Alternative Water Supplies for Drought Resilience in the San Francisco Bay Area

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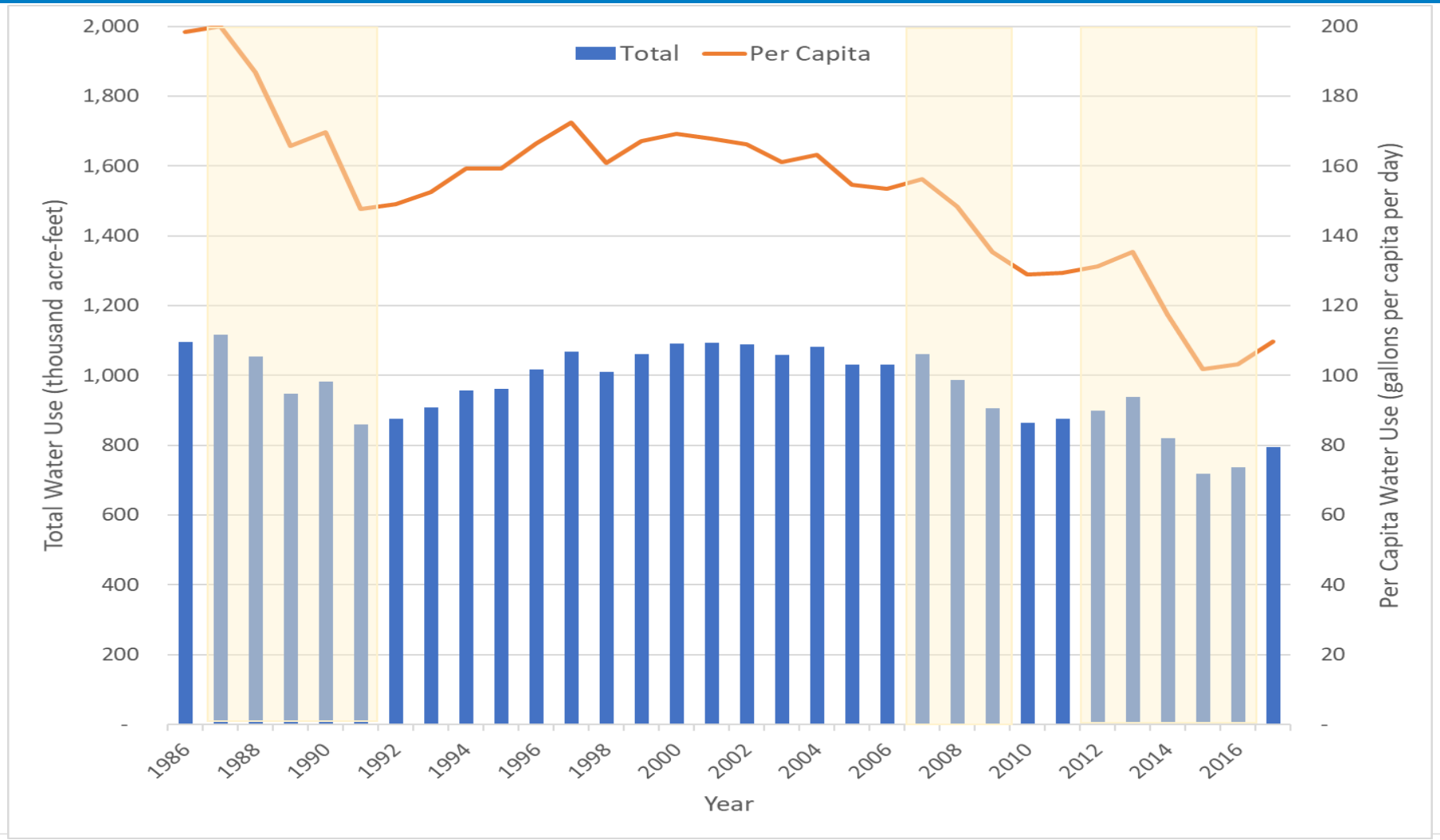
The San Francisco Bay Area has reduced urban water use despite continued population and economic growth.



