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Basin Briefings

Q2 2026 commentary on priority, yield, policy, and counterparty dynamics in six focus basins

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Executive Summary

This quarter's briefings cover six focus basins that together define the institutional water investment landscape: the Colorado River, the Rio Grande, California's Central Valley, the Ogallala (High Plains) Aquifer, Australia's Murray-Darling, and Chile's Atacama. Each basin is presented along four dimensions: Priority (rights structure), Yield (supply and reservoir conditions), Policy (regulatory and litigation posture), and Counterparty Dynamics (buyers, sellers, and key players).

Q2 2026 HEADLINES

Colorado River seven-state negotiations collapsed in February; Rio Grande settlement took effect with Elephant Butte at 12.8 percent; California SWP at 30 percent of Table A against a softening NQH2O index; Kansas triggered a 2026 state-takeover threshold for five GMDs; Murray-Darling entitlement turnover reached $771 million; Chile fined Albemarle for extraction overages as Collahuasi desalination came online.

1. Colorado River Basin

A. Priority: Water Rights System and Structure

The Colorado River Compact of 1922 apportions 7.5 million acre-feet per year (MAF/yr) to each of the Upper Basin (Colorado, Utah, Wyoming, New Mexico) and Lower Basin (California, Arizona, Nevada), with an additional 1.5 MAF/yr treaty obligation to Mexico. The foundational law of the river is the Law of the River, a layered stack of compacts, federal statutes, court decrees, and operating guidelines. The current operating framework, the 2007 Interim Guidelines, established tiered shortage sharing based on Lake Mead elevation

triggers and expire at the end of 2026, making the Post-2026 process the most consequential water policy negotiation in a generation.

Prior appropriation (first in time, first in right) governs within each state; the Colorado-Big Thompson (C-BT) Project in northeastern Colorado represents a major transbasin diversion that operates through a quota and unit-ownership structure administered by Northern Water. C-BT units convey a proportional share of annual Project water deliveries, scaled to the 310,000 AF design yield. Quotas are set annually as a percentage of that yield.

B. Yield: Supply, Reservoir Levels, and Historical Trends

Lake Powell (January 2026): End-of-January 2026 elevation was 3,535.02 feet, operating in the Mid-Elevation Release Tier with a Water Year 2026 planned release of 7.48 MAF. The Bureau of Reclamation adjusted releases to protect a minimum target elevation of 3,525 feet, holding back 0.598 MAF between December 2025 and April 2026 for later release. As of late December 2025, the reservoir was approximately 27 percent full at 6.7 MAF, roughly 44 percent of historical average. The 2025 trajectory showed elevation fluctuating from a January high of 3,566 feet down to 3,543 by November, a net seasonal decline of over 23 feet driven by above-average releases and below-average inflow.

Lake Mead (January 2026): End-of-January 2026 elevation was 1,065.37 feet, projected to remain in a Level 1 Shortage Condition, approximately 20 feet below the Lower Basin shortage determination trigger of 1,075 feet. This triggers mandatory reductions under the 2007 Interim Guidelines and the Lower Basin Drought Contingency Plan (DCP, 2019), as well as obligations under Minute 323 and the Binational Water Scarcity Contingency Plan with Mexico.

CBT Unit Price: The Colorado-Big Thompson unit market price averaged $57,487 per unit in 2025, down from a peak of $67,000 in 2023 and $58,772 in 2024, continuing a modest softening trend from the 2022 to 2023 spike period, per Northern Water historical price data. Northern Water's Regional Pool auction set a floor bid of $33.80 per AF for the May 2025 allocation of 23,000 acre-feet, a price the Board selected based on the 2025 agricultural assessment.

C. Policy: Regulatory Actions, Litigation, and Compact Status

Post-2026 Negotiations, Collapse and Deadlock: The seven-state negotiation to replace the 2007 Interim Guidelines stalled dramatically. On February 13, 2026, with a federal deadline looming, the seven Colorado River Basin states failed to reach agreement, with Nevada's chief negotiator John Entsminger confirming there was no deal. The Trump administration had set two successive deadlines with states remaining divided on the core dispute: how much water the Upper and Lower basins should receive, and the magnitude of required cuts. The Bureau of Reclamation's Scott Cameron indicated a finalized plan was expected by May or June 2026, giving just enough time for state legislative approval before the new water year.

