

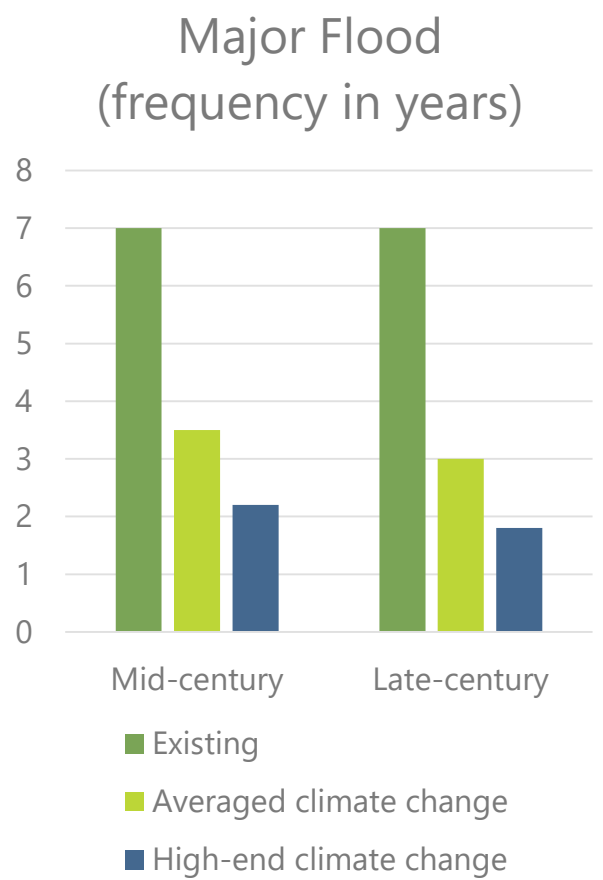


CLIMATE CHANGE AND FLOODING

NAT KALE / DIANE BUTORAC / ZHENG FANG

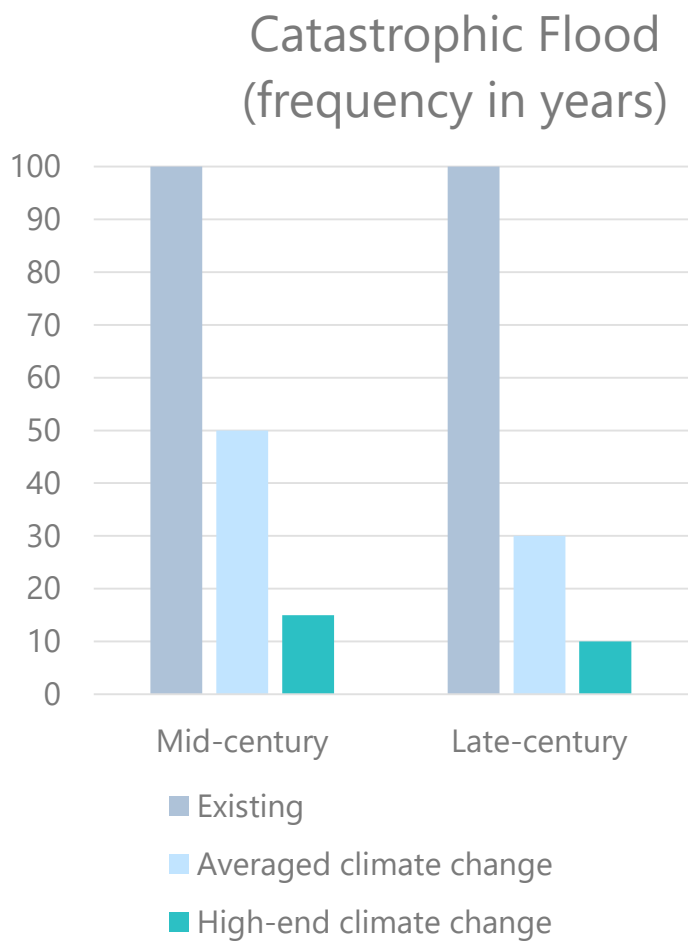
May 7, 2022

FREQUENCY OF FLOOD EVENTS AND DAM OPERATIONS