Data Source: State of the Estuary Report 2019

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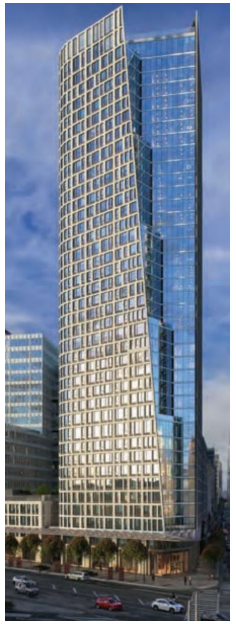
How can we further reduce drought pressures and build long-term water resilience?






- What water supply options are available?
- What do they cost?
- What are the co-benefits?

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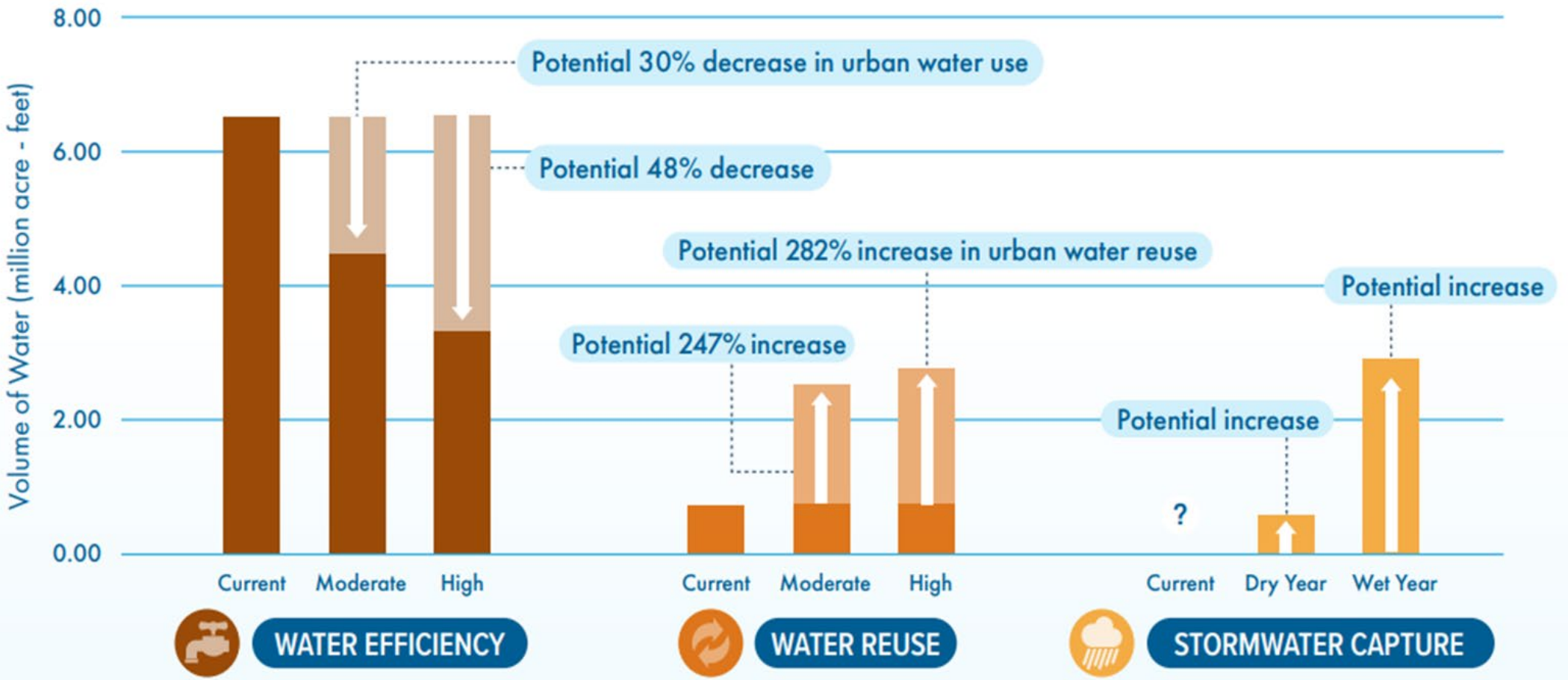
What water supply options are available?



