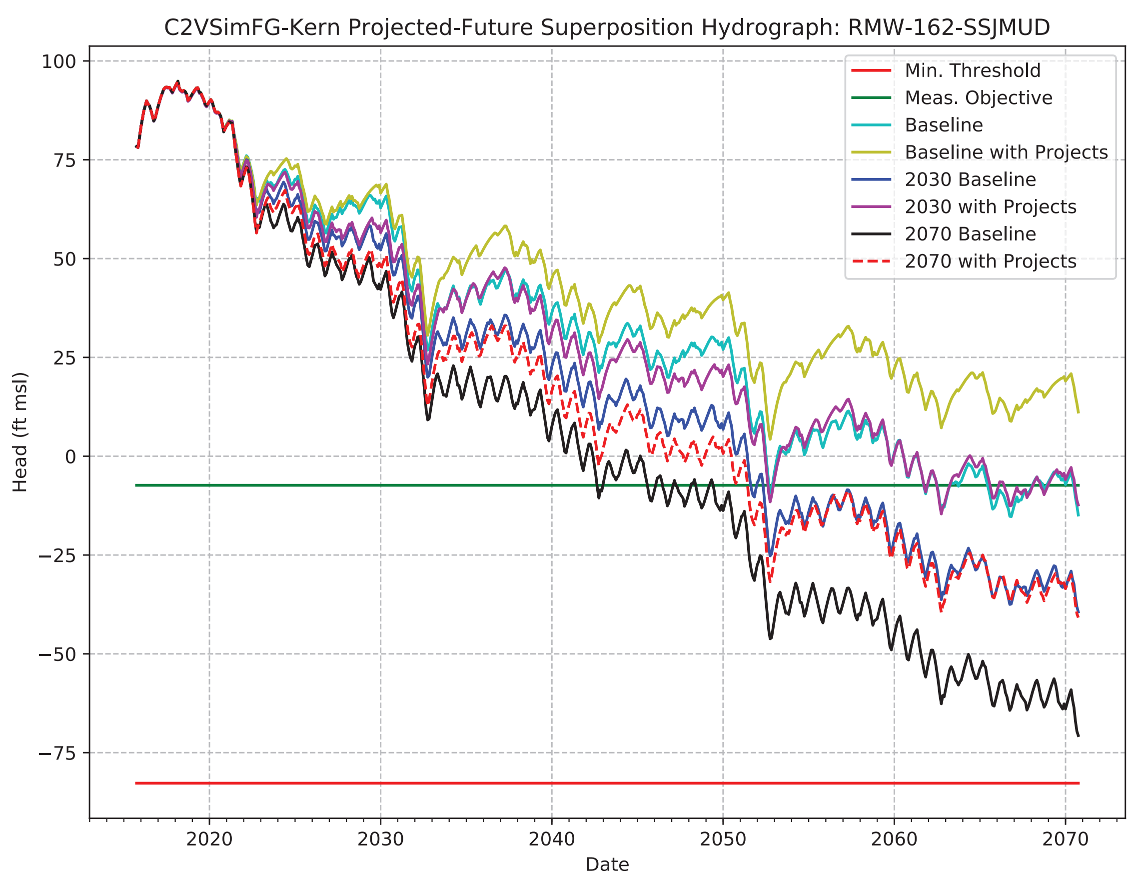

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-157-SSJMUD
Head (ft msl)
−100
−150
−200
−250
−300
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

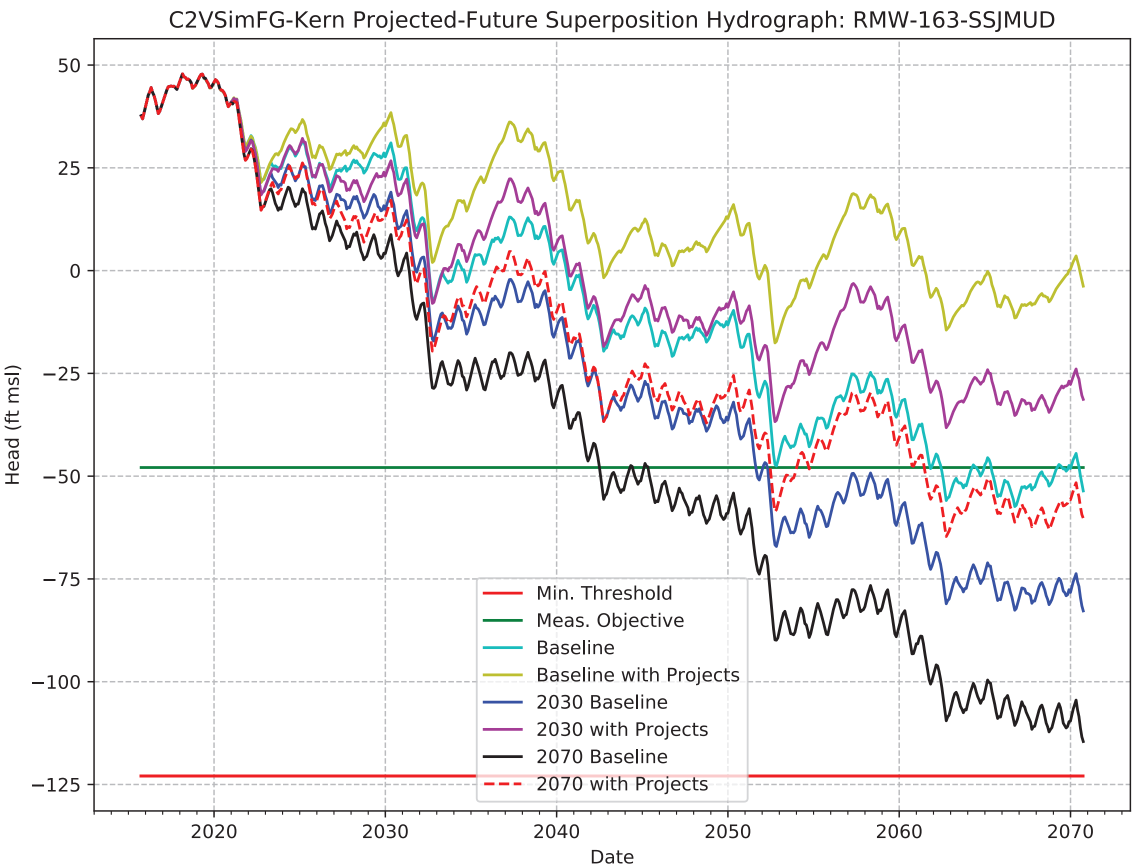

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-158-SSJMUD
Head (ft msl)
50
25
0
−25
−50
−75
−100
−125
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-159-SSJMUD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

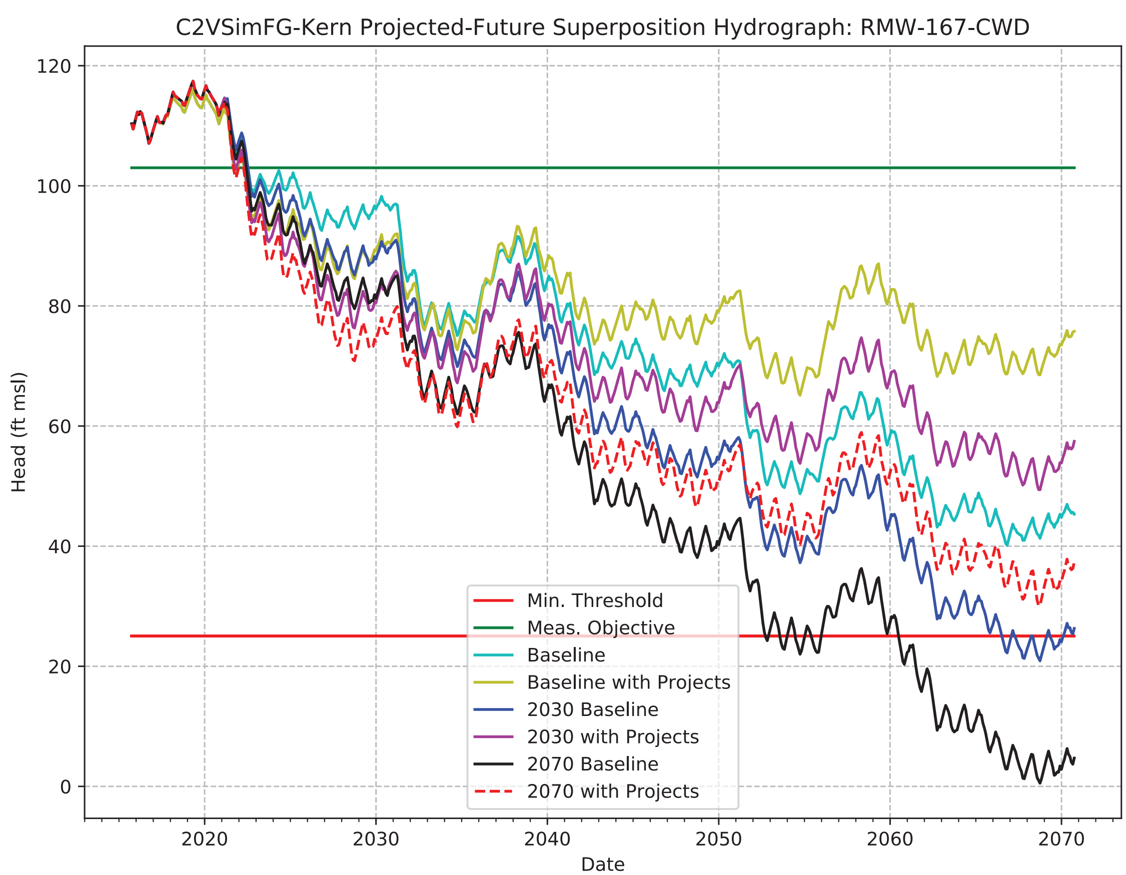

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-160-SSJMUD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-161-SSJMUD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

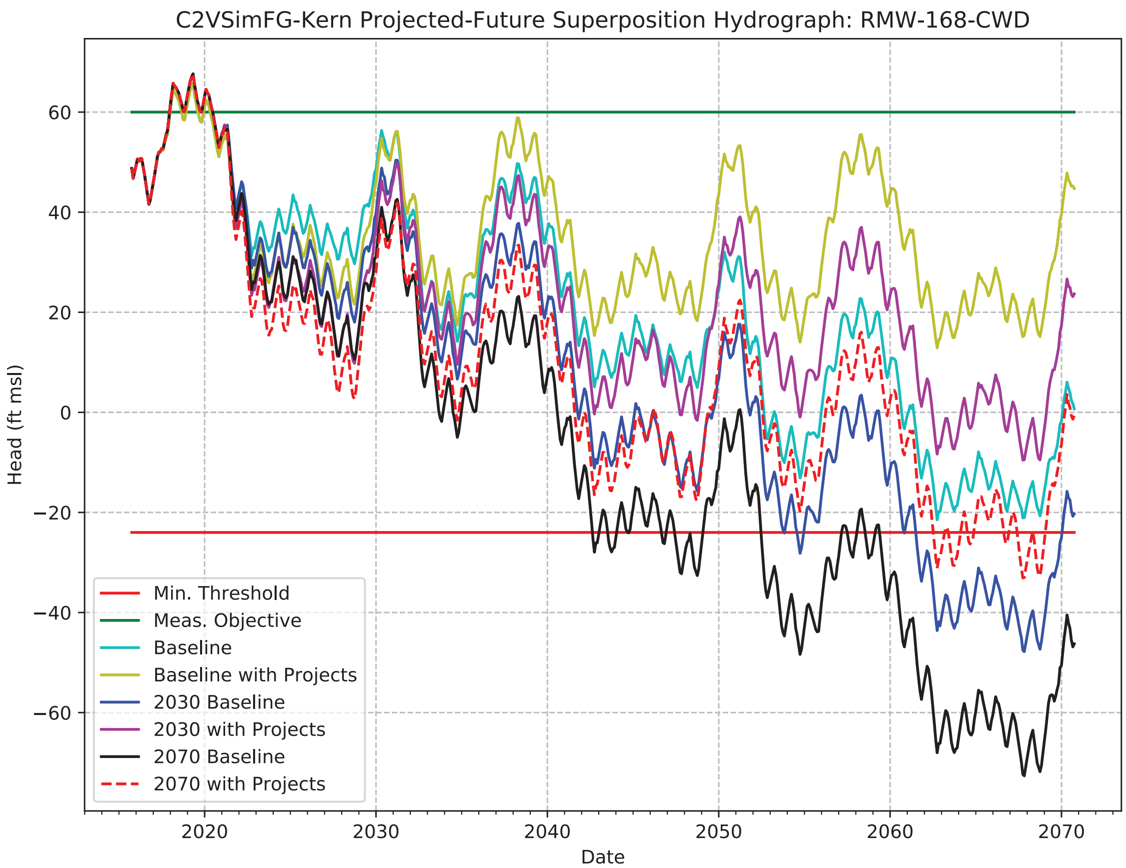

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-162-SSJMUD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

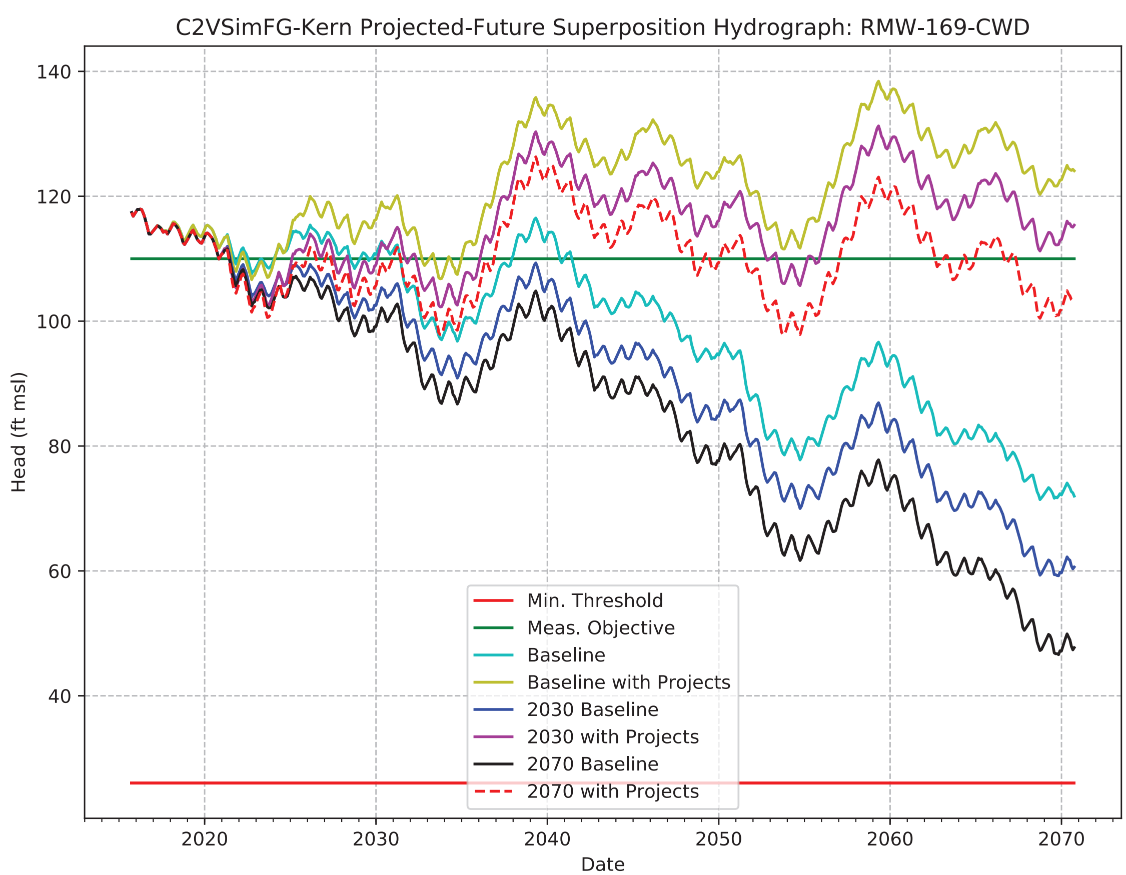


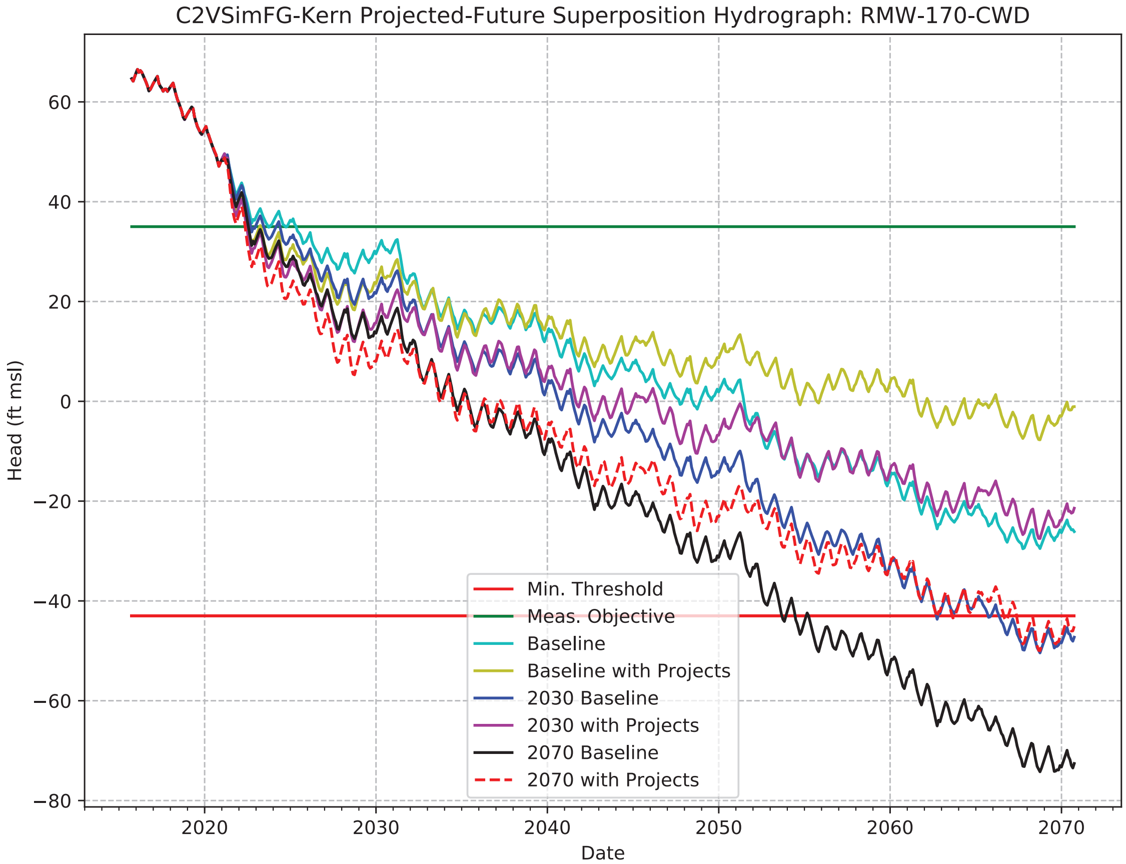
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-163-SSJMUD
Head (ft msl)
Date
50
25
0
−25
−50
−75
−100
−125
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



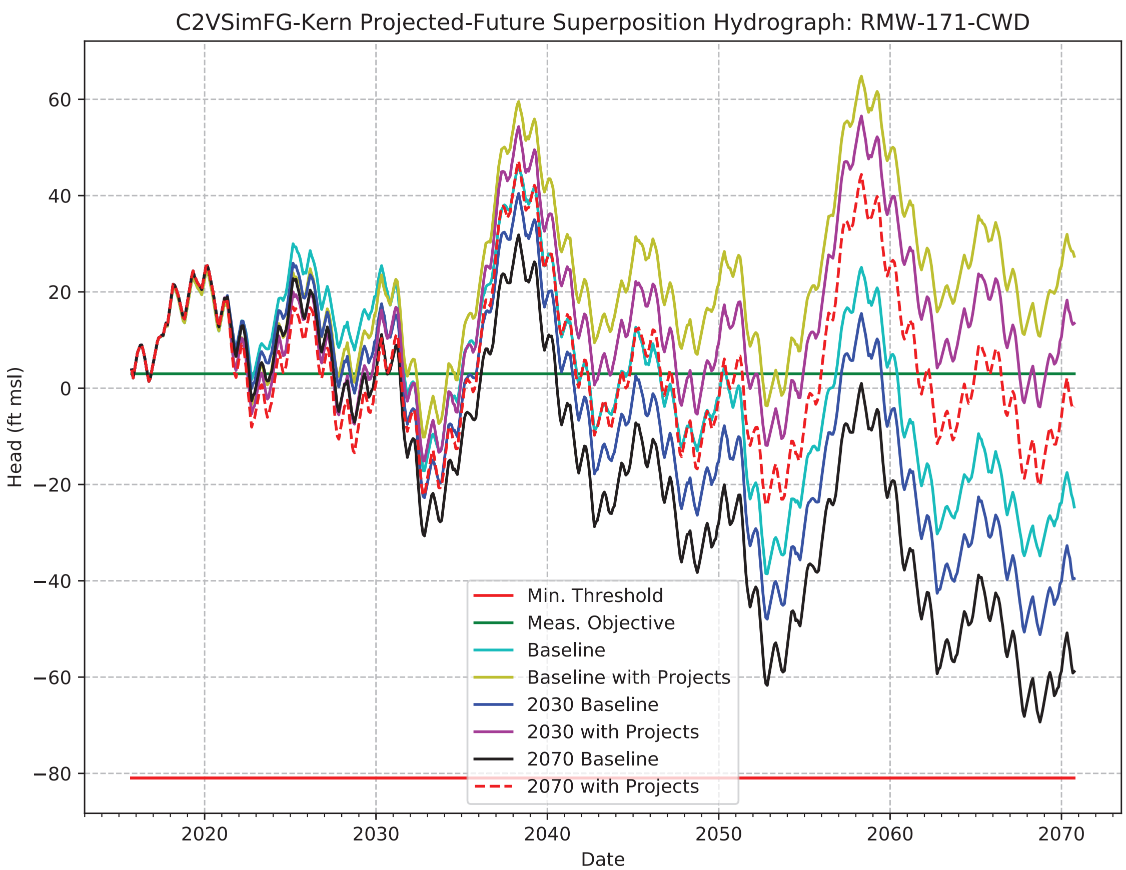
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-167-CWD
Head (ft msl)
Date
120
100
80
60
40
20
0
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-168-CWD
Head (ft msl)
Date
60
40
20
0
−20
−40
−60
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

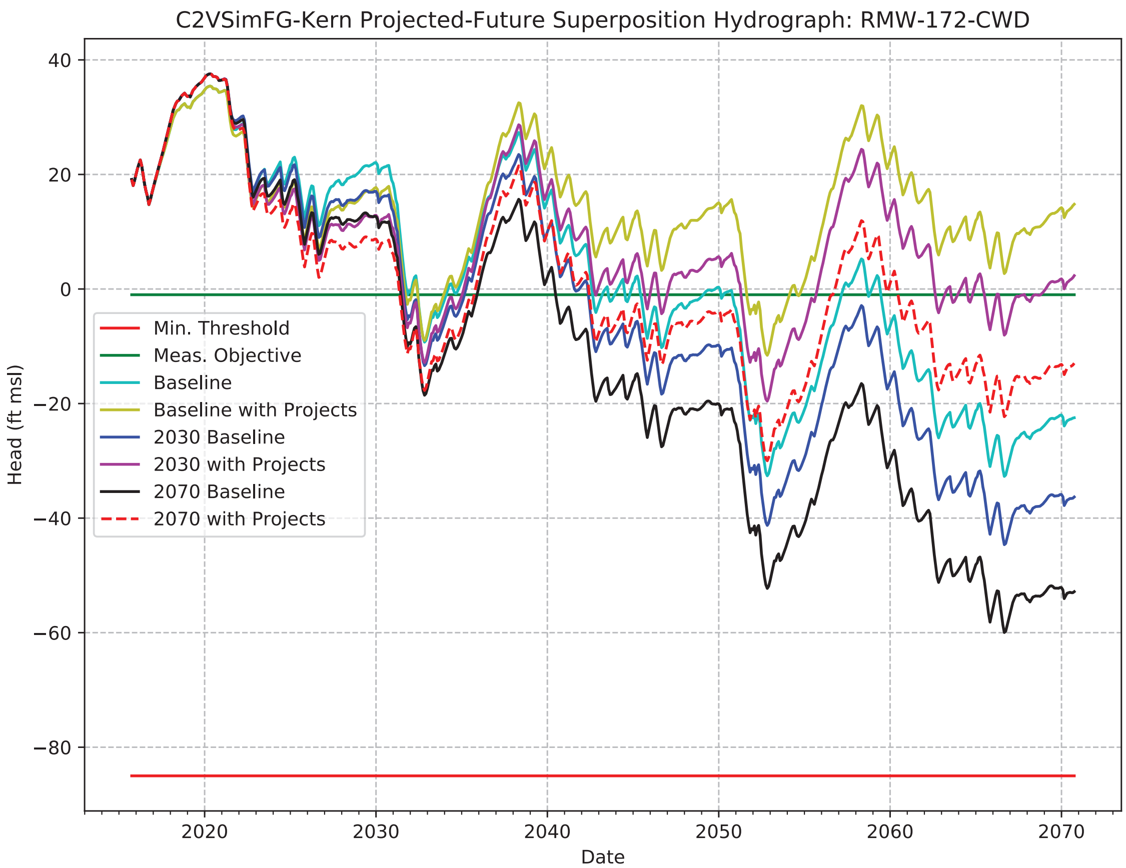

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-169-CWD
Head (ft msl)
Date
140
120
100
80
60
40
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

