

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D. C. 20549

FORM 10-K

- Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
for the fiscal year ended December 31, 2019
OR
 Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
for the transition period from to

COMMISSION FILE NUMBER 0-12114

CADIZ INC.

(EXACT NAME OF REGISTRANT SPECIFIED IN ITS CHARTER)

DELAWARE
(State or other jurisdiction of
incorporation or organization)

77-0313235
(I.R.S. Employer
Identification No.)

550 S. Hope Street, Suite 2850
Los Angeles, CA
(Address of principal executive offices)

90071
(Zip Code)

(213) 271-1600
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	CDZI	The NASDAQ Global Market

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in rule 405 under the Securities Act of 1933. Yes No

Indicate by a check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check One).

Large accelerated filer Accelerated filer Non-accelerated filer
 Smaller Reporting Company Emerging growth company

If an emerging growth company, indicate by checkmark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant is a shell company (as defined in Exchange Act Rule 12b-2). Yes No

The aggregate market value of the common stock held by nonaffiliates as of June 30, 2019 was approximately \$259,996,050 based on 23,110,760 shares of common stock outstanding held by nonaffiliates and the closing price on that date. Shares of common stock held by each executive officer and director and by each entity that owns more than 5% of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 6, 2020, the Registrant had 34,386,950 shares of common stock outstanding.

Documents Incorporated by Reference

Portions of the Registrant's definitive Proxy Statement to be filed for its 2020 Annual Meeting of Stockholders are incorporated by reference into Part III of this Report. The Registrant is not incorporating by reference any other documents within this Annual Report on Form 10-K except those footnoted in Part IV under the heading "Item 15. Exhibits, Financial Statement Schedules".

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PART I**ITEM 1. Business**

This Form 10-K contains forward-looking statements with regard to financial projections, proposed transactions such as those concerning the further development of our land and water assets, information or expectations about our business strategies, results of operations, products or markets, or otherwise makes statements about future events. Such forward-looking statements can be identified by the use of words such as “intends”, “anticipates”, “believes”, “estimates”, “projects”, “forecasts”, “expects”, “plans” and “proposes”. Although we believe that the expectations reflected in these forward-looking statements are based on reasonable assumptions, there are a number of risks and uncertainties that could cause actual results to differ materially from these forward-looking statements. These include, among others, the cautionary statements under the caption “Risk Factors”, as well as other cautionary language contained in this Form 10-K. These cautionary statements identify important factors that could cause actual results to differ materially from those described in the forward-looking statements. When considering forward-looking statements in this Form 10-K, you should keep in mind the cautionary statements described above.

Overview

We are a natural resources development company dedicated to creating sustainable water and agricultural opportunities in California. We own approximately 45,000 acres of land with high-quality, naturally recharging groundwater resources in three areas of Southern California’s Mojave Desert. These properties are located in eastern San Bernardino County situated in close proximity to major highway, rail, energy and water infrastructure, including the Colorado River Aqueduct (“CRA”), which is the primary transportation route for water imported into Southern California from the Colorado River.

Our properties offer opportunities for a wide array of sustainable activities including water supply projects, groundwater storage, large-scale agricultural development and land conservation and stewardship programs. In addition to our land and water assets, we also own pipeline and well infrastructure able to irrigate existing agriculture and to convey water to and from other communities and agricultural ventures that may be short of supply and/or storage.

Our main objective is to realize the highest and best use of our land, water and infrastructure assets in an environmentally responsible way. We believe that the highest and best use of our assets will be realized through the development of a combination of water supply, water storage and agricultural projects in accordance with a holistic land management strategy. Our present activities are focused on developing our assets in ways that meet growing long-term demand for access to sustainable water supplies and agricultural products.

Upon our founding in 1983 as Cadiz Land Company, we began an agricultural development on a portion of our primary property in Cadiz, California, which is a 34,500-acre property at the base of the Fenner and Orange Blossom Wash watersheds in eastern San Bernardino County (the “Cadiz/Fenner Property”). These watersheds span an area of more than 1,300 square miles and have 17 to 34 million acre-feet of fresh, high-quality groundwater in storage – an amount comparable to Lake Mead, America’s largest surface reservoir.

We have sustainably farmed portions of the Cadiz/Fenner Property since the late 1980s in accordance with permits from the County of San Bernardino, the public agency responsible for groundwater use at the Cadiz/Fenner Property. The permits authorize the development of up to 9,600 acres of the Cadiz/Fenner Property for farming and the associated use of underlying groundwater for irrigation.

The Cadiz/Fenner Property is well-suited for various permanent and seasonal crops, and we have successfully grown citrus, organic table grapes and raisins, and seasonal vegetables such as melons, squash and asparagus. Today, we are engaged in agricultural joint ventures at the Cadiz/Fenner Property and are the largest private agricultural operation in San Bernardino County. Presently, the property has 2,100 acres leased to third parties for cultivation of citrus and 242 acres leased to our joint venture, SoCal Hemp JV LLC, for the cultivation of industrial hemp (see “Agricultural Development”, below).