Source: Cooley et al. 2022, Pacific Institute

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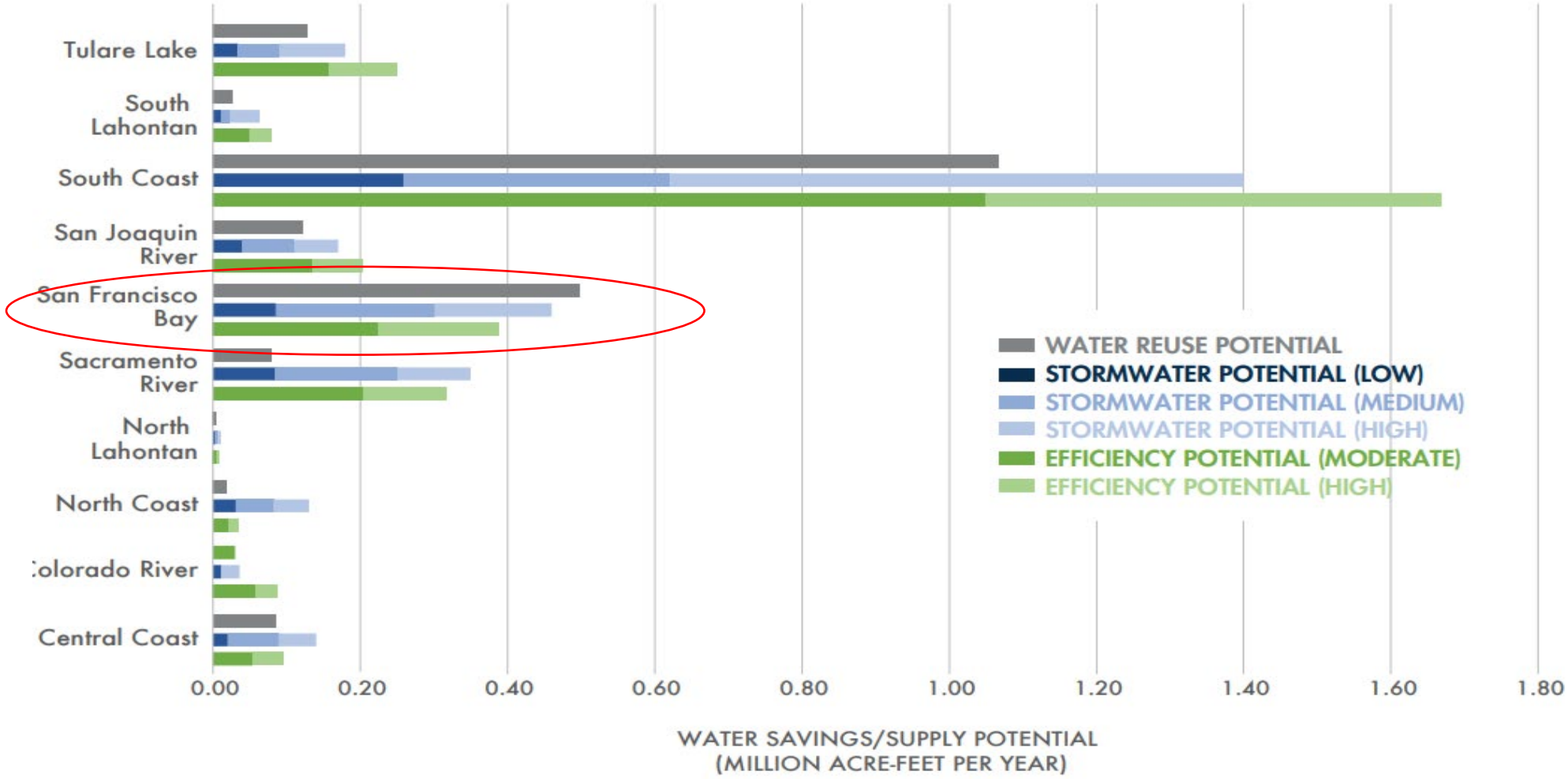
Water Efficiency, Water Reuse, and Stormwater Capture Potential by Region