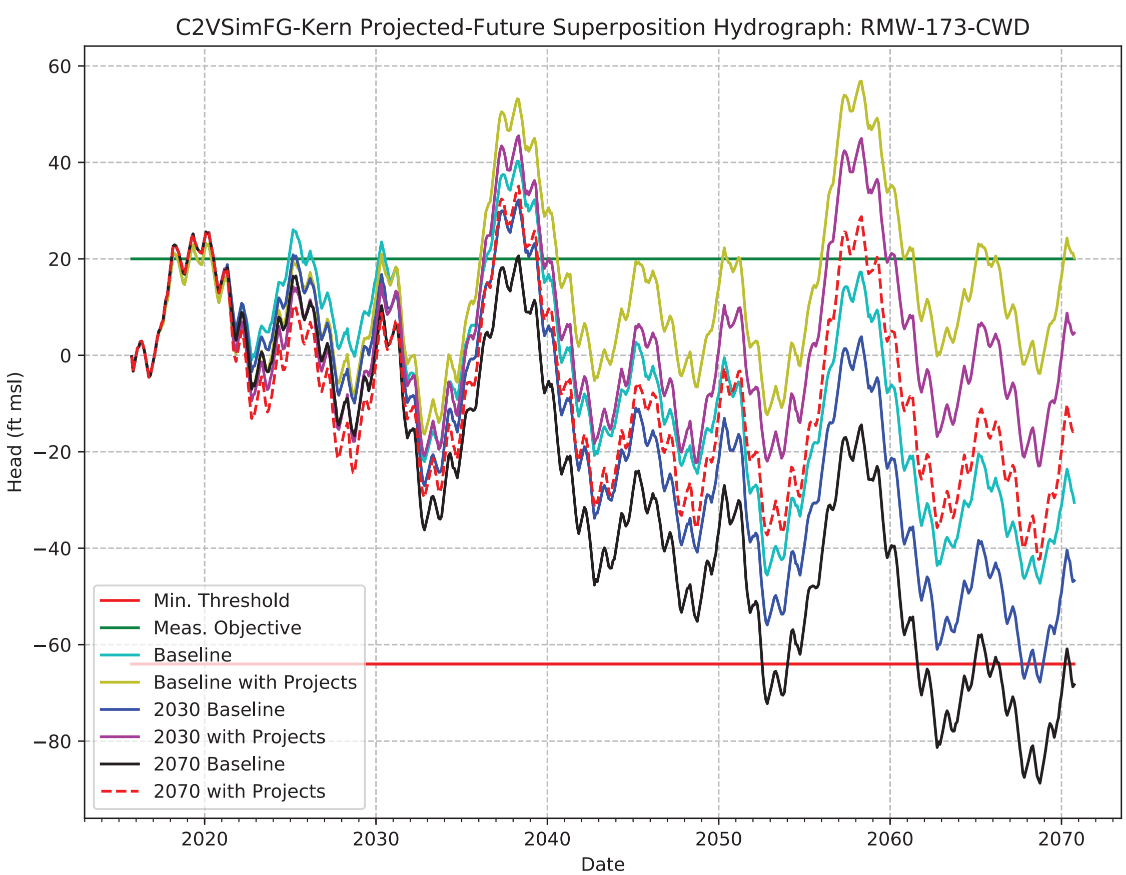


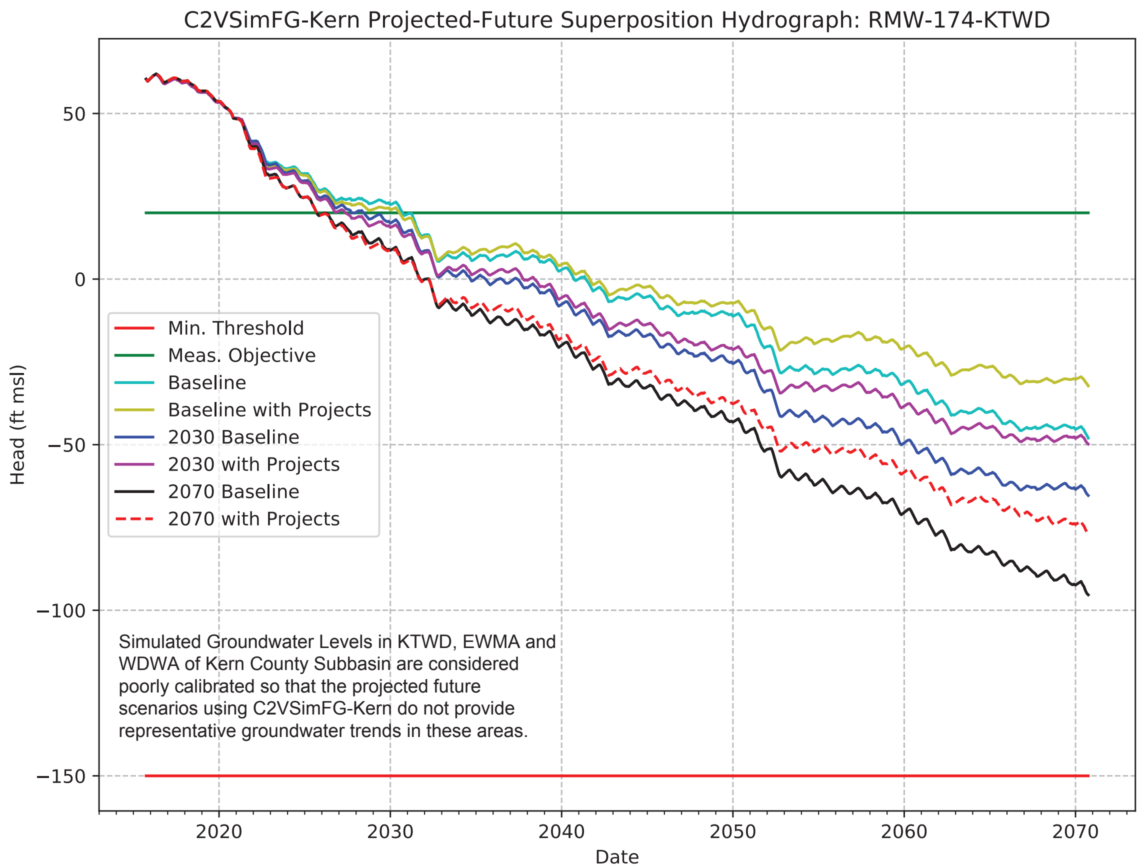
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-170-CWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

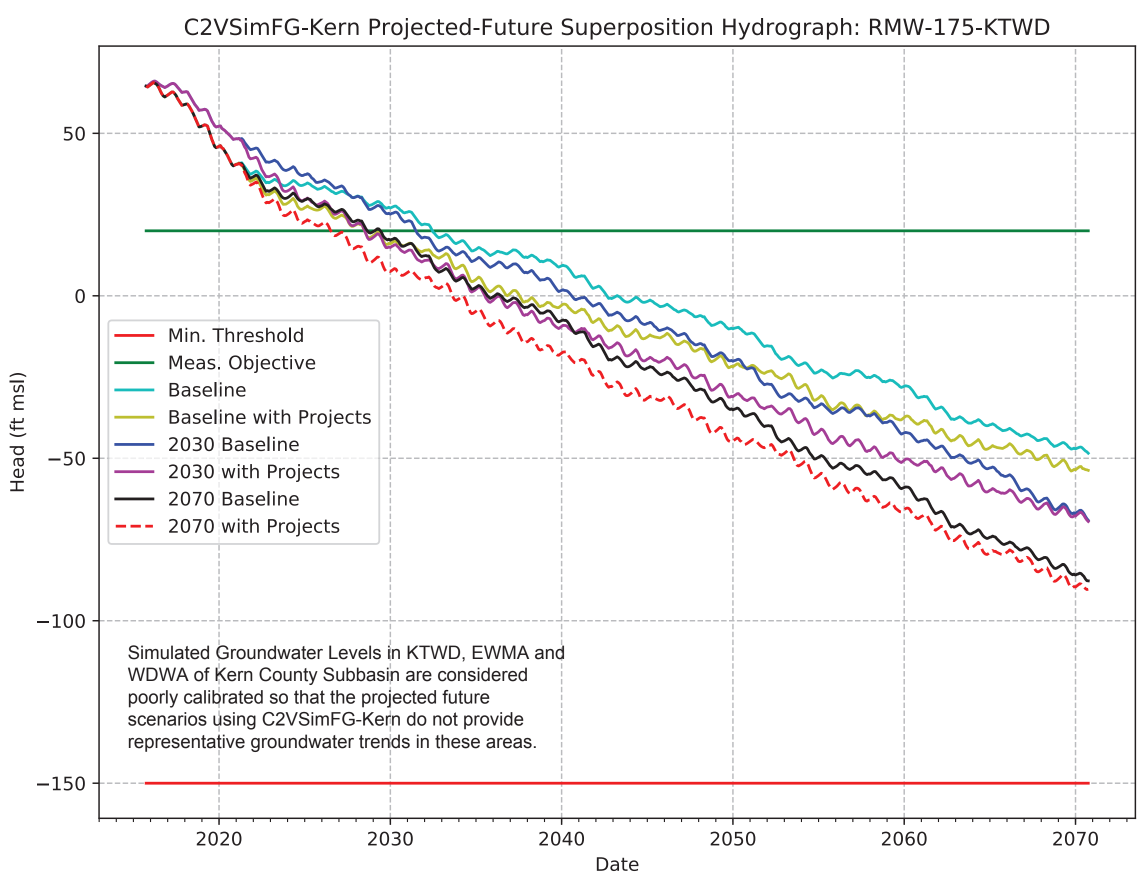


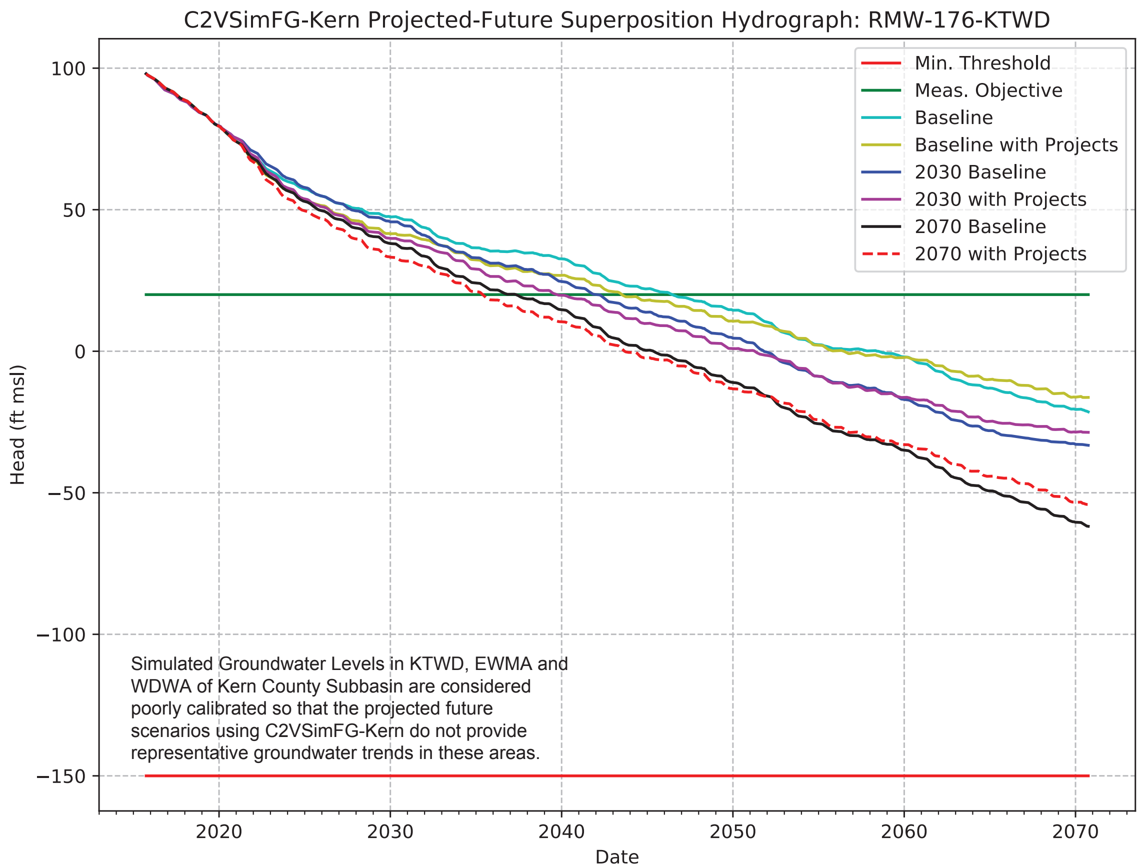
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-171-CWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

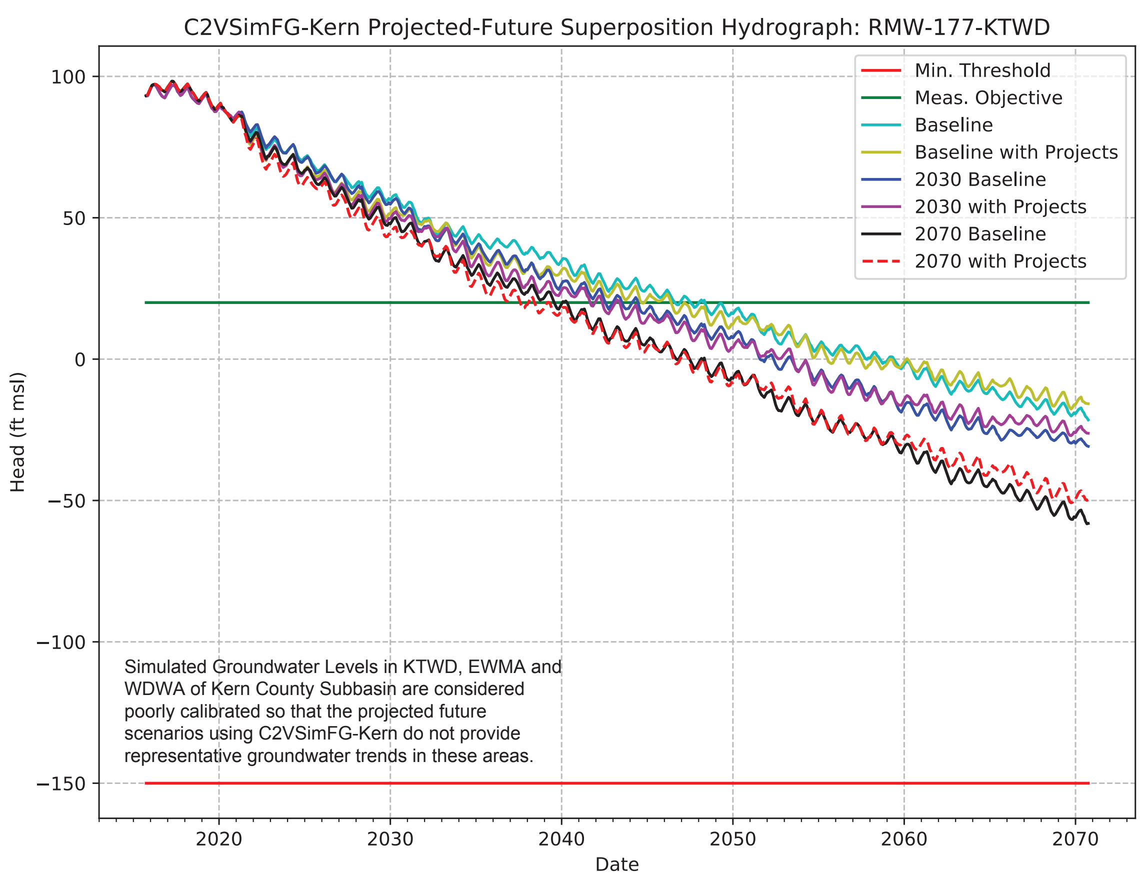

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-172-CWD
Head (ft msl)
40
20
0
−20
−40
−60
−80
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

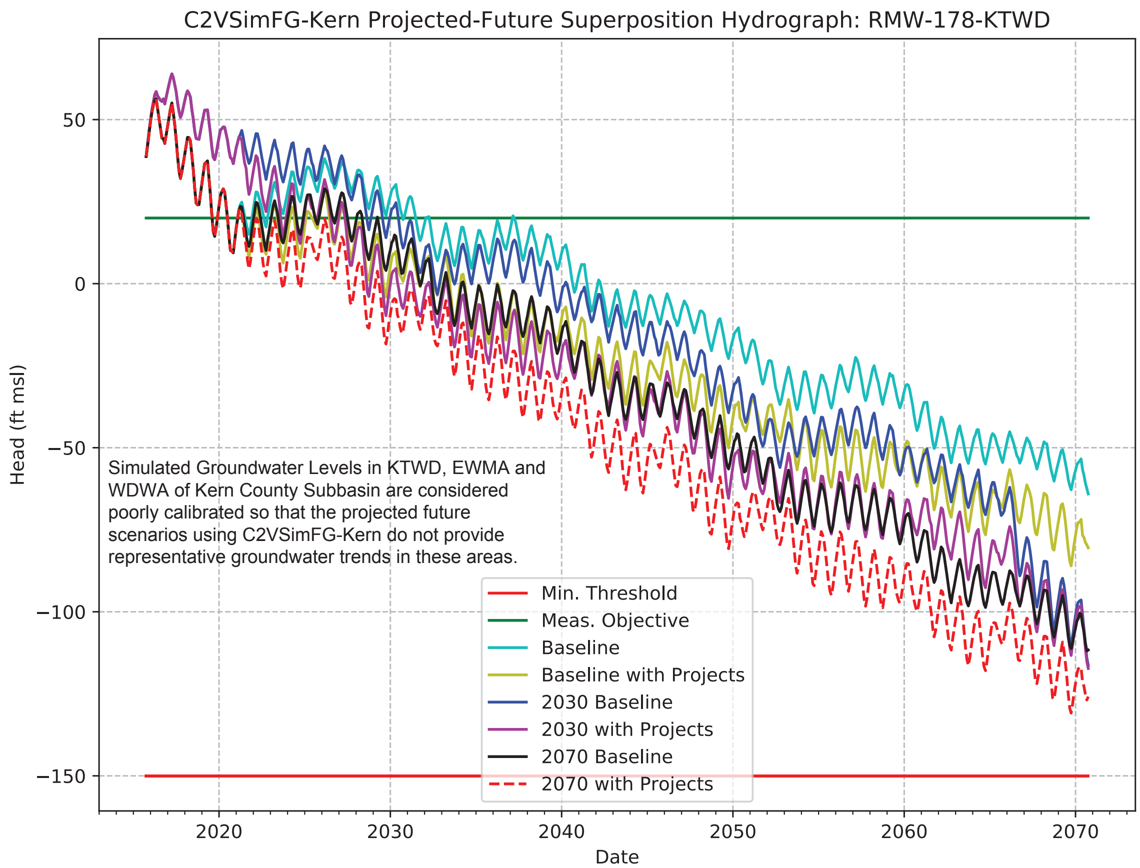

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-173-CWD
Head (ft msl)
60
40
20
0
−20
−40
−60
−80
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-174-KTWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

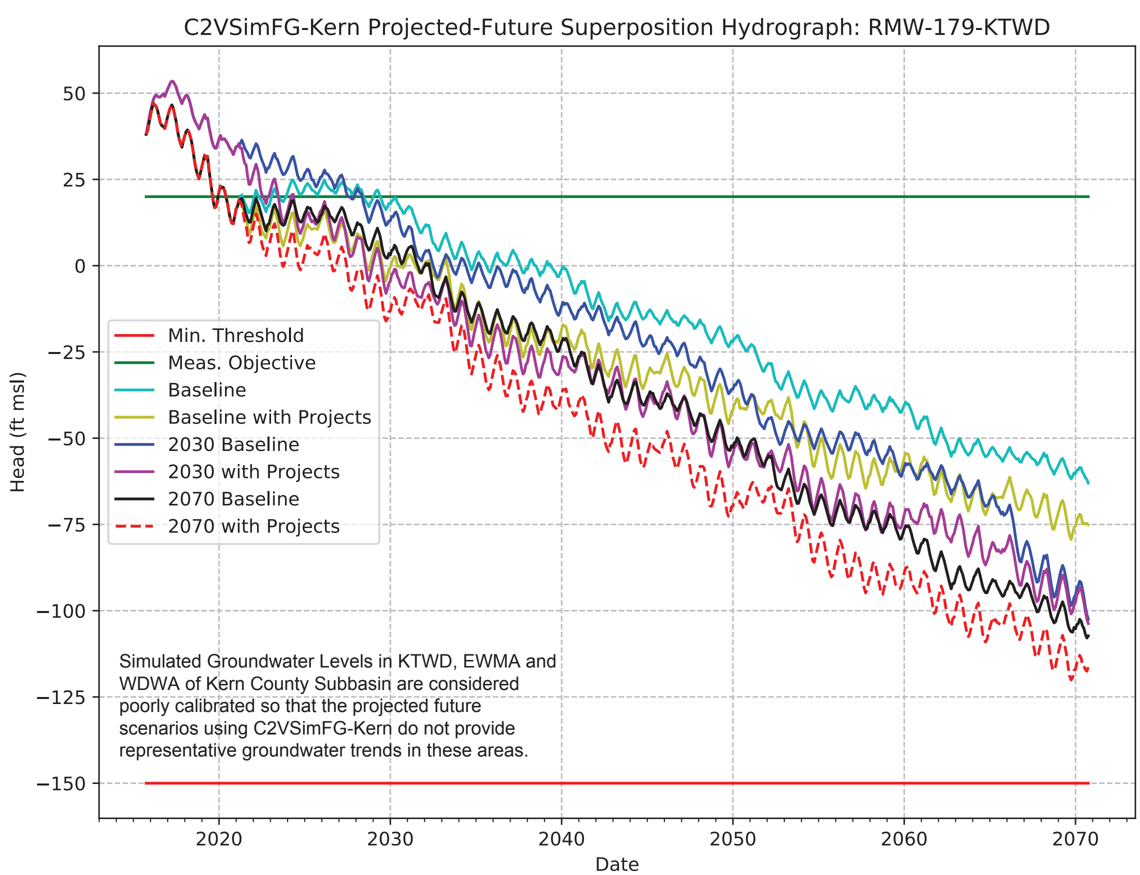

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-175-KTWD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-176-KTWD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
100
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

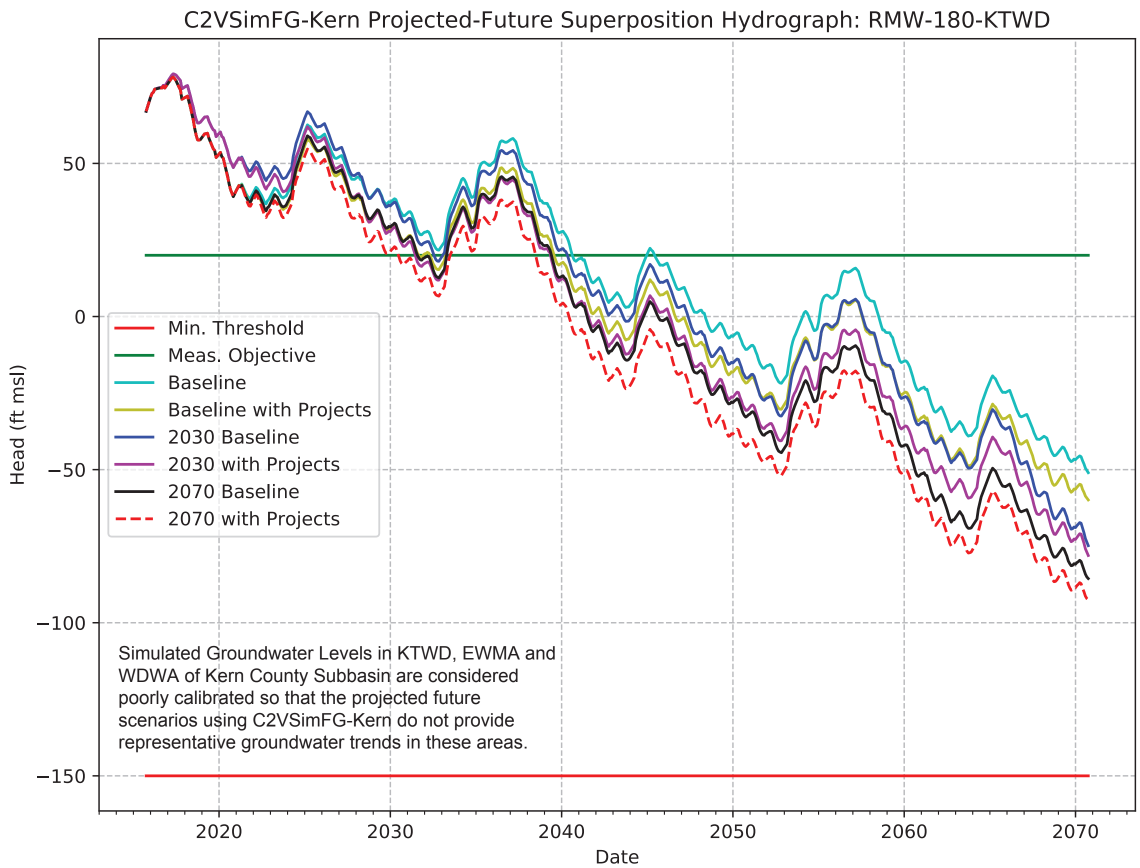

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-177-KTWD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
100
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