In addition to our agricultural ventures, we are presently developing the Cadiz Valley Water Conservation, Recovery and Storage Project (“Water Project” or “Project”), which is approved to capture and conserve millions of acre-feet of native groundwater currently being lost to evaporation from the aquifer system beneath our Cadiz/Fenner Property, and provide 50,000 acre-feet of water per year, enough water for 400,000 people, to water providers throughout Southern California (see “Water Resource Development”, below). A second phase of the Water Project would offer storage in the aquifer system for up to one million acre-feet of imported water. Following a multi-year California Environmental Quality Act (“CEQA”) review and permitting process, the Water Project received permits that allow the capture and conservation of 2.5 million acre-feet of groundwater over 50 years in accordance with the terms of a groundwater management plan approved by San Bernardino County. We believe that the ultimate implementation of the Cadiz Water Project would provide a significant return on our investment and future cash flow.

By making new water supply and storage available in Southern California, we believe we can be part of the solution to the State’s persistent water challenge. Available water supply in Southern California is constrained every year by regulatory restrictions on each of the State’s three main water sources: (1) the CRA; (2) the State Water Project, which provides water supplies from Northern California to the central and southern parts of the state; and (3) the Los Angeles Aqueduct, which delivers water from the eastern Sierra Nevada mountains to Los Angeles. Southern California’s water providers and farmers rely on imports from these systems to meet demand, but deliveries from all three into the region are consistently below capacity, even in wet years.

Further, the availability of supplies in California differs greatly from year to year due to natural hydrological variability. Over the last decade, California experienced an historic drought featuring record-low winter precipitation, followed by record wet years. The 2018-2019 winter was a wet year, with snowpack and rainfall well above average through the summer of 2019, however 2020 is on track to be another dry year, with snowpack at 45% of normal through February. The rapid swings between wet and dry years challenges California’s traditional supply system and supports the need for reliable storage and local supply.

Given the variety of challenges and limitations presented by the State’s existing infrastructure, Southern California water providers and farmers are presently pursuing investments in storage, supply and infrastructure to meet long-term demand and pursuing sustainable water and agriculture sources. We have a record of sustainable agricultural development and groundwater management to support our continued integration into California’s water and agriculture portfolio.

Our current working capital requirements relate largely to the final development activities associated with the Water Project and those activities consistent with the Water Project related to further development of our land and agricultural assets. While we continue to believe that the ultimate implementation of the Water Project will provide a significant source of future cash flow, we also believe there is substantial value in our underlying agricultural assets and our current agricultural ventures and lease arrangements.

We also continue to explore additional sustainable beneficial uses of our land and water resource assets, including the marketing of our approved desert tortoise land conservation bank, which is located on our properties outside the Water Project area, and other long-term legacy uses of our properties, such as land stewardship and conservation programs.

(a) General Development of Business

Our business strategy has focused on strategic land acquisition, water development activities, agricultural operations, and other holistic land development initiatives to maximize the long-term value of our assets and future prospects (see “Narrative Description of Business”, below).

In the early 1980s, relying on NASA imagery, our founders first identified a unique desert land position at the base of a vast Southern California watershed that offered potential for agricultural development and water supply and storage projects. Our initial focus was on the acquisition of land and the assembly of contiguous land holdings through property exchanges to create a position that could support such projects and development.

We subsequently established limited agricultural operations on our properties in the Cadiz/Fenner Valley relying on ground water resources underlying that site to evaluate the suitability of these properties for sustainable development. In 1993, we secured permits to develop up to 9,600 acres of agriculture at the Cadiz/Fenner Property and use more than one million acre-feet of groundwater from the underlying aquifer system. The agricultural operations initially began on 1,900 acres and featured vineyards, citrus orchards and seasonal vegetables.

The agricultural development demonstrated that the geology and hydrology of the property is also uniquely suited and able to support a project that could offer additional water supplies and water storage opportunities in Southern California. Water supply reliability in California has been challenged by shifting regulatory restrictions on traditional water sources and historic drought and supply cycles.

In 1997, we entered into the first of a series of agreements with the Metropolitan Water District of Southern California (“Metropolitan”), the largest water wholesaler in the region and owner of the nearby CRA, to jointly design, permit, and build such a project (“2002 Project”). Between 1997 and 2002, we and Metropolitan received substantially all of the state and federal approvals required to construct and operate the 2002 Project, including a Record of Decision (“ROD”) from the U.S. Department of the Interior, which approved the 2002 Project and offered a right-of-way for construction of facilities, including a 35-mile water conveyance pipeline from the Cadiz/Fenner Property to the CRA across federal lands. In October 2002, Metropolitan’s Board of Directors, by a very narrow margin, voted not to accept the federal right-of-way grant nor proceed any further with the 2002 Project.