Key Proposal Elements (Lower Basin Position): The Lower Basin and Mexico would absorb a fixed 1.5 MAF reduction in deliveries under most system conditions, with management decisions based on Total System Contents across a broader reservoir set, not solely on Lake Mead and Lake Powell. Additional shared cuts between Upper and Lower Basins would trigger when total system capacity falls below 38 percent.

Drought Contingency Plan (DCP, 2019): Both the Upper and Lower Basin DCPs remain operative. The Lower Basin DCP supplements the 2007 Interim Guidelines shortage triggers, requiring deeper cuts at lower Lake Mead elevations. The August 2025 24-Month Study confirmed Level 1 shortage conditions for 2026, necessitating Arizona, Nevada, and Mexico reductions per the USBR 24-Month Study, April 2026. Under a 2007 drought agreement, Denver Water was permitted temporarily to take increased flows from the upper Colorado River through May 2026, illustrating how pre-existing water-sharing arrangements within the Upper Basin continue to operate in parallel to the interstate compact negotiations.

D. Counterparty Dynamics: Buyers, Sellers, and Key Players

■ Metropolitan Water District of Southern California (MWD): California's dominant municipal water agency, serving 19 million people. MWD depends on Colorado River Aqueduct deliveries and State Water Project imports and is among the most active advocates for a strong Lower Basin compact position. MWD issued a formal statement in November 2025 on continued negotiations, signaling its intention to maintain existing Lower Basin entitlements.

■ Southern Nevada Water Authority (SNWA): Nevada's primary compact stakeholder, historically aggressive in purchasing unused Colorado River water from Arizona agricultural districts. SNWA operates under a congressionally approved program to buy and conserve water from Mohave Valley and Cibola Valley irrigation districts.

■ Denver Water: Colorado's largest utility (1.5 million customers), holds senior direct-flow rights on the South Platte and supplemental CBT rights. CBT unit ownership is the primary investment-grade water asset in northern Colorado.

■ Aurora Water: Purchases CBT units on the secondary market and holds shares in the Windy Gap Firming Project. Competes with Denver Water for front-range supply.

■ Central Arizona Project (CAP): As a post-1968 junior priority on Arizona's Lower Basin allotment, CAP faces first-priority shortfall cuts under Level 1 shortage conditions, forcing the Central Arizona Groundwater Replenishment District and CAP-dependent municipalities (Phoenix, Tucson) to draw on banked groundwater.

2. Rio Grande Basin

A. Priority: Water Rights System and Structure

The Rio Grande Basin operates under the 1938 Rio Grande Compact among Colorado, New Mexico, and Texas, supplemented by the 1906 Convention with Mexico. New Mexico's core obligation under the Compact is to deliver water at Elephant Butte Reservoir for downstream use by the Elephant Butte Irrigation District (EBID, serving southern New Mexico) and the El Paso County Water Improvement District No. 1 (EPCWID, serving Texas). New Mexico also operates under a permit-based prior appropriation system administered by the State Engineer's Office. The Supreme Court's 2024 ruling in Texas v. New Mexico addressed the critical question of groundwater pumping interception and its effect on Compact deliveries.

B. Yield: Supply, Reservoir Levels, and Historical Trends

Elephant Butte Reservoir: As of April 23, 2026, Elephant Butte Lake was 12.8 percent full, representing a recovery from the catastrophic July 2025 low of approximately 3.7 percent full (roughly 74,000 AF). The reservoir has a maximum capacity of 2.1 million acre-feet. In August 2025, storage was only 74,000 AF, equivalent to about 3.7 percent of capacity, a crisis driven by record drought and Compact delivery obligations to Texas. The reservoir is the central accounting node of the Rio Grande Compact; New Mexico's obligation is effectively to deliver water to Elephant Butte, not to the state line.

2025 Supply Crisis: New Mexico Water Advocates reported in August 2025 that the Middle Rio Grande's 2025 river water supply had collapsed, with the Bureau of Reclamation's San Juan-Chama Project (a Colorado River transbasin import) recording a record-low allocation, down 69 percent from full supply, severely curtailing deliveries to the Albuquerque Bernalillo County Water Utility Authority (ABCWUA, which receives approximately half) and MRGCD (which receives approximately one quarter). The 2026 outlook is severe: EBID farmers are expecting just a four-inch allotment of surface water for the 2026 irrigation season due to very low Elephant Butte storage.