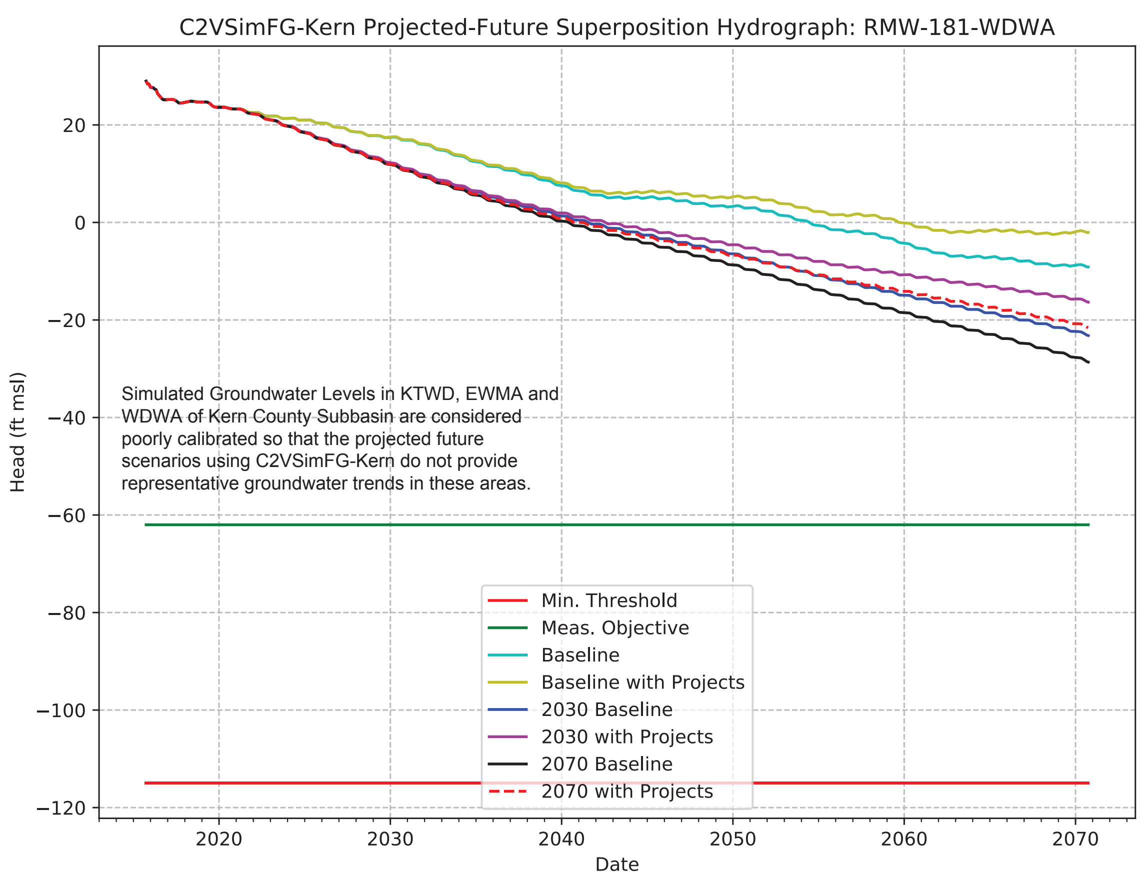


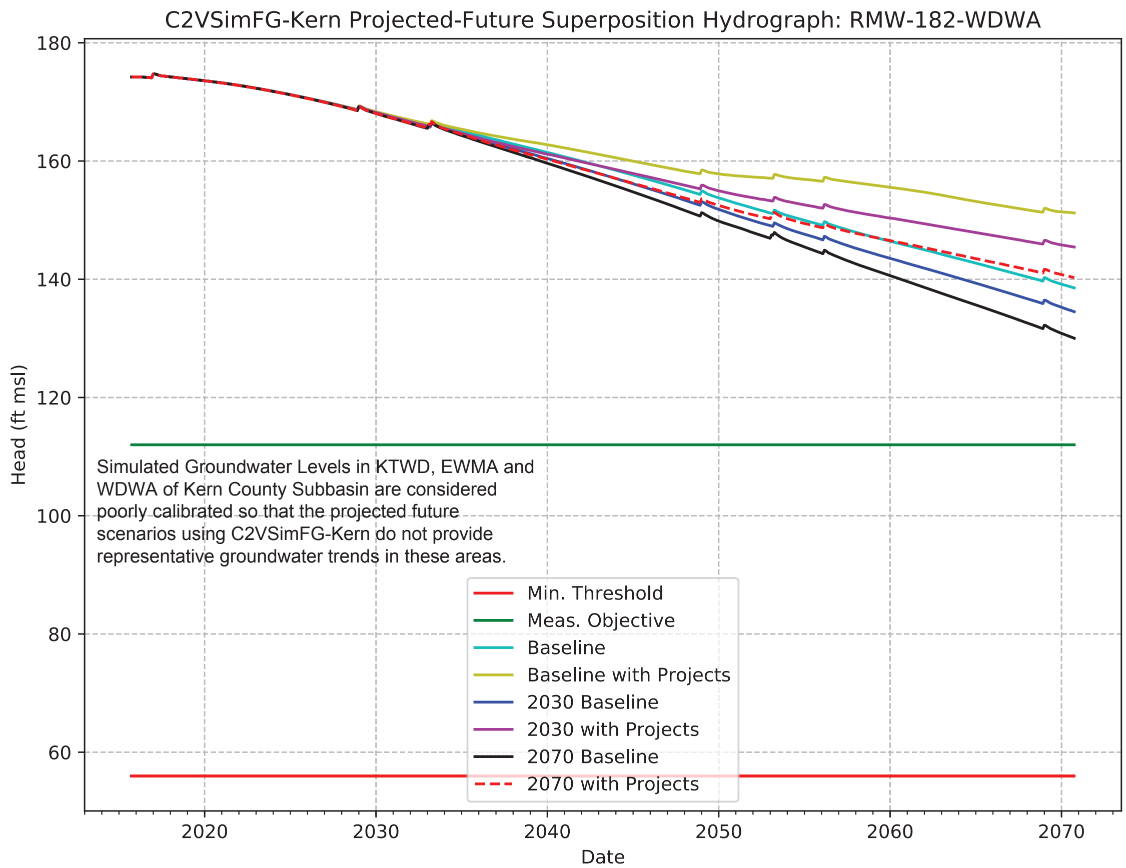
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-178-KTWD
Head (ft msl)
Date
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

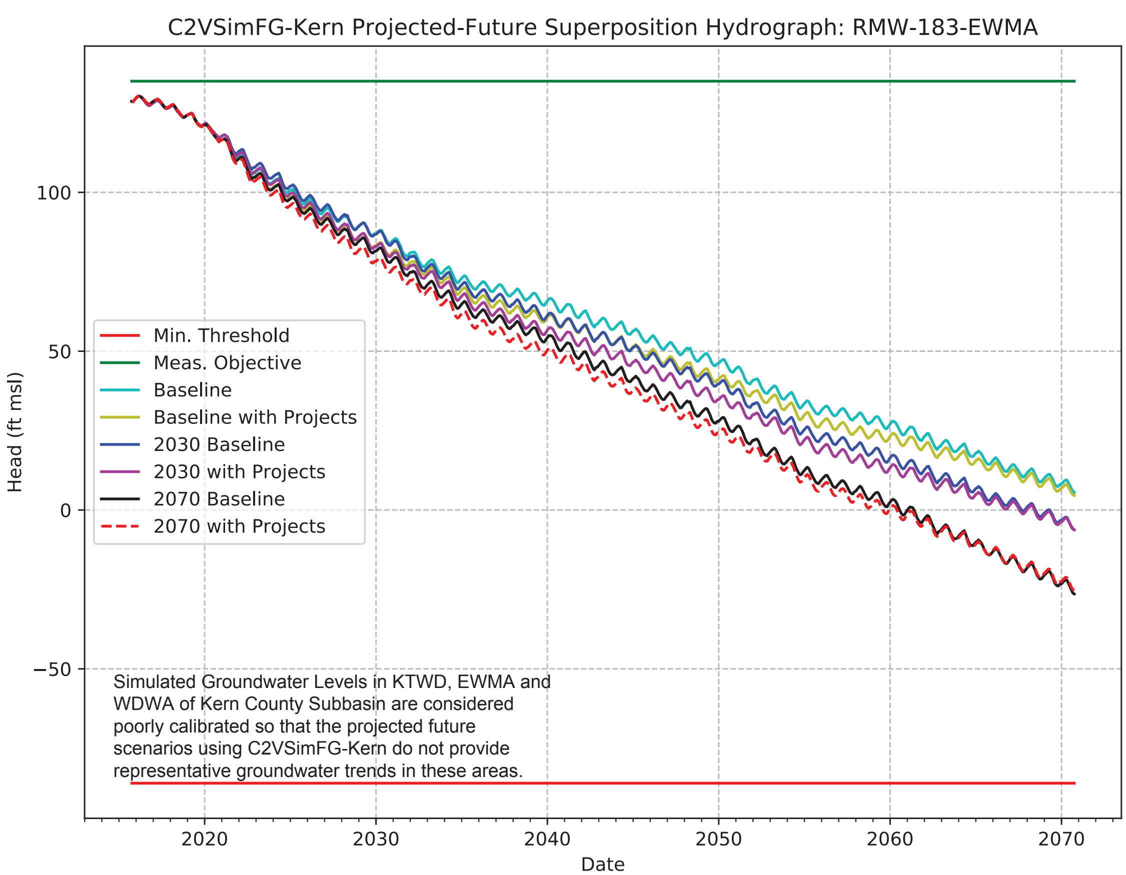


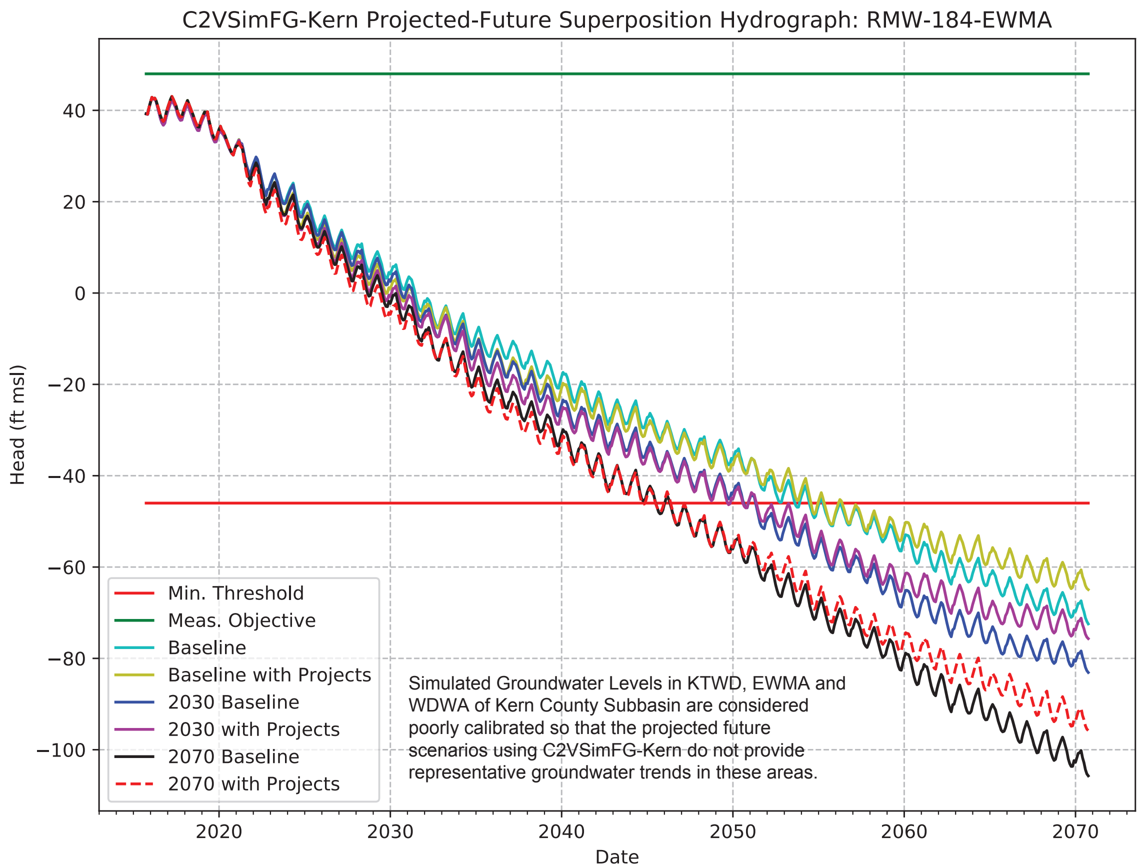
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-179-KTWD
Head (ft msl)
Date
50
25
0
−25
−50
−75
−100
−125
−150
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-180-KTWD
Head (ft msl)
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

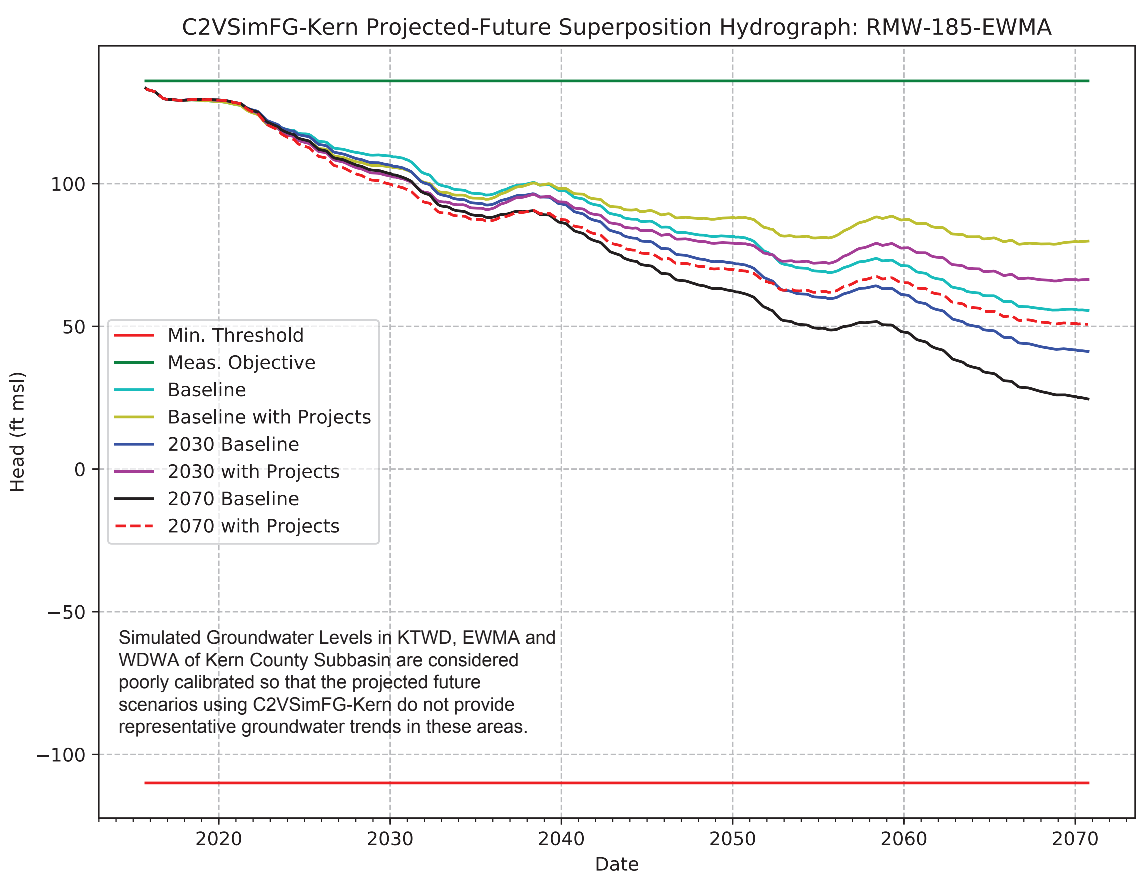

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-181-WDWA
Head (ft msl)
20
0
−20
−40
−60
−80
−100
−120
2020
2030
2040
2050
2060
2070
Date
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-182-WDWA
Head (ft msl)
Date
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

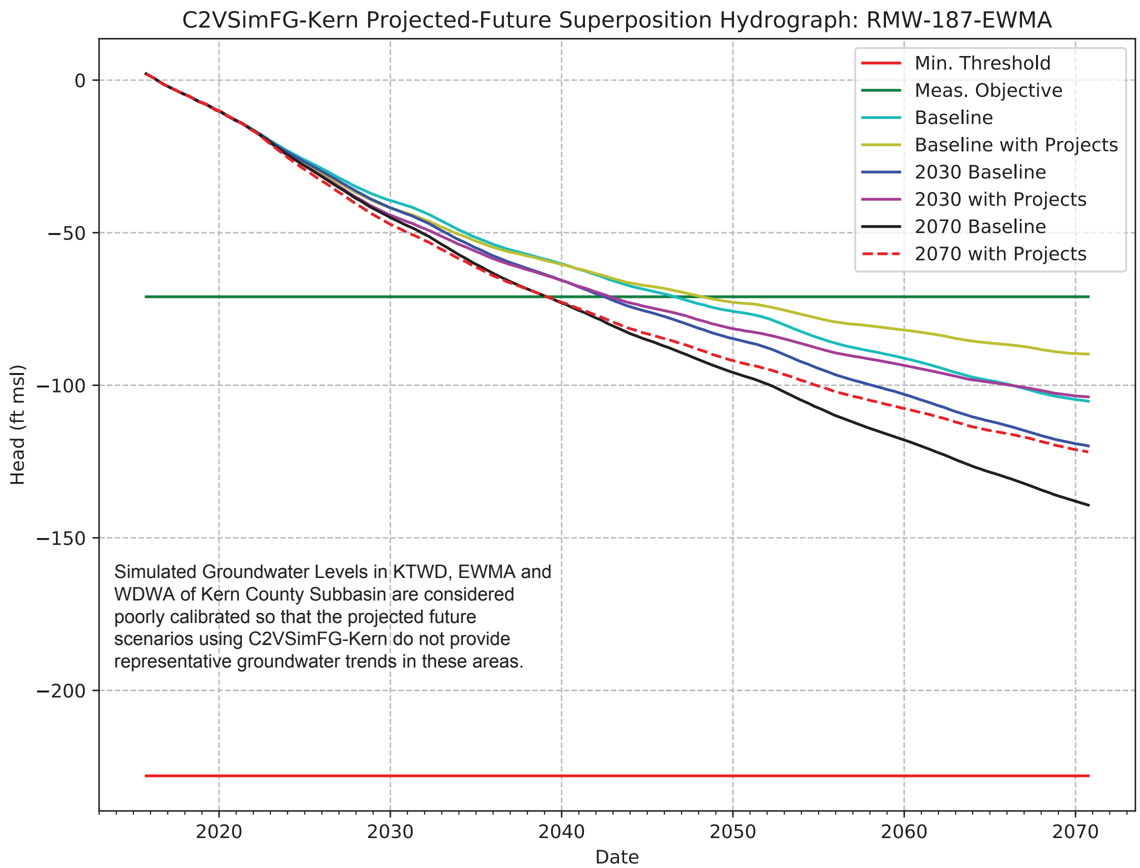

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-183-EWMA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

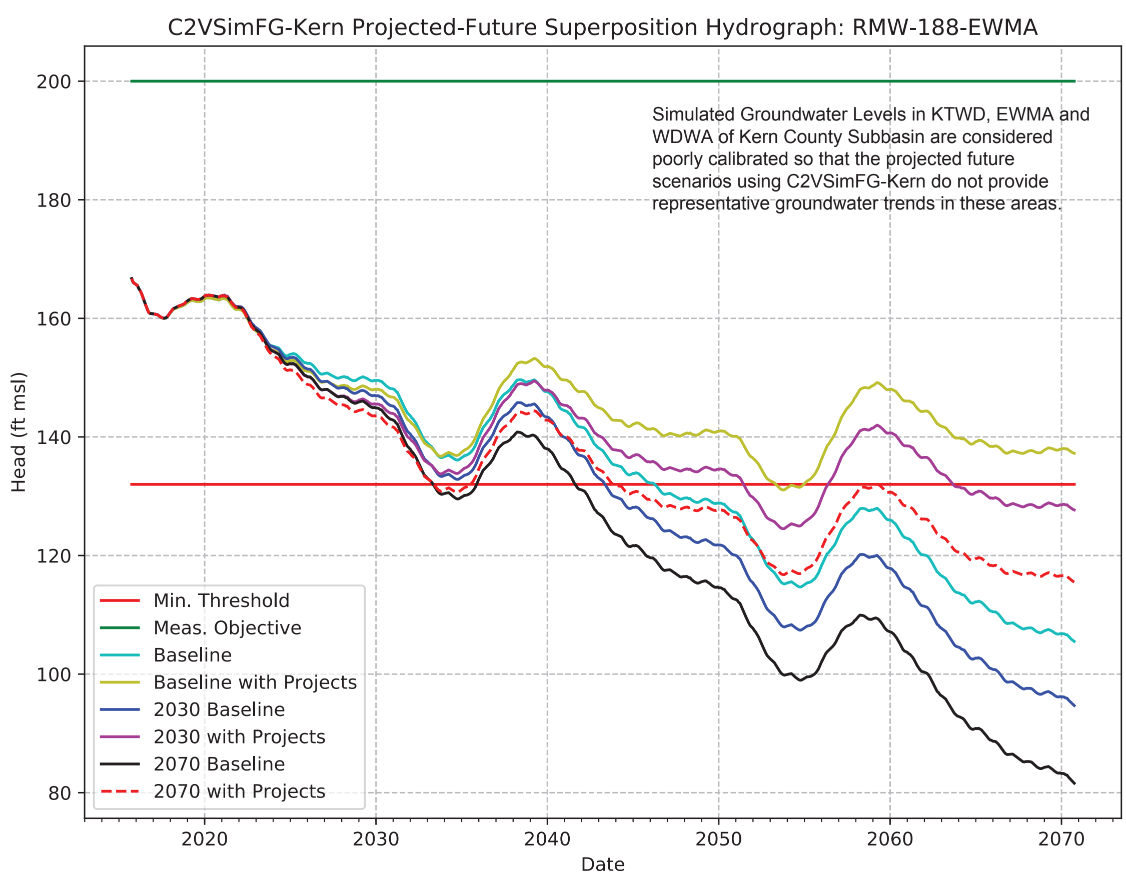


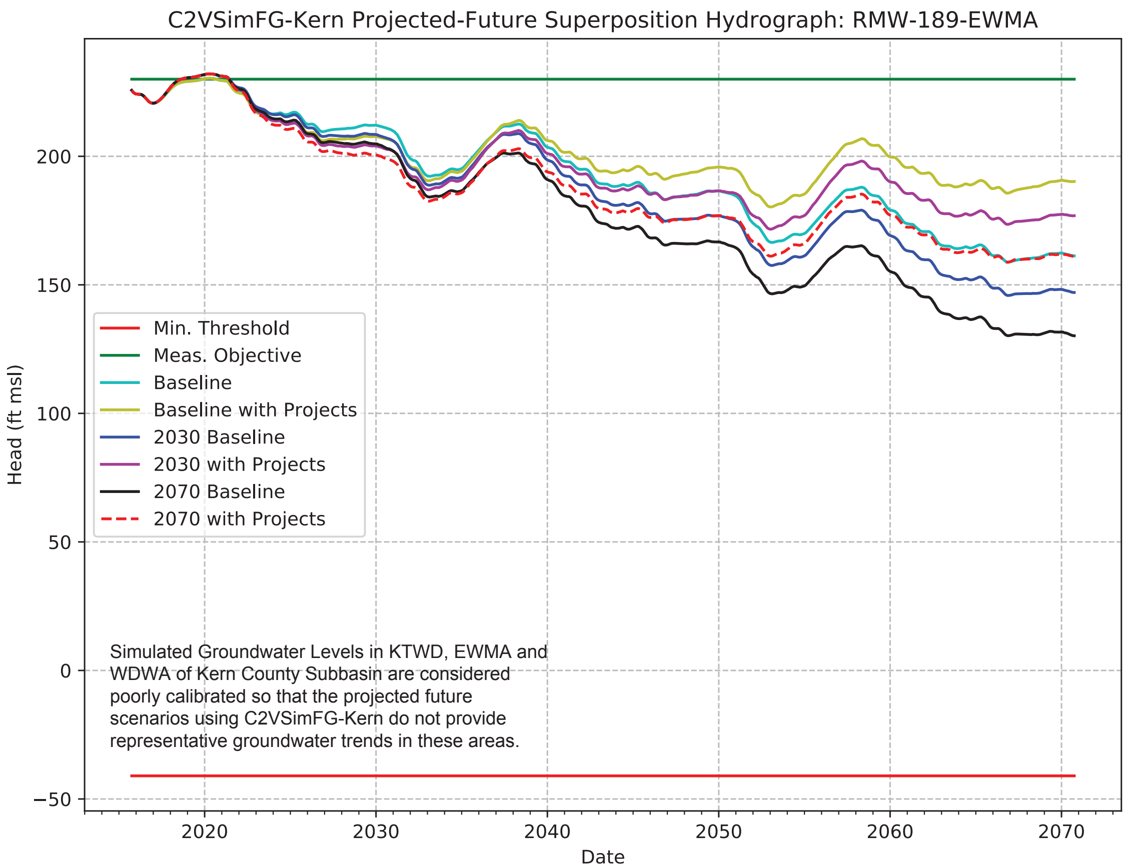
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-184-EWMA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