Following Metropolitan's decision, we began to pursue new partnerships and redesigned the 2002 Project to meet the changing needs of Southern California's water providers. We refocused on the safe and sustainable management of the aquifer system beneath our Cadiz/Fenner Property with the goal of providing a reliable, annual water supply and storage for the region. Sustainable agricultural development and groundwater use also continued over this period of refocused project development.

In September 2008 we entered into a lease agreement with the Arizona & California Railroad Company ("ARZC") to utilize its existing right-of-way between the Cadiz property and the CRA to construct a pipeline able to deliver water from the property into the existing Southern California water transportation system. Although the federal government had approved a right-of-way for the 2002 Project's conveyance pipeline over open federal land, the Water Project proposed co-locating the conveyance pipeline within this existing railroad right-of-way from Cadiz to the CRA near Rice, CA. This route avoided impacts to desert habitats that would have occurred with the 2002 route. In 2009, the United States Department of the Interior evaluated the Water Project's proposed use of an existing railroad right-of-way for a water conveyance pipeline and summarized that the proposed pipeline was within the scope of the right-of-way and required no federal Bureau of Land Management ("BLM") permitting.

In 2009, we also commissioned environmental consulting firm CH2M HILL to complete a comprehensive study of the water resources at the Project area. Following more than one year of analysis, CH2M HILL released its study of the aquifer system in February 2010. Utilizing new models produced by the U.S. Geological Survey in 2006 and 2008, the study estimated the total groundwater in storage in the aquifer system to be between 17 and 34 million acre-feet, a quantity on par with Lake Mead, the U.S.'s largest surface reservoir. The study also confirmed that a renewable annual supply of native groundwater in the aquifer system is currently being lost to evaporation. CH2M HILL's findings, which were peer reviewed by leading groundwater experts, confirmed that the aquifer system could sustainably support a water supply and storage project that would capture and conserve groundwater lost to evaporation in an initial phase and import and store water in the aquifer system in a second phase (see "The Water Project" below).

In 2010, following these findings, we announced plans for the permitting and development of the Cadiz Valley Water Conservation, Recovery and Storage Project, a public-private partnership with Southern California water providers (see "The Water Project", below) to address California's persistent water supply challenge. The Cadiz Water Project has achieved significant milestones in its development since 2010:

- Between 2010 and 2011, six Southern California water providers executed option agreements to participate in the new Water Project. Under our lease agreement, the ARZC also reserved water from the Water Project to further a variety of critical railroad purposes.

- In 2011, an environmental review and permitting process for the Water Project was commenced in accordance with the California Environmental Quality Act (CEQA) led by Santa Margarita Water District (“SMWD”), one of the Project participants.
- After an extensive public review process as required by CEQA, the SMWD Board of Directors certified the Final Environmental Impact Report (“FEIR”) on July 31, 2012 and became the first participating agency to convert its option agreement to a Water Purchase and Sale Agreement for firm supplies from the Water Project.
- On October 1, 2012, San Bernardino County (“County”), a Responsible Agency under CEQA, also adopted CEQA findings and approved the Project’s Groundwater Monitoring, Management and Mitigation Plan (“GMMMP” or “Plan”) and the withdrawal of 50,000 acre-feet (AF) of water per year for 50 years.
- These foundational approvals were challenged in State Court in lawsuits brought by parties seeking a reconsideration of the environmental documents and limitation of the Project approvals granted by SMWD and the County. After four years of review, the Courts upheld the Project’s permits and approvals in their entirety in 2016. As a result, our permits to capture and conserve 2.5 million acre-feet of groundwater over 50 years under the terms of the groundwater management plan have been sustained and are fully vested under applicable law.
- In October 2015, the BLM California office issued a guidance opinion that reversed its 2009 conclusion and summarized that the Project would be required to apply for a new right-of-way permit to construct its conveyance pipeline along the ARZC railroad line. The Company, the ARZC, Water Project participants, Water Project supporters, members of Congress, the railroad industry and third parties that utilize railroad rights-of-way to protect the environment and co-locate infrastructure across the country voiced concern about the guidance opinion via letters, statements and meetings with the BLM. In October 2017, the BLM withdrew its October 2015 letter and concluded that the Project is within the scope of the ARZC ROW and therefore required nothing further from the BLM to construct the conveyance pipeline within the ARZC ROW.
- In 2018, the aforementioned petitioners in the CEQA lawsuits challenged the BLM’s October 2017 evaluation of the Project’s use of the ARZC in U.S. Federal Court. In 2019, the Court remanded the 2017 evaluation back to BLM for additional detail supporting its determination.
- In 2019, the Fenner Valley Water Authority (“FVWA”) on behalf of SMWD adopted an Addendum to the Project’s FEIR addressing updates to the Project proposal, including its water treatment program, pipeline route and scientific studies published since the initial approval. The Addendum concluded that there were no significant adverse impacts associated with the minor changes identified.
- In February 2020, the BLM issued a new evaluation responsive to the Court that supplemented and reaffirmed that the Cadiz Water Project’s proposed use of the ARZC right-of-way for its conveyance pipeline and related railroad improvements furthered a railroad purpose and is within the scope of the right-of-way.

