RECLAMATION

Managing Water in the West

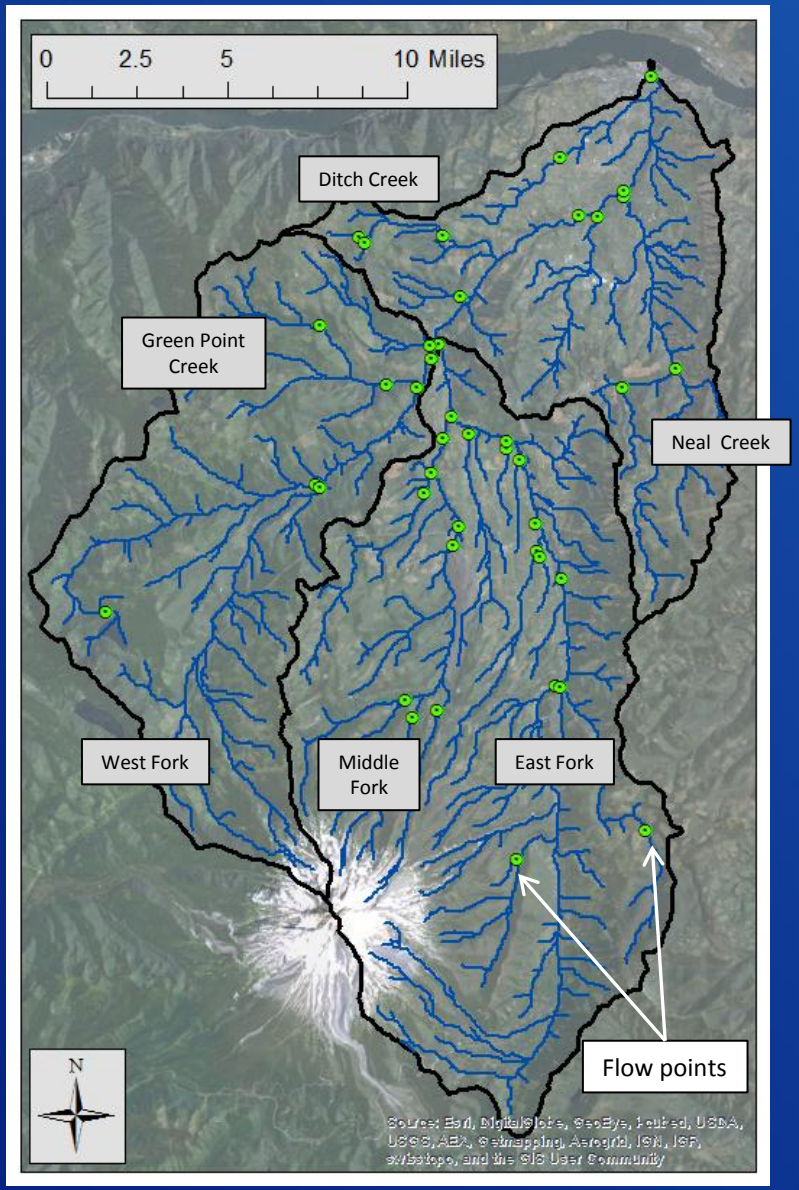
Hood River Basin Study

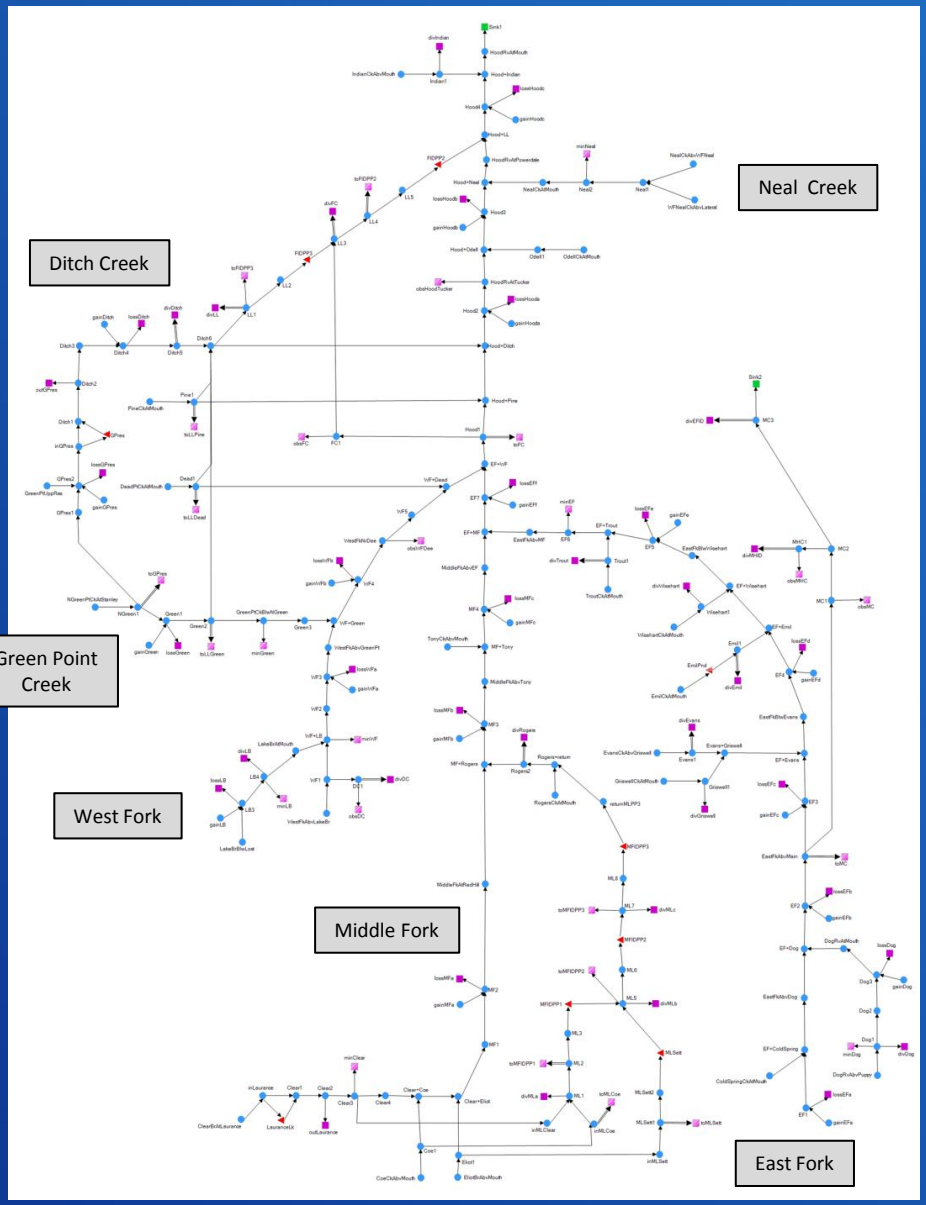
Surface Water Modeling (DHSVM)
Water Resource Modeling (MODSIM)

Taylor Dixon, Hydrologist
November 20, 2013

U.S. Department of the Interior
Bureau of Reclamation

DHSVM & MODSIM





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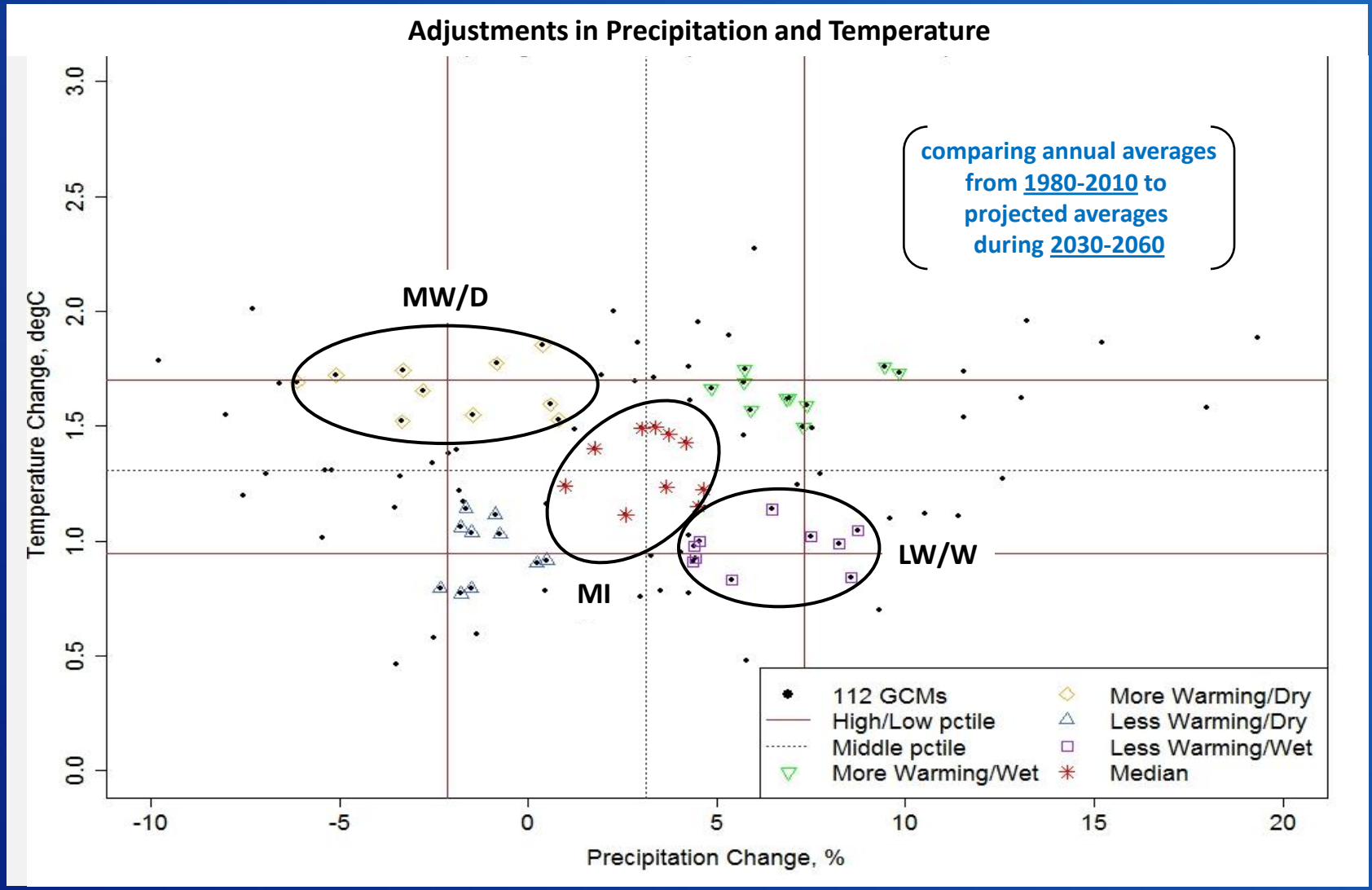
Climate Scenario Selection



