



Cadiz Valley Water Conservation, Recovery & Storage Project

An Innovative, Environmentally Responsible Source of Water for Southern California

June 2021

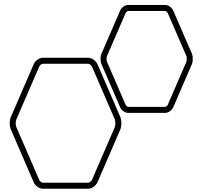
About Cadiz Inc.



Public natural resources company (NASDAQ: CDZI) dedicated to sustainable water and agricultural projects:

- ❖ 45,000 acres in three areas of San Bernardino County underlain high quality with groundwater.
- ❖ Agriculture development on 9,600 acres of land, sustainable farm since 1980s: Lemons, seasonal veggies and industrial hemp.
- ❖ On site groundwater wells and infrastructure supply 100 percent of overlying irrigation demand.
- ❖ County groundwater monitoring program: 25 yrs of groundwater production, groundwater levels remain stable, no drawdown.
- ❖ Home to desert tortoise rearing program and own the largest desert tortoise conservation bank in CA on 7,500 acres.





Cadiz Farming Operations

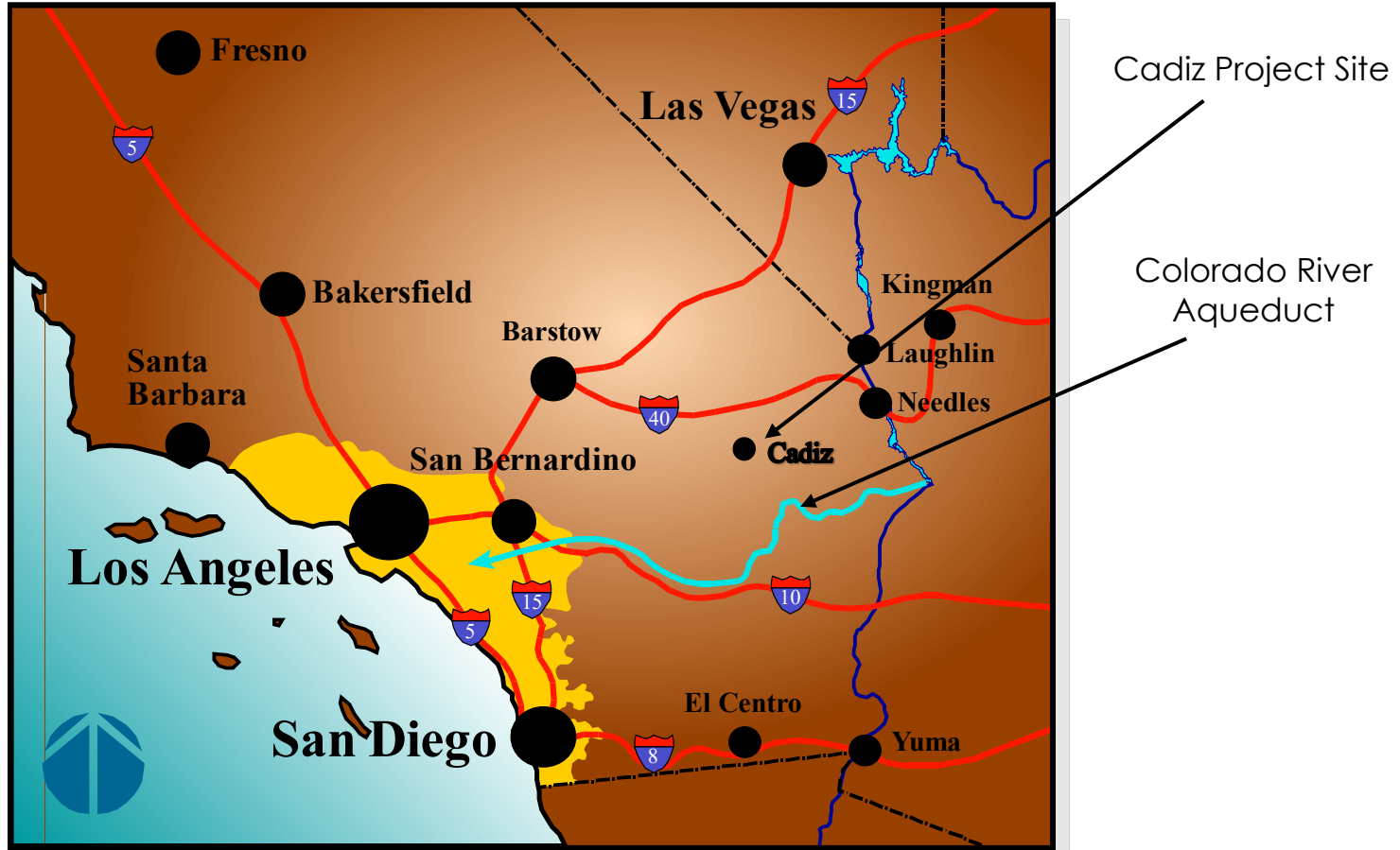
SoCal Hemp



Aerial View - Farming Office



Cadiz Valley: 200 Miles Northeast of Los Angeles



Fenner Valley Watershed

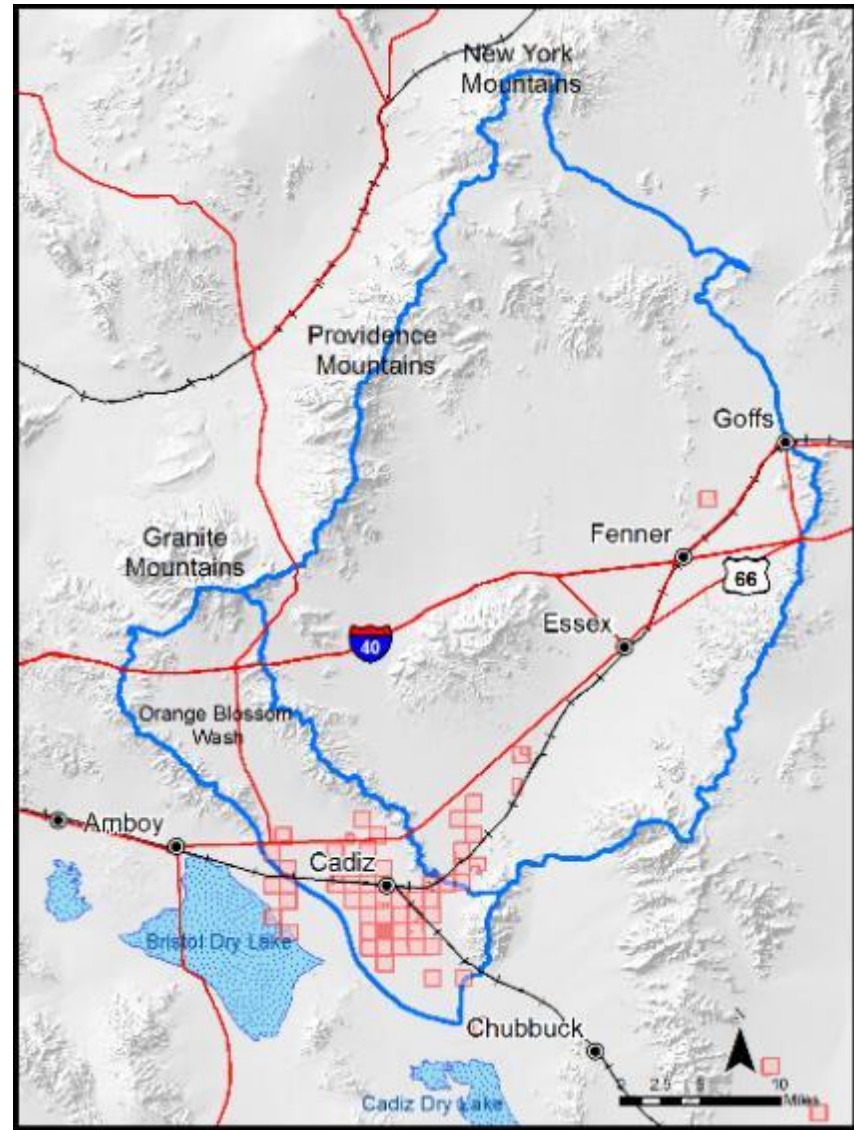


- ☀ 1,300 sq. mile watershed area, size of Rhode Island.
- ☀ Cadiz owns 35,000 acres at valley base of closed basin watershed
- ☀ 17-34 MAF of water in aquifer (in alluvium), comparable to Lake Mead.
- ☀ Excellent water quality, low TDS (avg. 330).
- ☀ Natural recharge = 32,000 AF/year.
- ☀ 1 MAF storage capacity.
- ☀ Terminates at dry lakes, where water turns saline and evaporates.