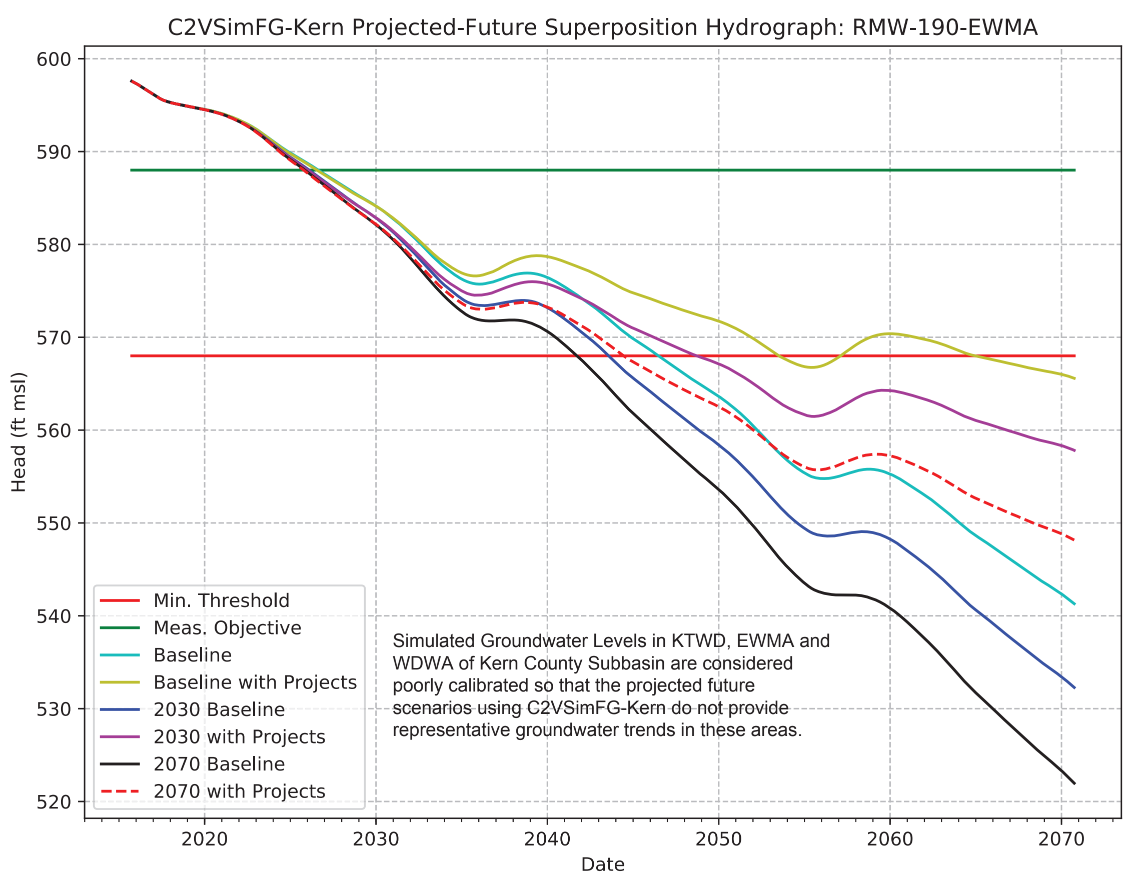


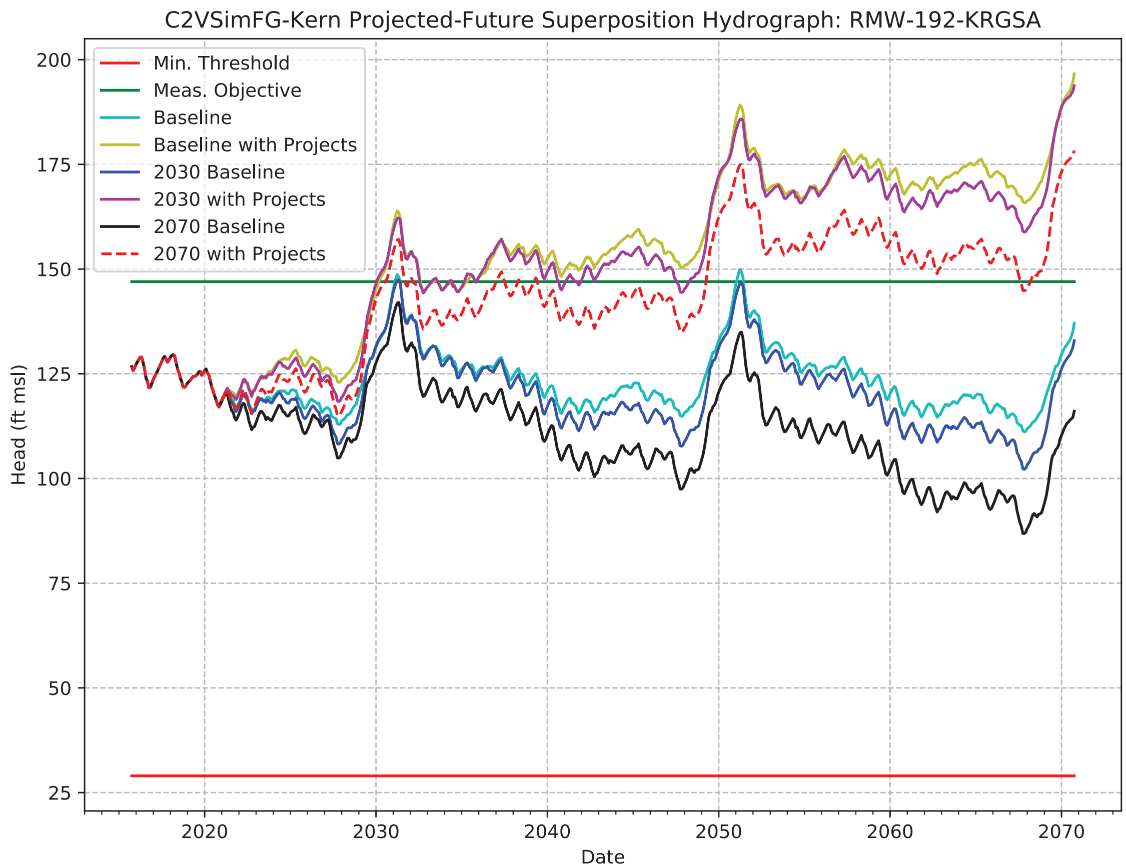
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-185-EWMA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

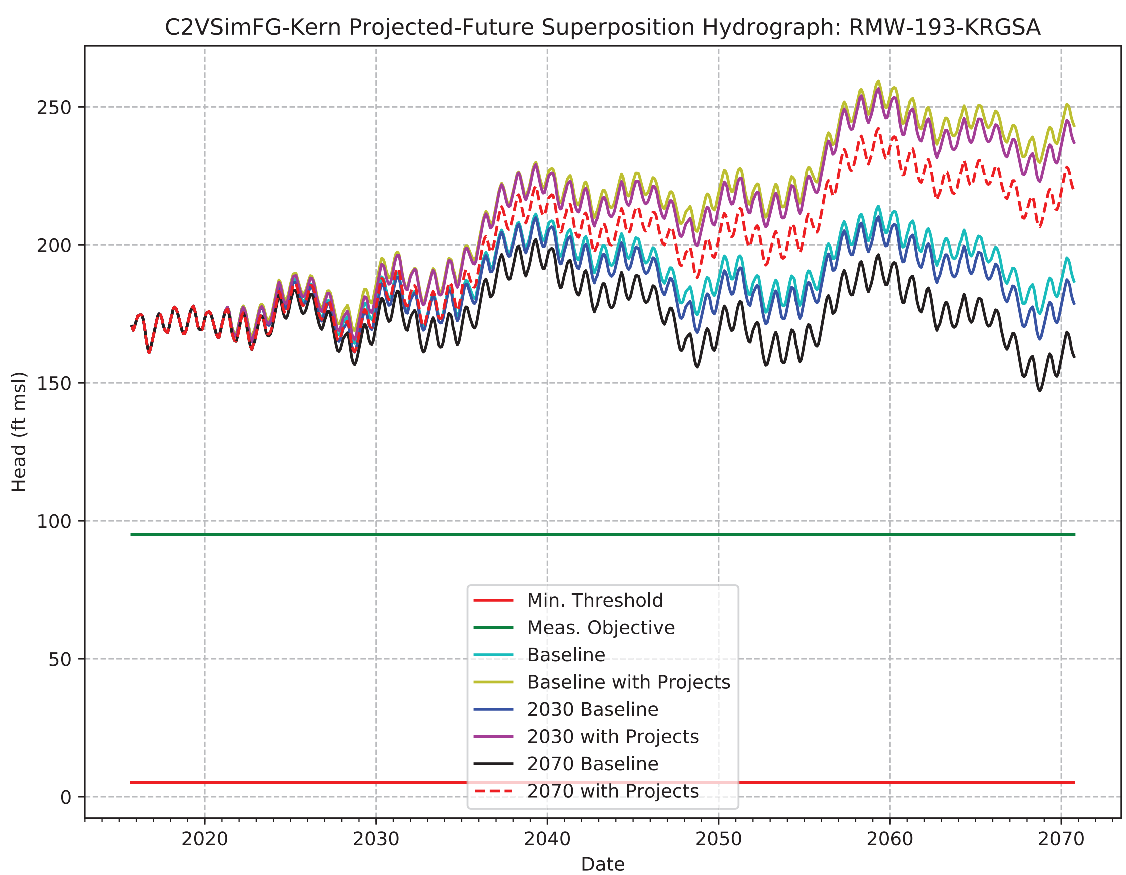

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-187-EWMA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Head (ft msl)
0
−50
−100
−150
−200
2020
2030
2040
2050
2060
2070
Date

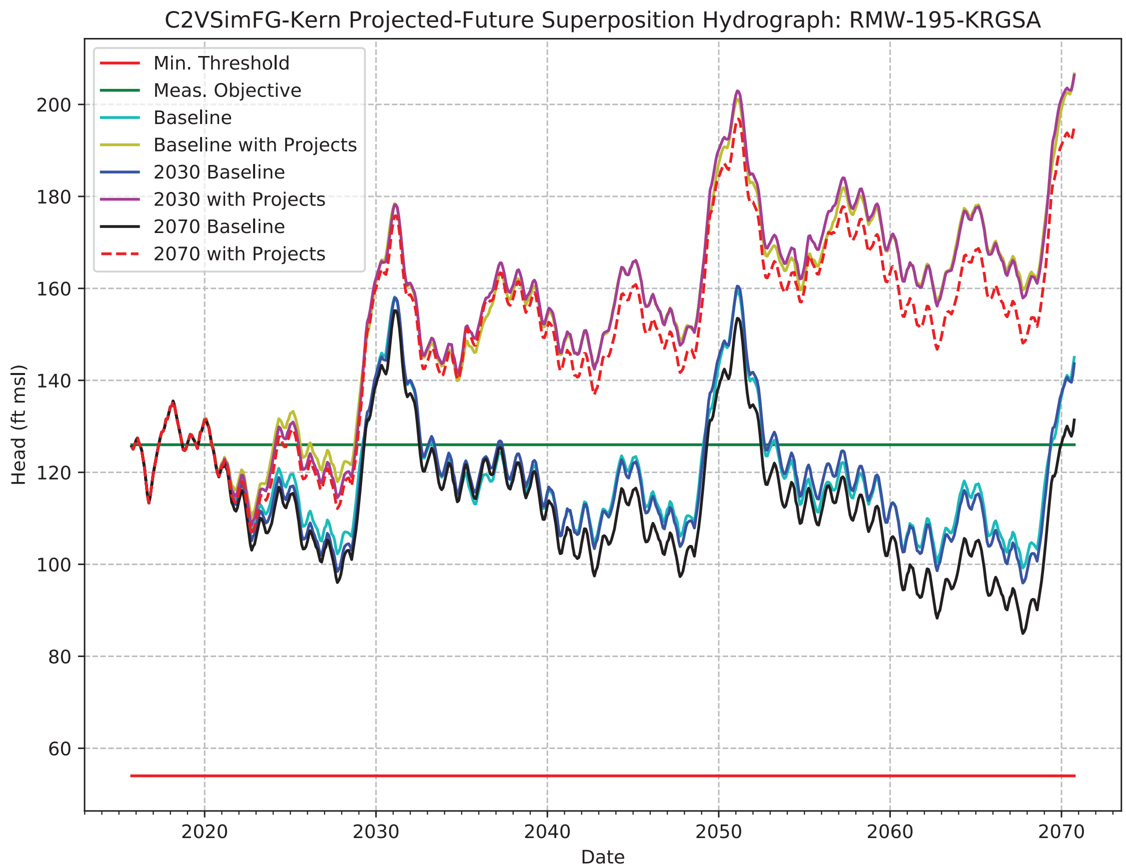

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-188-EWMA
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
200
180
160
140
120
100
80
2020
2030
2040
2050
2060
2070
Date

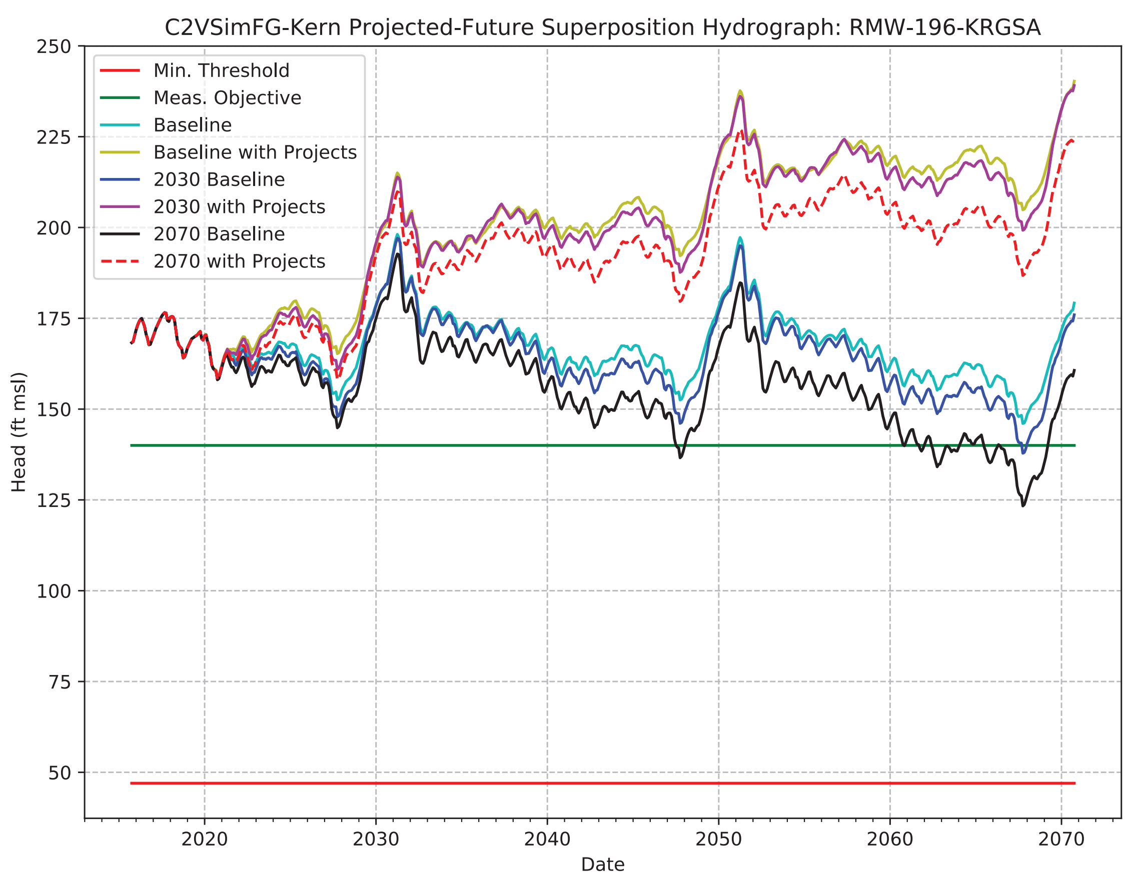

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-189-EWMA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

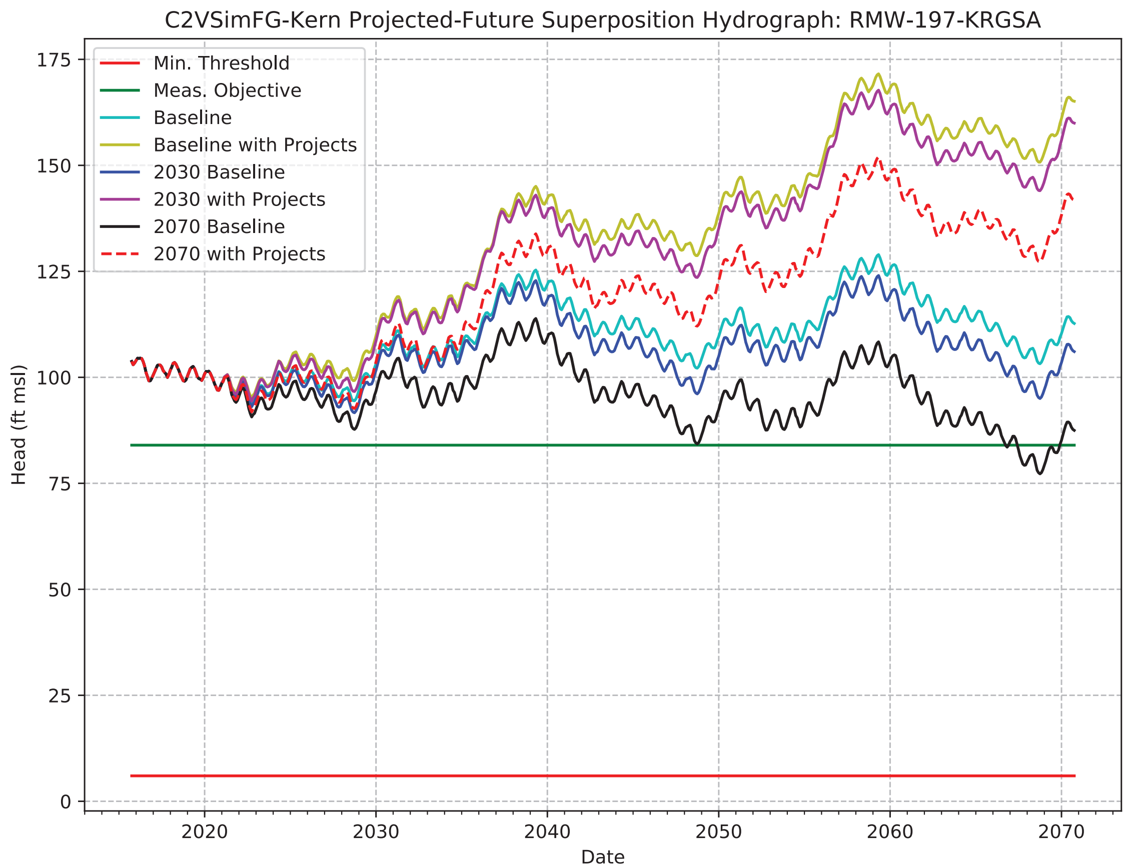

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-190-EWMA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.

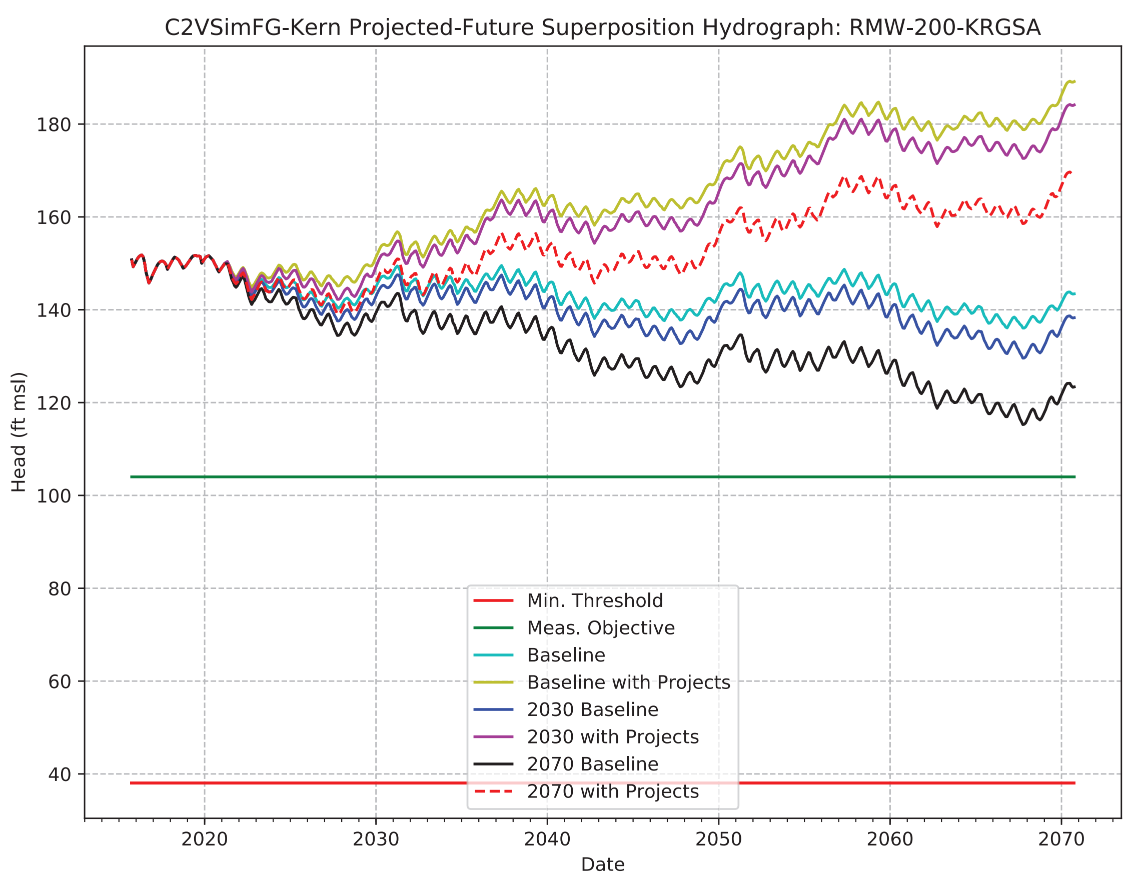

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-192-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
200
175
150
125
100
75
50
25
2020
2030
2040
2050
2060
2070

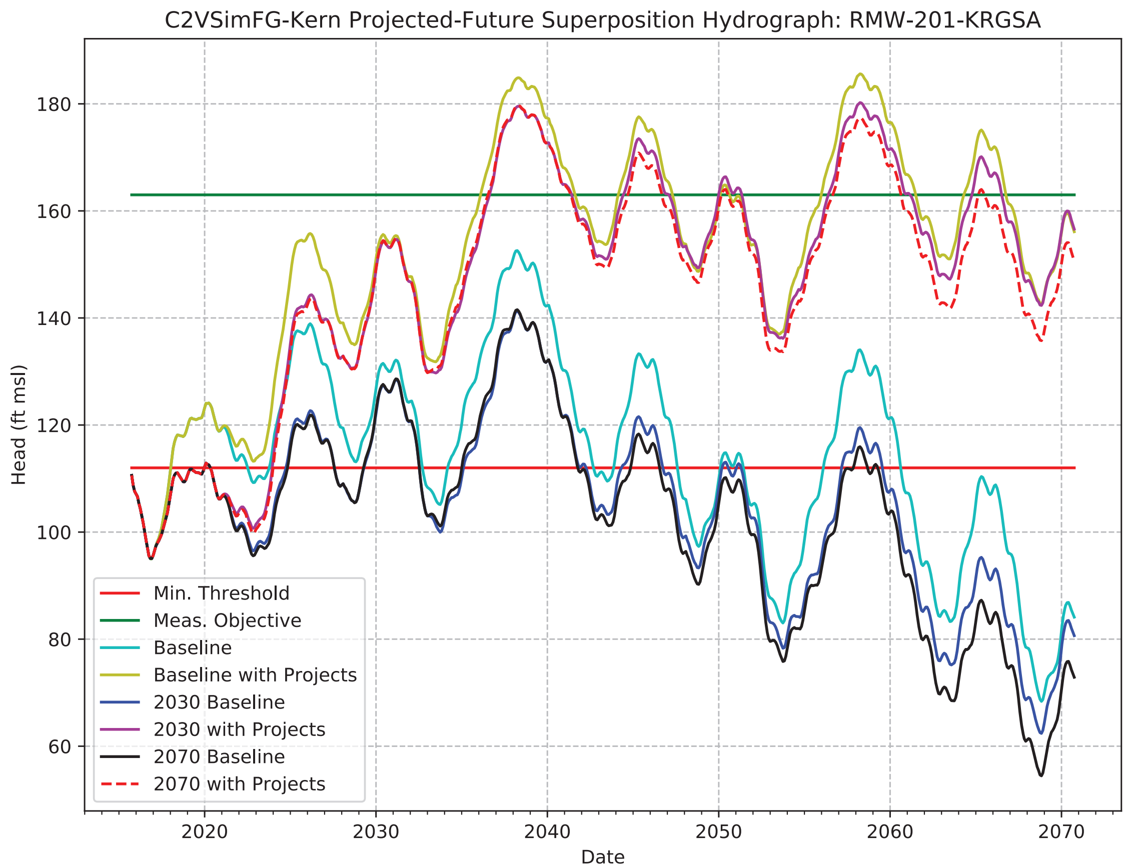

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-193-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
250
200
150
100
50
0
2020
2030
2040
2050
2060
2070