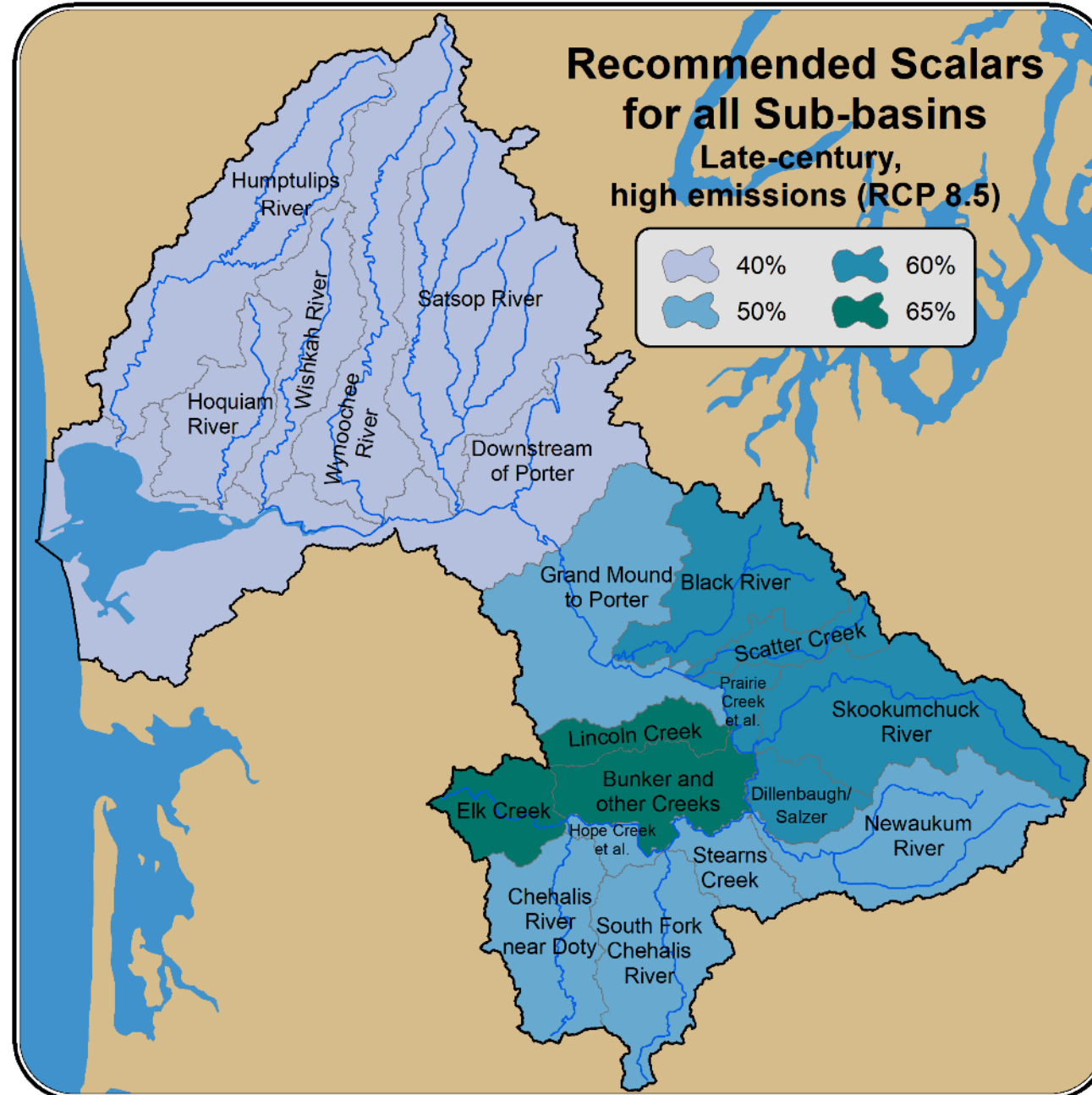
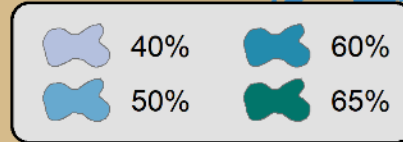


Using climate change predictions from the Climate Impacts Group, increased precipitation is expected to **increase** the number of flood events.