Source: Cooley et al. 2022, Pacific Institute

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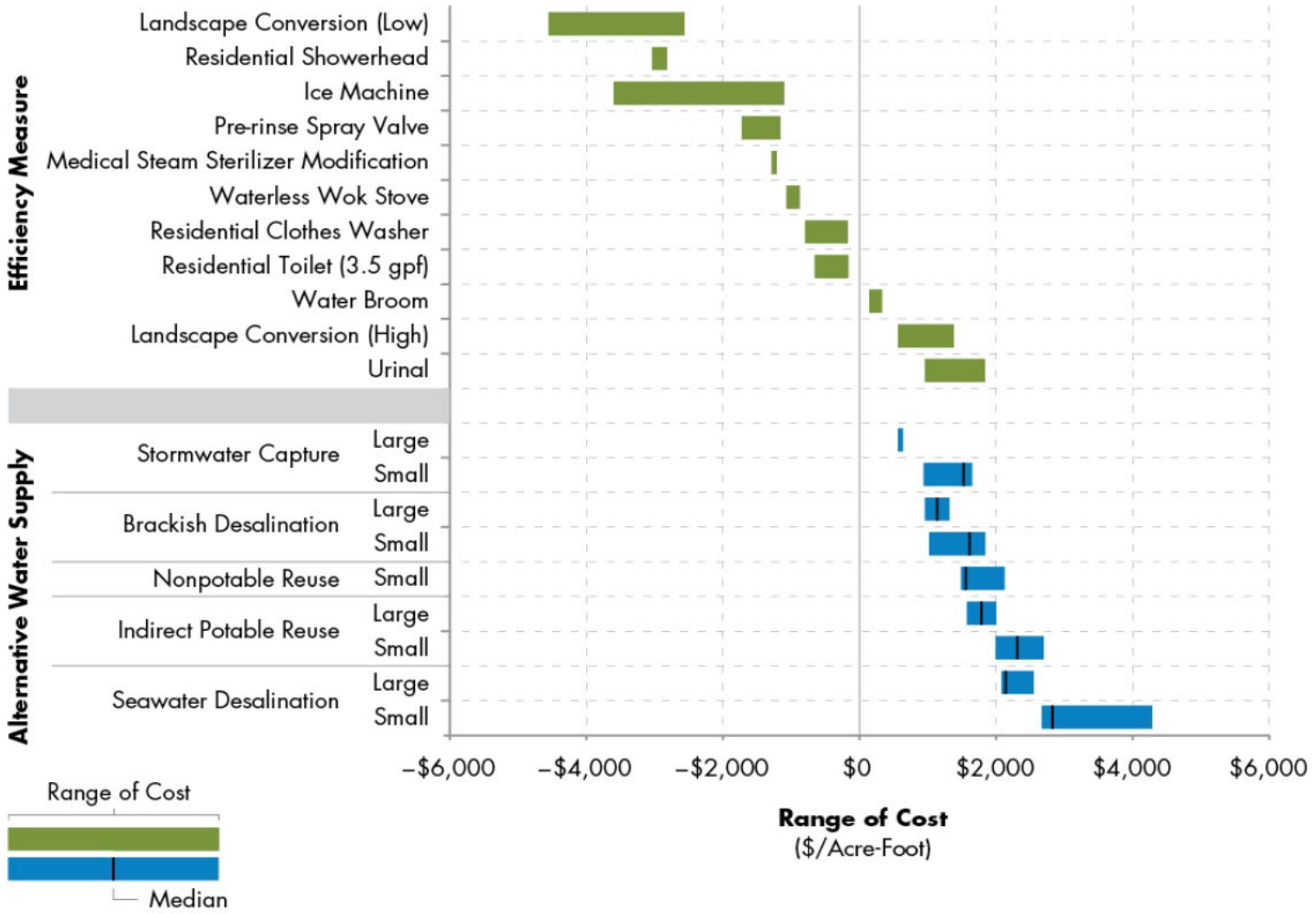
What do these water supply options cost?