C. Policy: Regulatory Actions, Litigation, and Compact Status

Texas v. New Mexico Settlement (August 2025): After over a decade of contentious litigation, New Mexico and Texas reached a settlement agreement on August 29, 2025, avoiding a full trial before the Supreme Court's Special Master. The settlement includes: (1) new formulas for calculating water owed between parties; (2) commitments by New Mexico to reduce groundwater depletion that intercepts surface deliveries; and (3) changes to the operating manual for the Bureau of Reclamation's Rio Grande Project. The Texas Tribune reported that the United States got what it needed in terms of firm commitments by New Mexico to reduce groundwater depletions. EBID and EPCWID both signed onto the settlement.

Supreme Court 2024 Ruling: The Court's June 21, 2024 opinion clarified that New Mexico's obligation runs to delivery of water to Elephant Butte Reservoir, not to a specified annual volume at the state line, a finding with significant implications for how New Mexico manages upstream groundwater pumping near the river.

D. Counterparty Dynamics: Buyers, Sellers, and Key Players

■ EBID (Elephant Butte Irrigation District): New Mexico's largest Rio Grande irrigation district, serving southern Dona Ana County. EBID is the primary beneficiary of Rio Grande Project water and is a settling party in Texas v. New Mexico. In critically dry years, EBID farmers receive as little as 4 inches per acre of surface water, forcing expensive groundwater substitution or fallowing.

■ EPCWID No. 1: The Texas counterpart irrigation district covering El Paso County farms. EPCWID receives Rio Grande Project deliveries and supplies water to the City of El Paso for municipal use. The settlement provides long-term protection to El Paso farmers and the City of El Paso, according to EPCWID General Manager Jay Ornelas.

■ Albuquerque Bernalillo County Water Utility Authority (ABCWUA): New Mexico's largest municipal utility (approximately 700,000 population), heavily dependent on both San Juan-Chama Project imports and local groundwater. The 2025 supply crisis left ABCWUA managing a 69 percent shortfall in project water, testing conjunctive-use protocols, and groundwater banking reserves.

■ El Paso Water (EPWater): The City of El Paso's municipal utility operates a blend of Rio Grande surface water, groundwater, and reclaimed water. EPWater has invested significantly in desalination of brackish groundwater from the Hueco Bolson aquifer.

3. Central Valley (California)

A. Priority: Water Rights System and Structure

California operates a hybrid water rights system combining riparian rights, pre-1914 appropriative rights, and the post-1914 permit system administered by the State Water Resources Control Board (SWRCB). The State Water Project (SWP), operated by the Department of Water Resources (DWR), and the Central Valley Project (CVP), operated by the Bureau of Reclamation, are the two dominant surface supply systems. Allocations are expressed as percentages of Table A contract amounts (SWP) or contracted supply (CVP). Groundwater use in the most overdrafted basins is now governed by the Sustainable Groundwater Management Act (SGMA, 2014), which mandates local Groundwater Sustainability Plans and a sustainability deadline of 2040 to 2042.

The Nasdaq Veles California Water Index (NQH2O) tracks spot water rights prices across five California markets. As of April 22, 2026, the index stood at 208.73 (units: dollars per AF equivalent index). An earlier April 15, 2026, reading also showed 208.73, reflecting a level significantly below the 261.44 index level recorded around February 2026, indicating spot price softening in early spring amid improved storage conditions.

B. Yield: Allocations and Historical Trends

State Water Project (SWP) Allocations:

- 2024: Started at 10 percent (December 2023 initial), rose to 40 percent as final allocation, reflecting a moderate water year.
- 2025: Initial allocation set at 5 percent (December 2024); increased to 20 percent in January, then 35 percent by February 25, 2025.
- 2026: The SWP allocation for 2026 is 30 percent of Table A, per Notice to Contractors 26-01.

Central Valley Project (CVP) Allocations (South-of-Delta Agricultural Contractors):

- 2024: Initial 15 percent, rising through spring to 50 percent final, with north-of-delta contractors at 100 percent.
- 2025: Increased to 55 percent for south-of-delta agricultural contractors by late May 2025, despite favorable hydrologic conditions.
- 2026: Initial allocation of 15 percent for south-of-delta agricultural contractors (February 26, 2026); 65 percent for south-of-delta M&I contractors (initial). Updated to 20 percent agricultural and 70 percent M&I by March 24, 2026.