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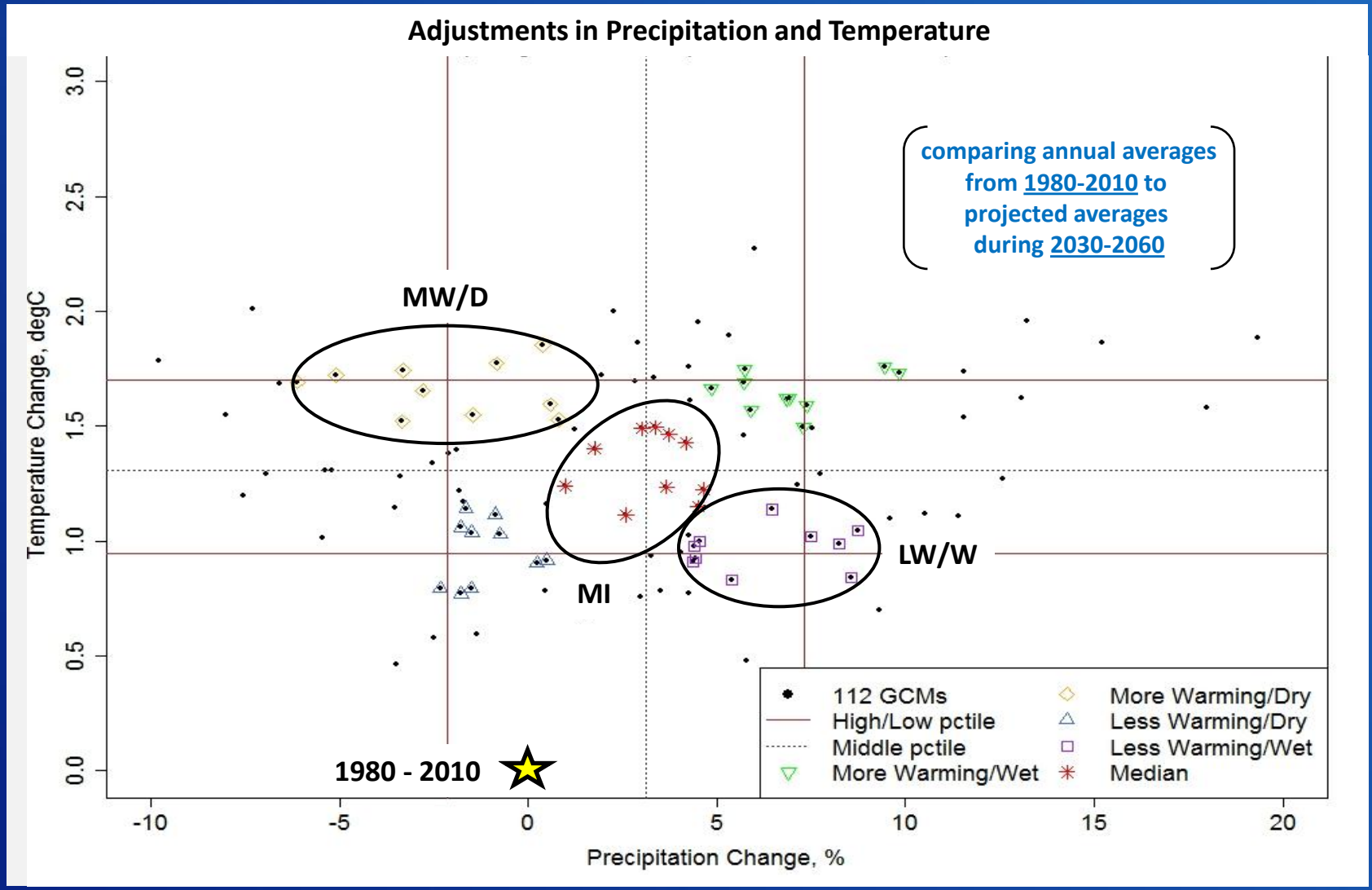

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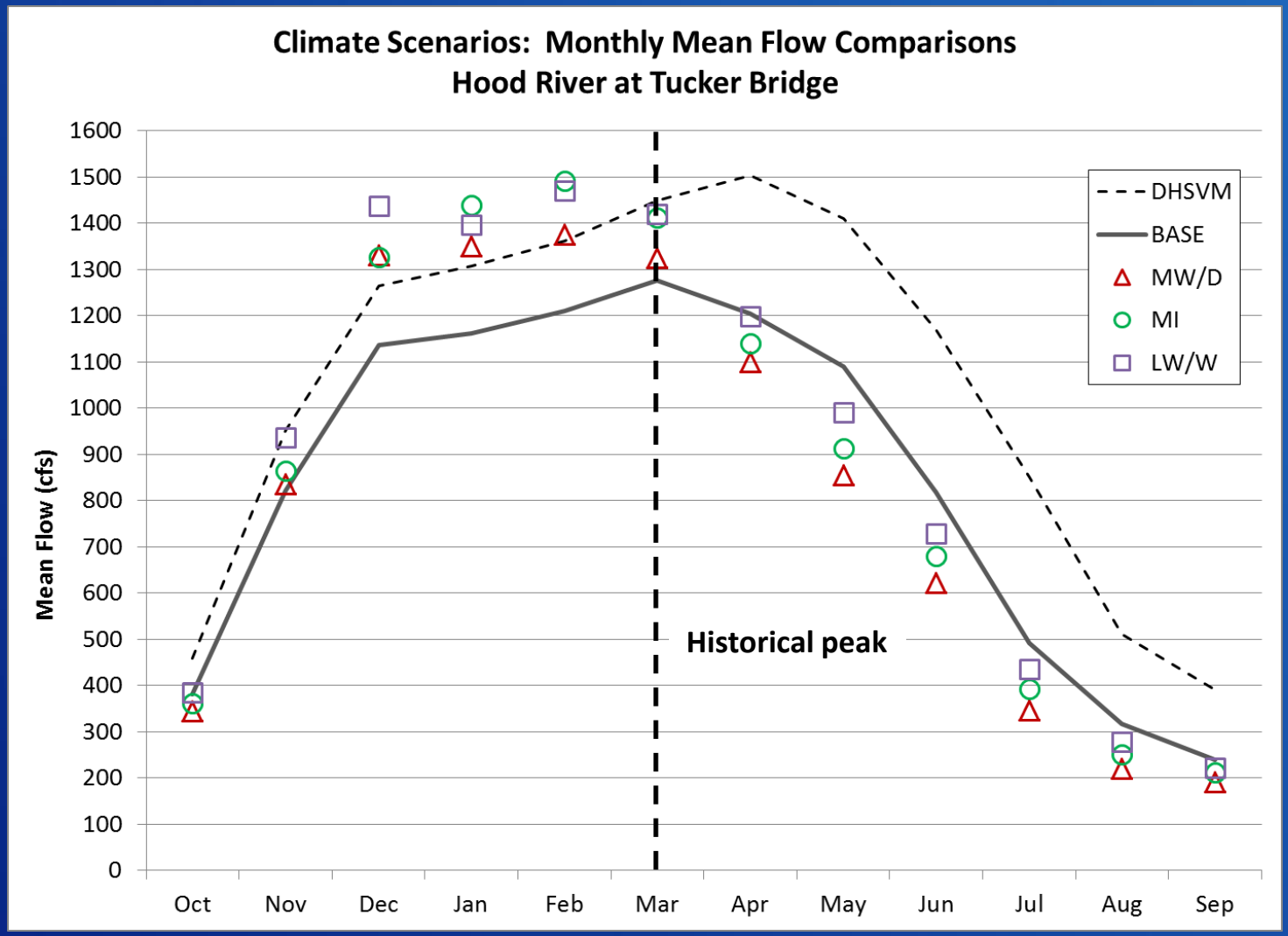
DHSVM & MODSIM Climate Scenario Results



On an annual basis, *natural* flow volumes relatively unchanged, but runoff timing impacted

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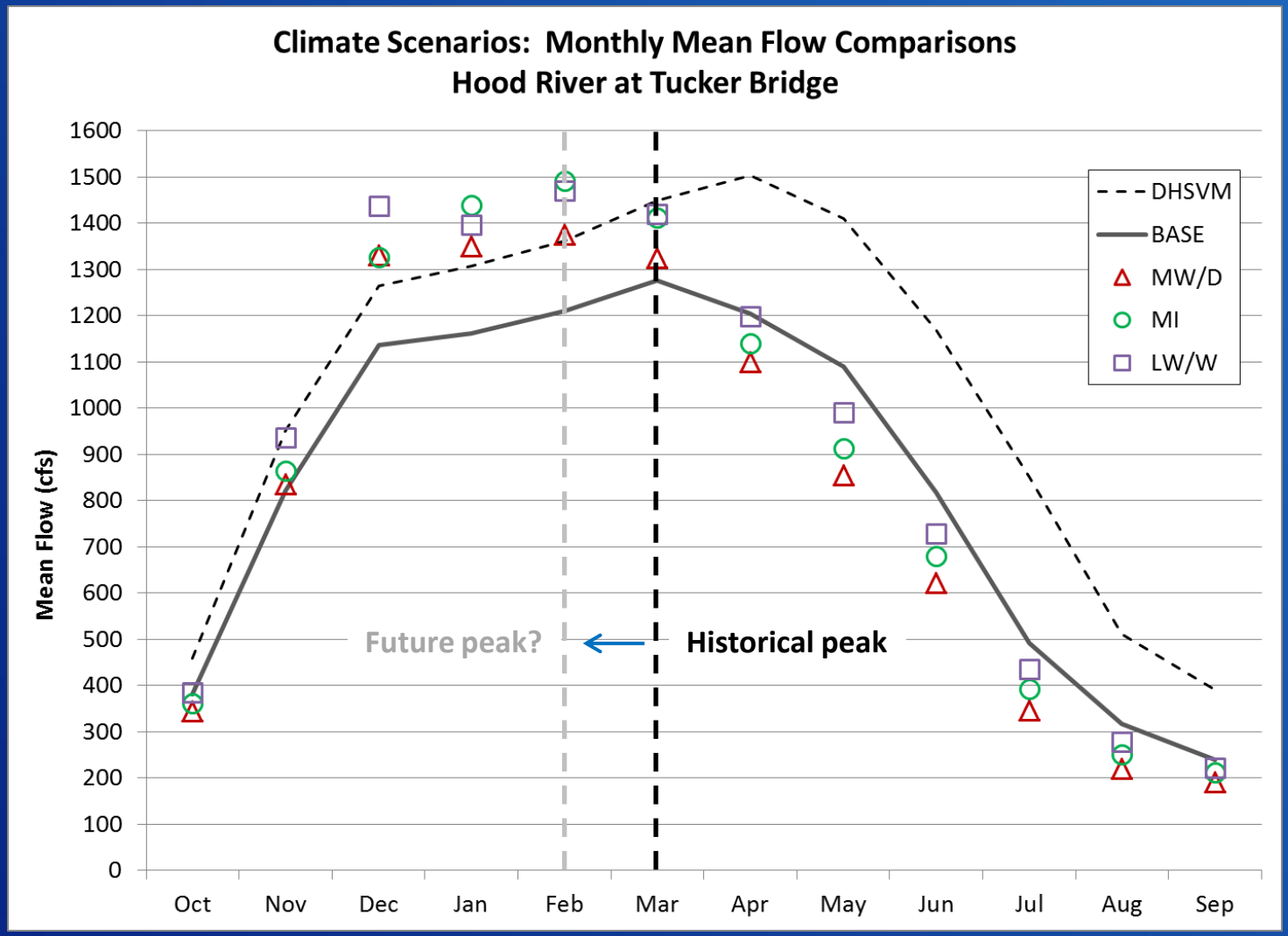
DHSVM & MODSIM Climate Scenario Results