This would result in triggering the use of the dam **more frequently** than under current conditions.

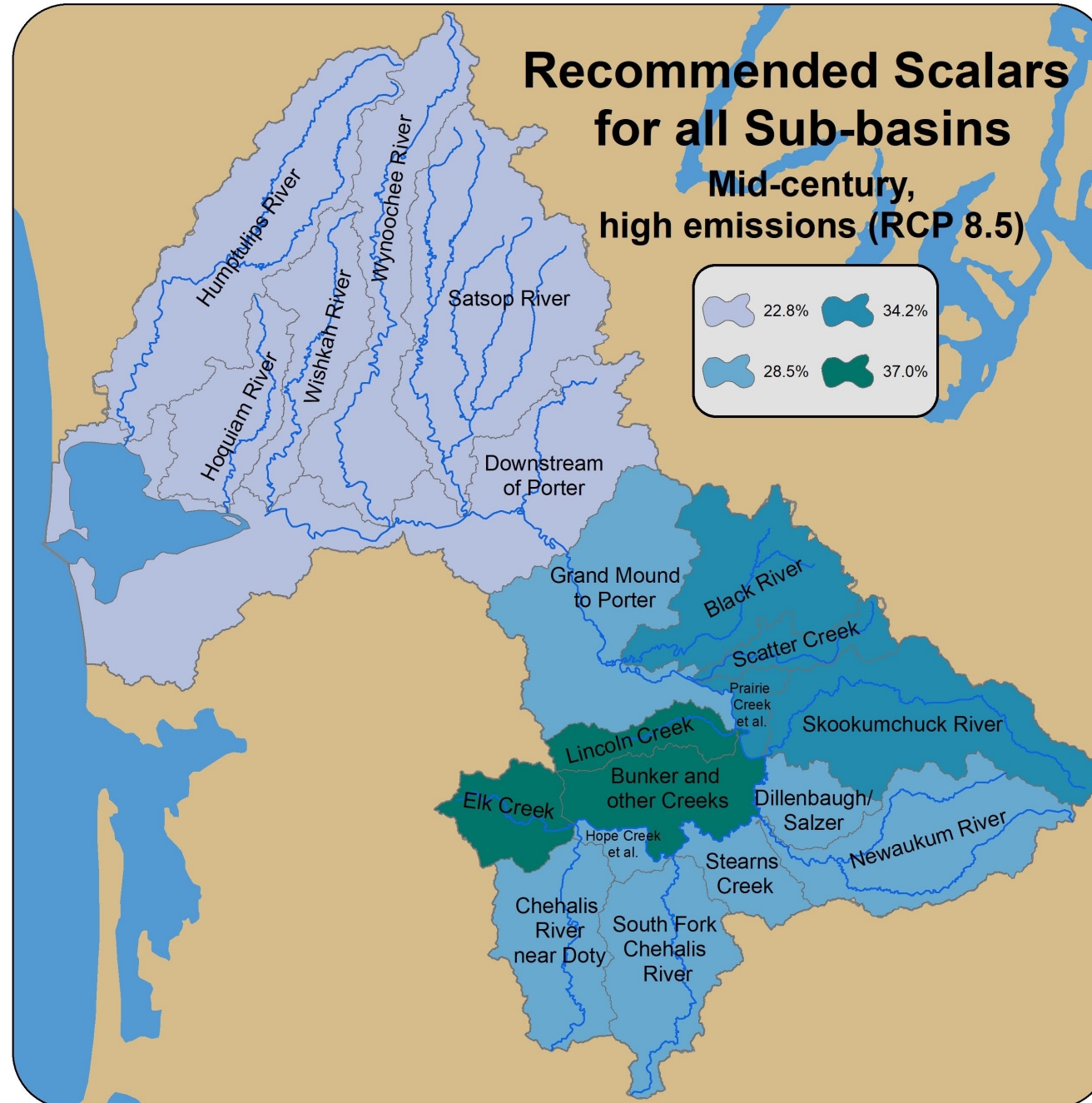
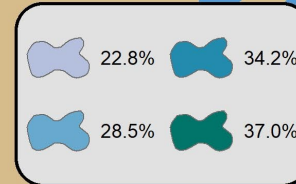