PPIC Land Fallowing Estimates: PPIC's 2024 analysis projects that average annual farm water availability in the San Joaquin Valley will decline by 3.15 MAF by 2040, roughly 20 percent of current supplies, primarily due to SGMA groundwater curtailments. This will require a structural transition of an estimated 500,000+ acres of irrigated farmland to dryland or fallowed uses, concentrated in the Tulare Lake subbasin.

C. Policy: SGMA, Probationary Basins, and Regulatory Actions

Six critically overdrafted San Joaquin Valley subbasins were referred to the SWRCB after DWR deemed their GSPs inadequate in March 2023. Status as of Q2 2026:

SUBBASIN	STATUS	KEY DEVELOPMENT
Tulare Lake	Probationary (2024)	Under state intervention, one of two voted into probation in 2024
Tule	Probationary (Sept. 17, 2024)	Non-exempt extractors began measuring Jan. 1, 2025; first reports due Feb. 2026
Kern County	Probationary hearing continued to Sept. 17, 2025	Revised GSP due June 20, 2025; staff reviewing plans
Kaweah	Hearing canceled (Jan. 2025)	Amended 2024 GSPs show progress; board action anticipated summer 2025
Chowchilla	Pre-probation	Updated 2025 GSP shows progress; recommendation expected spring 2025
Delta Mendota	Pre-probation	2024 GSP shows significant progress; recommendation expected late 2025

Source: Maven's Notebook / State Water Board, April 2026. Additionally, DWR determined the Pleasant Valley subbasin (Fresno County) to have an inadequate GSP in February 2025, bringing the total number of basins under intervention to seven.

D. Counterparty Dynamics: Active Players

- Westlands Water District: California's largest federal irrigation district (600,000+ acres, Fresno, and Kings counties). Westlands holds the largest single CVP contract south of the Delta. As a chronic recipient of allocations well below contract supply, Westlands aggressively pursues supplemental water purchases, groundwater recharge banking (approximately 390,000 AF banked following the 2023 wet year), and political advocacy for allocation increases.
- Kern County Water Agency (KCWA): Primary SWP contractor and coordinator for Kern County groundwater banking operations. Kern is home to California's most active groundwater recharge programs, having banked 2.9 MAF on-site in 2022 to 2023, representing 54 percent of the total valley-wide recharge volume reported.

■ Metropolitan Water District of Southern California (MWD): Receives SWP Table A water via the California Aqueduct and is a key buyer in water transfer markets. MWD's Diamond Valley Lake reservoir (approximately 800,000 AF capacity) provides multi-year storage and buffer capability.

■ Irvine Ranch Water District (IRWD): A relatively water-secure Orange County agency with its own groundwater basin (Irvine Basin), recycled water system, and diversified portfolio. IRWD is an active participant in water trading and market development.

4. Ogallala (High Plains) Aquifer

A. Priority: Water Rights System and Structure

The High Plains aquifer underlies 111.8 million acres (approximately 175,000 square miles) in parts of eight states: Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming, per USGS Scientific Investigations Report 2023-5143. Each state governs groundwater under its own legal framework.

■ Texas: Rule of Capture. Landowners may pump as much as desired without liability to neighbors (with some local GCD exceptions). Texas Tribune (May 2025) noted this approach prevents the state from imposing mandatory pumping limits even as depletion accelerates.

■ Kansas: Prior appropriation administered through five Groundwater Management Districts (GMDs 1 to 5). Kansas Water Law provides for Local Enhanced Management Areas (LEMAs), voluntary, locally-designed groundwater use restrictions, and the broader IGUCA (Intensive Groundwater Use Control Area) tool for mandatory state intervention.

■ Nebraska: Correlative Rights administered by Natural Resources Districts (NRDs).

■ Colorado, New Mexico, Oklahoma, Wyoming: Primarily prior appropriation.

B. Yield: Saturated Thickness Decline Data

USGS Findings (predevelopment to 2019): The area-weighted average water-level change from predevelopment (approximately 1950) to 2019 was a decline of 16.5 feet across the full High Plains aquifer, per USGS SIR 2023-5143. State-by-state average declines:

STATE	AVG WATER-LEVEL CHANGE (FT), PREDEV. TO 2019
Texas	-44.1
Kansas	-27.3
New Mexico	-19.1
Oklahoma	-14.2
Nebraska	-0.4 (slight decline)
South Dakota	+0.5 (slight rise)
Wyoming	-0.8
High Plains Total	-16.5

Recent Kansas Declines (2024): Kansas Geological Survey preliminary data showed Southwest Kansas (GMD 3) -1.52 feet in 2024 (vs. -1.43 ft in 2023; long-term average -1.67 ft); Western Kansas (GMD 1) -0.62 feet in 2024 (long-term average -0.53 ft/yr since 1996); Northwest Kansas -1.34 feet in 2024 (vs. -0.47 ft in 2023, a dramatic acceleration).