As development of the Water Project continues, our business has maintained a sustainable agricultural operation subject to permitting and oversight of San Bernardino County that has farmed organic grapes, raisins and sustainable citrus crops, as well as seasonal vegetables and cover crops. In 2019, following the legalization of hemp in the U.S. in the 2018 Farm Bill, we also began trial crops of hemp to test its suitability for the desert environment.

We remain focused on continuing to support our organic and sustainable diversified agricultural operations, and completing remaining milestones required to implement the Water Project.

See “Narrative Description of Business” below for more detail.

(b) Financial Information about Industry Segments

Our primary business is to acquire and develop land with water resources for various uses, including groundwater supply, groundwater storage and agriculture. As a result, our financial results are reported in a single segment. See Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Item 8, “Financial Statements and Supplementary Data”.

(c) Narrative Description of Business

Our business strategy is to pursue the development of our landholdings for their highest and best uses. At present, our development activities are focused on water resource and agricultural development.

Water Resource Development

Our portfolio of land and water resource assets is located in proximity to the Colorado River and the Colorado River Aqueduct (“CRA”), the principal source of imported water for Southern California, and provides us with the opportunity to participate in a variety of water supply, water storage, and conservation programs with public water agencies and other partners to address California’s persistent structural and hydrological water supply challenges.

The Cadiz Water Project

The Water Project is designed to capture and conserve renewable native groundwater currently being lost to evaporation from the aquifer system underlying our Cadiz/Fenner Property, and provide a new reliable water supply for approximately 400,000 people in Southern California. In this first phase, Phase I, the total quantity of groundwater to be recovered and conveyed to Water Project participants will not exceed a long-term annual average of 50,000 acre-feet per year for 50 years. The Water Project also offers participants in Phase I the ability to carry-over their annual supply and store it in the groundwater basin from year to year. Up to 150,000 acre-feet can be stored as part of Phase I. A second phase of the Water Project, Phase II, will offer an additional 850,000 acre-feet of capacity that can store imported water supplies at the project area for future dry years.

Water Project facilities required for Phase I primarily include, among other things:

- High-yield wells designed to efficiently recover available native groundwater at the Water Project area;
- A water conveyance pipeline to deliver water from the well-field to Project participants;
- An energy source to provide power to the well-field, pipeline and pumping facilities; and
- A water treatment facility at the wellfield to meet anticipated water quality requirements set by the operator of the CRA.

If an imported water storage component of the Project is ultimately implemented in Phase II, the following additional facilities would be required, among other things:

- Facilities to pump water through the conveyance pipeline from the CRA to the Water Project well-field and/or through our pipeline from Barstow, CA, to our Cadiz Valley property; and
- Spreading basins, which are shallow settling ponds that will be configured to efficiently percolate water from the ground surface down to the water table using subsurface storage capacity for the storage of water.

Phase I

Phase I has been fully reviewed and permitted in accordance with the California Environmental Quality Act (“CEQA”). The Project was also separately reviewed and approved by the County of San Bernardino in accordance with its local ordinances regulating groundwater. The Project presently is permitted to provide an average of 50,000 acre-feet of water for 50 years at Cadiz to meet municipal and industrial (M&I) water needs in Southern California. The permits also authorize up to 150,000 acre-feet of carry-over groundwater storage, allowing water agencies to hold conserved water in the aquifer system for future dry years.

Construction of the Water Project facilities that would allow for conservation, carry-over storage and delivery of groundwater to public water providers is expected to cost approximately \$310 million and will require capital financing that we expect will be secured by definitive Purchase and Sale Agreements with Project participants and the new facility assets.

Prior to construction, the Water Project must (1) finalize contracts with Project participating agencies, (2) finalize arrangements and secure necessary permits and approvals to transport water conserved at Cadiz via water transportation infrastructure and into each participant’s service area, and (3) complete final design and permitting. Below is a discussion of present activities to advance these objectives.

(1) Contracts with Public Water Agencies or Private Water Utilities

We have executed Letters of Intent (“LOIs”), option agreements and purchase agreements, or contracts (collectively, “Agreements”) with public water agencies and private water utilities in California during the Project’s development. These participating agencies serve more than one million customers in cities throughout California’s San Bernardino, Riverside, Los Angeles, Orange, Imperial and Ventura Counties. Twenty percent of Water Project supplies have been reserved for San Bernardino County-based agencies.