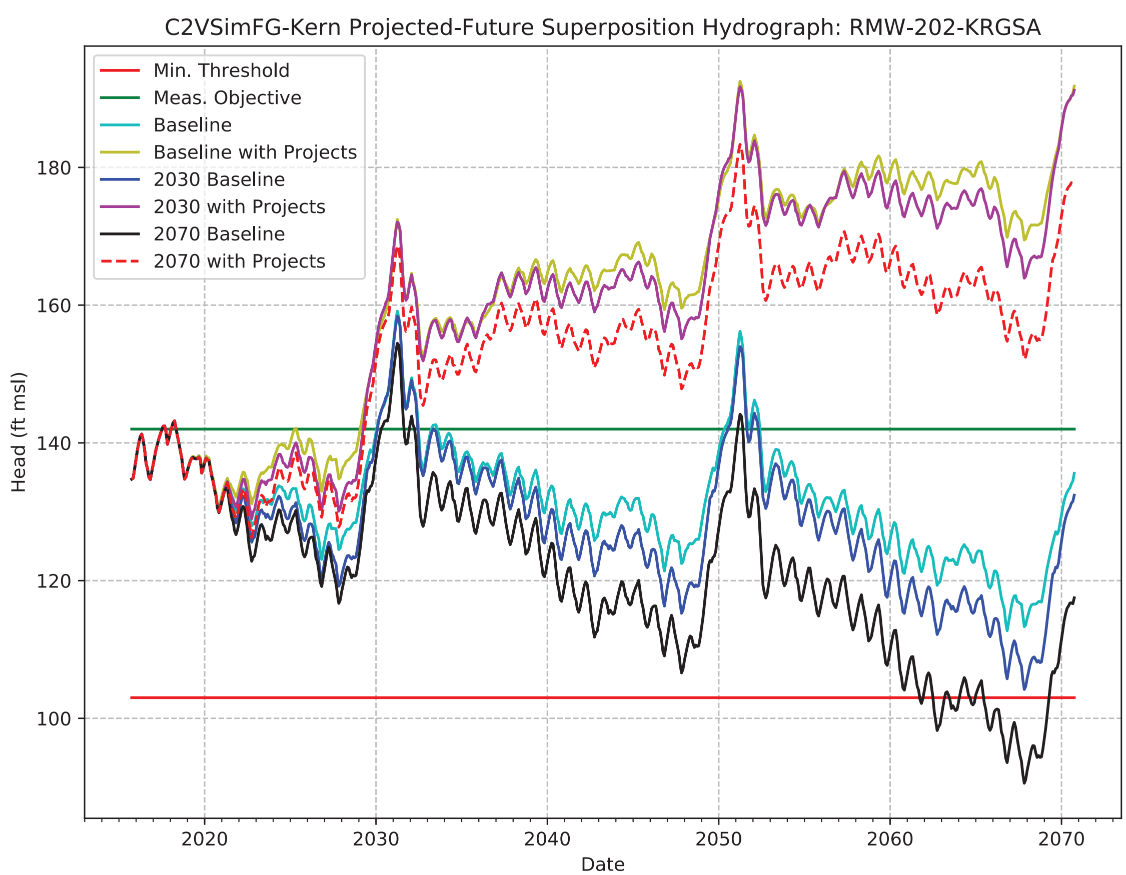

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-195-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
60
80
100
120
140
160
180
200
2020
2030
2040
2050
2060
2070

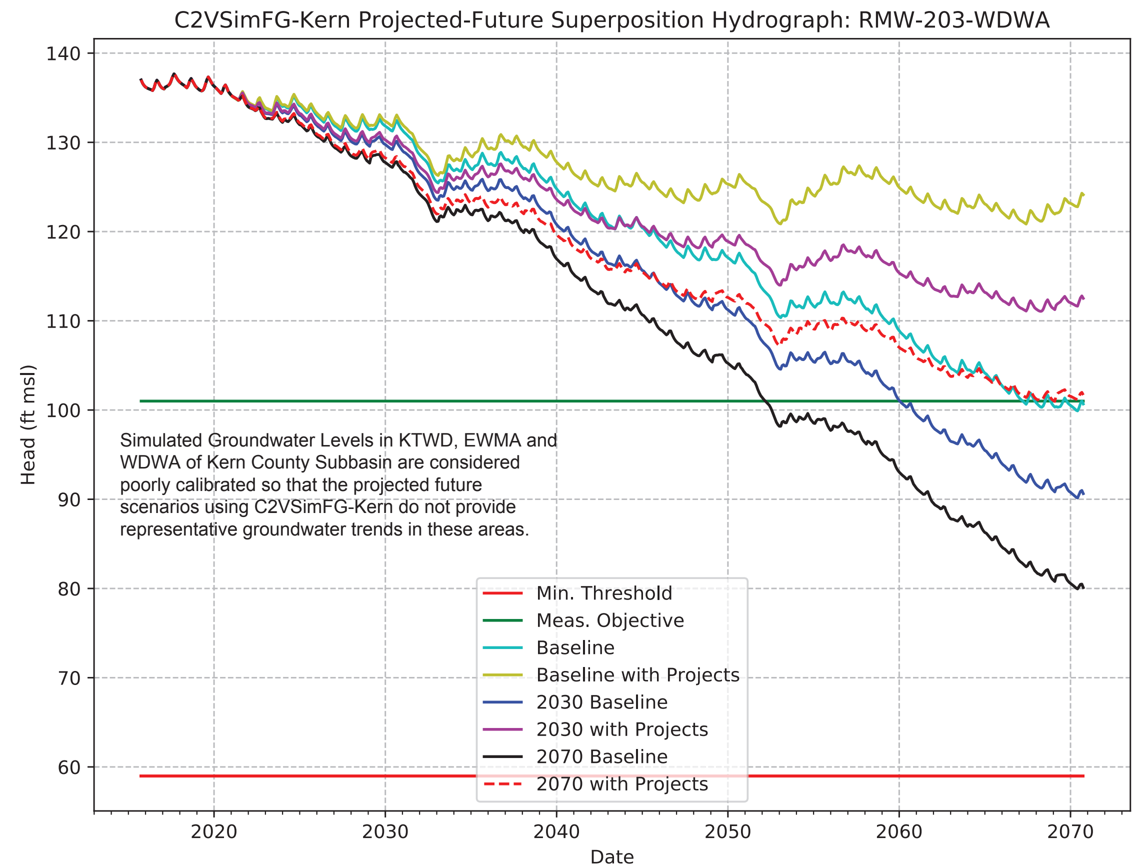

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-196-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
50
75
100
125
150
175
200
225
250
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-197-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
0
25
50
75
100
125
150
175
2020
2030
2040
2050
2060
2070

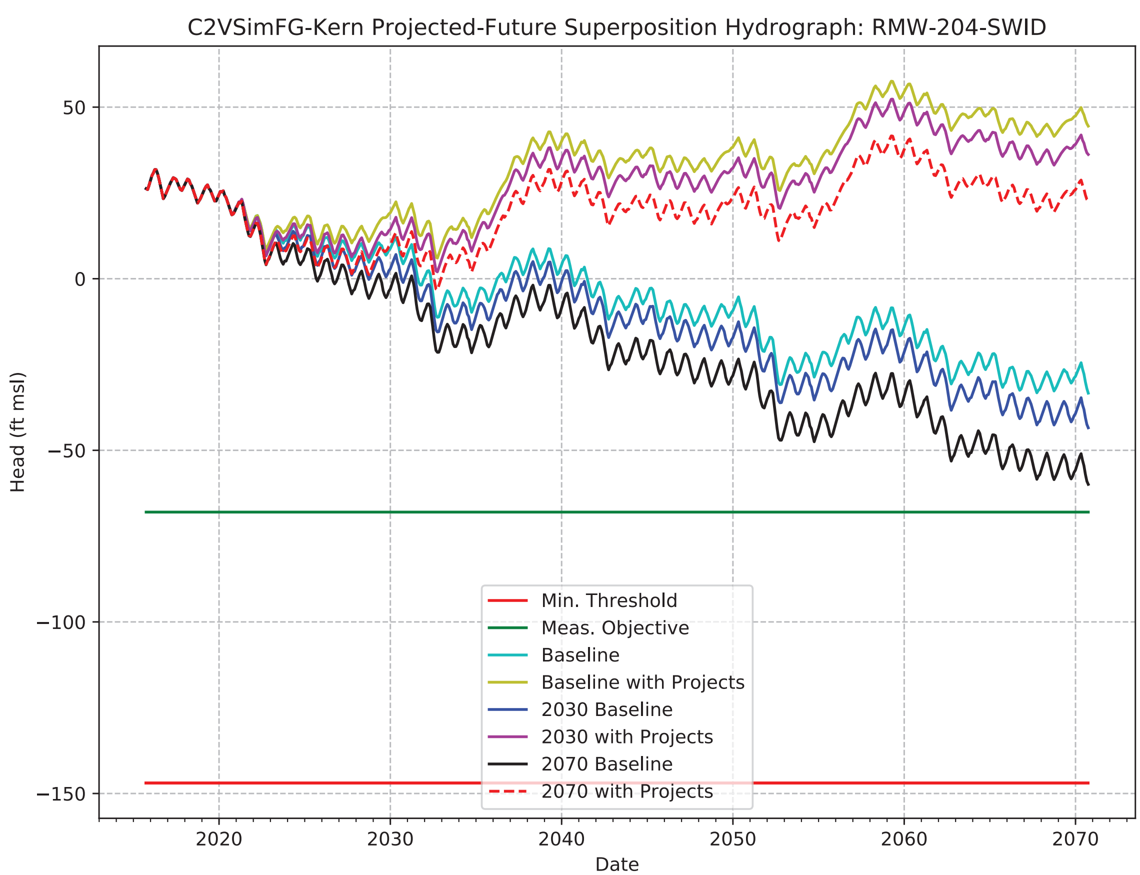

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-200-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
40
60
80
100
120
140
160
180
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-201-KRGSA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
60
80
100
120
140
160
180
2020
2030
2040
2050
2060
2070

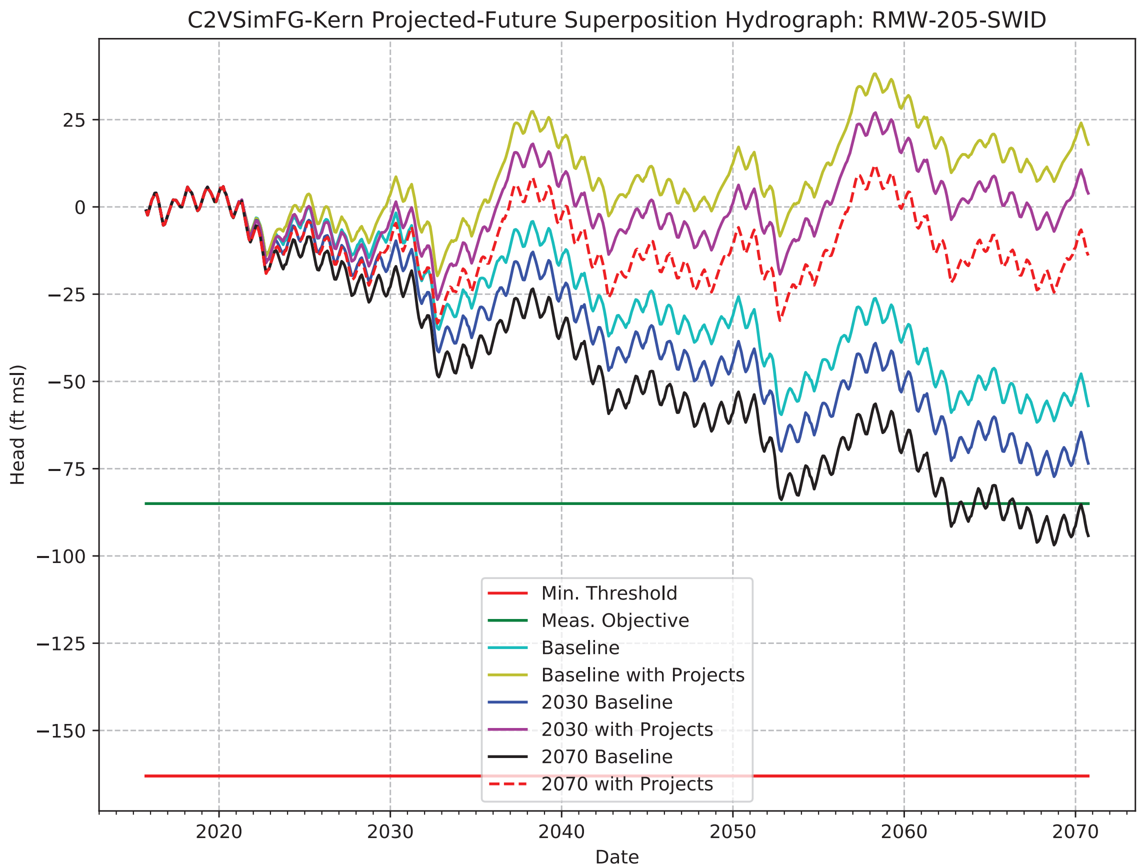

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-202-KRGSA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
100
120
140
160
180
2020
2030
2040
2050
2060
2070



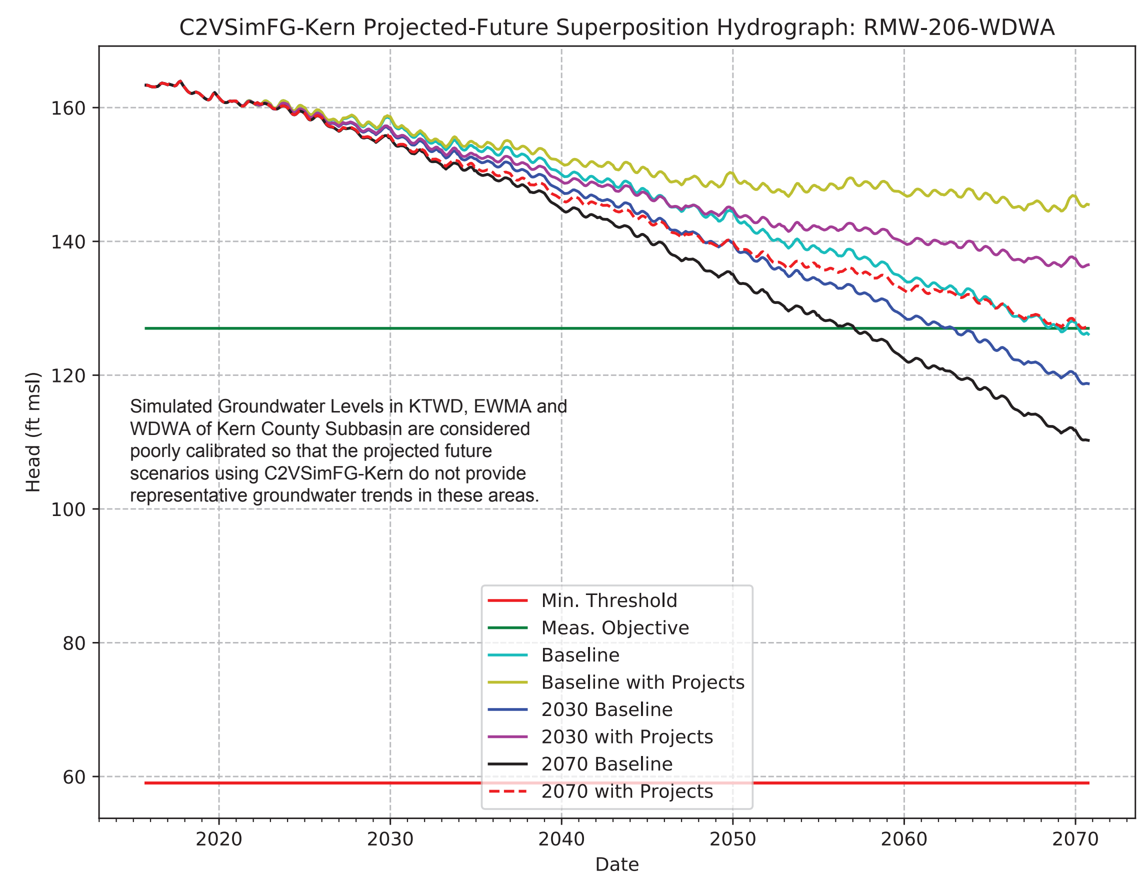
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-203-WDWA
Head (ft msl)
Date
140
130
120
110
100
90
80
70
60
2020
2030
2040
2050
2060
2070
Simulated Groundwater Levels in KTWD, EWMA and
WDWA of Kern County Subbasin are considered
poorly calibrated so that the projected future
scenarios using C2VSimFG-Kern do not provide
representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



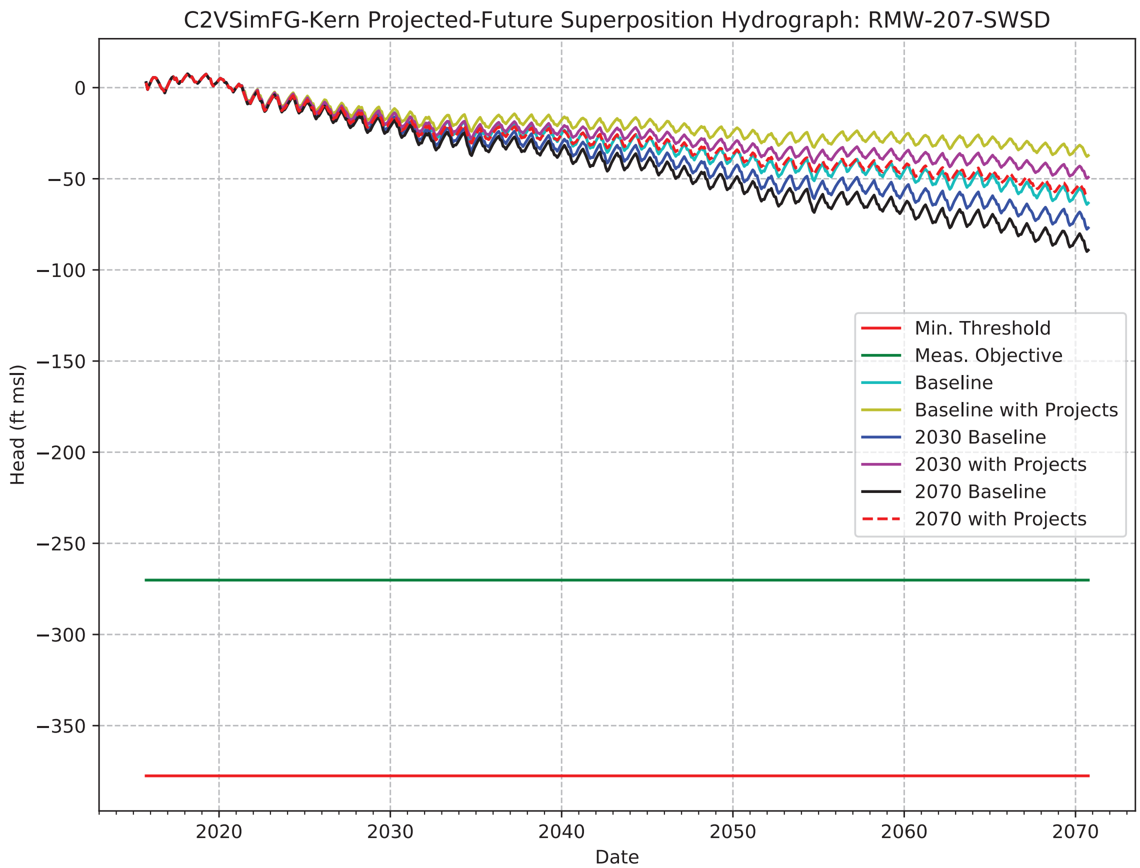
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-204-SWID
Head (ft msl)
Date
50
0
−50
−100
−150
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



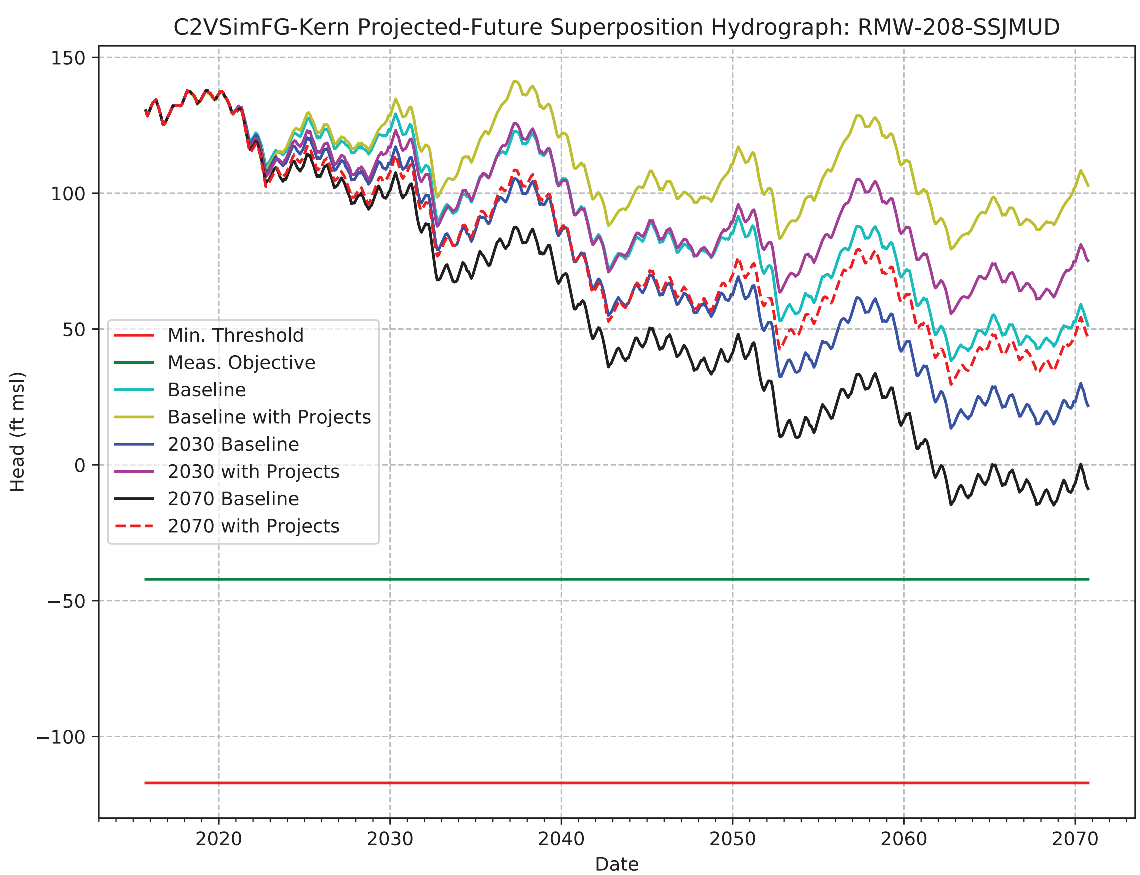
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-205-SWID
Head (ft msl)
25
0
−25
−50
−75
−100
−125
−150
Date
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects



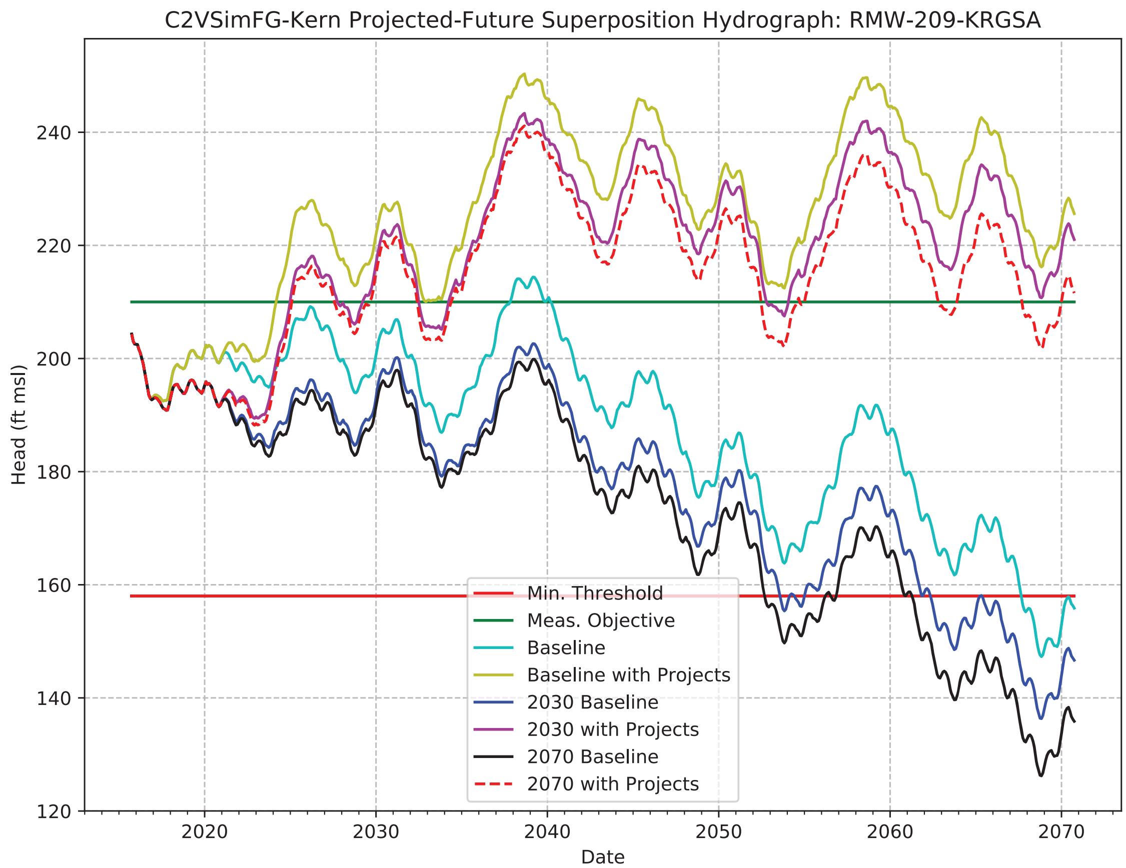
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-206-WDWA
Head (ft msl)
160
140
120
100
80
60
Date
2020
2030
2040
2050
2060
2070
Simulated Groundwater Levels in KTWD, EWMA and WDWA of Kern County Subbasin are considered poorly calibrated so that the projected future scenarios using C2VSimFG-Kern do not provide representative groundwater trends in these areas.
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

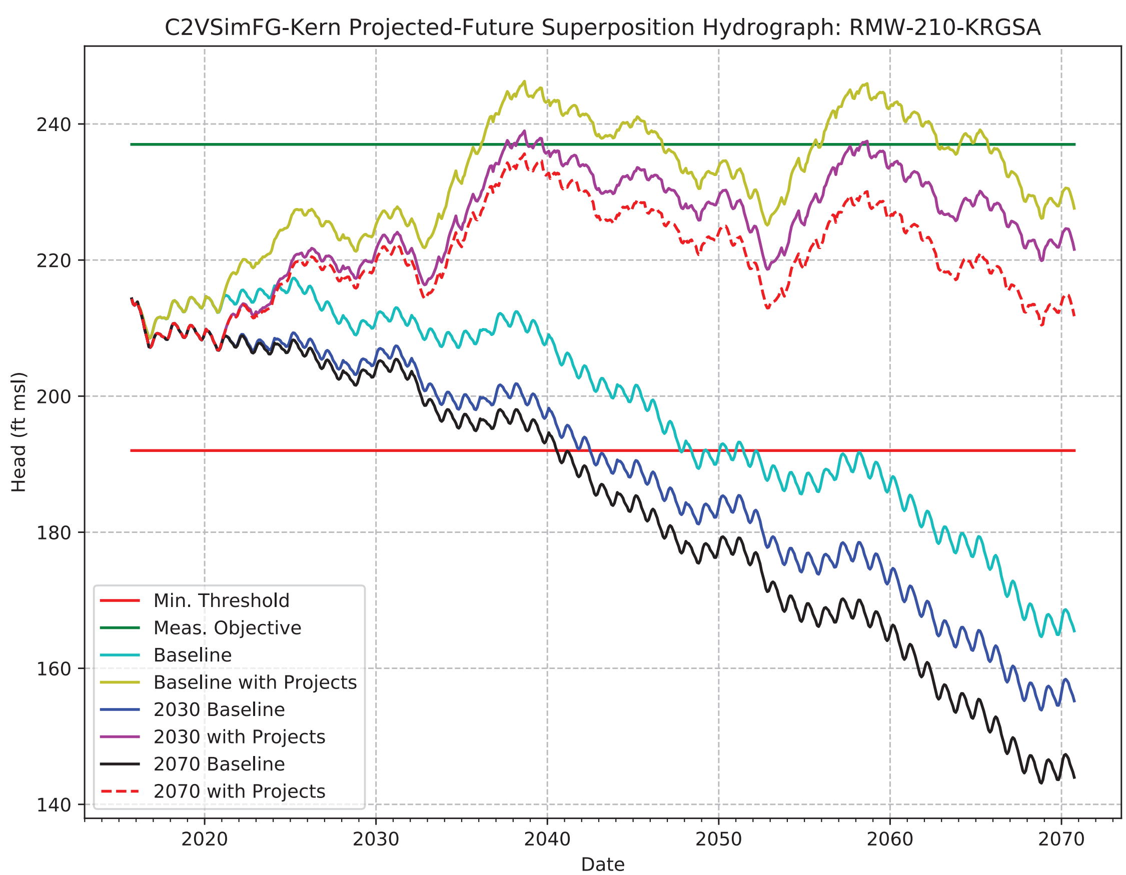


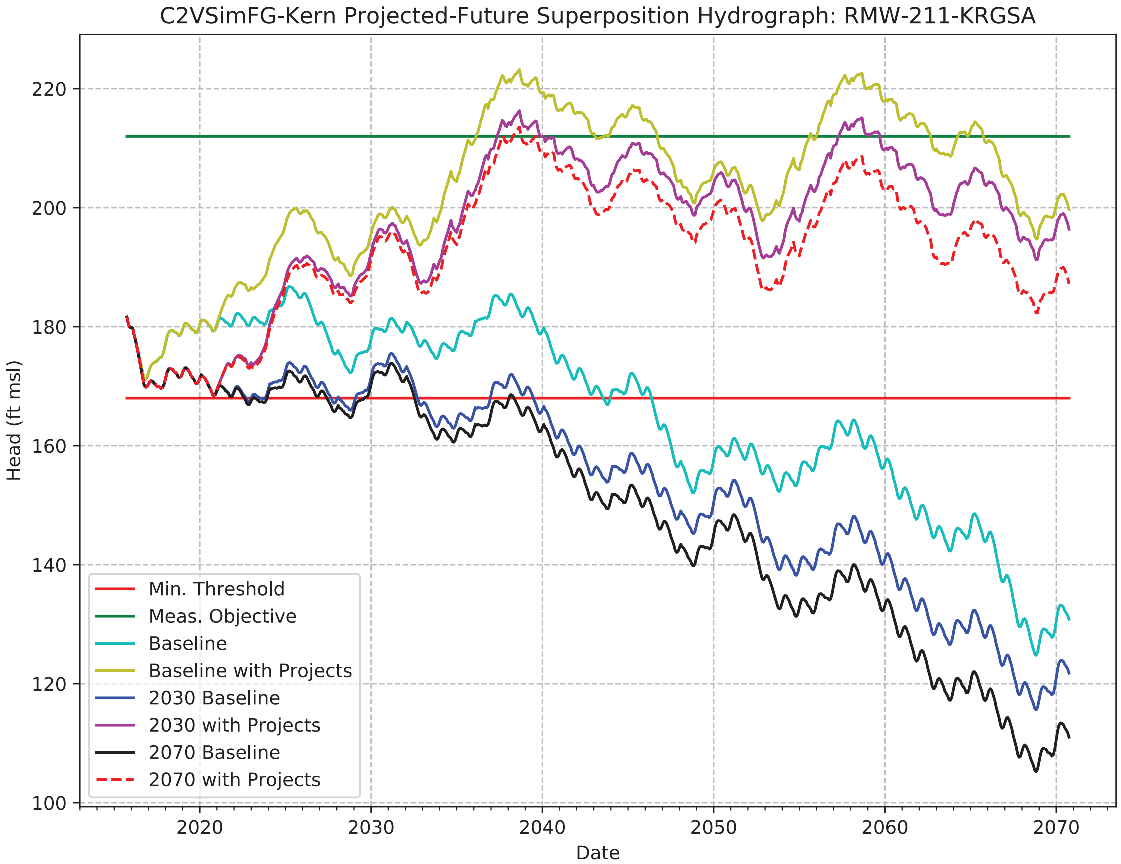
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-207-SWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

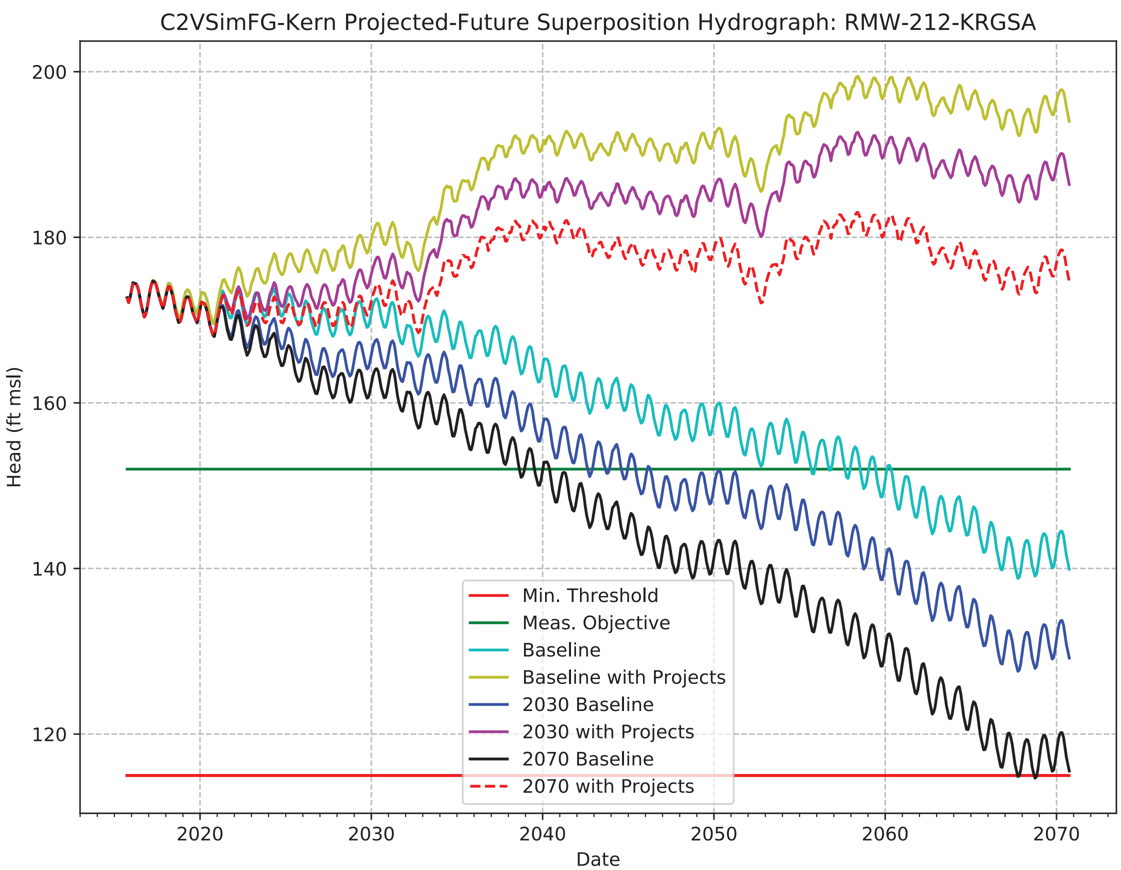


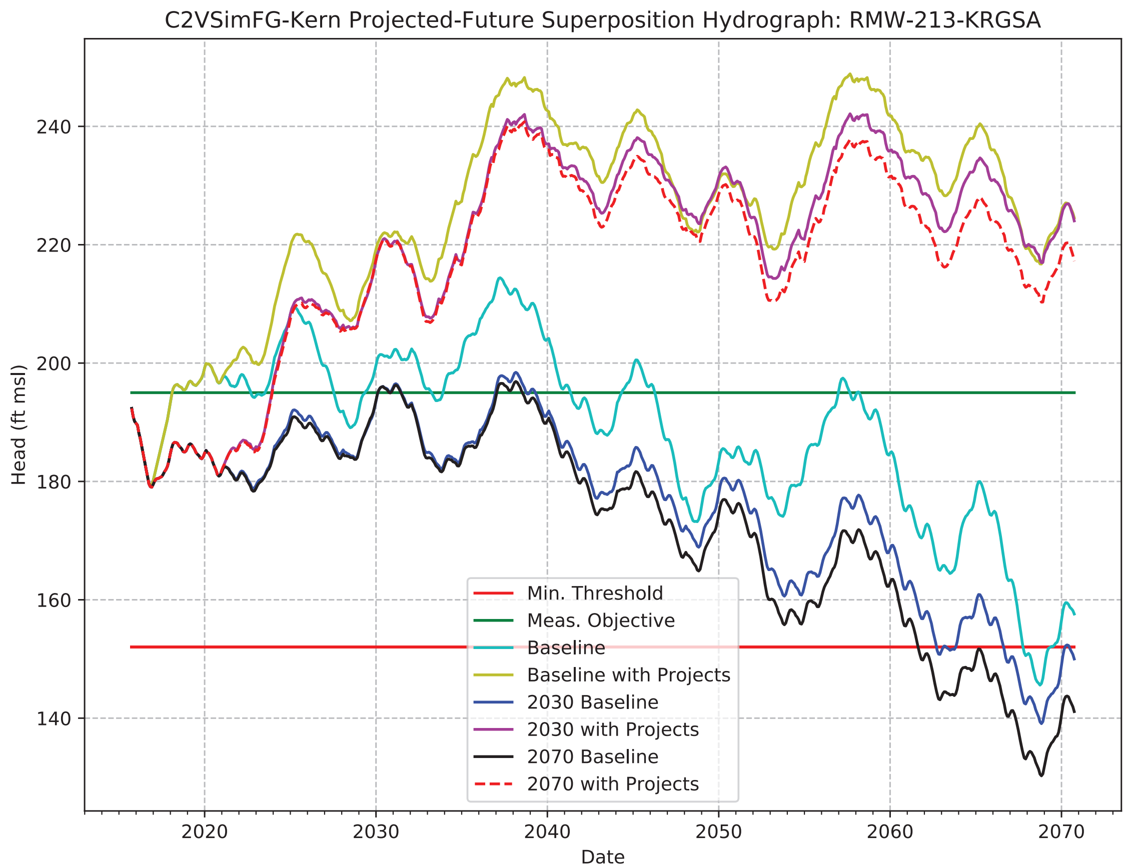
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-208-SSJMUD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

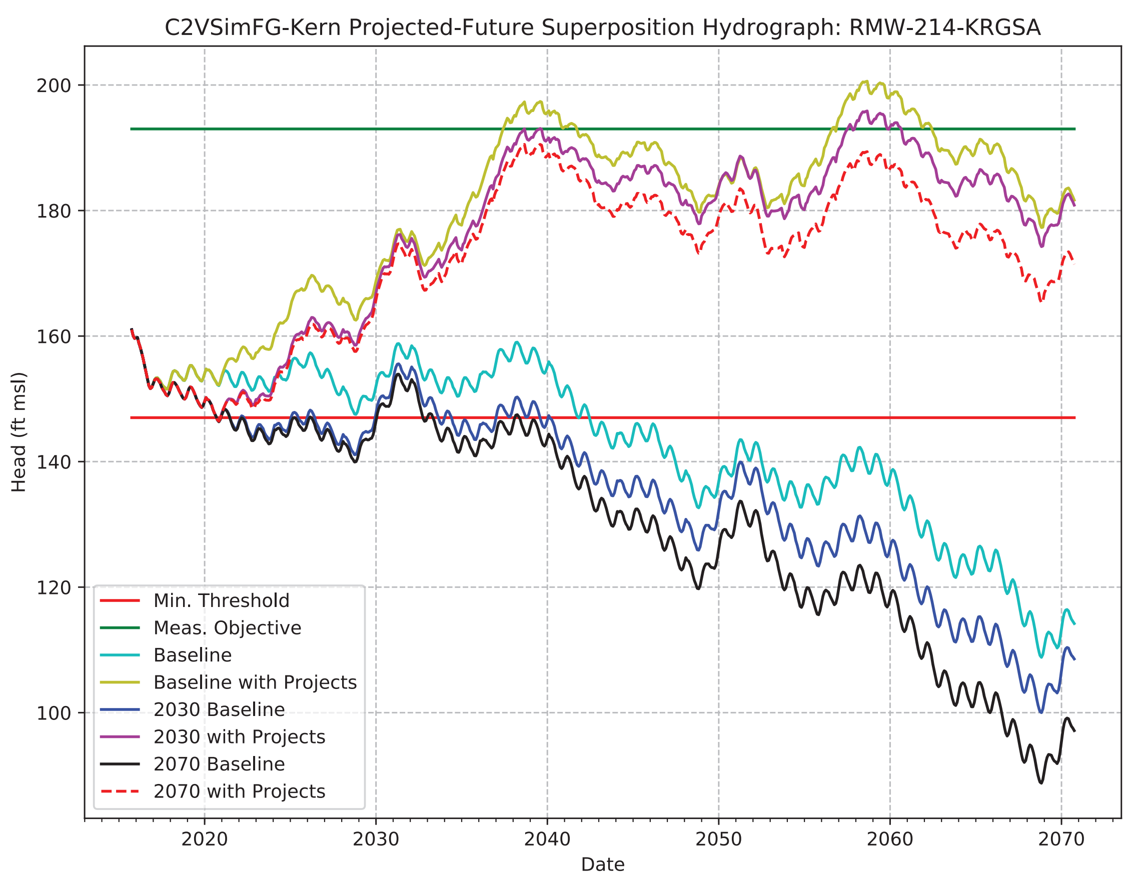

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-209-KRGSA
Head (ft msl)
Date
120
140
160
180
200
220
240
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

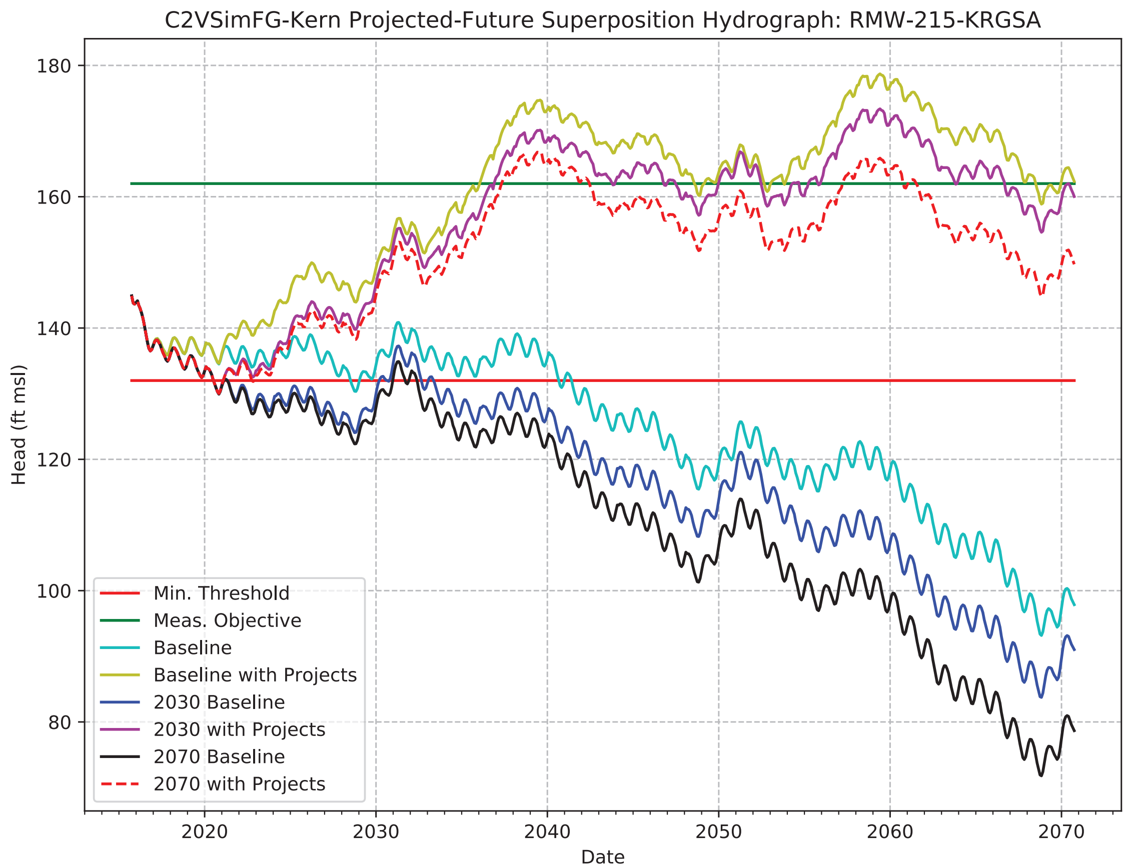

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-210-KRGSA
Head (ft msl)
Date
140
160
180
200
220
240
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

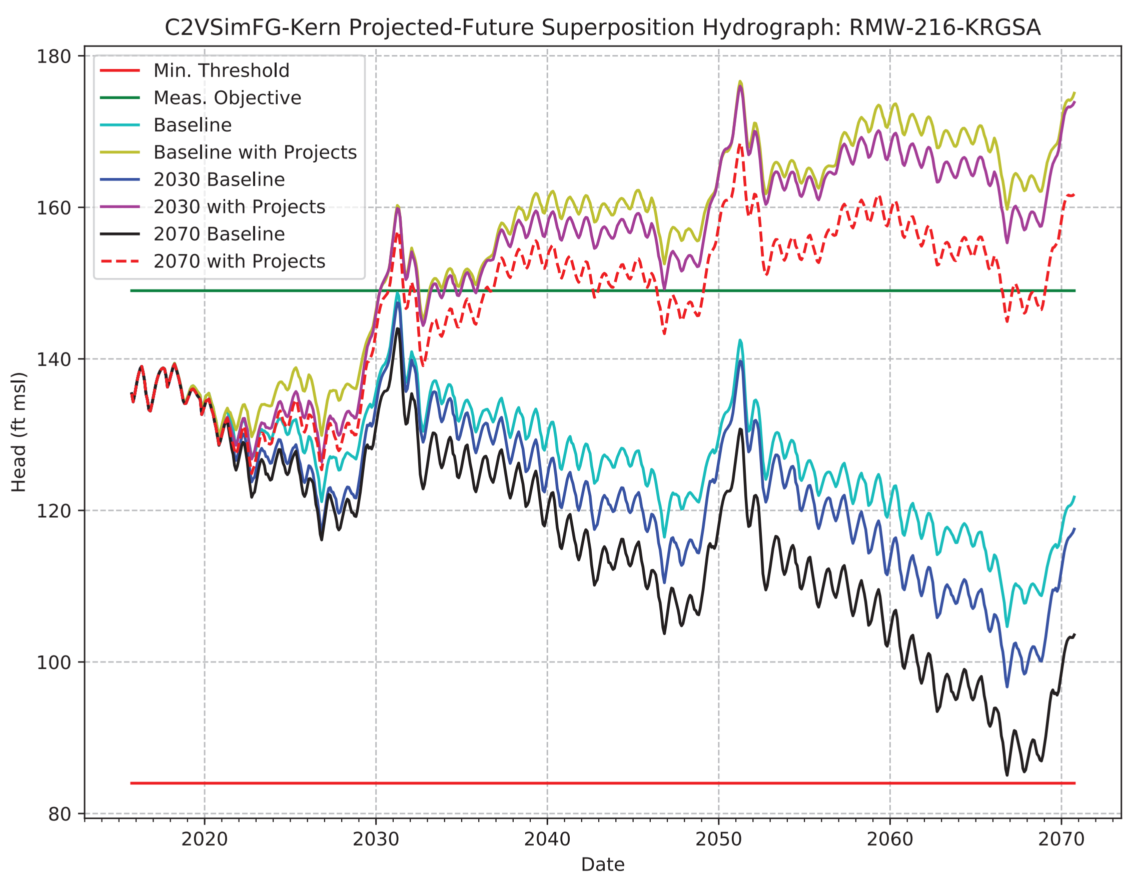

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-211-KRGSA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