Texas Panhandle (HPWD #1): Average water-level change in 2024 was -0.90 feet, with district-average saturated thickness at 52 feet. The 2025 measurement showed -0.66 feet change, with average saturated thickness of 51 feet. The Panhandle Groundwater Conservation District adopted a 50/50 Management Standard, targeting at least 50 percent of current volume remaining in 50 years.

Oklahoma Panhandle: The Ogallala-Panhandle aquifer held 44 million AF predevelopment and 32 million AF in 2021, a 26.9 percent volumetric depletion, or approximately 157,000 AF/yr average loss. Net losses range from 123,000 to 174,000 AF per year.

C. Policy: Kansas GMDs, LEMAs, and Texas GCDs

Kansas LEMAs: The Sheridan-6 LEMA (GMD4), established in 2013, has produced 23 percent water savings from irrigation efficiency and an additional 1 percent from reduced irrigated area, reducing average annual water-level decline from 2 ft/yr (pre-LEMA 2002 to 2012) to 0.5 ft/yr (LEMA period 2013 to 2022). A 2025 Kansas state law requires all five GMDs to submit action plans for addressing groundwater declines to state officials by July 1, 2026; failure to comply triggers state takeover of groundwater management, an unprecedented intervention.

Kansas Geological Survey Analysis: To achieve aquifer stabilization in GMD3 (southwest Kansas), pumping reductions of 18 to 32 percent are needed. The 2025 Science Societies report notes that most existing LEMAs will need further reductions of 0.5 to 2 ft/acre before achieving aquifer stabilization.

Texas Panhandle GCDs: The Panhandle GCD's 50/50 Management Standard was reaffirmed in its 2024 Management Plan. The Texas Water Development Board projects a 25 percent decrease in groundwater availability by 2070, primarily from Ogallala and Edwards-Trinity declines in West Texas and the Panhandle. Unlike Kansas, Texas lacks authority to mandate pumping reductions on private landowners.

D. Counterparty Dynamics: Crop Economics and Market Transitions

Corn/Cotton Economics and Crop Switching: As saturated thickness drops below economically viable thresholds (generally 30 feet), center-pivot corn irrigation becomes uneconomical. NPR (July 2025) documented farmers actively modeling transitions to dryland crops (grain sorghum, winter wheat, dryland cotton) and reduced pivot coverage. The Sheridan-6 LEMA produced a 406 percent increase in irrigated grain sorghum acreage as farmers shifted away from water-intensive corn.

- Land Value Dynamics: Fields with depleting wells are selling at significant discounts to farmland with sustainable groundwater access. Investors are acquiring dryland-convertible properties with intact infrastructure (center pivots, etc.) anticipating federal crop insurance reforms and carbon credit opportunities under reduced-tillage dryland systems.
- GMD Governance as Transactional Counterparty: Kansas GMDs function as the counterparty for water right transfers, LEMA enrollment agreements, and water banking contracts. Any acquisition of Kansas High Plains farmland with irrigation rights must conduct due diligence through the relevant GMD's records and current-use data.

5. Murray-Darling Basin (Australia)

A. Priority: Water Rights System and Structure

Australia's Murray-Darling Basin (MDB) operates under a Cap-and-Trade system established by the Commonwealth Water Act 2007 and the Basin Plan 2012. Water entitlements are perpetual, tradeable rights to a defined share of available water in a specific system. Allocations, the volume actually available against an entitlement each season, vary based on catchment inflows. The MDB Plan established Sustainable Diversion Limits (SDLs) to cap consumptive use and recover water for environmental flows. The total water entitlement on issue in the MDB at June 30, 2024 was 20,034 GL, of which 12.3 percent had some level of foreign ownership. Entitlements are classified by security: High Reliability Water Share (HRWS), Low Reliability Water Share (LRWS), High Security (HS), and General Security (GS).