Cadiz Area Hydrology



- ☀️ Precipitation in high elevations (up to 7,000 ft.) percolates through porous soils, moves downhill to enter aquifer.
- ☀️ Water flows through alluvial (gravel), carbonate (cavernous), and granitic (like fractured concrete) rock.
- ☀️ Water table deep below ground surface; 250 ft bgs at Cadiz.
- ☀️ Groundwater moves very slowly.
- ☀️ At dry lakes, turns to brine then evaporates out, forever wasted.



Water Discharged by Evaporation

- ☀ Billions of gallons (>30,000 AFY) evaporated every year from Dry Lakes, acc. to Desert Research Institute study.

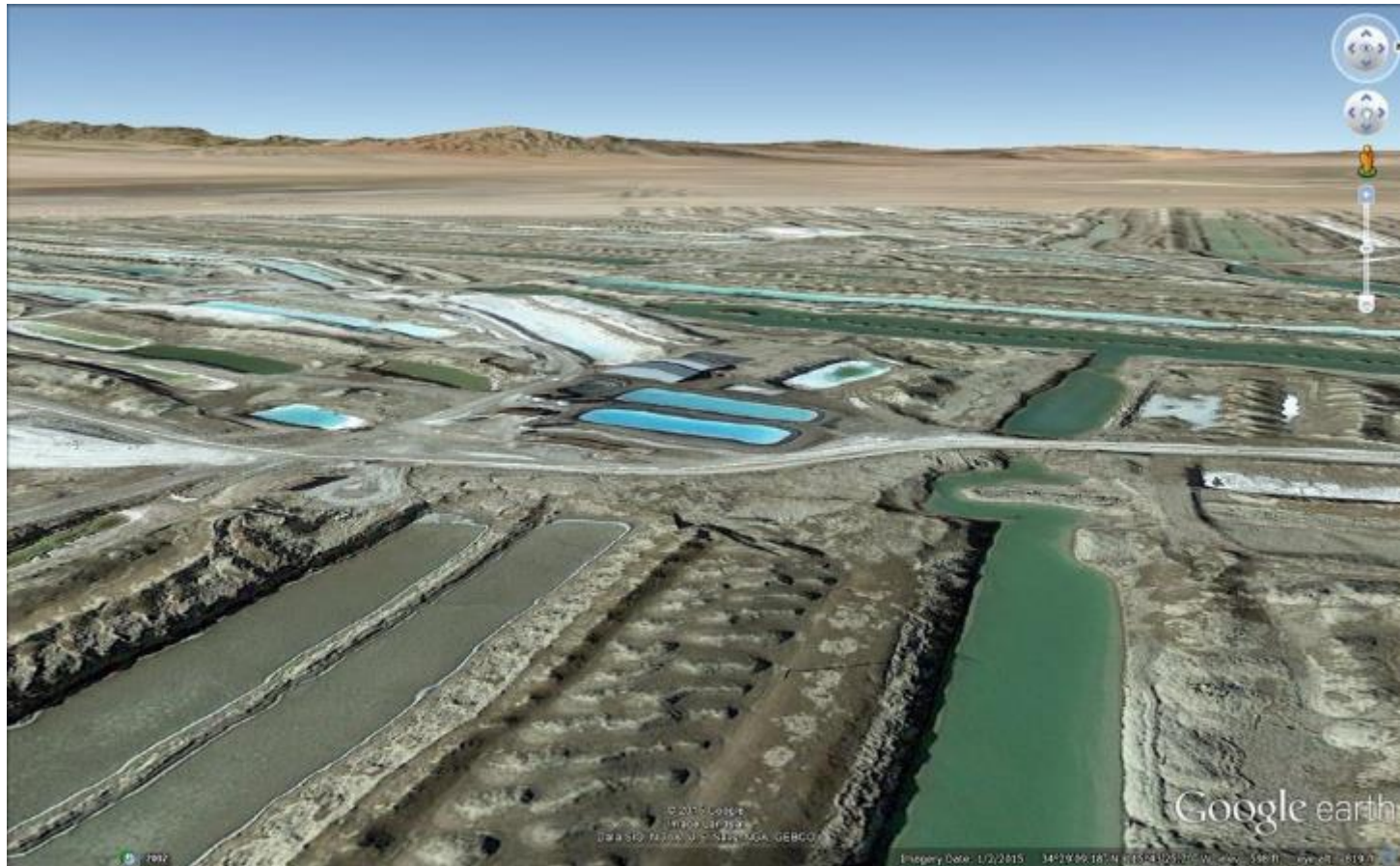


Dry Lake Crust



Beneath Dry Lake Surface

☀ Google Earth Photo of Dry Lakes



Cadiz Water Project

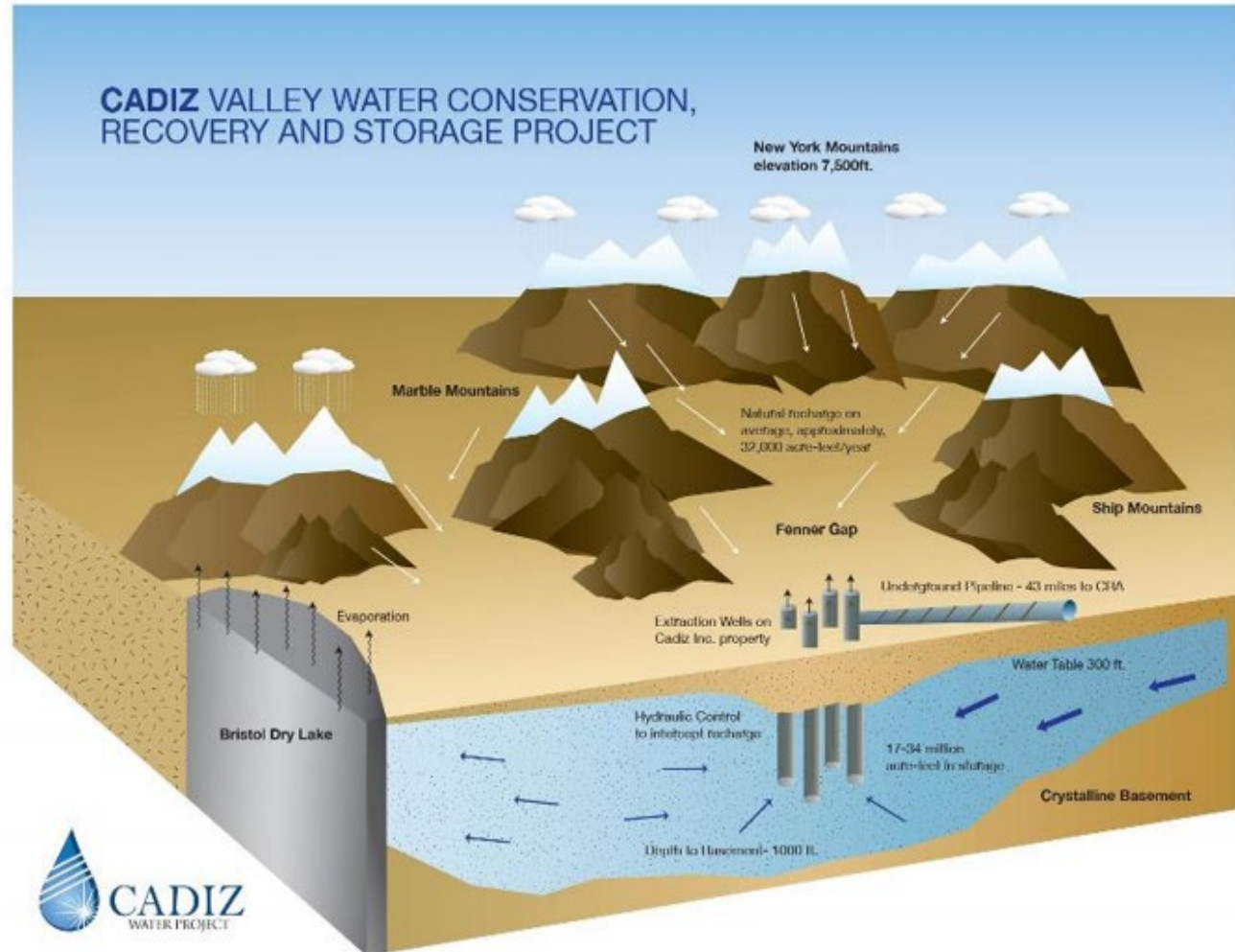


Manage groundwater basin and conserve H₂O before it can be lost to salinity and evaporation:

Phase 1

- ❖ 50,000 AFY of new supply.
- ❖ In-lieu storage up to 150,000 AF in wet yrs.
- ❖ Safe, sustainable operations with NO undesirable results for environment.