Recommended Scalars for all Sub-basins Late-century, high emissions (RCP 8.5)



Recommended Scalars for all Sub-basins

Mid-century,
high emissions (RCP 8.5)



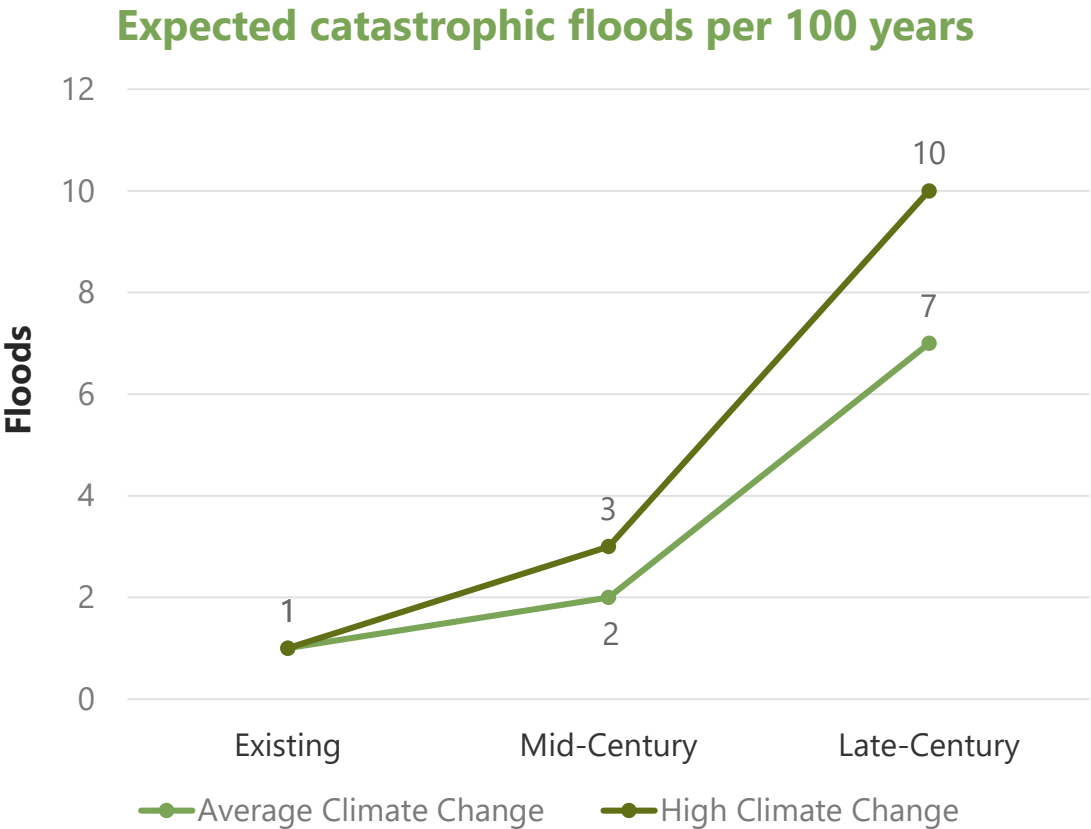
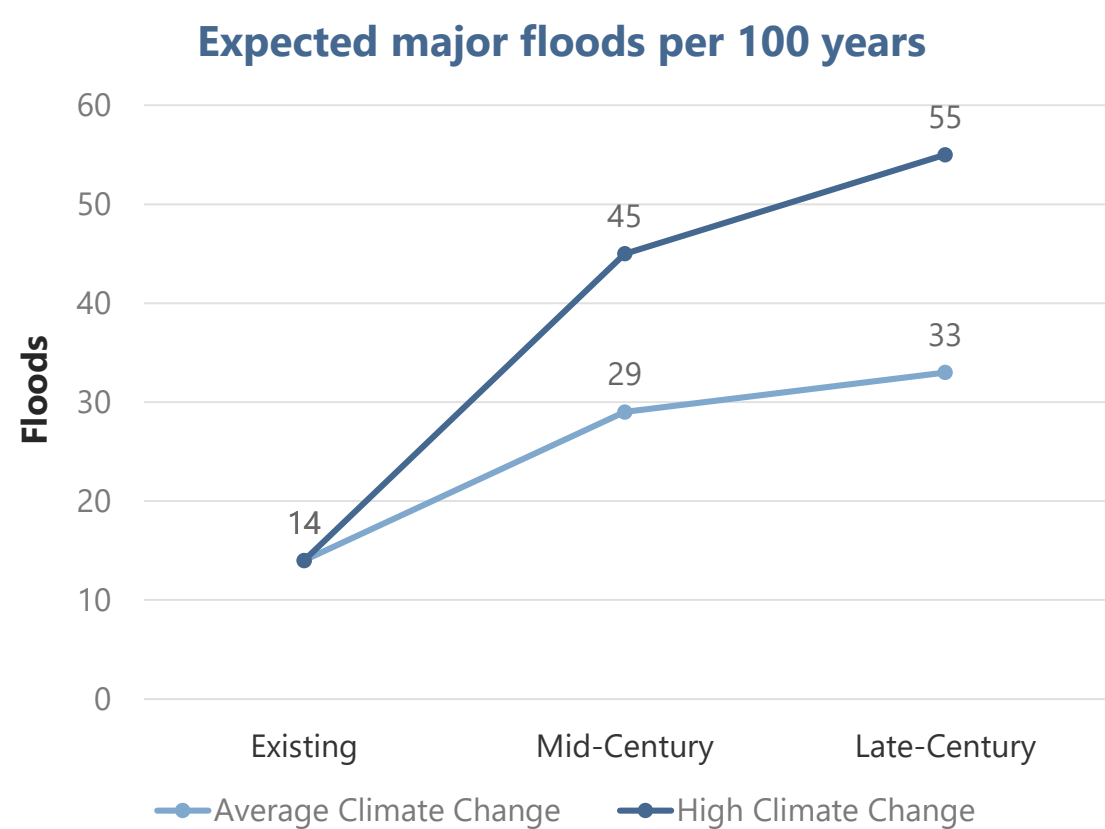
MID-CENTURY VS LATE-CENTURY