B. Yield: Water Allocations and Market Volumes

2024-25 Season (Drier Year): Total allocations to major southern MDB entitlements reached 6,058 GL, 78 percent of total entitlement on issue, down 23 percent (1,791 GL) from 2023-24. Key driver: reduced NSW Murrumbidgee GS and no allocations to LRWS entitlements in dry southern Victorian systems (Vic Murray LRWS and Vic 1A Goulburn LRWS received no allocations in 2024-25). Total water use in major NSW and Victorian surface water systems reached 5,465 GL, up 9 percent from 2023-24 and the highest since 2013-14, driven by dry conditions, strong commodity prices, and high-value crop plantings.

2025-26 Opening Allocation Spot Prices:

- Lower Murray and Murrumbidgee: approximately $260/ML
- Goulburn: approximately $190/ML
- Upper Murray: approximately $230/ML

Annual Allocation Trade Value: Commercial allocation trade in major southern MDB zones totaled $235 million in 2024-25, up from $106 million in 2023-24, more than doubling on drier conditions and higher seasonal prices.

C. Policy: Basin Plan Implementation and Restoring Our Rivers Act

Restoring Our Rivers Act 2023: Parliament passed the Water Amendment (Restoring Our Rivers) Act 2023 in December 2023, amending the Water Act 2007 and Basin Plan 2012. Key provisions: extended deadlines for SDLAM projects to December 2026; created new pathways to recover the 450 GL of additional environmental water target, including voluntary water purchases; enabled broader use of the Water for the Environment Special Account (WESA, holding $1.3 billion); and shifted Basin Plan Water Act review from 2024 to 2027.

Government Buyback Program: In July 2024, the Commonwealth launched the first round of voluntary water entitlement buybacks targeting 70 GL through an open tender. Duxton Water sold $121 million in entitlements to the Commonwealth (comprising 3,101 ML NSW HS, 13,114 ML Vic HRWS, 14,419 ML NSW GS), representing one of the largest single institutional buyback transactions on record. The 2027 deadline for the full 450 GL target is creating sustained upward pressure on HRWS/HS prices as the government competes with irrigators for available entitlements.

D. Counterparty Dynamics: Institutional Investors and Key Players

- Duxton Water (ASX: D2O): Listed water entitlement manager. At December 31, 2024, Duxton held 91.5 GL of permanent water entitlements across 19 entitlement types and regions, with $63.4 million in unrealized gains from independent portfolio valuation. In late 2024, Duxton secured 3,250 ML of NSW Zone 10 high security entitlements. The $121 million Commonwealth buyback trade was confirmed for settlement in H1 2025.

■ Kilter Rural (Kilter Water Fund): Positions itself as Australia's most experienced water investment manager, investing in southern MDB entitlements and generating income through proprietary water use products to irrigation farmers.

■ Argyle Capital Partners: Manages over A$1.3 billion in water assets diversified across the Murray-Darling Basin. Argyle reports annualized income and capital growth returns of 12.06 percent since inception with volatility below 6 percent per annum.

■ Aware Super: Australia's largest industry super fund has made direct allocations to water entitlements as an infrastructure-adjacent real asset.

Entitlement Prices (2024-25 VWAP):

ENTITLEMENT	2024-25 VWAP ($/ML)	CHANGE VS 2023-24
NSW Murrumbidgee GS	$3,049	+24%
NSW Murrumbidgee HS	$8,645	-1%
Vic Goulburn HRWS	$4,336	+9%
Vic Goulburn LRWS	$969	+10%
Vic Murray (Barmah-SA) HRWS	$7,043	-1%
Vic Murray (Barmah-SA) LRWS	$2,157	+15%
NSW Murray 11 HS	$9,022	-1%
SA Murray HS	$7,046	-3%

Total entitlement market turnover for major southern MDB in 2024-25: $771 million, up 28 percent from 2023-24, driven by Commonwealth buybacks and higher entitlement prices.

6. Atacama / Northern Chile

A. Priority: Water Rights System and Structure

Chile's 1981 Water Code (CA81) established a market-oriented allocation model based on private, perpetual, and tradable water rights, sharply limiting the state's regulatory role. Law No. 21,435 (CA22), enacted in April 2022 after eleven years of parliamentary debate, represents the most significant reform since 1981. Key changes include recognition of water as a human right, strengthened DGA authority, temporal water rights for new concessions, non-use provisions allowing revocation of unused rights, and mandatory minimum ecological flows.

The reform does not affect water rights granted prior to 2022, meaning SQM's, Albemarle's, and CODELCO's existing Atacama brine extraction rights remain on their original terms, a critical distinction for lithium sector investors.