Create new 50-year supply for 400,000 people throughout So. Cal.



Phase 2

New Storage for Southern California

Phase 2

- ❖ Import water in wet years and store underground at Cadiz.
- ❖ Total storage capacity = 1 million acre-feet.
- ❖ Unique Southern California banking opportunity, “off CRA” – inputs No Cal / So Cal sources, larger than most local reservoirs.



Pipelines

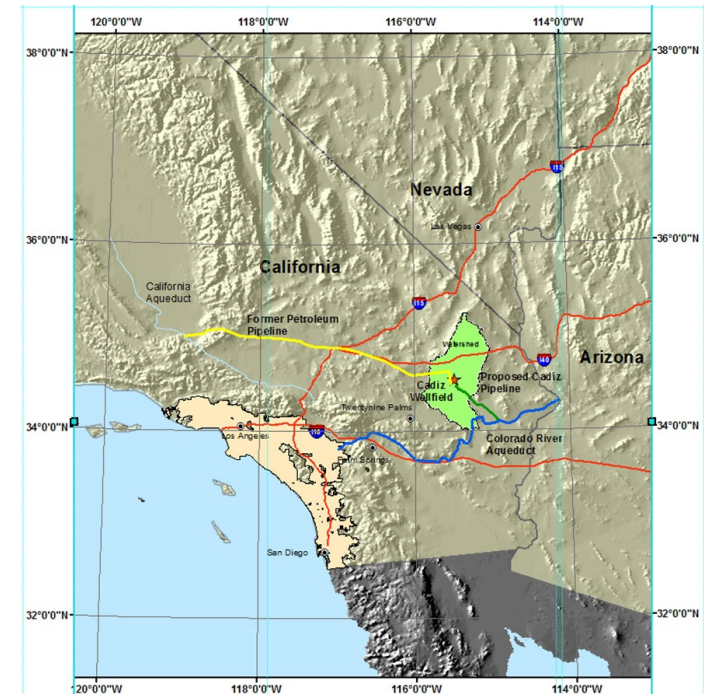
To deliver conserved water to communities in need, Cadiz must access conveyance facilities:

Southern Pipeline:

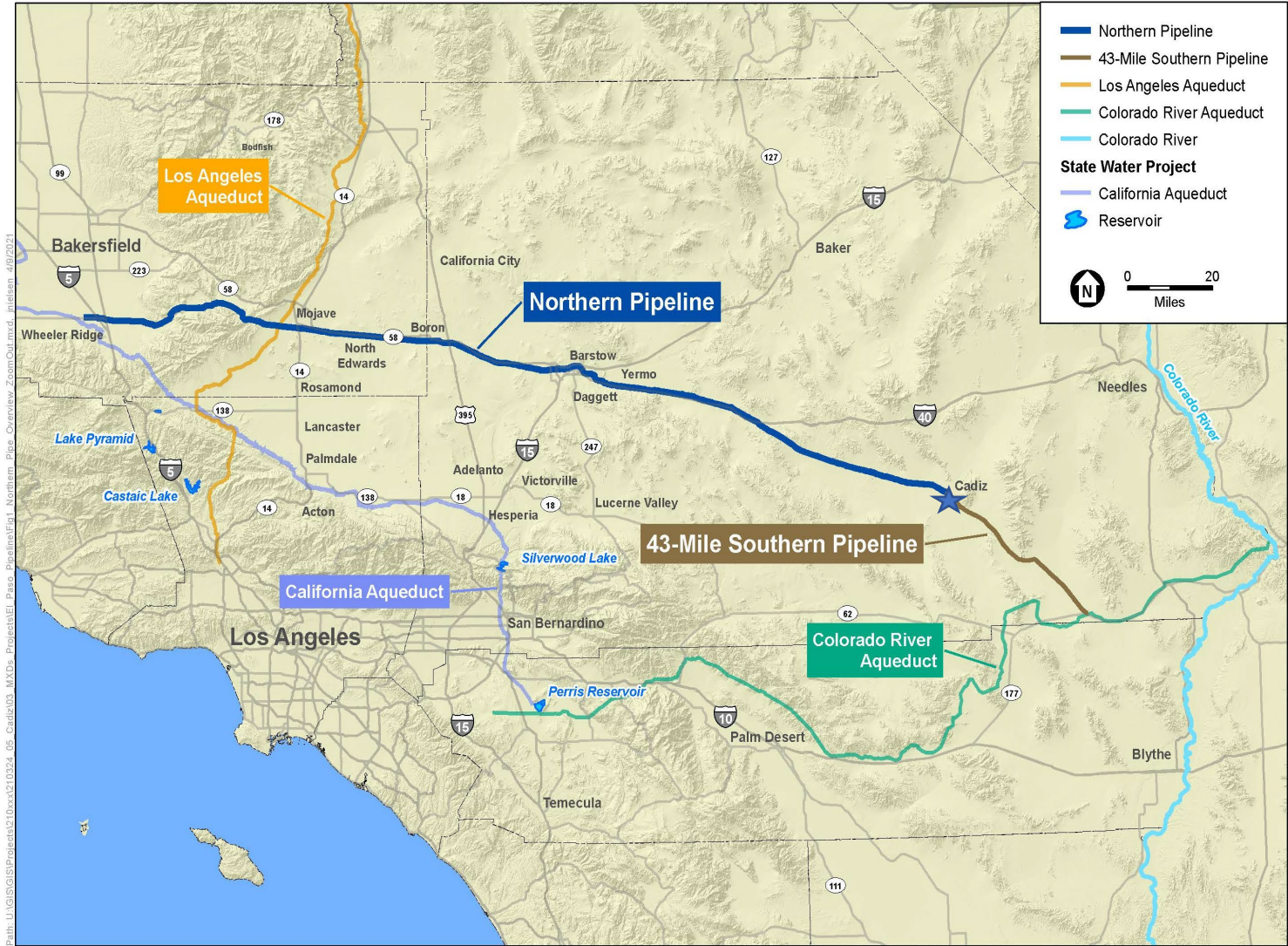
- 43-miles Cadiz to the Colorado River Aqueduct.
- To be constructed – design plan: single barrel, pressurized steel pipeline between 55” to 84” diameter.
- Would convey 25, - 75,000 acre-feet per year.
- Approved in accordance with CEQA, pending further review from State of CA and MWD.

Northern Pipeline:

- 220-miles of pipeline owned by Cadiz
- Extends from Cadiz to Central Valley.
- 30” steel pipeline already in ground – previously used for oil and gas.
- Capacity to transport 25,000 acre-feet per year.
- Must comply with all local, state and federal law prior to use.



Cadiz Interconnects So. California's Primary Water Infrastructure



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SOURCE: ESA, 2021; DWR, 2021.

Cadiz - Northern Pipeline

Structure: Public-Private Partnership

- ❖ Cadiz partners with public agencies funding R&D, permitting and construction. No public dollars required.
- ❖ Public agencies have secured options and contracts with Cadiz to long-term supply and storage from the Project. Cadiz is approved to deliver 2.5 MAF over 50 years.
- ❖ Public agencies will purchase water providing Cadiz a reasonable rate of return on investment with no risk to public rate payer.
- ❖ Cadiz does not operate the Project - leases facilities to public agencies. Local government agencies enforce provisions of permits.
- ❖ Construction of Phase 1 is estimated at \$300M, including pipeline, wellfield, railroad improvements, energy and treatment. All private capital.