Large increase in **major** floods **mid**-century

And

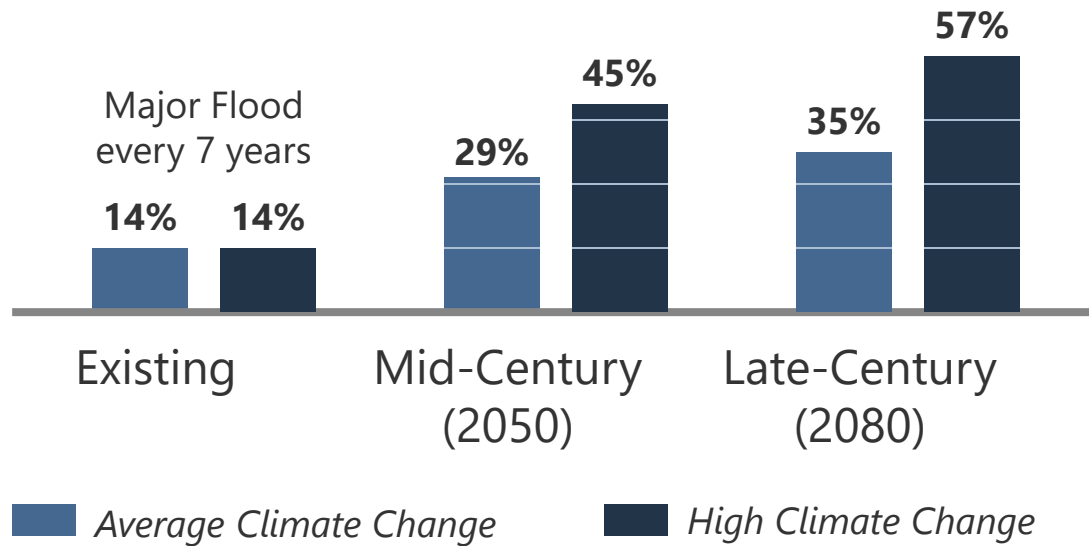
Large increase in **catastrophic** floods **late**-century

