

Binational Study of Water Desalination Opportunities in the Sea of Cortez: Summary of Key Findings

June 3, 2020

- A detailed binational study of water desalination opportunities in the Sea of Cortez region began in November 2018 and detailed preliminary analysis and reports were complete in May 2020.
- The study was prepared by the Minute 323 Binational Desalination Work Group, pursuant to Minute 323, Section IX.B. - New Water Sources Projects under direction of the Minute Oversight Group (MOG).
- The study identified seawater desalination opportunities to provide up to 200,000 acre-foot/year (af/yr) (8 cubic meters per second ($[m^3/s]$) to benefit the United States and Mexico, and assumed water delivery via exchange.
 - The delivery and exchange point is at the Northerly International Boundary.
- The study determined that preliminary project concepts are technically and economically feasible:
 - Reverse osmosis was selected as the most feasible technology after evaluation of multiple seawater desalination technologies;
 - Ocean discharge was selected as the most feasible brine disposal technology after evaluation of multiple brine disposal technologies, and
 - Project costs including capital and operations range from \$2,050 to \$2,228 United States Dollars (USD) per acre-foot (\$31.94 to \$34.71 Mexican Pesos [MXN] per cubic meter) delivered to the Northerly International Boundary.
 - Capital costs range from \$3.0 to \$3.7 Billion USD (\$58,300 to \$72,000 Million MXN).
- Environmentally sensitive marine and terrestrial areas were avoided when identifying potential treatment plant and outfall locations, and conveyance alignments.
- Recommended next steps include:
 - MOG explores a binational water exchange framework,
 - Binational Desalination Work Group explores site optimization and sizing,
 - MOG facilitates the analysis of power availability by the Binational Desalination Work Group,

- MOG facilitates the analysis of right of way by the Binational Desalination Work Group, and
- MOG coordinates comparisons to other New Water Sources Projects by the Projects Work Group.

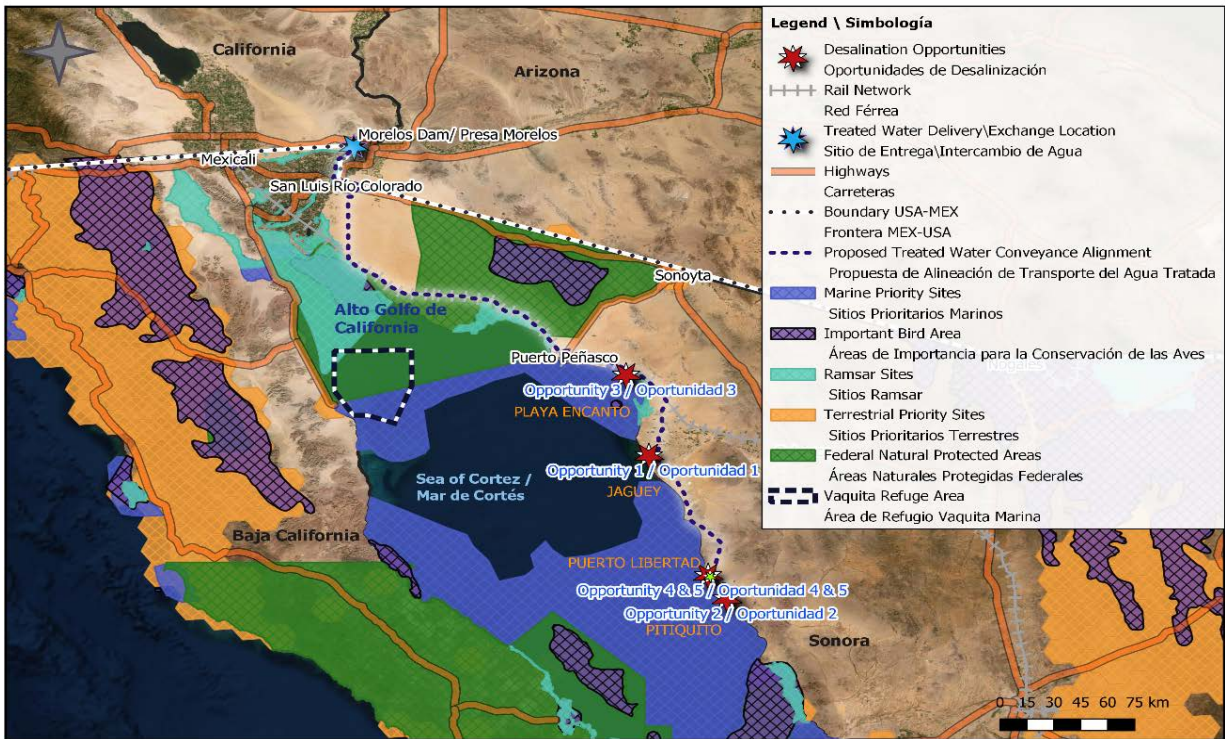


Figure 1: Desalination Opportunities in the Sea of Cortez