Source: Cooley and Phurisamban 2016, Pacific Institute

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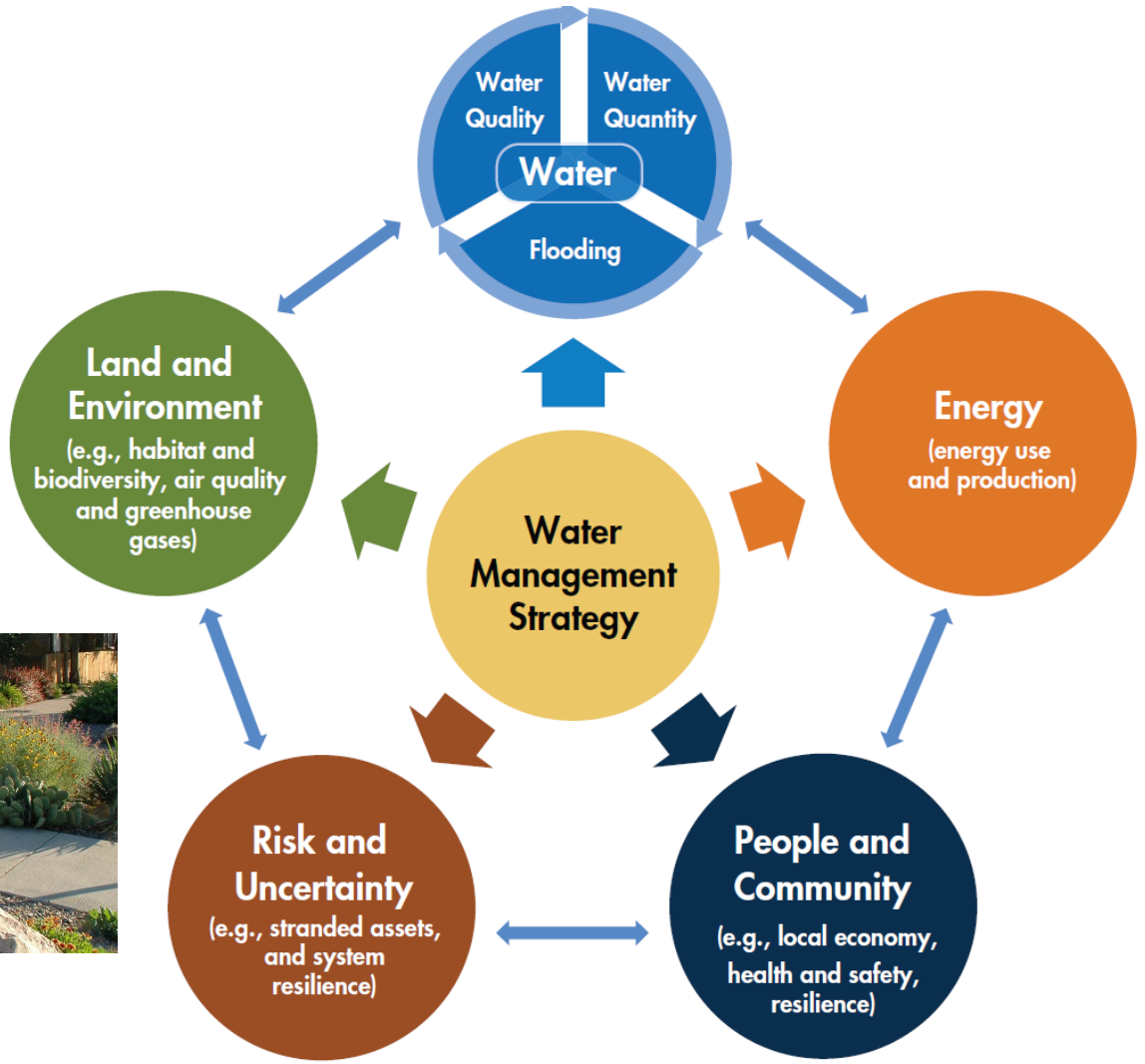
What are the co-benefits?