Santa Margarita Water District (“SMWD”), Orange County’s second largest water provider, was the first participant to convert its option agreement and adopt resolutions approving a Water Purchase and Sale Agreement for 5,000 acre-feet of water. The structure of the SMWD purchase agreement calls for an annually adjusted water supply payment, plus a pro rata portion of the capital recovery charge and operating and maintenance costs. The capital recovery charge is calculated by amortizing the total capital investment by the Company over a 30-year term.

Agreements entered into prior to the beginning of the CEQA review process provide to participants the right to acquire an annual supply of 5,000 acre-feet of water at a \$775 per acre-foot (2010 dollars, subject to adjustment), which is competitive with the incremental cost of new water. In addition, these agencies received options to acquire storage rights in the Water Project to allow for the management of their Water Project supplies in complement with their own water resources. Up to 150,000 acre-feet of carry-over storage is available for reservation by the agencies prior to construction commencement. Participants that elect to achieve year-to-year flexibility in their use of Project water by utilizing carry-over storage will reserve storage capacity for \$1,500 per acre-foot prior to construction.

LOIs that have been entered into since completion of the CEQA review process reserve supplies from the Water Project at \$960 per acre-foot (2014 dollars, subject to adjustment). These LOIs also include the option to reserve carry-over storage capacity for \$1,500 per acre-foot prior to construction.

Prior to construction of the Water Project, we expect to convert existing option agreements and LOIs to purchase agreements. We will work collaboratively with the participating water agencies to allow for inclusive participation across Southern California.

(2) Transportation Infrastructure and Conveyance Arrangements

a. Southern Route

Prior to construction of the Water Project, and in coordination with final participation contracts described in (1) above, we must obtain approvals from government agencies for conveyance of water from our property in Cadiz to water users via the Colorado River Aqueduct (“CRA”). These approvals include:

- (i) arrangements with the US Bureau of Land Management (“BLM”) to construct a 43-mile water conveyance pipeline within a portion of the Arizona & California Railroad Company (“ARZC”) right-of-way that intersects with the CRA (“Southern Pipeline”);
- (ii) an agreement for moving water supplies in the CRA with Metropolitan Water District of Southern California (“Metropolitan”), which owns and controls the CRA; and

- (iii) a review and finding by the California State Lands Commission of an application filed under newly established Water Code Section 1815 that conveying water in the CRA will not adversely affect the desert environment.

- i. BLM Approval of Southern Pipeline*

In October 2017, the BLM provided a letter finding that the Project’s proposed use of a portion of the ARZC right-of-way from our Cadiz Valley property to Freda, California to construct and operate the Water Project’s water conveyance pipeline and related railroad improvements is within the scope of the original right-of-way grant and not subject to additional permitting. The buried pipeline would be constructed parallel to the railroad tracks and be used to convey water between our Cadiz Valley property and the CRA. The letter was challenged in Los Angeles Central District Federal Court in 2018 by national environmental organizations, which claimed it violated the law. In a June 2019 procedural ruling, the Court remanded the letter back to BLM, concluding that the agency needed to explain more explicitly why it withdrew and reversed specific findings previously made in 2015 on the same issue. However, the Court did not find that the conclusions of the 2017 evaluation were in error.

On February 7, 2020 we received from the BLM a revised evaluation responsive to the Court’s remand (“2020 Evaluation”). The 2020 Evaluation reaffirmed that the Project’s proposed use of the ARZC right-of-way for the Southern Pipeline and related railroad improvements furthers a railroad purpose and is within the scope of the right-of-way, consistent with BLM’s conclusion in October 2017. The 2020 Evaluation references an extensive record and sets forth the factual basis for its conclusions in detail while reaffirming the agency’s 2017 finding. We expect the Court will review the 2020 Evaluation this year per its remand order.

- ii. Aqueduct Transportation via MWD*

Water supplies conserved by the Project would enter the CRA at the termination of the project’s conveyance pipeline near Rice, CA. The CEQA process considered a variety of options to enter the CRA and assumed final entry into the CRA would be determined by MWD in consultation with the Project’s participating agencies. Once arrangements are reached, the Metropolitan Board would take action as a responsible agency under CEQA regarding the terms and conditions of the Water Project’s use of the CRA to transport water to its participating agencies.

There is no application yet before Metropolitan related to entry and transportation of Project supplies, but we expect such a formal application will be filed by SMWD, the Project’s lead agency, when the Project’s contractual arrangements with participants are finalized. Any agreement as to the terms and conditions of the Water Project’s use of the CRA will be negotiated between and entered into by Metropolitan and the Project participating agencies, not the Company.