FREQUENCY OF FLOOD EVENTS AND DAM OPERATIONS

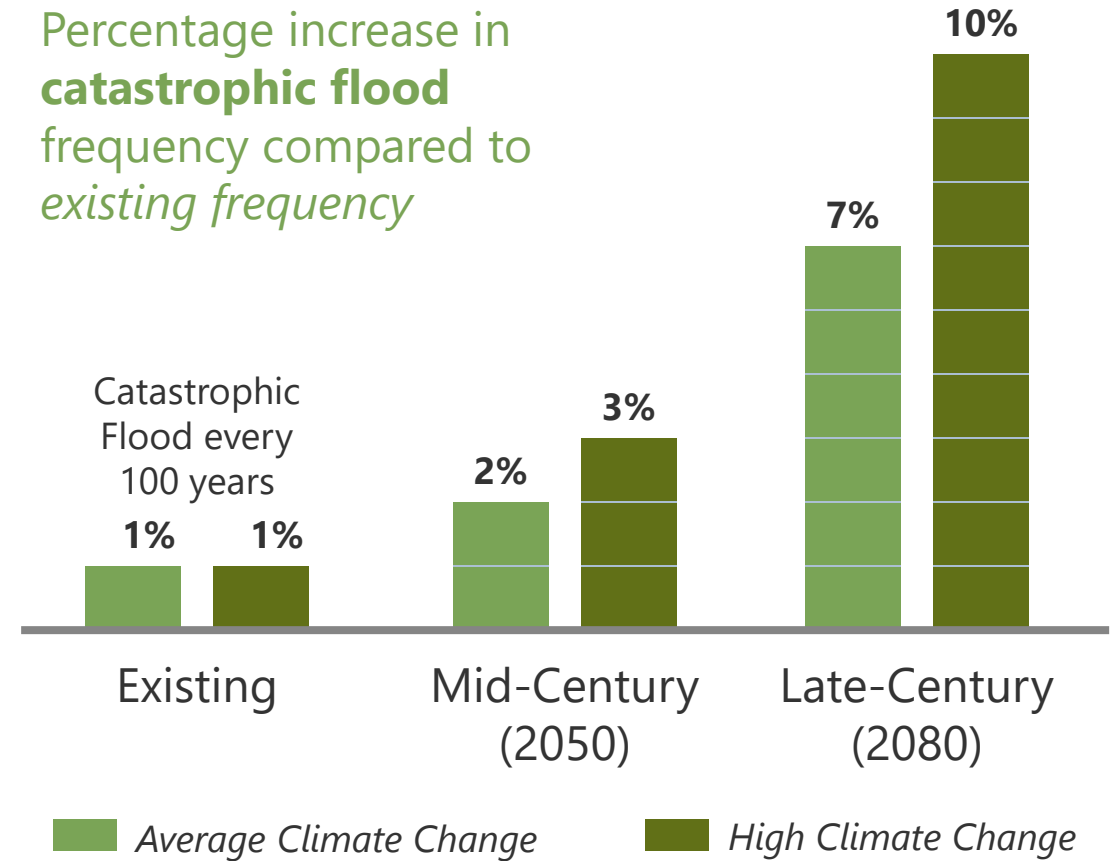


FREQUENCY OF FLOOD EVENTS AND DAM OPERATIONS

Percentage increase in **major flood** frequency compared to *existing frequency*



Percentage increase in **catastrophic flood** frequency compared to *existing frequency*



LATE-CENTURY CONDITIONS

FRE triggered every 1.5 - 4 years*

And

2007-style event every 10 - 30 years*

*approximately