Source: Diringer et al. 2019, Pacific Institute

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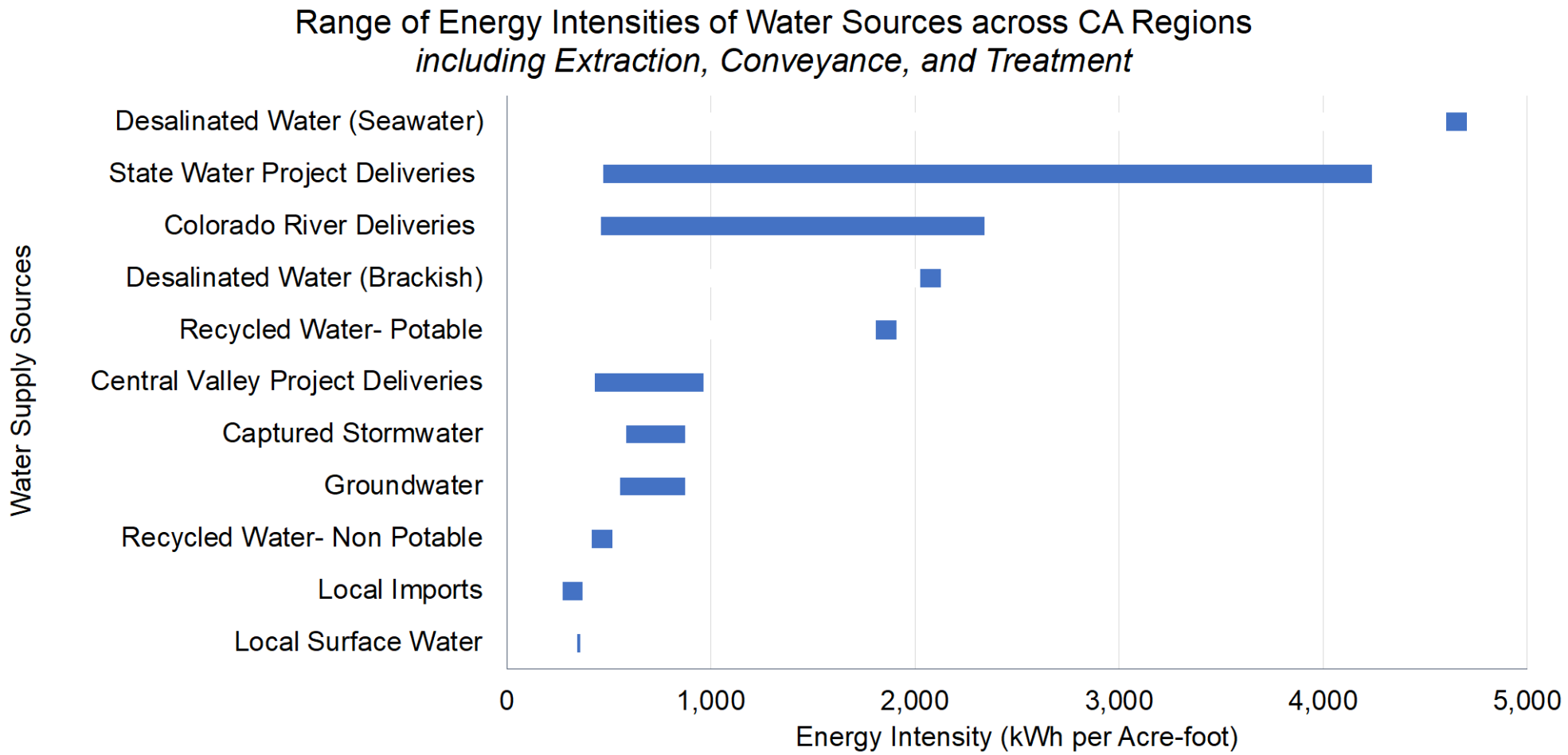
What are the energy and greenhouse gas implications?



Source: Adapted from Table 4 in Szinai et al. 2021, Pacific Institute and Next Ten

Key Takeaways

- Bay Area communities have made progress in reducing water use and developing local supplies, but more is needed in the face of intensifying drought and climate change.
- The good news is we have local water supply options for reducing drought pressures and building long-term water resilience.
- Efficiency is among the most cost-effective option, followed by stormwater capture, brackish desalination, and water reuse.
- Co-benefits provide opportunities to leverage additional funding and garner greater support for these investments.
- Energy requirements are an increasingly important consideration – especially as we grapple with the necessity and urgency of reducing energy use and greenhouse gas emissions.

Thank you!

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