Water Project supplies entering the CRA will comply with Metropolitan’s published engineering, design and water quality standards and will be subject to all applicable fees and charges routinely established by Metropolitan for the conveyance of water within its service territory. Groundwater at Cadiz presently meets all state and federal water quality requirements without treatment and total dissolved solids or salts in the Cadiz water supply are substantially lower than the water in the CRA, offering a water quality benefit. Cadiz water also has no PFAS, a recently added constituent of concern by California water regulators, improving its attractiveness for the service area. Some naturally occurring constituents are lower than State and Federal standards but potentially higher than the water in the CRA; however, based on extensive pilot testing, they can be lowered via treatment to ambient levels or removed entirely. This year-long pilot testing of treatment options at the Project area confirmed the capability of cost-effective treatment technologies. We believe there are multiple benefits that can be realized by MWD and water users throughout its service area, such as water quality improvements, upon making space reasonably available for Cadiz water supplies and providing the region the flexibility of relying on the Water Project in both wet and dry years.

iii. State Lands Commission Review under Water Code Section 1815

On July 31, 2019, California Governor Gavin Newsom signed into law Senate Bill 307 (“SB 307”), which added terms to the section of the California Water Code known as the “wheeling statutes” that regulate the conveyance of water by third parties in facilities such as the CRA. Effective January 1, 2020, the wheeling statutes now include Water Code Section 1815 which requires water projects in a section of the Mojave Desert where our Cadiz Valley property is located to apply for a review by the California State Lands Commission (“SLC”) prior to transporting water in public conveyance facilities. Upon receiving an application, this review will determine whether such projects would have “unreasonable effects on the environment and water dependent ecosystems in the surrounding watersheds.” The review by SLC must be conducted within 15 months of any filed application, with an option to extend an additional 9 months upon public notice and explanation. Any application to the SLC for review of the Water Project’s plans to convey water in the CRA from the Cadiz/Fenner Property will be accompanied by evidence of the Project’s extensive record of environmental sustainability as well as data and reports that can withstand critical scrutiny.

b. Northern Pipeline

In addition to the conveyance arrangements described above, we currently own a 96-mile long, 30-inch wide existing idle natural gas pipeline that extends northwest from the Cadiz/Fenner Property terminating in Barstow, California, and have entered into a purchase agreement for a further 124-mile segment connecting this line from Barstow to Wheeler Ridge, California. The pipeline crosses San Bernardino, Los Angeles and Kern counties, including the Barstow and Bakersfield areas, which serve as hubs for water delivered from northern and central California to communities in Southern California.

Initial feasibility studies indicated that, upon conversion, the 30-inch pipeline could transport between 18,000 and 30,000 acre-feet of water per year between the Water Project area and the Central and Northern California water transportation networks. As a result, this pipeline could diversify delivery opportunities for the Water Project and our broader water resource development efforts.

If this pipeline were to become operational, then the Water Project would link the CRA and State Water Project systems - two of Southern California's main water delivery systems - providing flexible opportunities for both supply and storage. The Northern Pipeline could deliver Phase I supplies, either directly or via exchange, to existing and potential customers of Phase I of the Project. Any use of the pipeline would be conducted in conformity with the Water Project's groundwater management plan and is subject to further CEQA evaluation and potentially federal environmental permitting.

In December 2018, we entered into an amendment (the "Amendment") to our option agreement ("Option Agreement") with El Paso Natural Gas Company ("EPNG") to purchase the 124-mile segment of the pipeline. The Option Agreement, as amended, allowed us to purchase the 124-mile pipeline segment with an initial payment of \$2 million and a subsequent payment of \$18 million ("Deferred Payment"). Following entry into the Amendment, we exercised the option and entered into a purchase agreement for the 124-mile pipeline, providing to EPNG the initial consideration of \$2 million. On February 3, 2020, we entered into a First Amendment to the Amended Option Agreement. As amended, the Option Agreement (i) extended the time period within which we must complete the purchase of the pipeline segment contemplated by the Agreement from 30 to up to 180 days following the satisfaction by EPNG of certain conditions precedent, with the actual time period depending upon the date upon which such conditions are satisfied, and (ii) increased the balance of the Deferred Payment from \$18 million to \$19 million.

We do not currently have the cash resources on hand to satisfy the Deferred Payment. If we do not complete the purchase of the additional 124-mile pipeline, then our Northern Pipeline opportunities will be limited to the 96-mile segment that we own.

(3) Final Design and Permitting

Prior to final construction of the Water Project facilities, we must also finalize facility design and acquire relevant construction permits with state and local agencies. Together with SMWD we have engaged engineering and environmental consultants to complete design plans for a water conveyance pipeline, Project wellfield, any necessary water treatment facilities, and facilities required to connect to the Metropolitan system at and near the CRA. This work is ongoing and expected to proceed in coordination with the negotiation of contracts and conveyance arrangements.

In coordination with facility design and layout, we may need to obtain additional permits and approvals from state or local entities prior to construction. This may include, but is not limited to, confirmation of existing access rights, easements and rights-of-way, for areas that may be crossed by Project facilities in the Project area subject to final pipeline configuration.