DGA Permit Processing: Chile's permitting system faces severe institutional congestion. Environmental assessments alone average nearly three years for EIS-level projects, and projects face additional layers of sectoral permits with no guaranteed timelines. On taking office in March 2026, President Kast issued an executive decree to resolve 50 pending administrative claims within 90 days, representing approximately $16 billion in blocked investment.

B. Yield: Water Supply, Brine Extraction, and Desalination

SQM (Salar de Atacama): SQM holds 549 liters per second (L/s) of freshwater rights from the DGA in the Atacama basin, plus a CORFO lease agreement for brine extraction dating to 1993 (modified in 2018). In 2022, Chile's environmental regulator approved SQM's revised Environmental Compliance Plan establishing a staggered reduction in brine extraction to a maximum of 822 L/s by 2027, roughly 50 percent of previously authorized extraction. In 2024, SQM was officially granted rights to produce lithium until 2060 through a formal extension of its CORFO license, providing long-term operational certainty in exchange for state participation arrangements.

Albemarle (Salar de Atacama): Albemarle operates under an environmental permit (RCA 226/2006) allowing 240 L/s of groundwater extraction. In March 2026, Chile's Superintendence of the Environment (SMA) fined Albemarle nearly $340,000 for exceeding approved water extraction limits between October 2019 and September 2020 (averaging 452.3 L/s against the 240 L/s authorization) and for failing to follow required Aquifer Alert Sector safeguards in 2021.

Copper Mining Desalination Shift: Northern Chilean copper mines have executed a major structural shift to seawater desalination as freshwater scarcity tightens.

OPERATION	CAPACITY (L/S)	STATUS	NOTES
Escondida (BHP)	2,500	Operational (2012)	80% water independence achieved
Collahuasi (C20+)	1,050	Begin operations H1 2026	194-km pipeline; 86.6% completion at YE 2024
Chuquicamata (CODELCO)	750	Operational (2017)	65% continental source independence
Collahuasi C20+ target		65% continental independence	Cuts Antiplano freshwater dependency 100% to ~35%

C. Policy: Regulatory Actions and Litigation

2022 Water Code Reform Implementation: The reform's temporal concession regime and expanded DGA authority are being implemented incrementally. Since 2023, all mines must report groundwater extraction

volumes and locations to DGA; groundwater pumped during mine dewatering may only be used if aquifer sustainability is not jeopardized, a major shift from the pre-2022 regime that allowed free use of dewatering water.

Constitutional Reform Failure (2022): Chile's proposed new constitution, which would have nationalized water rights and declared water a common good, was rejected in the September 2022 plebiscite, preserving the CA22 reform (Law 21,435) as the operative legal framework. This rejection provided significant legal certainty for existing water right holders, including mining companies.

Permitting Delays: Chile's FDI into the mining sector fell 28.7 percent year-on-year in 2024 amid regulatory uncertainty. Environmental assessments can take an average of nearly three years; with appeals and sectoral permits, timelines can extend to 12 years. The Kast administration's March 2026 permitting reform decree is the most direct government intervention to date.

D. Counterparty Dynamics: Lithium and Copper Water Actors

- SQM (Sociedad Quimica y Minera de Chile): World's second-largest lithium producer, operating primarily from Salar de Atacama brine. SQM's 2024 sustainability reporting highlights active goals to reduce brine and well water withdrawal, driven by regulatory, community, and reputational pressure. The Atacama Atacameno Indigenous communities represent an increasingly powerful stakeholder claiming water rights and consultation rights under ILO Convention 169.
- Albemarle: US-based specialty chemicals group; second major Atacama lithium operator. The March 2026 SMA fine signals regulatory tightening of extraction compliance and increased DGA oversight of groundwater permits.
- Antofagasta Minerals: Chilean-British copper mining group operating Centinela, Esperanza, Los Pelambres, and Antucoya in northern Chile. Maintained 2025 production guidance of 660,000 to 700,000 tonnes. Water supply management, including progressive transition to desalination, is a central component of the company's operational sustainability strategy.
- Collahuasi (Anglo American / Glencore JV): The C20+ desalination project (1,050 L/s, 90,720 m3/day capacity), built by Acciona under an EPC+O&M contract, is set to begin operations in H1 2026, transforming Collahuasi's freshwater dependency profile and providing long-term regulatory insulation against increasing DGA restrictions on continental water extraction.