San Bernardino County Management

- ★ County approved and enforces groundwater management plan to protect Mojave Desert flora, fauna, springs, and aquifer.
- ★ 40 monitoring features, action criteria, and corrective actions.
 - ★ Water Quality
 - ★ Springs
 - ★ Vegetation
 - ★ Subsidence
 - ★ Saline Water Migration
 - ★ Air Quality (for dust)
- ★ Limits change in groundwater levels to a maximum of 80 Feet in Wellfield.

Water Quality Innovation



- * No industrial pollution in watershed. Headwaters protected.
- * Low TDS water (< 330) that could reduce TDS of MWD CRA water (>600)
- * Cadiz water meets all State and Federal MCLs without treatment
- * Federal EPA standards for total Chromium is 100 ppb. California DDW standards for total Chromium is 50 ppb.
- * There is no federal EPA standard for CR6. California has no present standard for CR6. California is expected to implement a standard for CR6.
- * Cadiz total Chromium ranges from 8 – 16 ppb.
- * DDW approved ATEC technology will remove CR6 from Cadiz water on site at Cadiz property.

Costs & Construction

- **Phase 1 build-out ~\$300M, creates & supports 3,100 jobs.**

- ❖ Well field and power facilities
- ❖ Treatment facilities
- ❖ 44-mile conveyance & related RR improvements
- ❖ Aqueduct intertie
- ❖ Monitoring facilities



- **Phase 2 (cost \$TBD), creates and supports 2,900 jobs.**

- ❖ Convert existing 30" Barstow-to-Cadiz pipeline to water conveyance
- ❖ Construct recharge basins on Cadiz Property to accept storage water
- ❖ Build additional pump station

Milestones - Status

10 Years and counting....

- ✓ CA environmental review completed July 2012.
- ✓ County conservation and management plan approved in October 2012
- ✓ Review + Approvals upheld & validated by California Courts in 12 separate cases in 2016.
- ✓ New conveyance pipeline (43-mile) to Colorado River Aqueduct in railroad right-of-way; 99-year lease. Approved 2020.
- ✓ Purchase rights to existing gas pipeline to No. Cal/ State Water Project (220 Miles). 2021



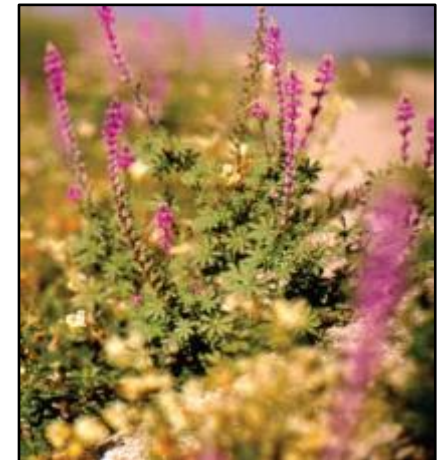
Next Steps:

- Conveyance arrangements with public agencies
- Contracts with water users

Benefits – Water, Jobs & Environment



- ❖ **\$800 million** total economic benefit from construction. Long-term: **\$6B** region-wide.
- ❖ **5,900 jobs** created – **10%** of jobs reserved for **Veterans**.
- ❖ **\$6 million/year** in local tax revenue once Project is operational.
- ❖ **Water Conservation.** Conserves 1.5 million AF of water over 50 yrs.
- ❖ **Enhanced Water Supply.** Increases area's long-term water supply reliability with a source not dependent on Colorado River or State Water Project.
- ❖ **High Quality Water.** 400\$M Water Quality Improvement in So Cal.
- ❖ **Groundwater Storage.** 1 MAF underground storage capacity for imported water = reliability for water providers.
- ❖ **Environmental Protection.** Avoids construction on any public, protected lands, created permanent protection for desert tortoise.





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