Phase II

In a second phase of the Water Project ("Phase II"), we expect to make available up to one million acre-feet of capacity (an additional 850,000 acre-feet from Phase I) in the aquifer system at the Project area for storage of imported surplus water. Under Phase II, or the Imported Water Storage Component, water from the Colorado River or the State Water Project, via the Southern Pipeline or the Northern Pipeline could be conveyed to spreading basins that would be constructed on our private property to percolate into the aquifer system and held in storage. When needed, previously stored water would be returned to Phase II participating agencies via the Southern Pipeline or the Northern Pipeline.

Phase II has already been the subject of programmatic environmental review in accordance with CEQA, but still requires project-level environmental review and permitting once participating agencies are identified. Phase II may also require federal permits subject to the National Environmental Policy Act, or NEPA.

Agricultural Development

Farming is a main driver of the California economy. According to the California Department of Food and Agriculture, more than one-third of the U.S.'s vegetable crops and two-thirds of its fruits and nuts are grown in California. Additionally, California is the leading U.S. state for cash farm receipts, accounting for over 13% of national agricultural value.

Our Cadiz/Fenner Property, consisting of approximately 34,500 acres of desert land is zoned for agricultural development. In 1993, we secured conditional use permits to develop agricultural facilities on up to 9,600 acres of the property and withdraw groundwater from the underlying aquifer system for irrigation. We have since maintained various levels of crops on the Property as we developed the Water Project. In 2013, we entered into a lease agreement with a third party to develop up to 1,480 acres of lemons at the site, 640 acres of which have been planted to date.

In February 2016, we entered into a lease agreement with Fenner Valley Farms LLC ("FVF"), a subsidiary of Water Asset Management LLC (at the time a related party), pursuant to which FVF leased, for a 99-year term, 2,100 acres at the Cadiz/Fenner property to be used to plant, grow and harvest agricultural crops ("FVF Lease"). As consideration for the lease, FVF paid us a one-time payment of \$12,000,000 in February 2016. Acreage that has been historically farmed and includes infrastructure for farming and the acreage that is leased to a third party to develop lemons was included within the acreage leased to FVF.

In July 2019, we entered into a joint venture ("JV") that operates under the name SoCal Hemp JV LLC to sustainably cultivate organic, sun-grown, industrial hemp on up to 9,600 acres at our Cadiz Valley property. In compliance with all state, federal and local regulatory requirements, the JV is currently under contract to lease 242 acres and has entered into option agreements to utilize up to 9,600 acres over the next four years.

As part of the agricultural development to be conducted under the lease arrangements, the groundwater production capacity of the property's existing well-field will be enhanced through infrastructure improvements that are complementary to the Water Project. All agricultural production is fully compatible with the Cadiz Water Project. Overlying farming demands will be coordinated with project operations and existing Court-validated permits.

Additional Eastern Mojave Properties

In addition to the Cadiz/Fenner Property, we also own approximately 11,000 acres in two additional locations within the Mojave Desert in eastern San Bernardino County.

Our primary landholding outside of the Cadiz/Fenner area is approximately 9,000 acres in the Piute Valley. This landholding is located approximately 15 miles from the resort community of Laughlin, Nevada, and about 12 miles from the Colorado River town of Needles, California. Extensive hydrological studies, including the drilling and testing of a full-scale production well, have demonstrated that this landholding is underlain by high-quality groundwater. The aquifer system underlying this property is naturally recharged by precipitation (both rain and snow) within a watershed of approximately 975 square miles and could be suitable for a water supply project, agricultural development or solar energy production. These private properties are proximate to or border areas designated by the federal government as National Monument, Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and are suitable candidates for preservation and conservation (see “Land Conservation Bank”, below).

Additionally, we own approximately 2,000 acres located near Danby Dry Lake in Ward Valley, approximately 30 miles southeast of our Cadiz/Fenner Valley properties. The Danby Dry Lake property is located approximately 10 miles north of the CRA. Initial hydrological studies indicate that the area has excellent potential for a water supply project. Certain of the properties in this area may also be suitable for agricultural development and/or preservation and conservation.

Land Conservation Bank

Approximately 7,500 acres of our properties outside of the Cadiz/Fenner Valley area in the Piute Valley are located within terrain designated by the federal government as Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and offer limited development opportunities. In February 2015, the California Department of Fish and Wildlife approved our establishment of the Fenner Valley Desert Tortoise Conservation Bank (“Fenner Bank”), a land conservation bank that makes available these properties for mitigation of impacts to tortoise and other sensitive species that would be caused by development across the Southern California desert. Under its enabling documents, the Fenner Bank offers credits that can be acquired by entities that must mitigate or offset impacts linked to planned development. For example, this bank can service the mitigation requirements of renewable energy, military, residential and commercial development projects being considered throughout the desert. Credits sold by the Fenner Bank will fund the permanent preservation of the land as well as research by outside entities, including San Diego Zoo Global, into desert tortoise health and species protection.