Moreover, <u>seasonal</u> changes more apparent in *regulated* flows

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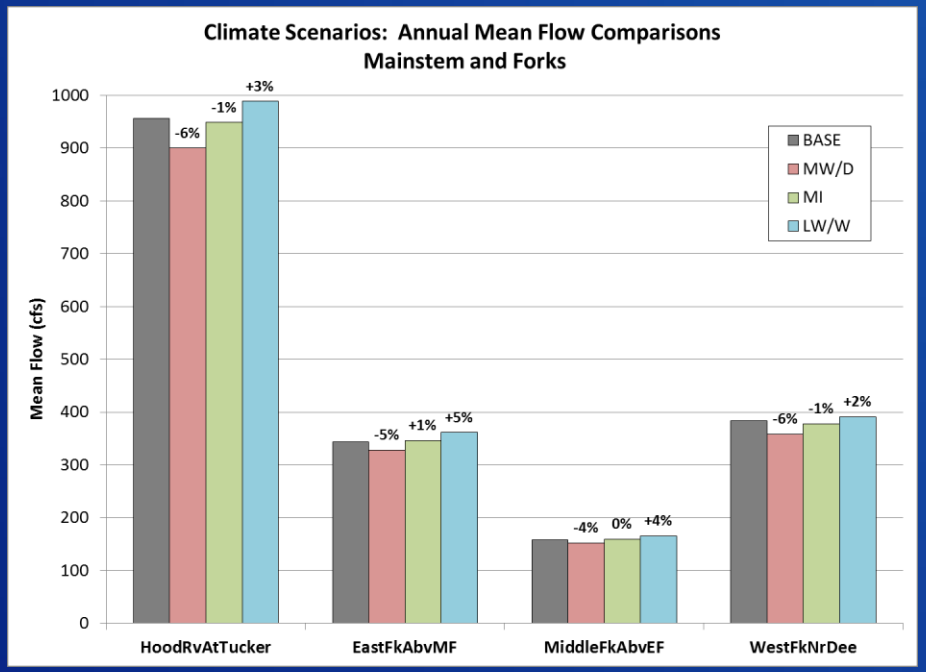
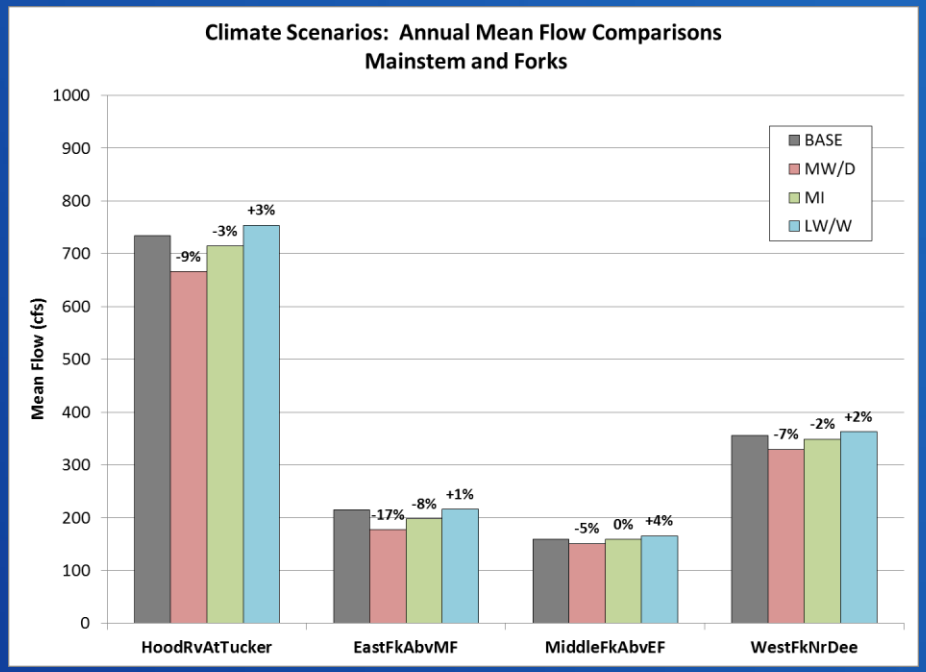
DHSVM & MODSIM Climate Scenario Results



DHSVM



MODSIM

Relative **changes in <u>annual</u> mean flows more apparent after considering water usages**

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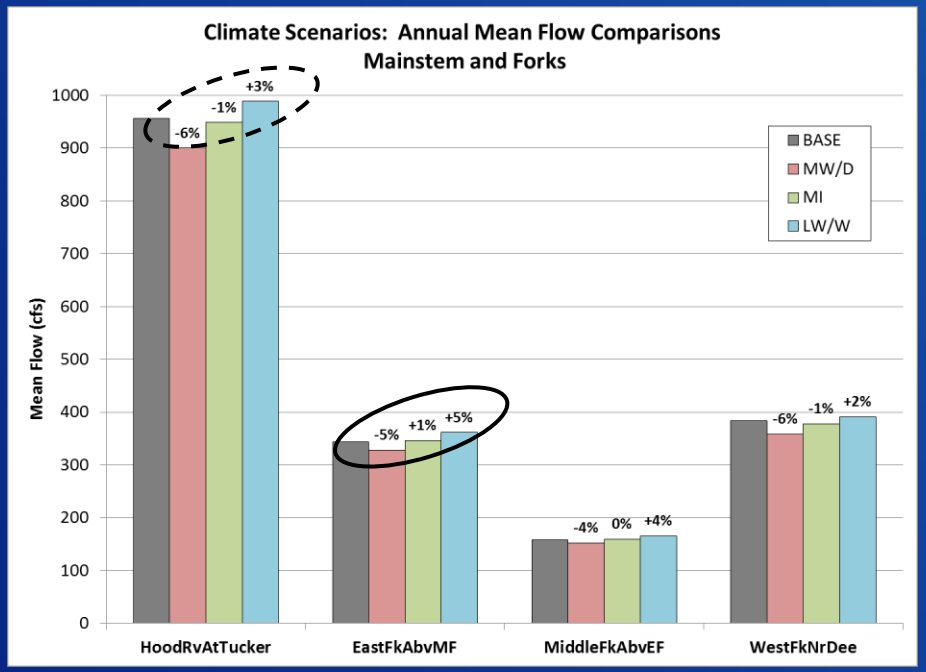
DHSVM & MODSIM Climate Scenario Results



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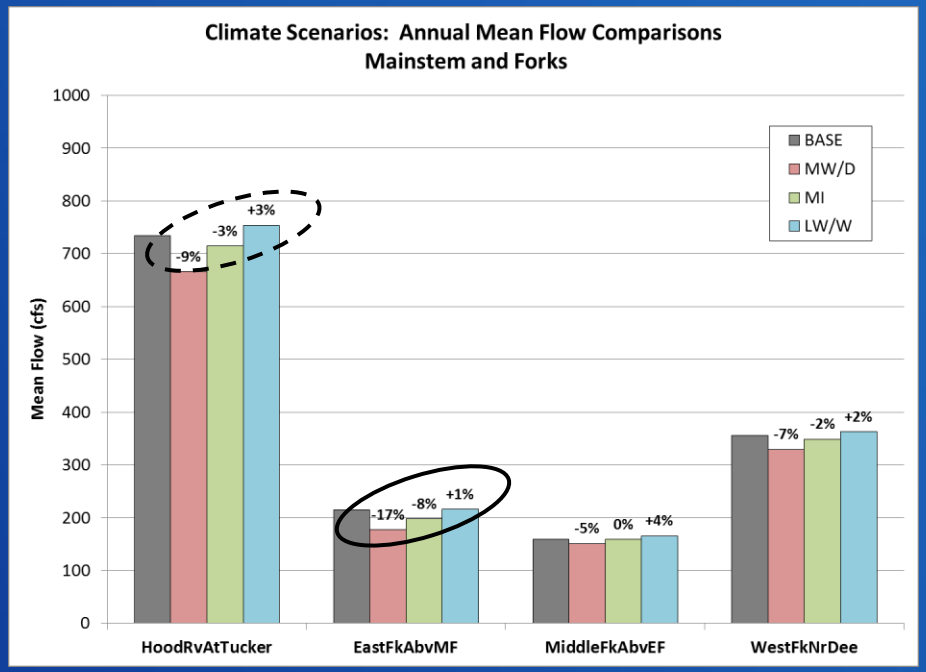

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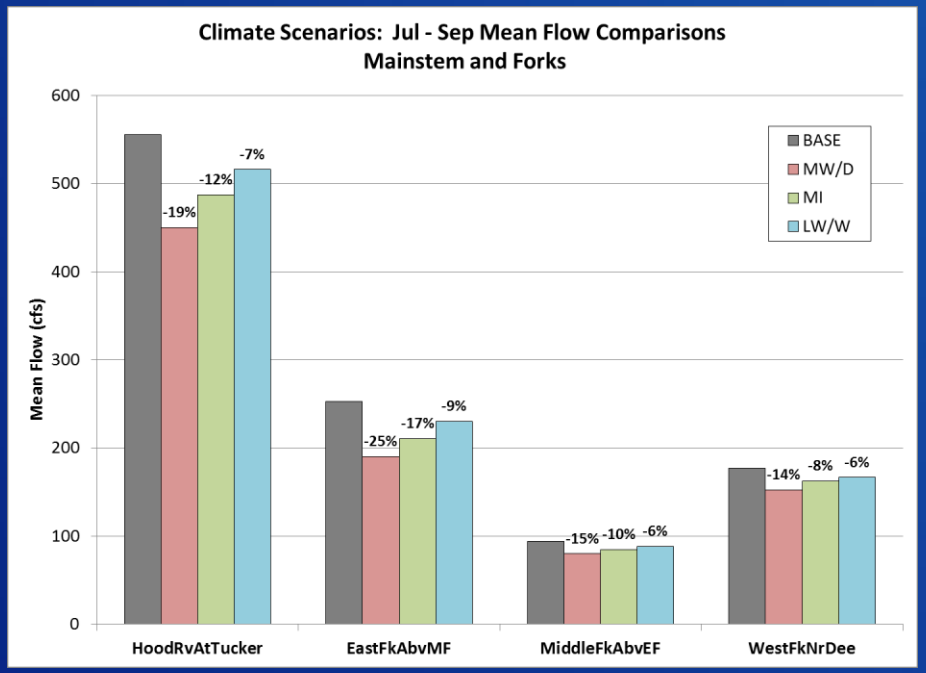

