DATE: August 12, 2019

TO: Eloy and Maricopa-Stanfield Basin Study (EMSBS) - Supply and Demand Team

FROM: Ken Seasholes, CAP
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RE: Legend and explanation of the July 16, 2019 scenario development activity and subsequent analysis

Activity

The Supply and Demand group of the Eloy and Maricopa-Stanfield Basin Study participated in a group activity on July 16, 2019. The activity involved having each participant choose from a list of potential factors that influence long term supply and demand in the Basin area. These factors were combined to generate a modeling scenario unique to each participant. The scenarios were then run through the CAP Service Area Model (CAP:SAM) to generate total water demand (the sum of Municipal, Agricultural, Tribal and Industrial demand) in the year 2060. Results from this activity are posted at https://austincarey.shinyapps.io/2019_ActivityApplication/.

Legend:

A small amount of liberty/guess work was taken when naming particular scenarios, therefore a legend may be needed to trace the modeling results back to the activity participants.


Red H


Black F


Red M Thin


Blue C

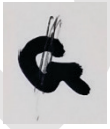

Black C


Black T


Purple V


Red M Thick


Red B


Black G


Green R


Blue K


Green JSK


Red J1

 Black K

 Green Plus

 Red J2

 Red C

 Green G

 Red F

Duplicate Scenarios:

Participants identified as Red J2, Purple V and Red F, each chose scenarios (i.e. combinations of factors) that were already chosen by other participants. As a result, these participants are not shown in the results but are instead represented by another participant:

Red J2 is the same as Black F
Purple V is the same as Black C
Red F is the same as Blue C

Interpreting Results:

The results are shown as a plot of total demand (as determined by the CAP:SAM modeling) on the horizontal axis and climate (one of the factors chosen by each participant) on the vertical axis. Nineteen points are shown, representing the 17 unique scenarios generated from the group activity as well as the lowest demand and highest demand scenarios that represent the "end members" or the range of possible scenarios. There are three points that are larger than the rest. These represent scenarios that multiple people voted for. A pie chart is shown for each scenario that indicates how total demand is broken up into the different sectors for a given scenario.

Questions:

If you have any questions about the activity or the results please contact:

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