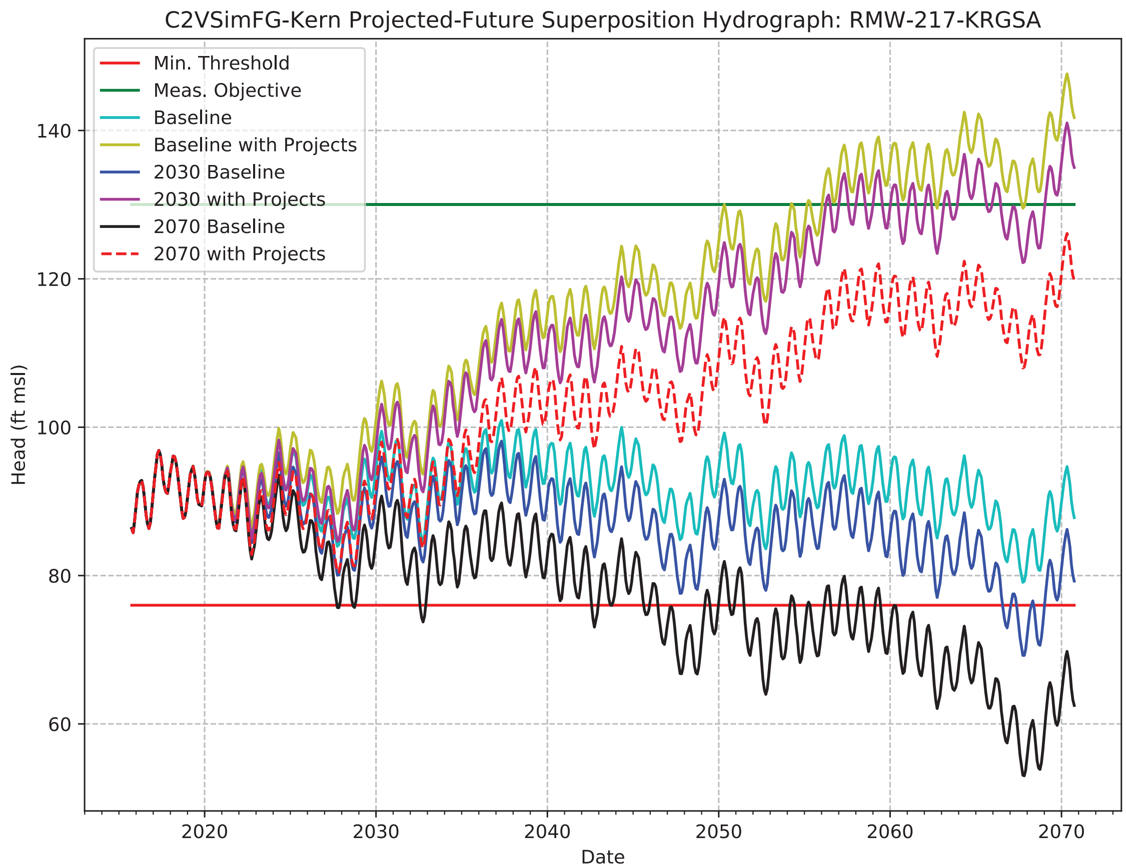

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-212-KRGSA
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-213-KRGSA
Head (ft msl)
Date
240
220
200
180
160
140
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

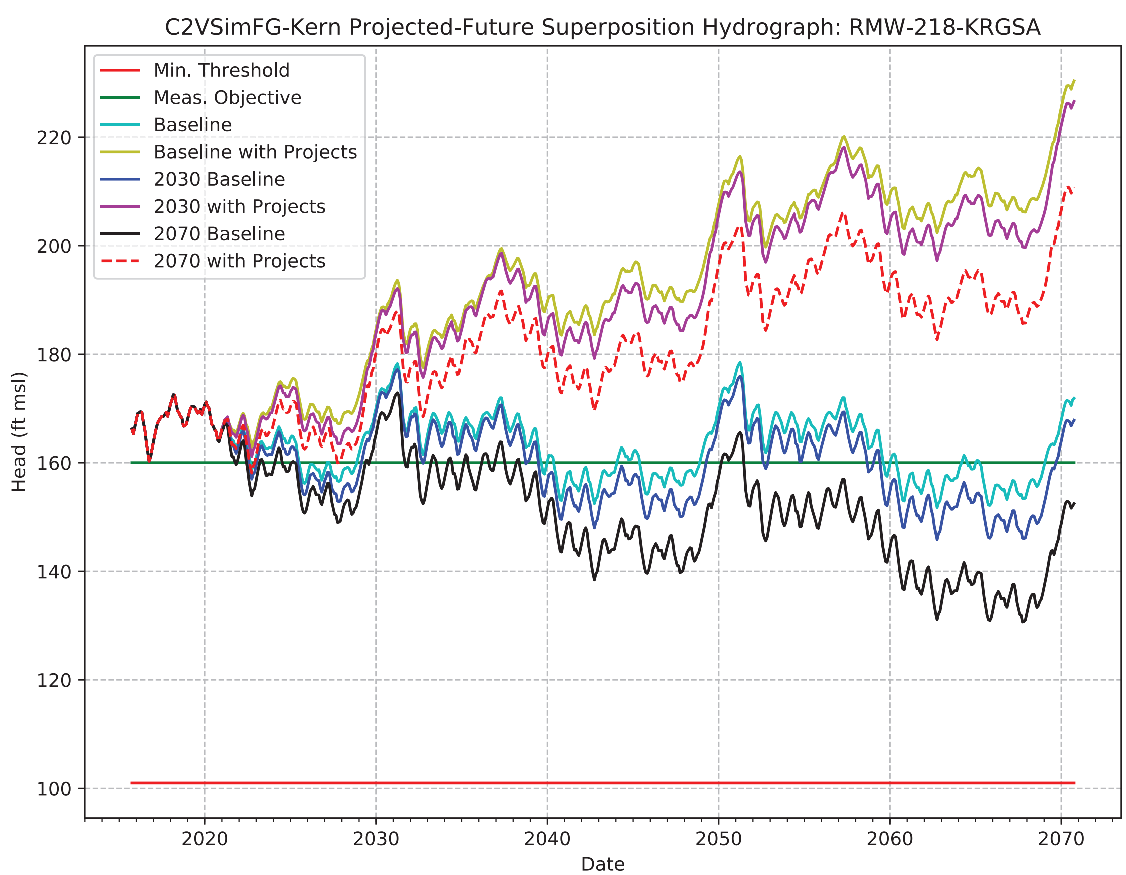

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-214-KRGSA
Head (ft msl)
Date
200
180
160
140
120
100
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-215-KRGSA
Head (ft msl)
Date
180
160
140
120
100
80
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-216-KRGSA
Head (ft msl)
Date
180
160
140
120
100
80
2020
2030
2040
2050
2060
2070
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

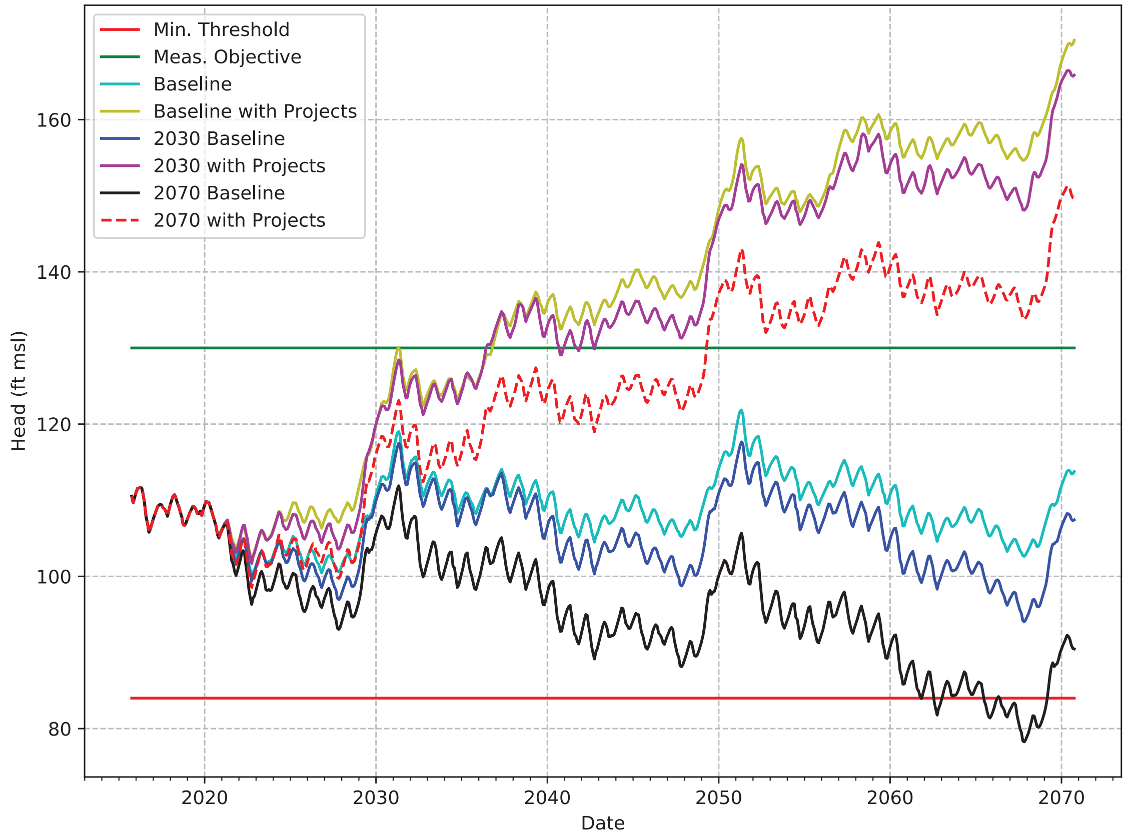


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-217-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
140
120
100
80
60
2020
2030
2040
2050
2060
2070
Date

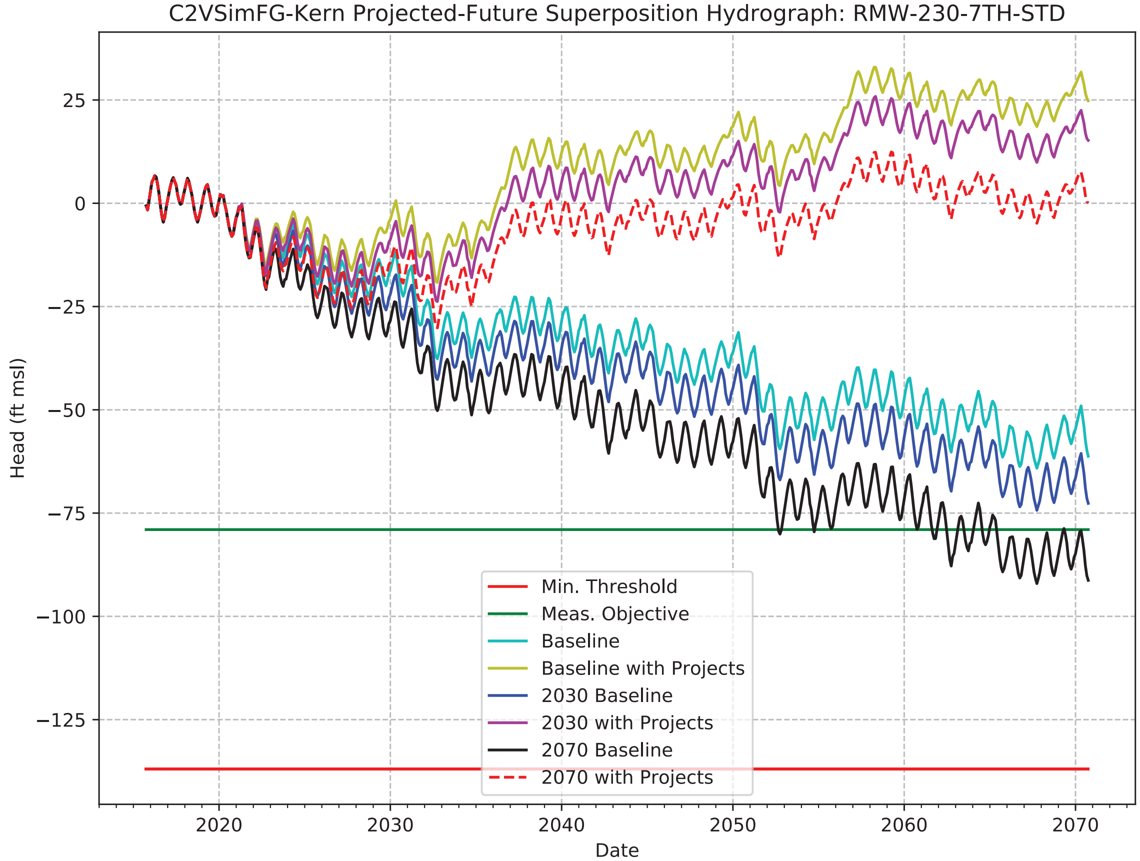


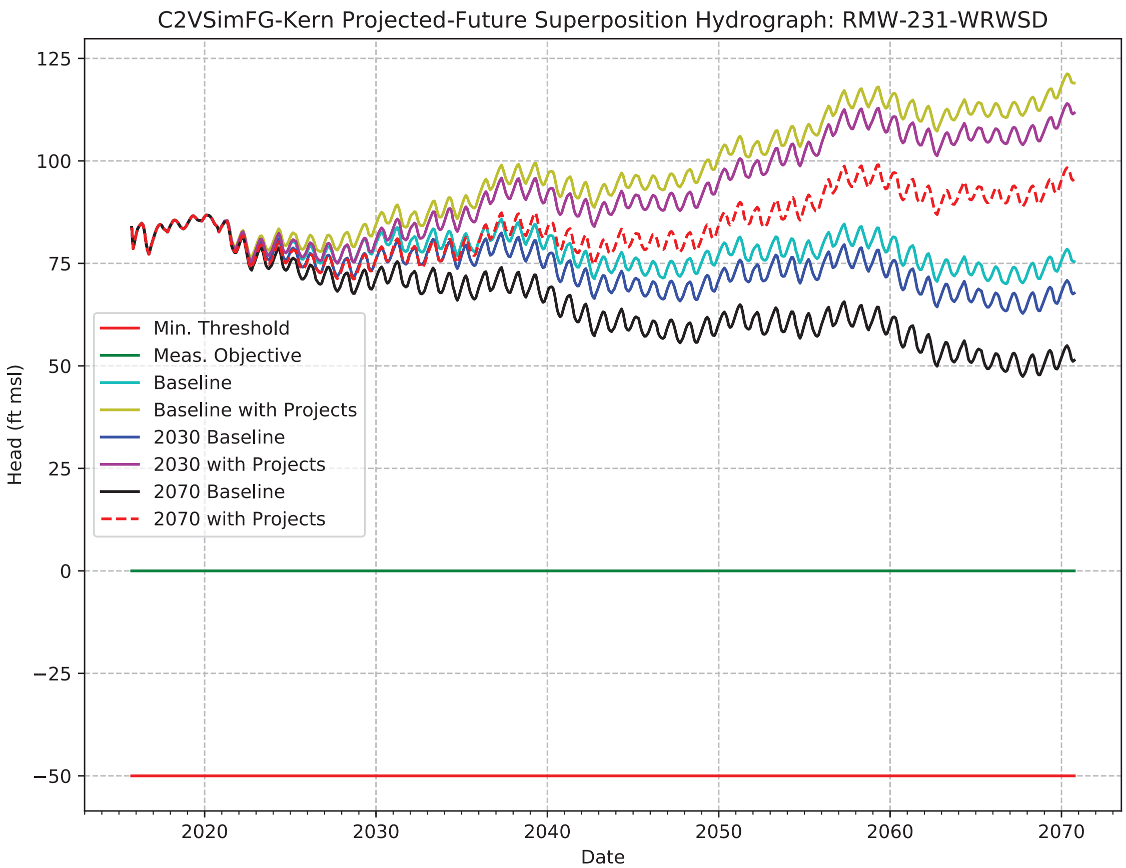
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-218-KRGSA
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
220
200
180
160
140
120
100
2020
2030
2040
2050
2060
2070
Date

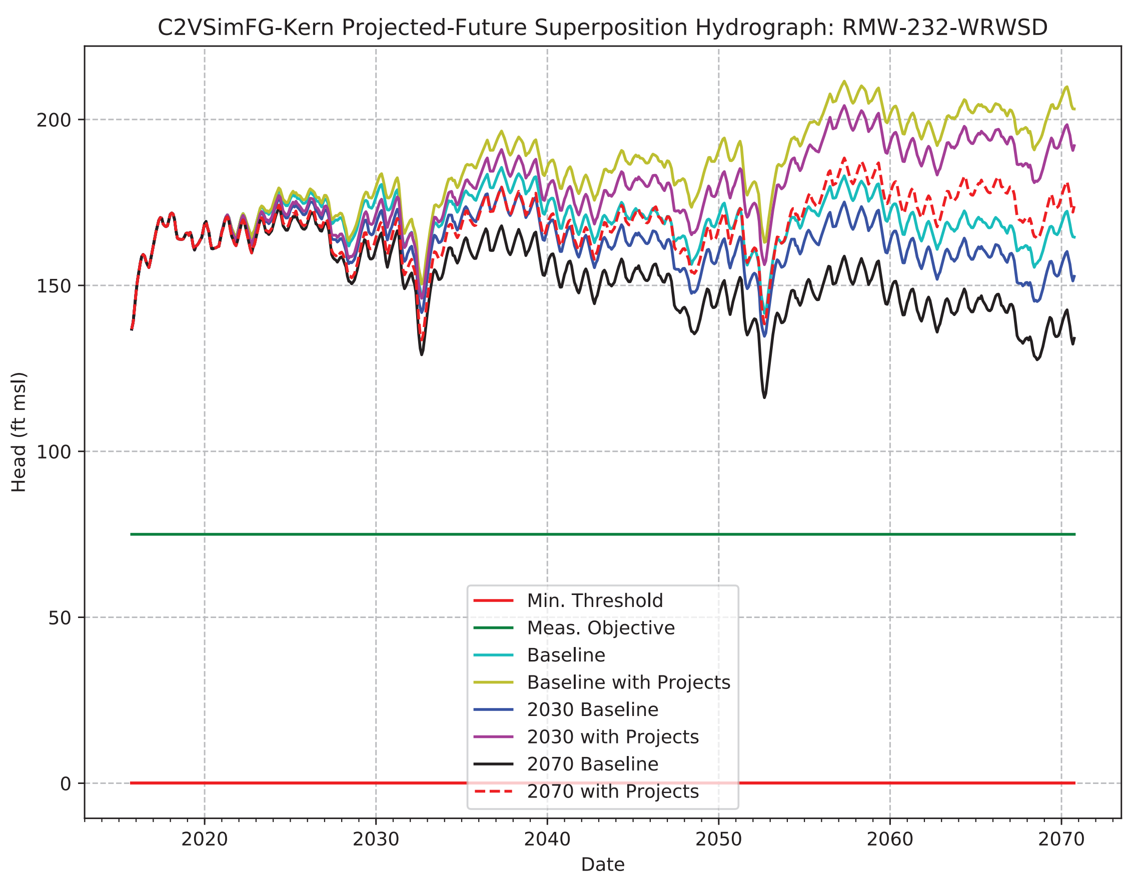
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-219-KRGSA

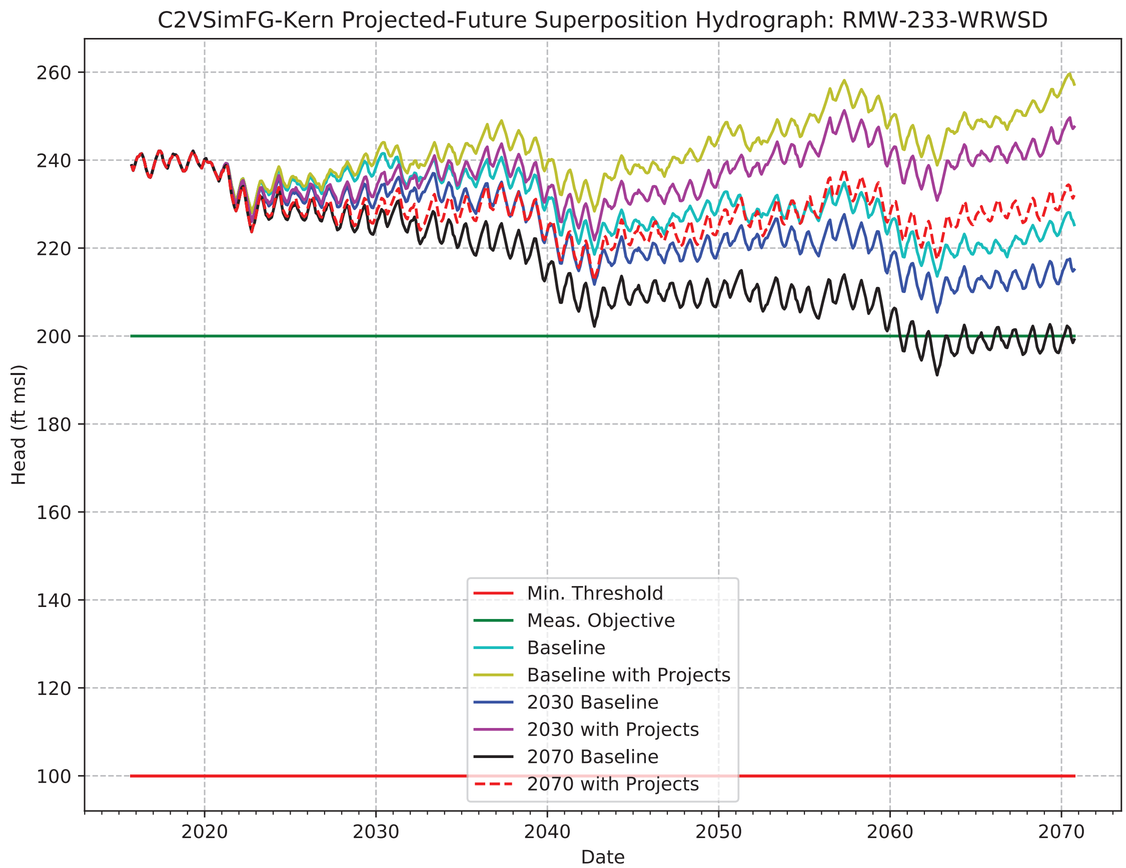


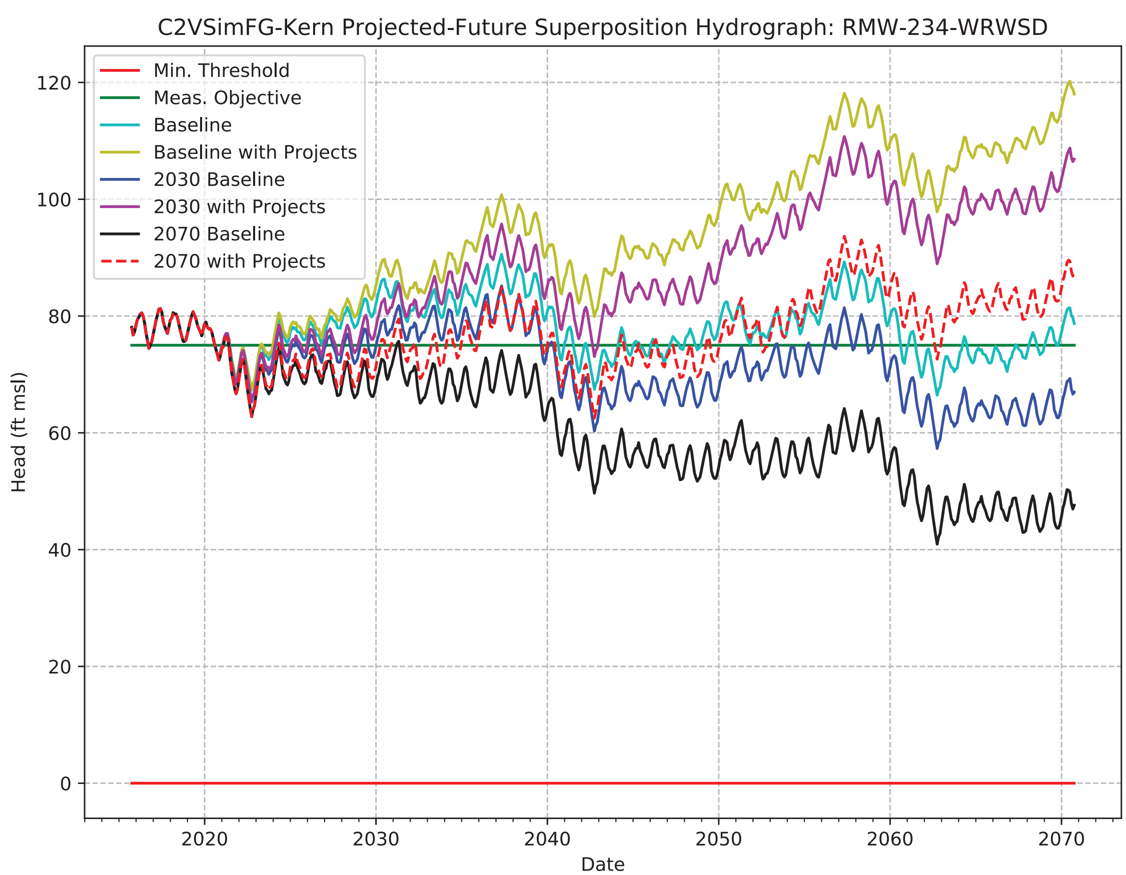
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-230-7TH-STD