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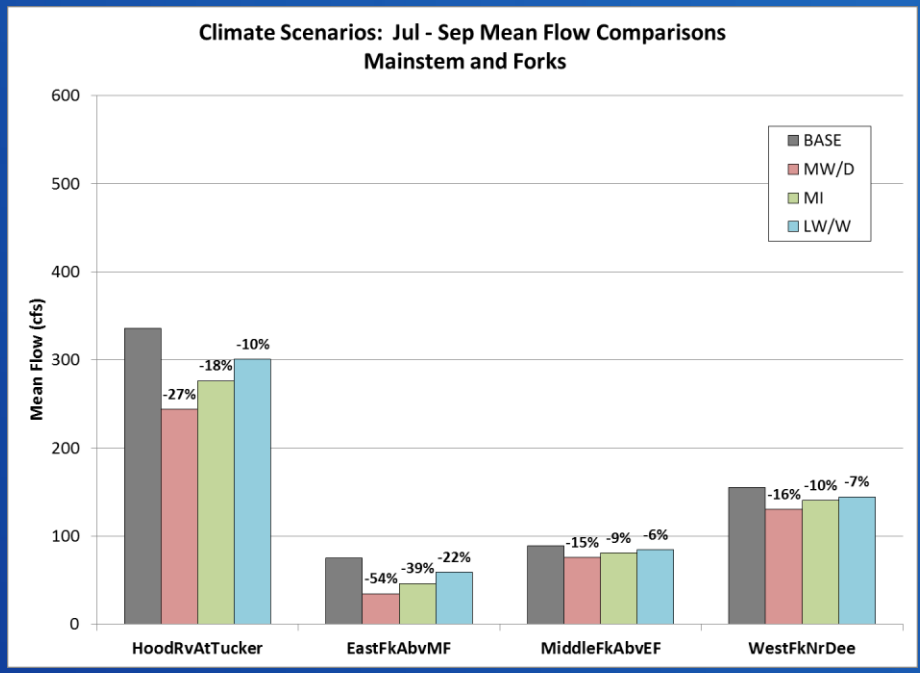

MODSIM

Relative changes in <u>late summer</u> mean flows amplified after considering water usages

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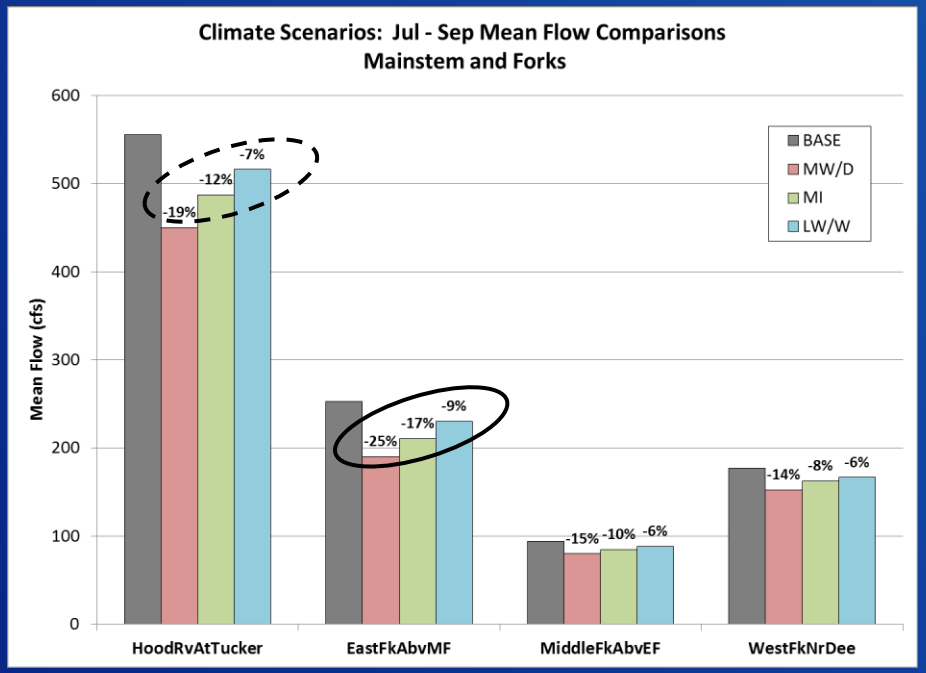

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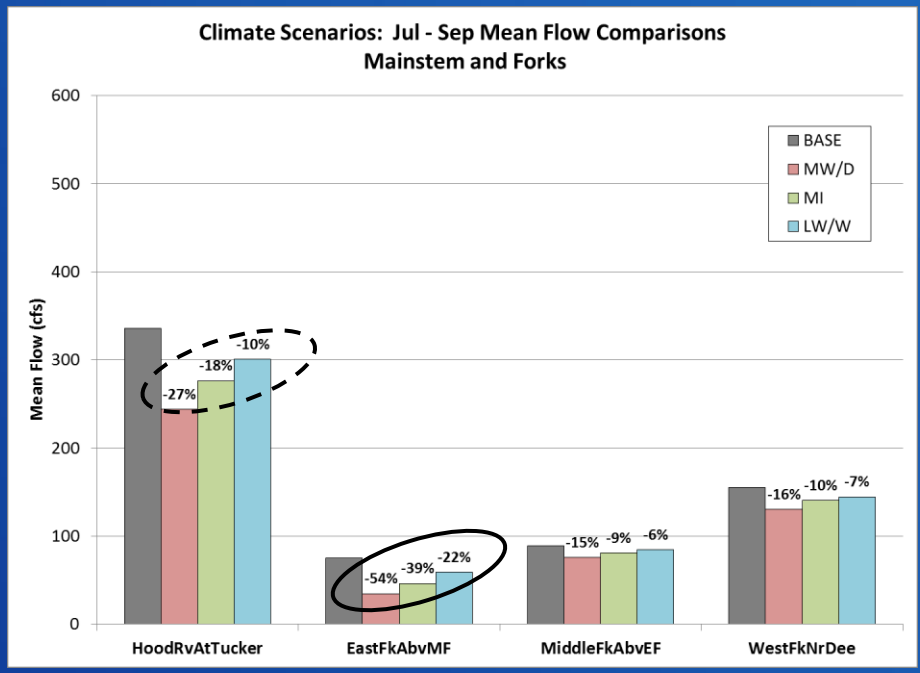

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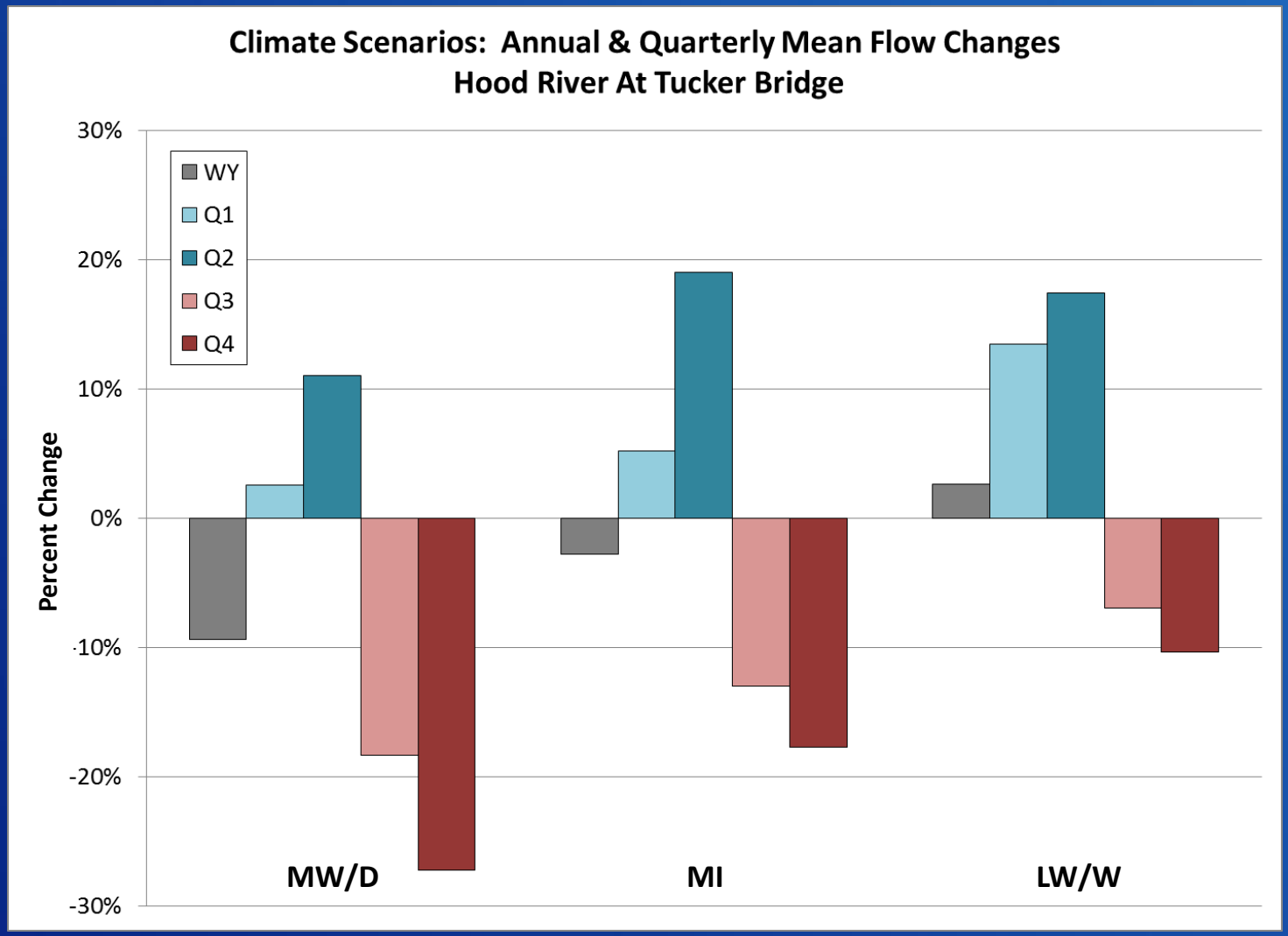

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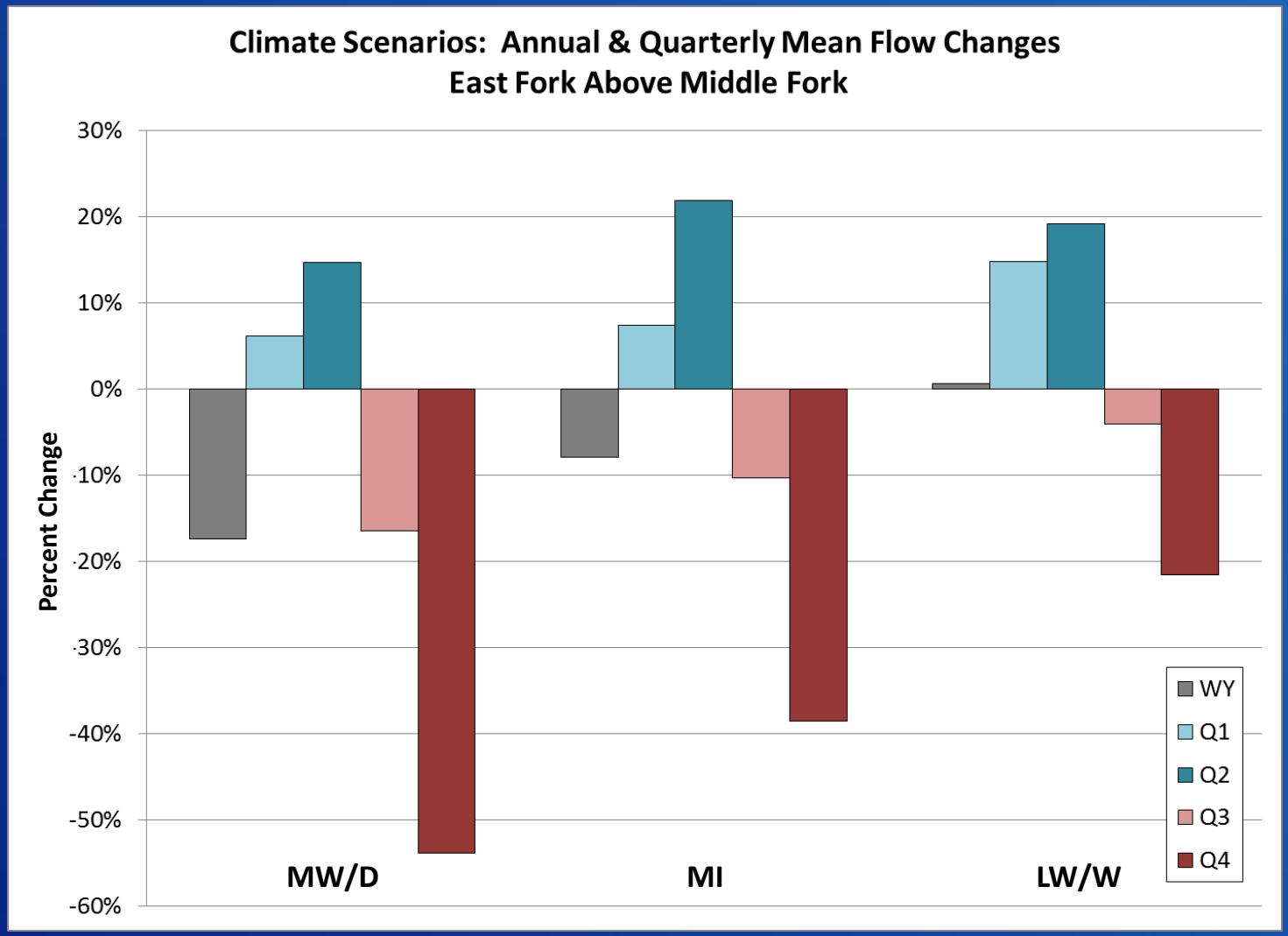

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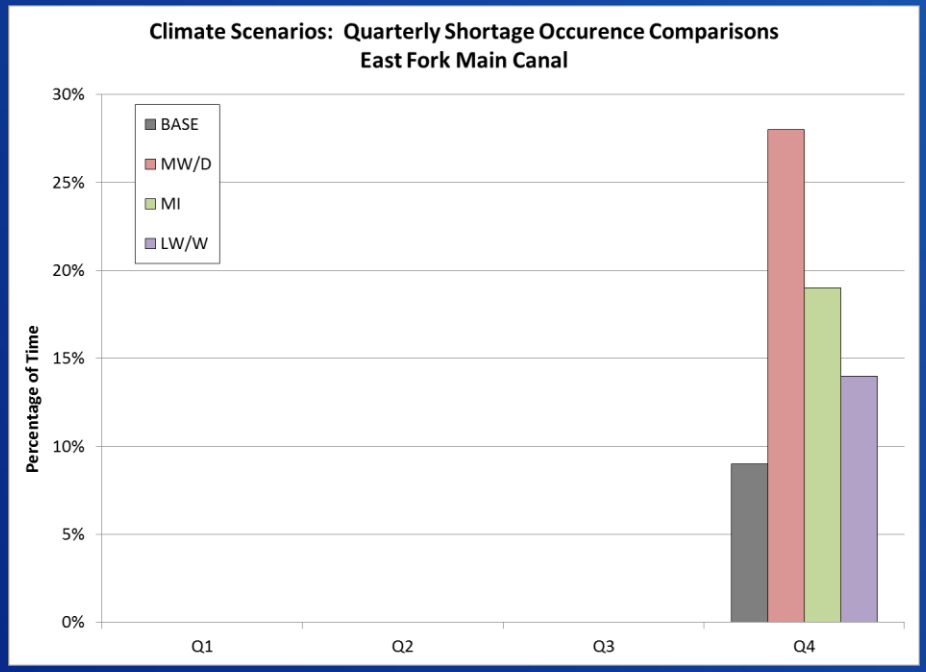

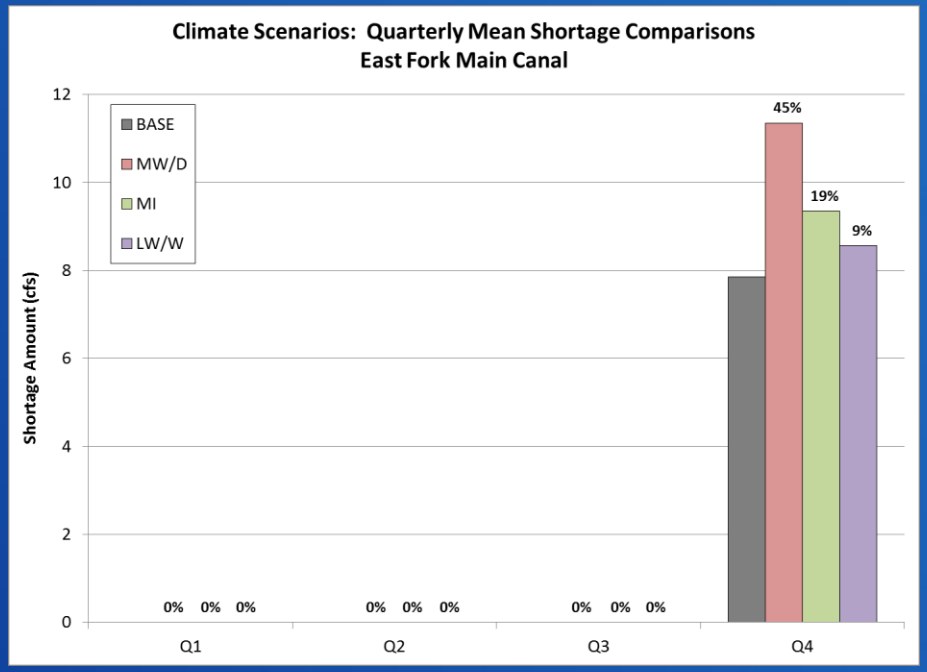

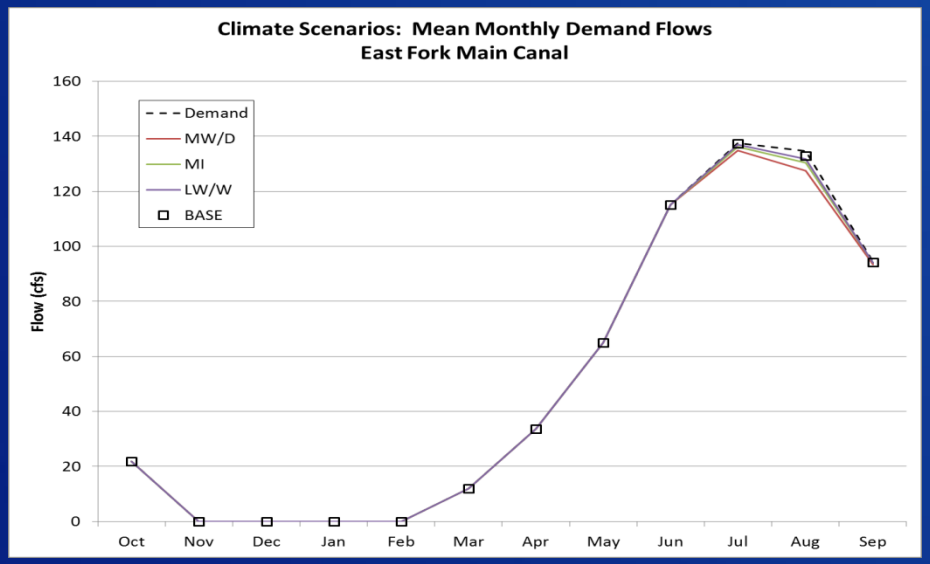

Both the magnitudes and occurrences of shortages increase

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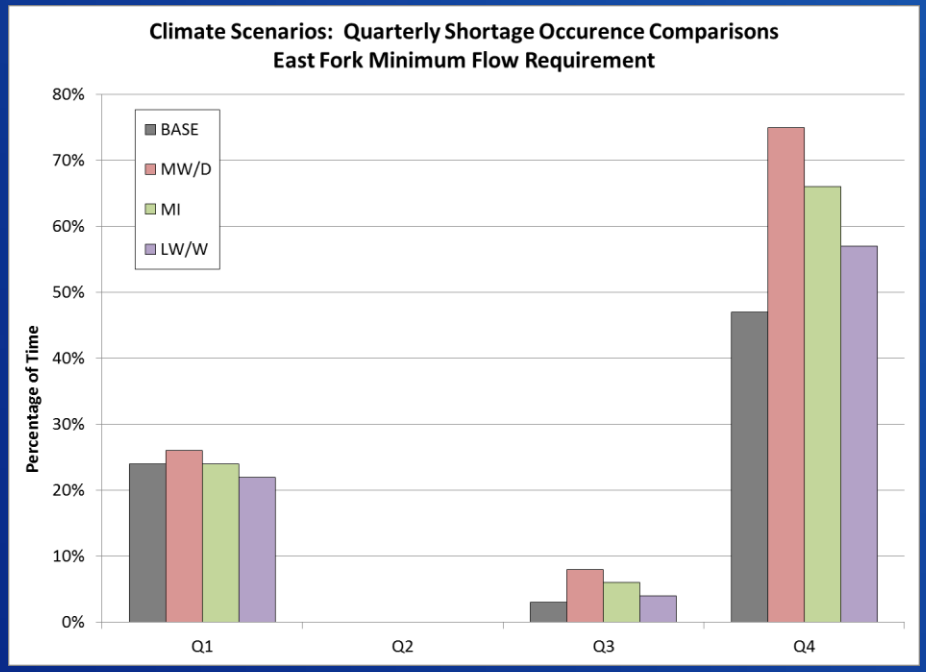