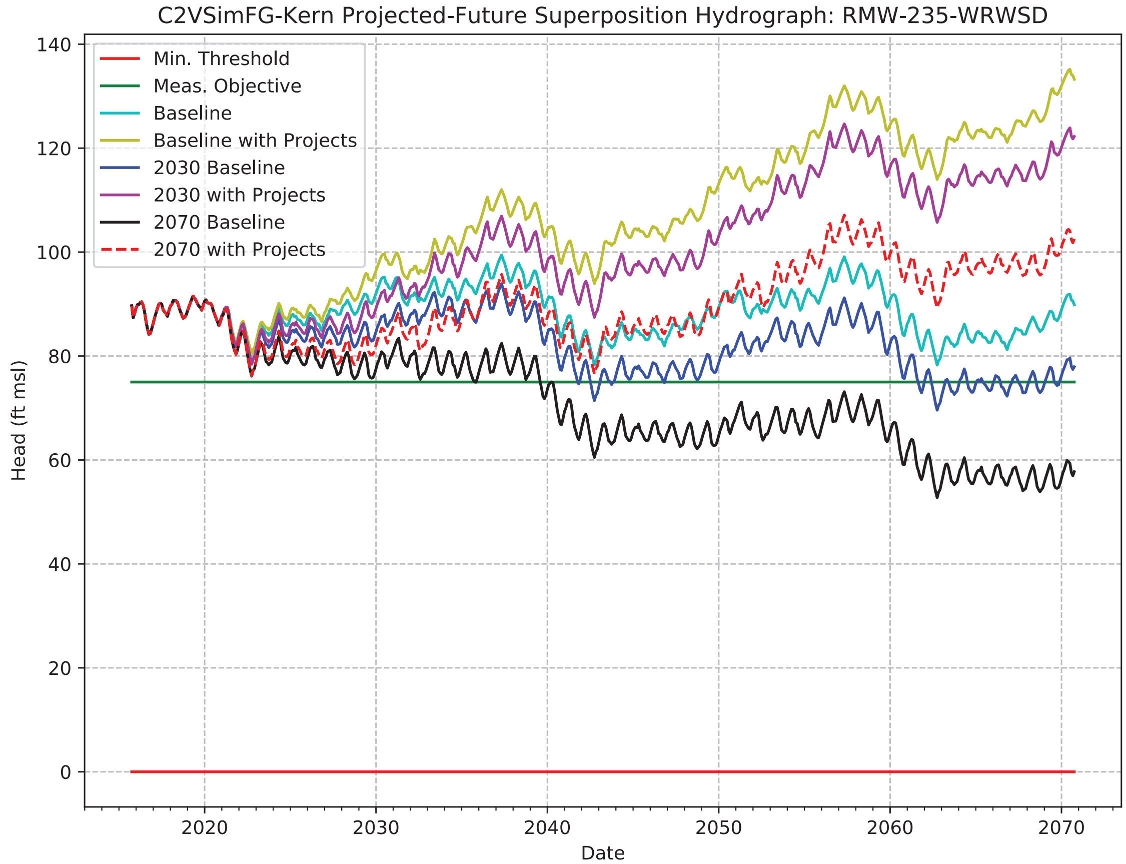


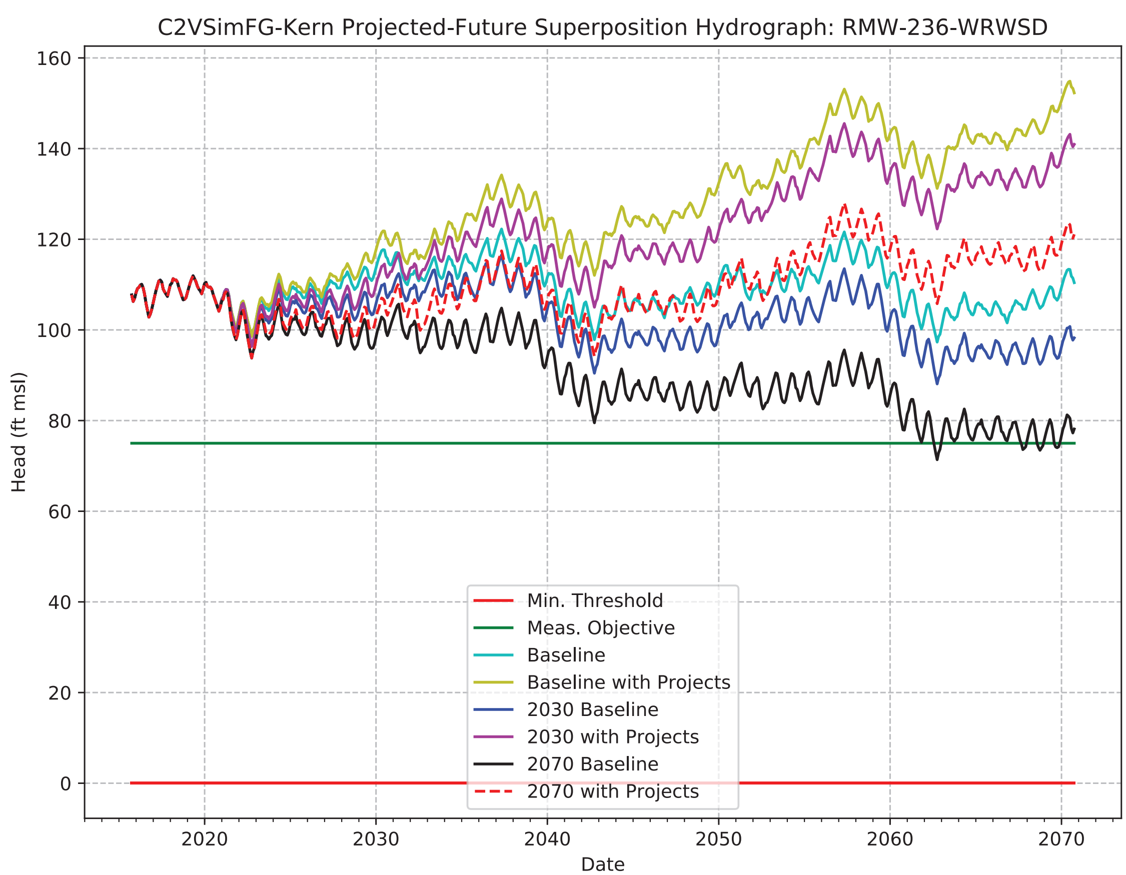

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-231-WRWSD
Head (ft msl)
125
100
75
50
25
0
−25
−50
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

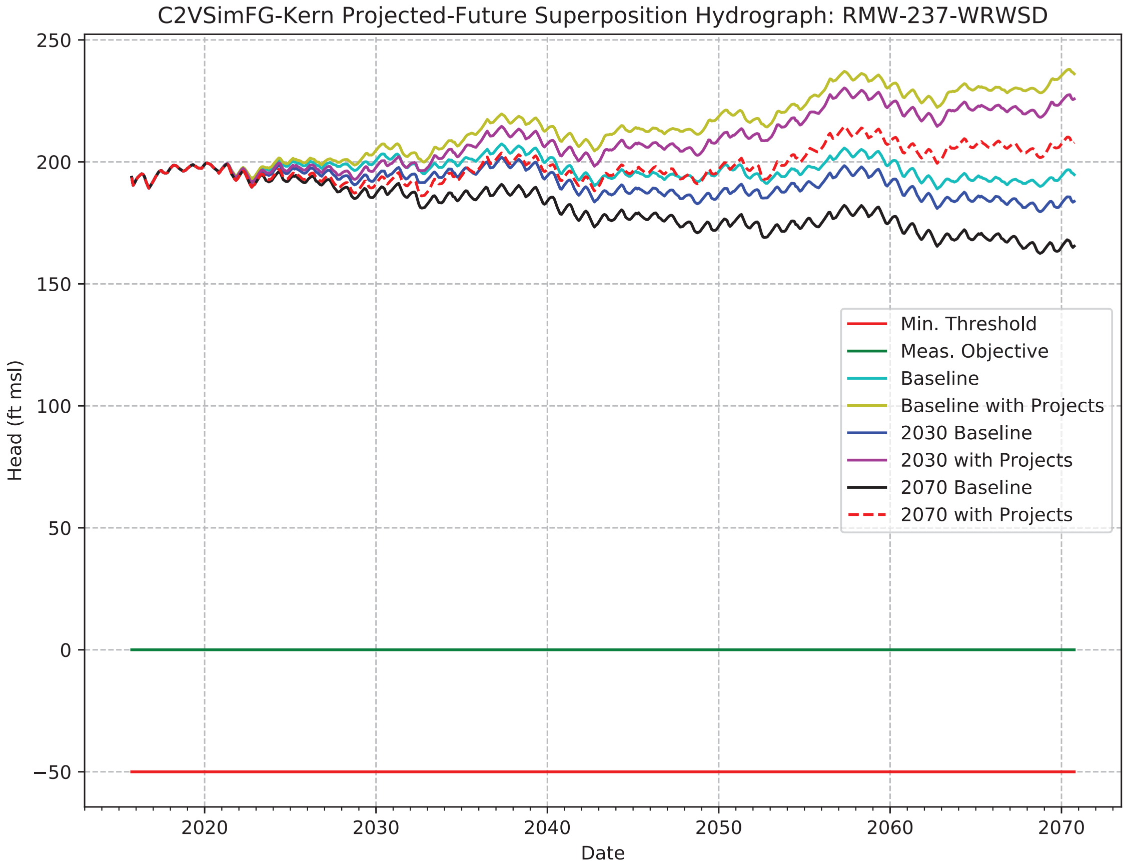

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-232-WRWSD
Head (ft msl)
200
150
100
50
0
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-233-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects

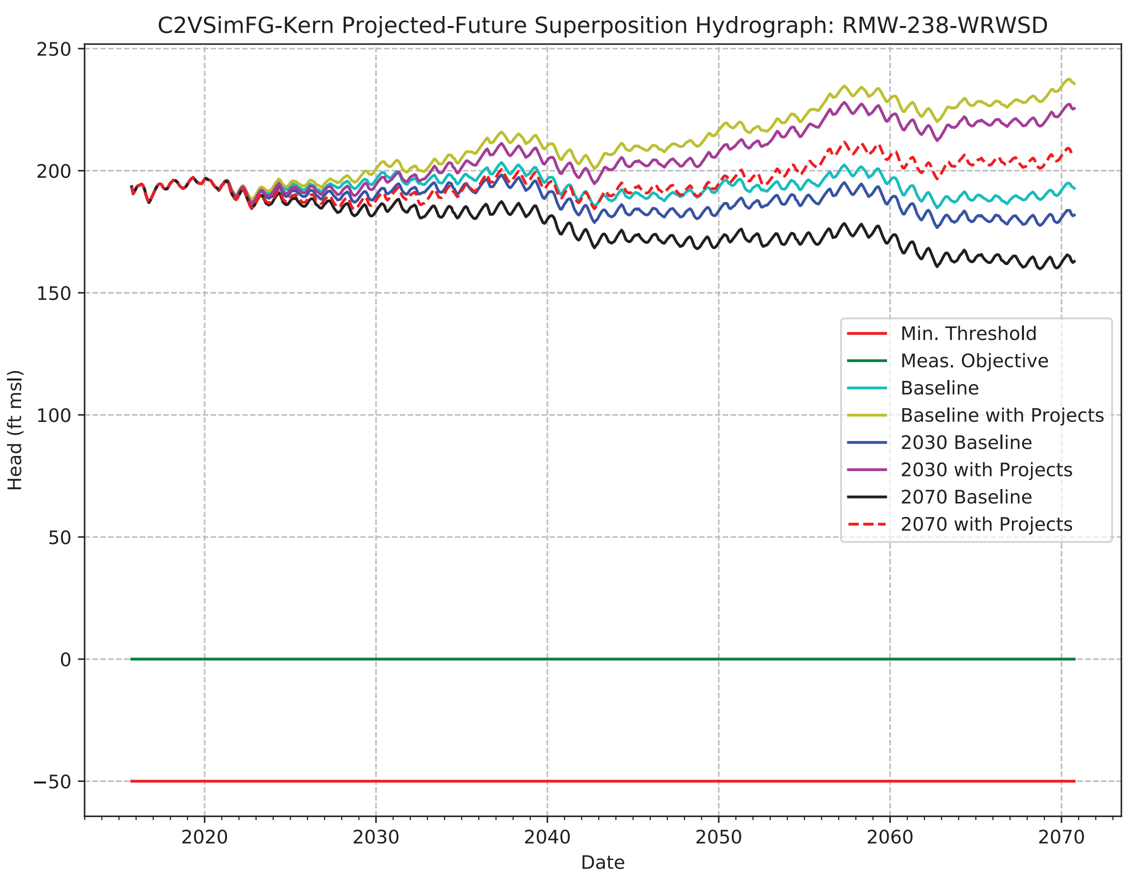

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-234-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-235-WRWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
0
20
40
60
80
100
120
140
2020
2030
2040
2050
2060
2070

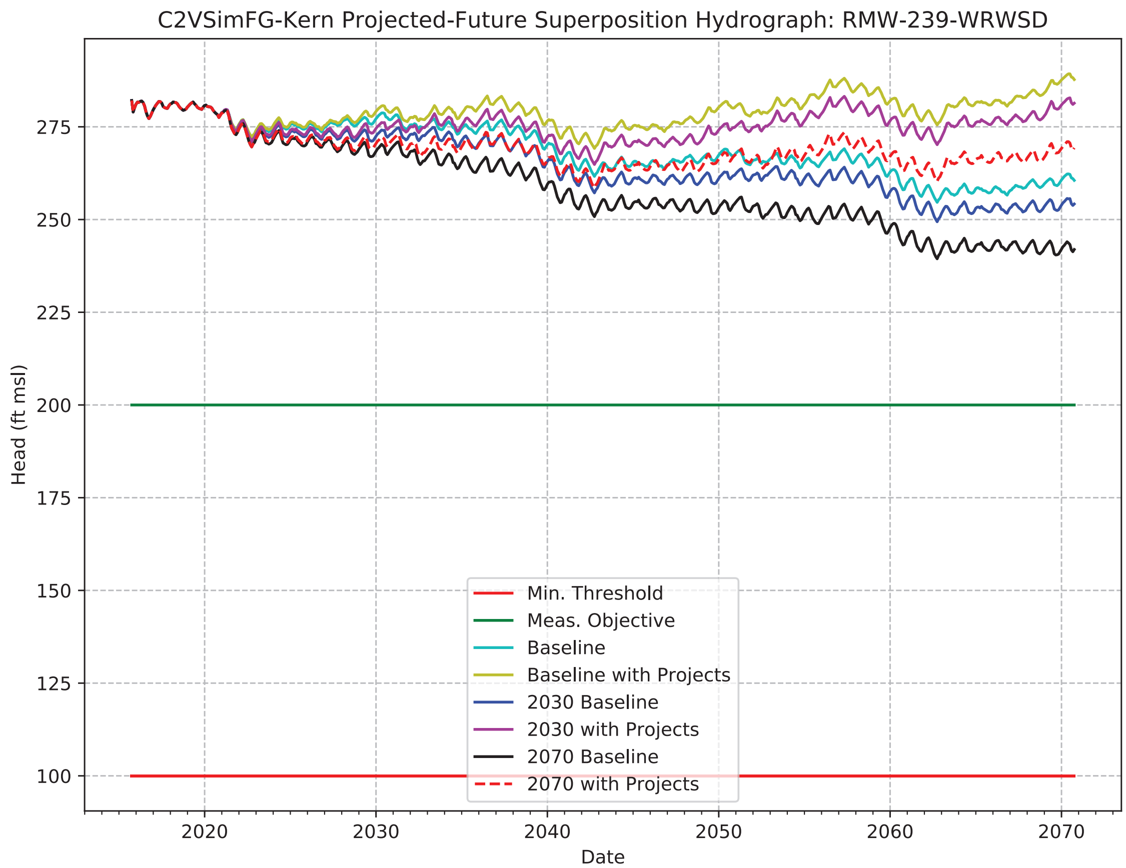

C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-236-WRWSD
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
Head (ft msl)
Date
0
20
40
60
80
100
120
140
160
2020
2030
2040
2050
2060
2070

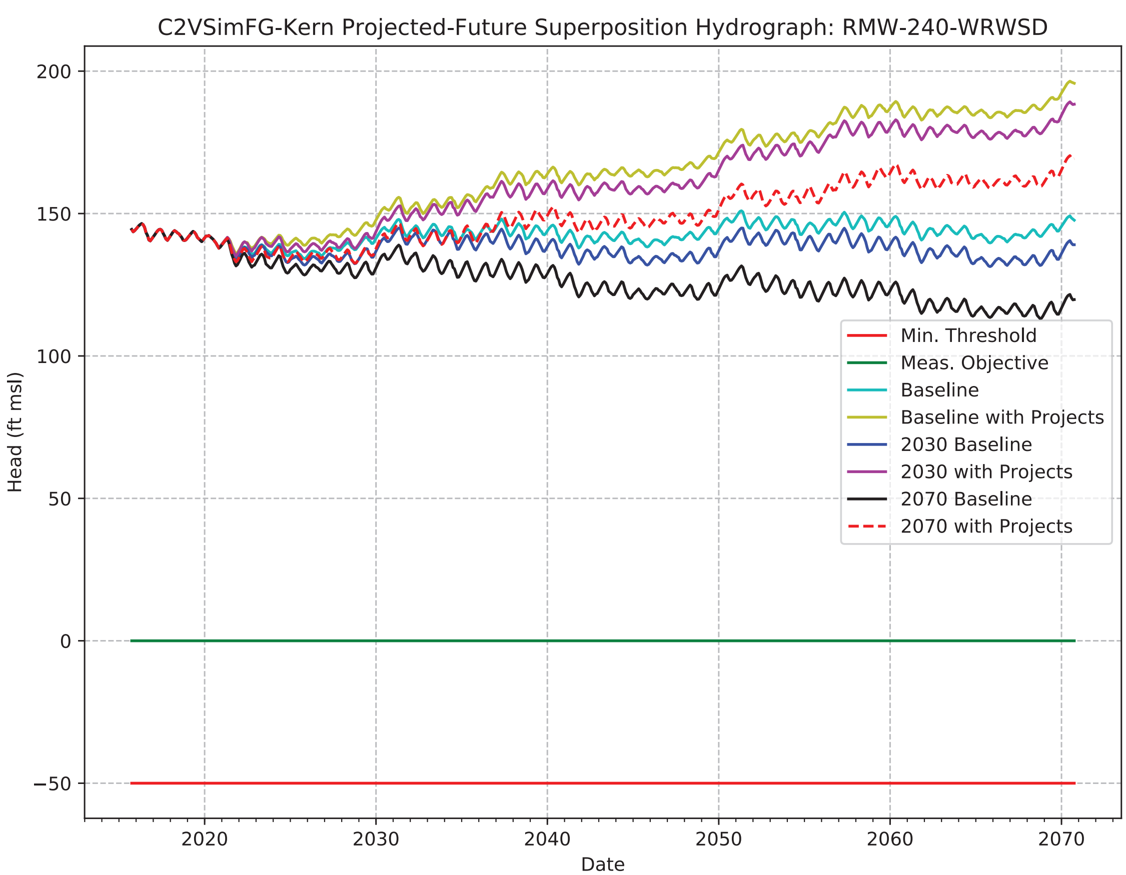


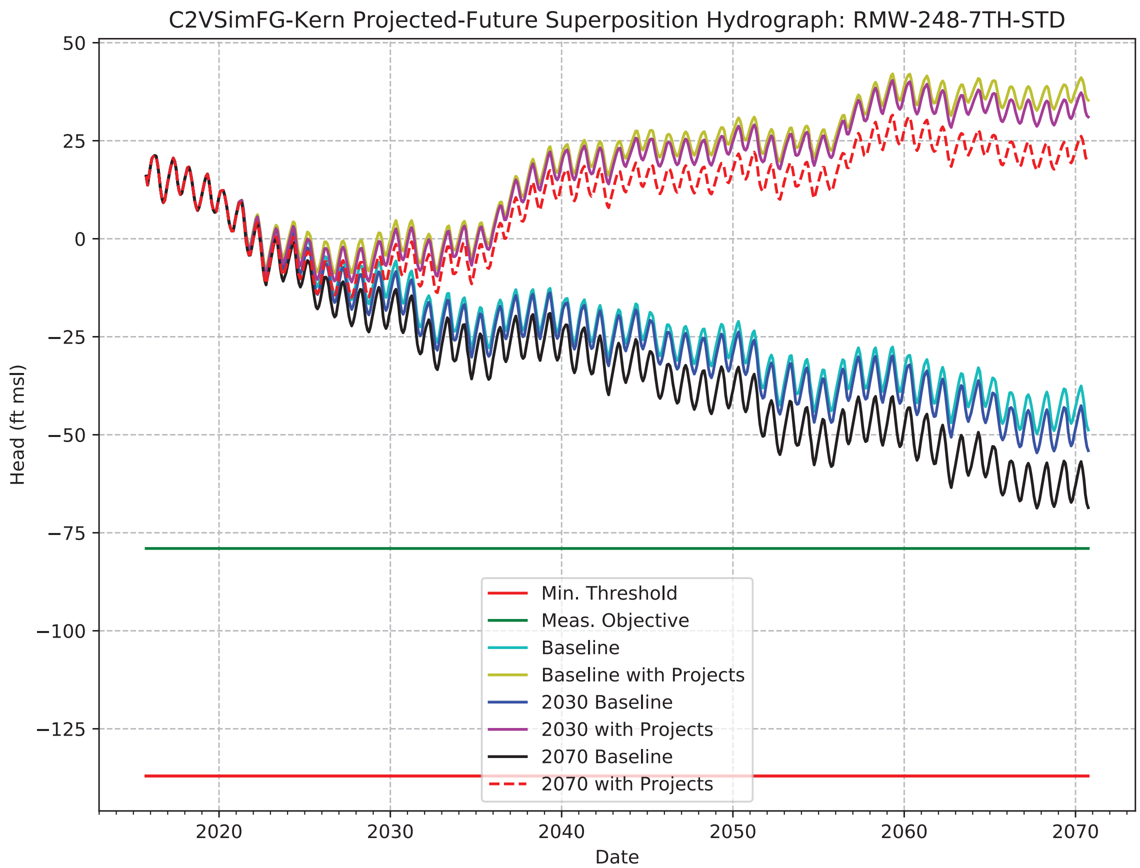
C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-237-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
250
200
150
100
50
0
−50
2020
2030
2040
2050
2060
2070

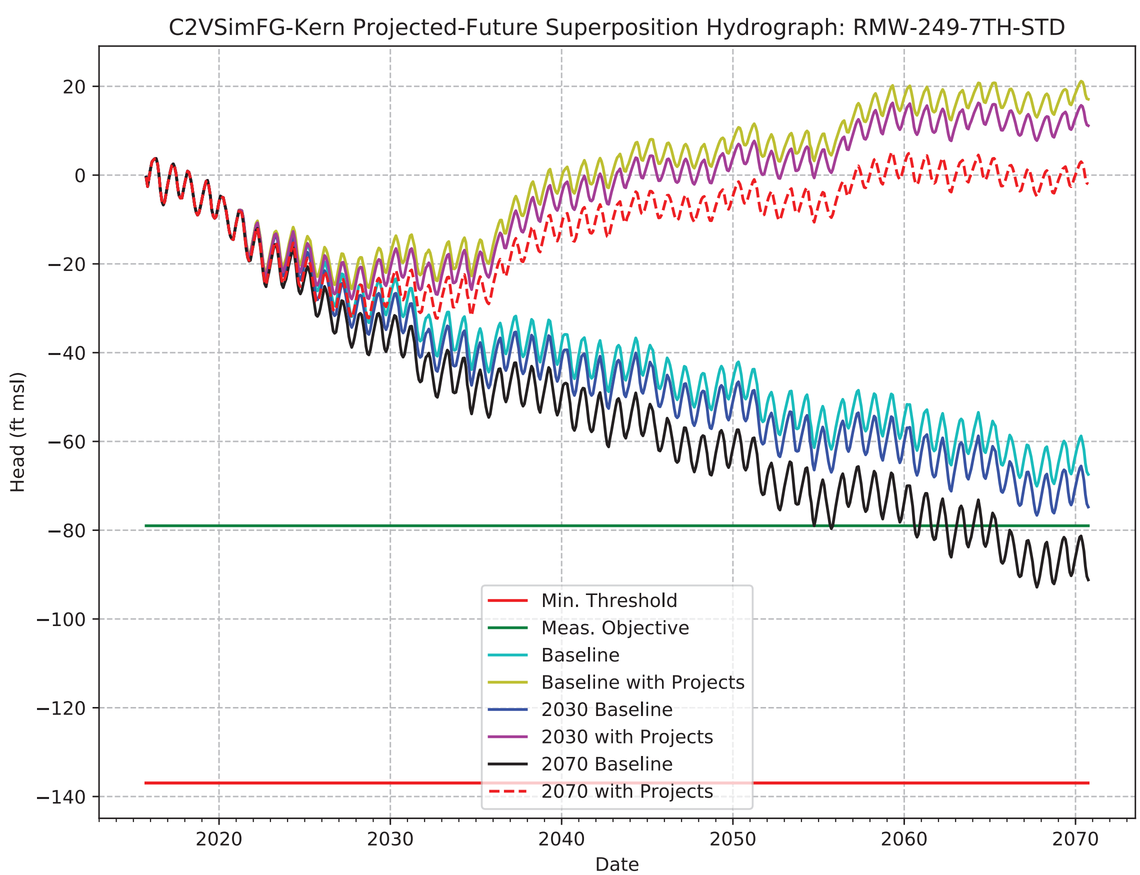


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-238-WRWSD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects
250
200
150
100
50
0
−50
2020
2030
2040
2050
2060
2070


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-239-WRWSD
Head (ft msl)
275
250
225
200
175
150
125
100
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-240-WRWSD
Head (ft msl)
200
150
100
50
0
−50
2020
2030
2040
2050
2060
2070
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-248-7TH-STD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects


C2VSimFG-Kern Projected-Future Superposition Hydrograph: RMW-249-7TH-STD
Head (ft msl)
Date
Min. Threshold
Meas. Objective
Baseline
Baseline with Projects
2030 Baseline
2030 with Projects
2070 Baseline
2070 with Projects