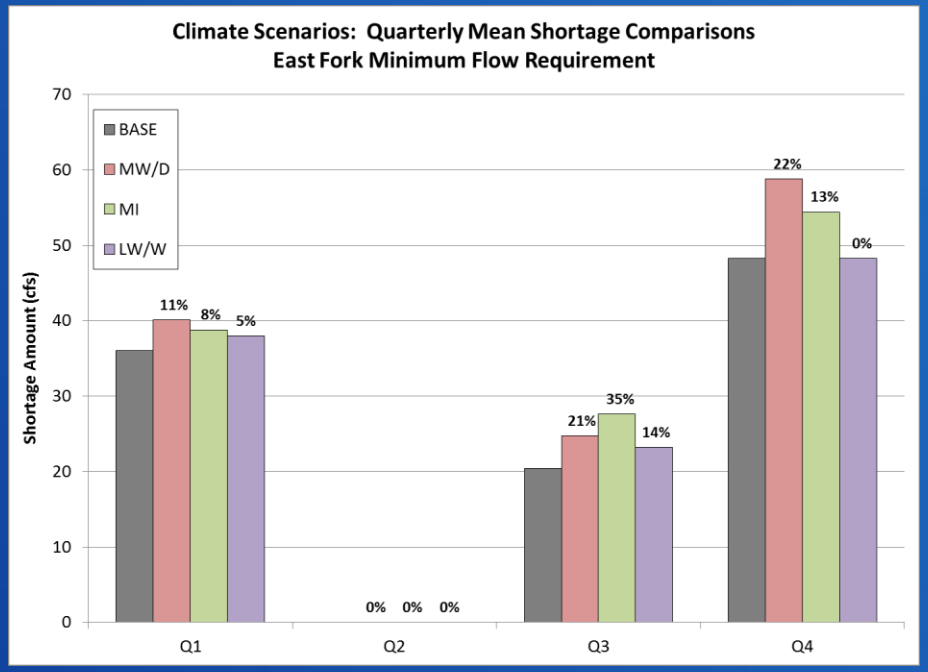

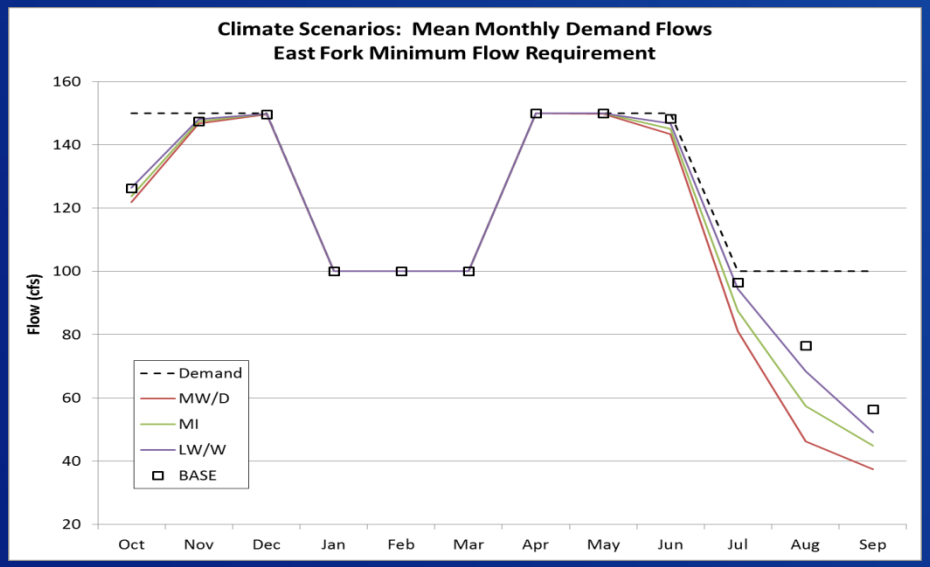

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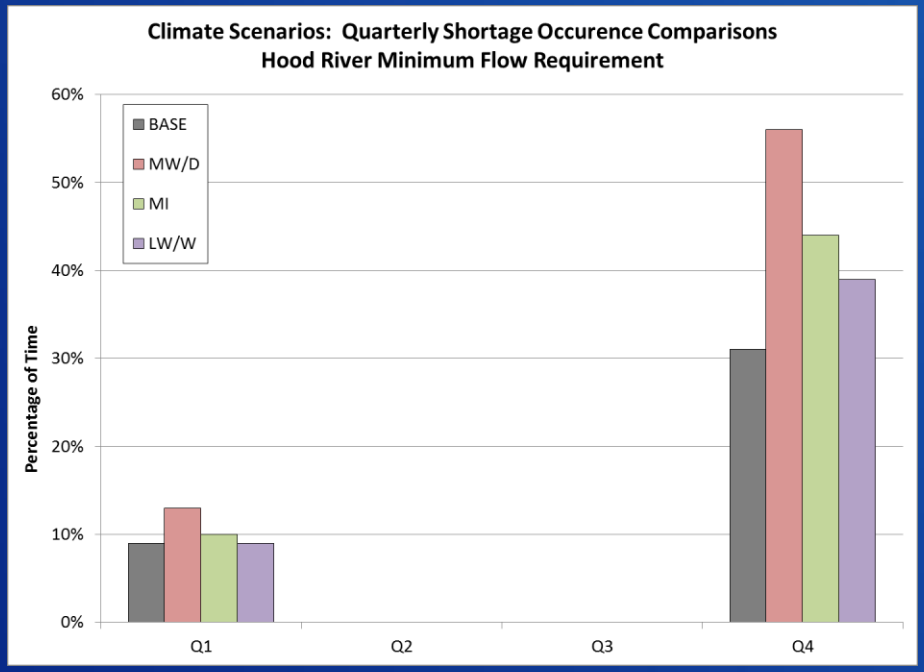

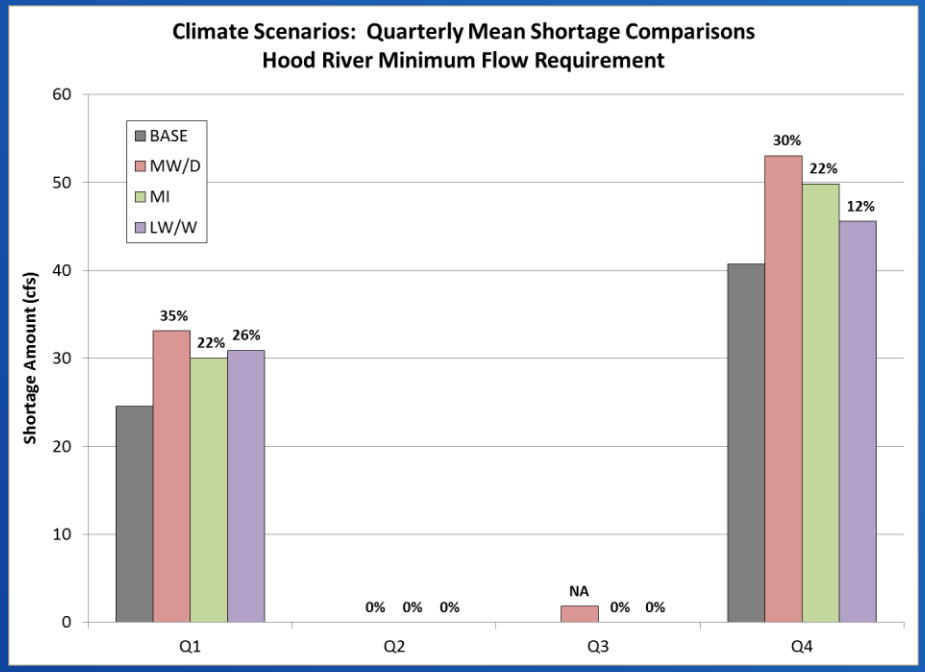

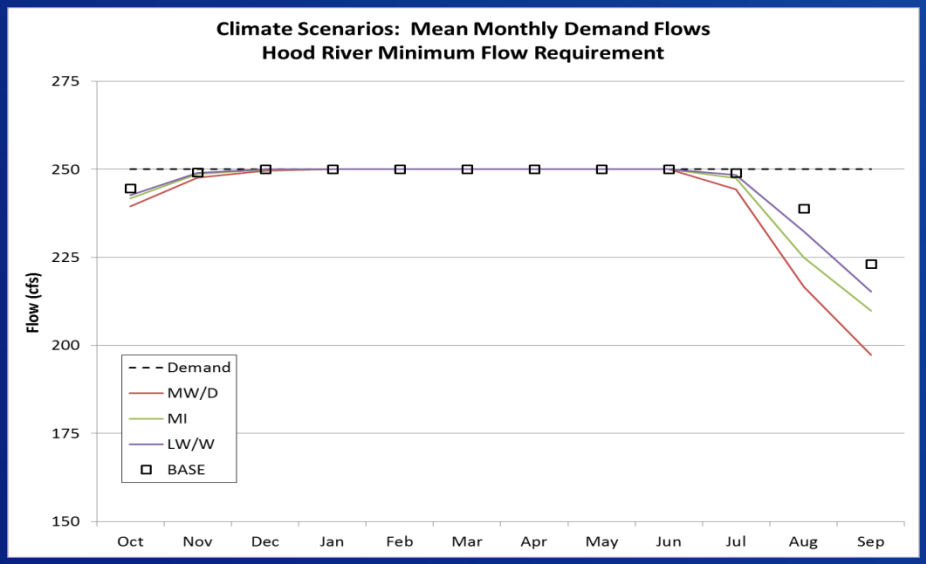

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Questions?

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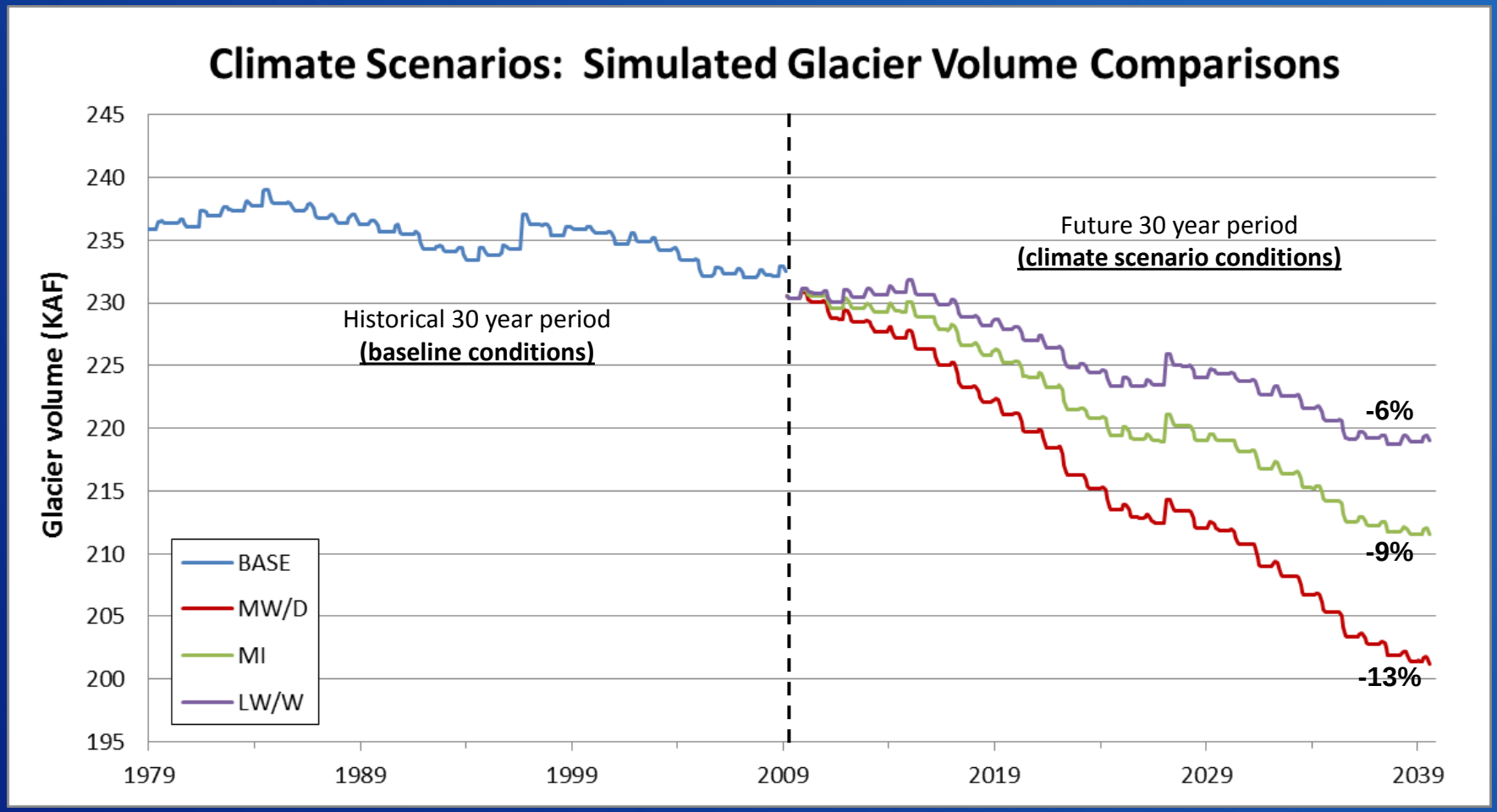

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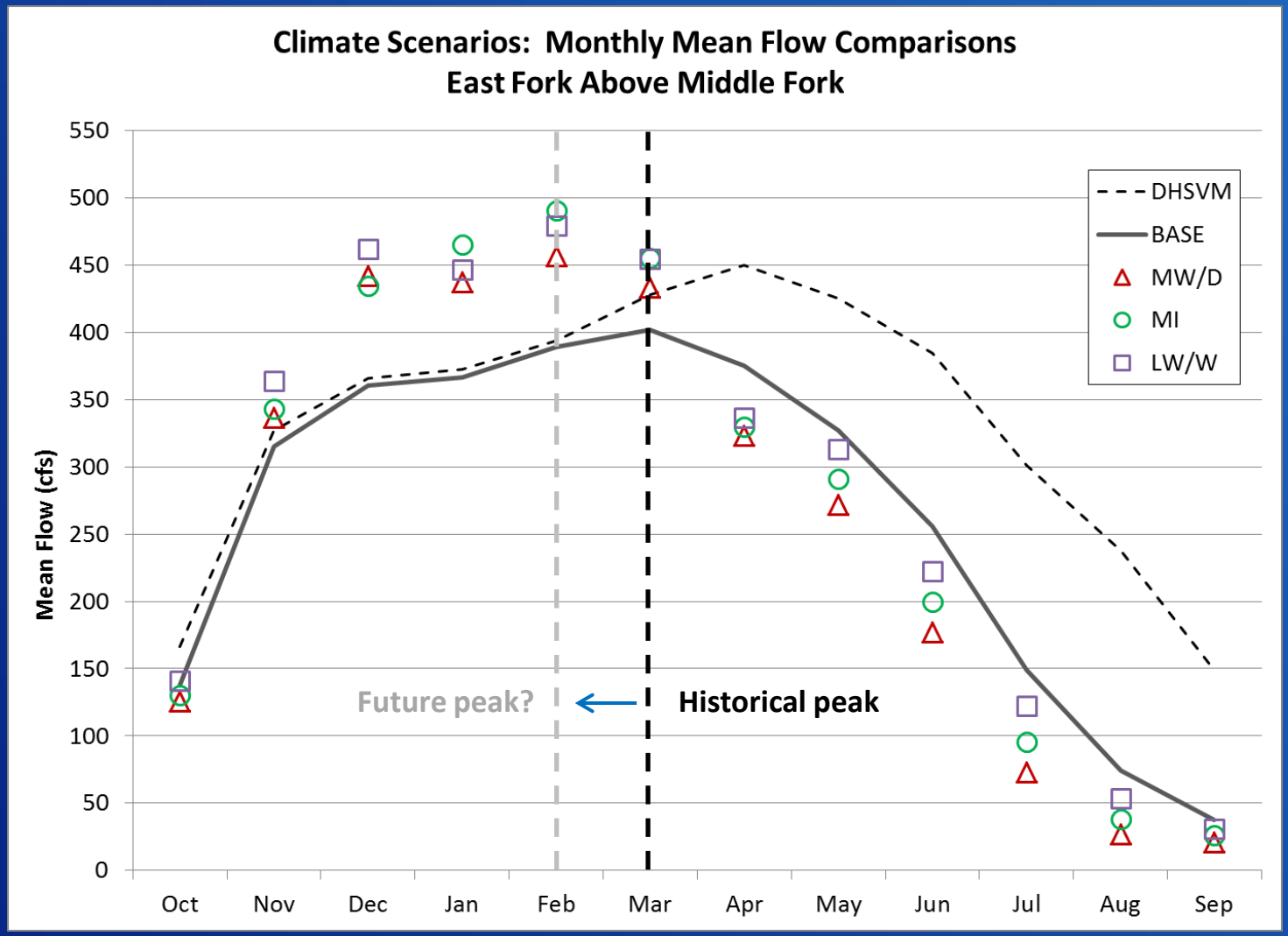

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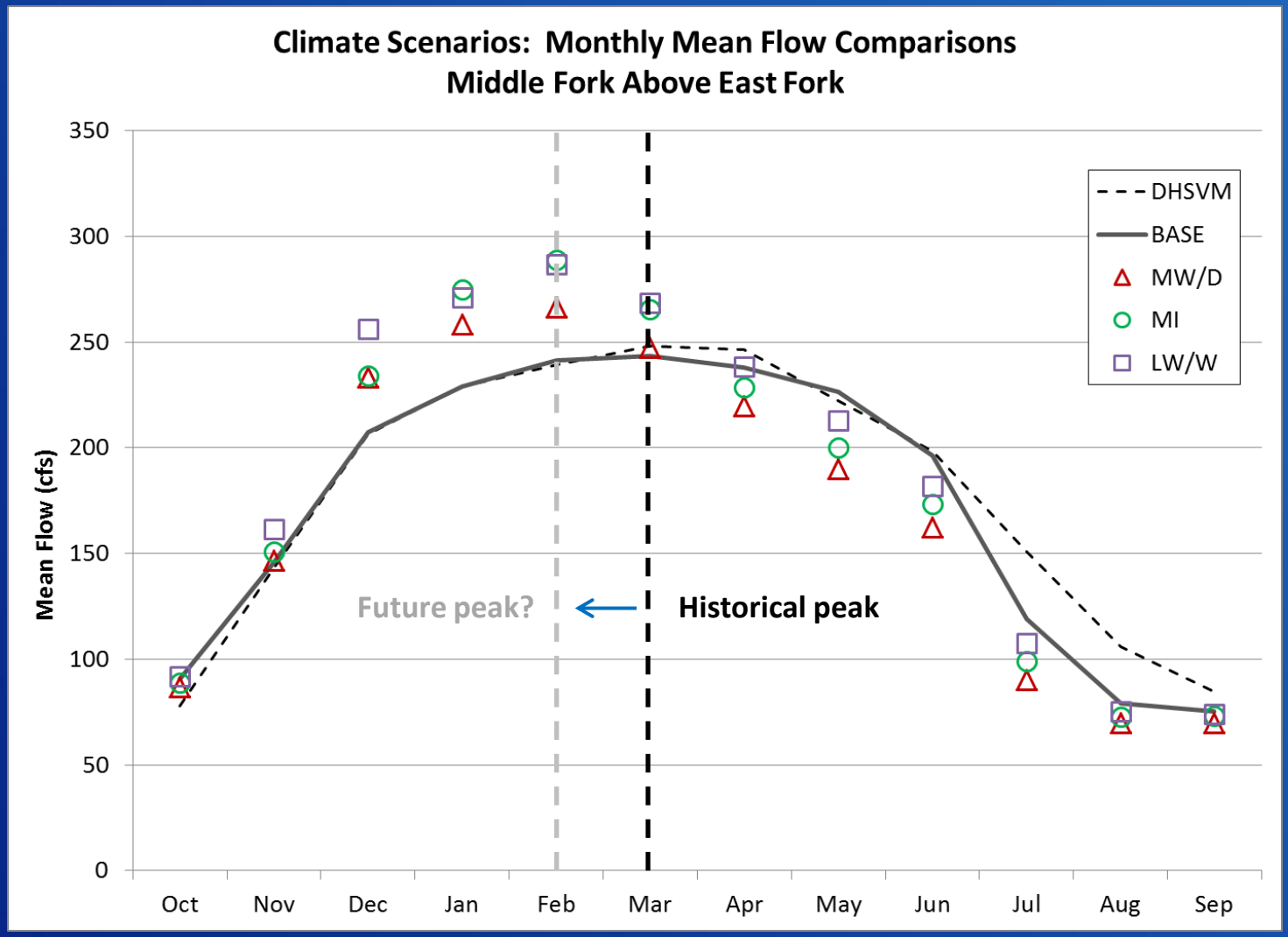

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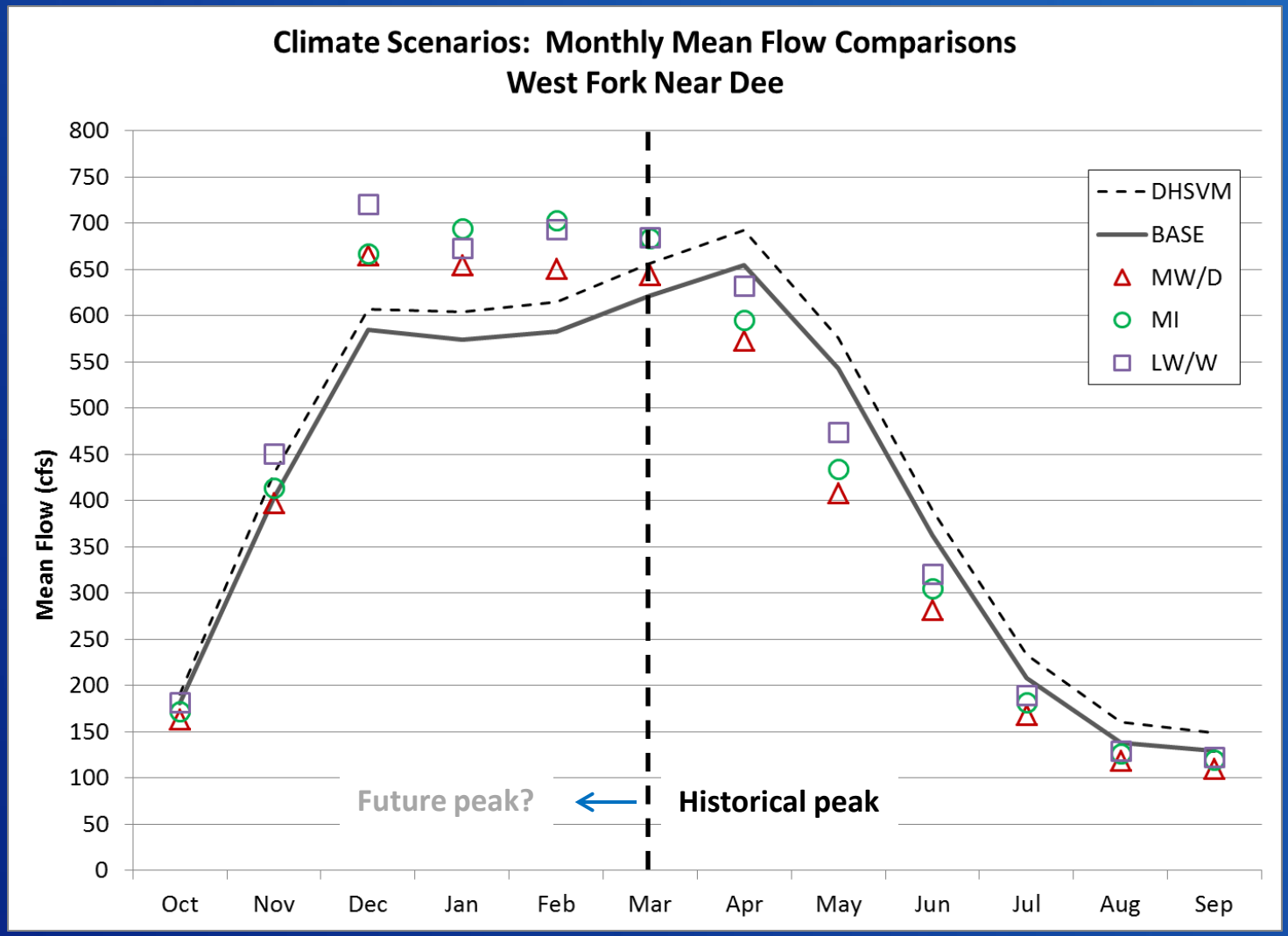

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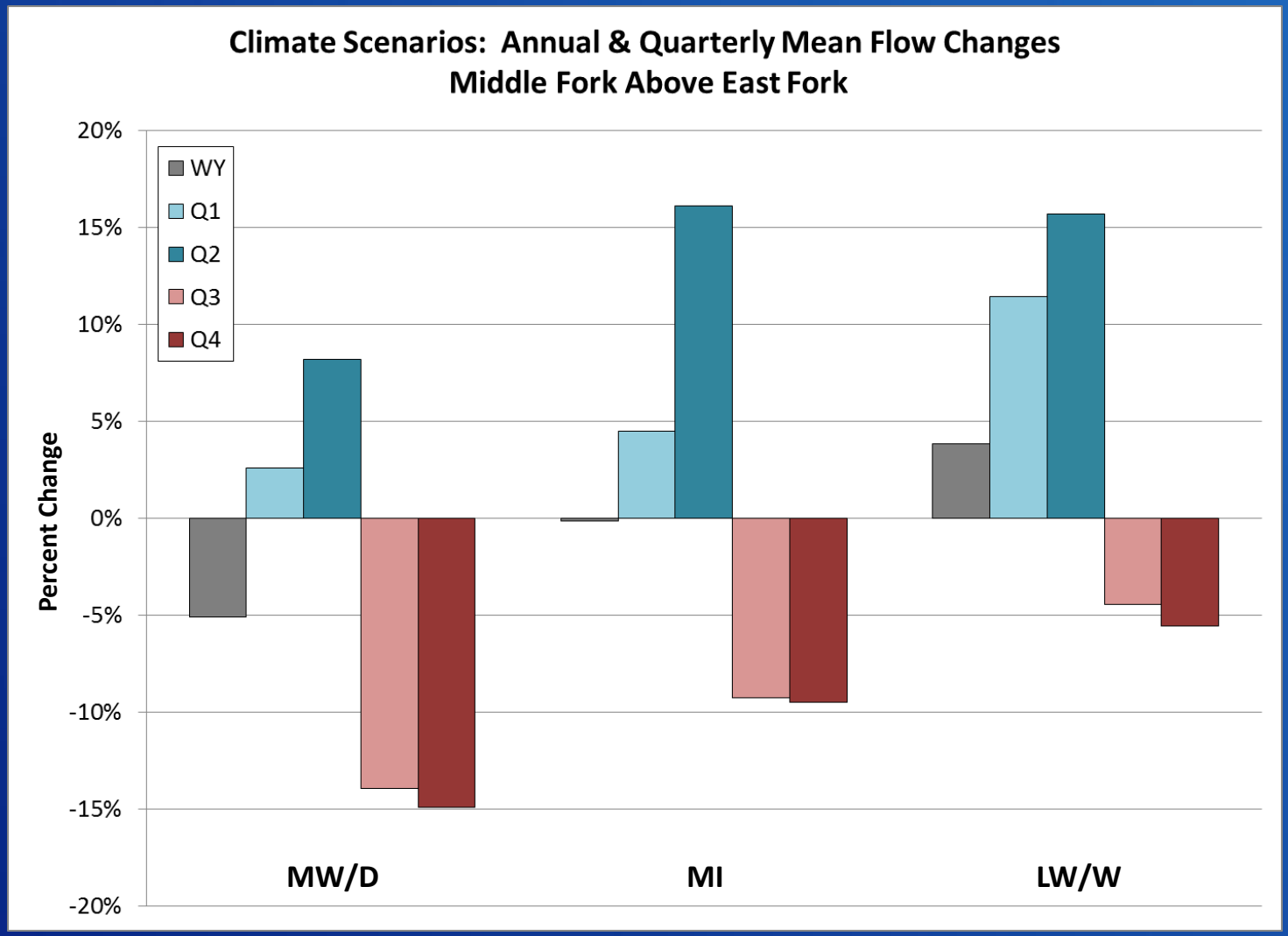

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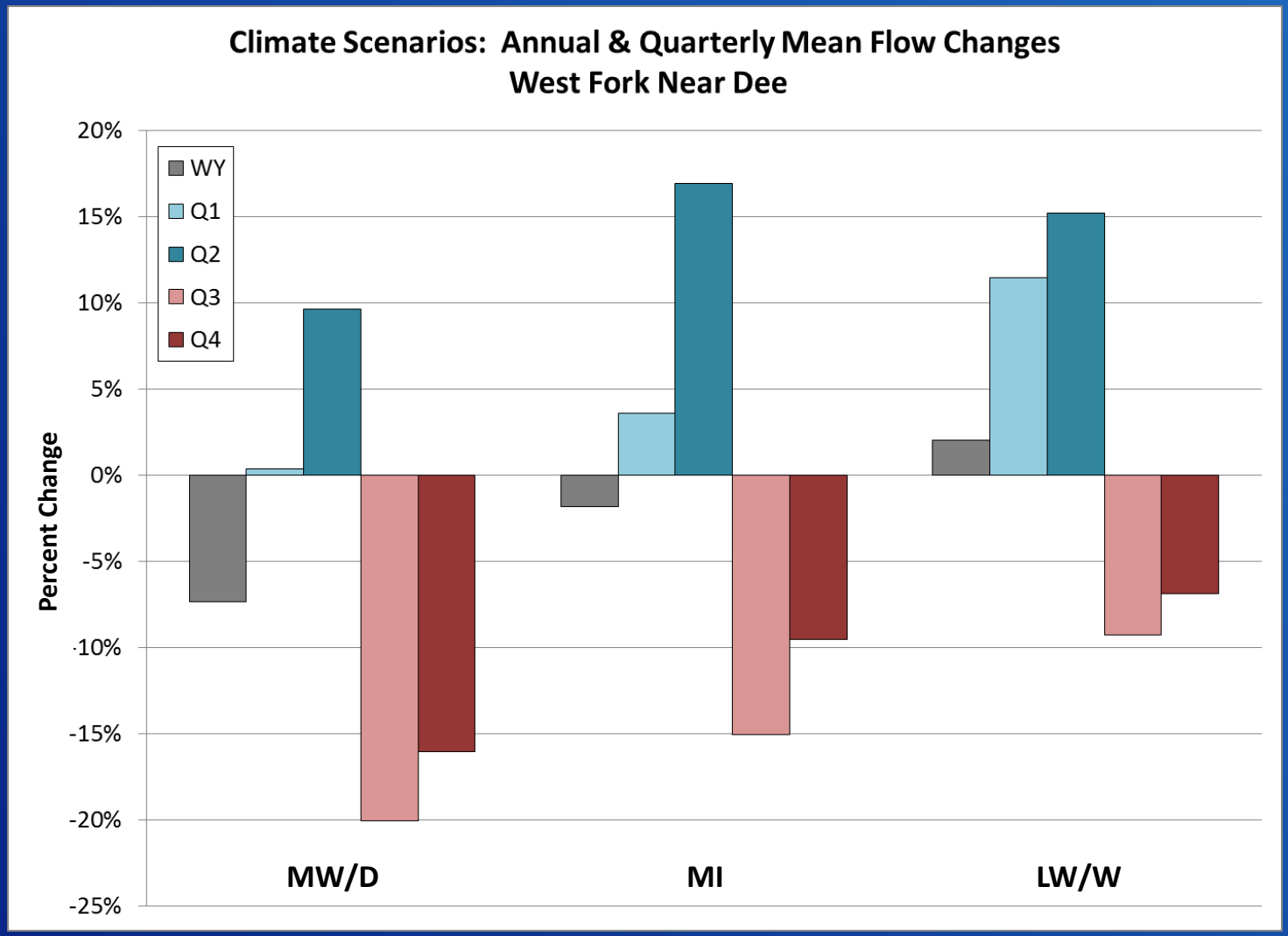

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