Northern Pipeline

The Northern Pipeline asset, described above, also represents new opportunities for the Company independent of the Water Project to offer water transportation to locations along the 220-mile pipeline route that are not presently interconnected by existing water infrastructure. The existing pipeline crosses California's major water infrastructure as well as urban and agricultural centers and can be re-purposed to transport water, independent of the Water Project, between users who presently lack direct interconnections along the pipeline route. We are presently engaged in discussions with parties that may be interested in such transportation. The ability to serve points along the 124-mile portion of the pipeline from Barstow to Wheeler Ridge is dependent upon completion of certain conditions precedent under our purchase agreement with EPNG, described above. If the acquisition of the 124-mile segment is not completed, then our Northern Pipeline opportunities will be limited to the 96-mile segment that we own.

Professional water quality and structural testing of a five-mile segment of the pipeline has been conducted. The testing resulted in a determination that there were no residual petroleum products in the tested segment and that the pipeline is structurally sound to transport water between Cadiz and Barstow.

Other Opportunities

Other opportunities in the water and agricultural or related infrastructure business complementary to our current objectives could provide new opportunities for our Company.

Over the longer-term, we believe the population of Southern California, Nevada and Arizona will continue to grow, and that, in time, the economics of commercial and residential development at our properties may become attractive.

We remain committed to the sustainable use of our land, water and infrastructure assets and will continue to explore all opportunities for sustainable development in an environmentally responsible way. We cannot estimate which of these opportunities will ultimately be realized.

Seasonality

Our water resource development activities are not seasonal in nature.

Our farming operations have been limited to the cultivation of lemons and grapes/raisins and spring and fall plantings of vegetables on the Cadiz Valley properties. These operations have been subject to the general seasonal trends that are characteristic of the agricultural industry.

Competition

We face competition for the acquisition, development and sale of our properties from a number of competitors. We may also face competition in the development of water resources and agriculture associated with our properties. Since California has scarce water resources and an increasing demand for available water, we believe that location, price and reliability of delivery are the principal competitive factors affecting transfers of water in California.

Employees

As of December 31, 2019, we employed 9 full-time employees (i.e. those individuals working more than 1,000 hours per year). We believe that our employee relations are good. The average tenure of our full-time employees is more than 10 years.

Regulation

Our operations are subject to varying degrees of federal, state and local laws and regulations. As we proceed with the development of our properties, including the Water Project, we will be required to satisfy various regulatory authorities that we are in compliance with the laws, regulations and policies enforced by such authorities. Groundwater development, and the export of conserved groundwater for sale to entities such as public water agencies, is subject to regulation by specific existing statutes, in addition to general environmental statutes applicable to all development projects. Additionally, we must obtain a variety of approvals and permits from state and federal governments with respect to issues that may include environmental issues, issues related to special status species, issues related to the public trust, and others. Because of the discretionary nature of these approvals and concerns, which may be raised by various governmental officials, public interest groups and other interested parties during both the development and the approval process, our ability to develop properties and realize income from our projects, including the Water Project, could be delayed, reduced or eliminated.

Access to Our Information

Our annual, quarterly and current reports, proxy statements and other information are filed with the Securities and Exchange Commission (“SEC”) and are available free of charge through our web site, www.cadizinc.com, as soon as reasonably practical after electronic filing of such material with the SEC. Our website address provided in this Annual Report on Form 10-K is not intended to function as a hyperlink and the information on our website is not, nor should it be considered, part of this report or incorporated by reference into this report.

Our SEC filings are also available to the public at the SEC website at www.sec.gov.

ITEM 1A. Risk Factors

Our business is subject to a number of risks, including those described below.

Our Development Activities Have Not Generated Significant Revenues

At present, our development activities include water resource and agricultural development at our San Bernardino County properties. We have not received significant revenues from our development activities to date and we do not know when, if ever, we will receive operating revenues sufficient to offset the costs of our development activities. As a result, we continue to incur a net loss from operations.

We May Never Generate Significant Revenues or Become Profitable Unless We Are Able to Successfully Implement Programs to Develop Our Land Assets and Related Water Resources

We do not know the terms, if any, upon which we may be able to proceed with our water and other development programs or successfully implement our agricultural plans. Regardless of the form of our development programs, the circumstances under which supplies or storage of water and agriculture can be developed and the profitability of any such project are subject to significant uncertainties, including the risk of variable water supplies and changing water allocation priorities. Additional risks include our ability to obtain all necessary regulatory approvals and permits, litigation by environmental or other groups, unforeseen technical difficulties, general market conditions for agricultural and water supplies, and the time needed to generate significant operating revenues from such programs after operations commence.

The Development of Our Properties Is Heavily Regulated, Requires Governmental Approvals and Permits That Could Be Denied, and May Have Competing Governmental Interests and Objectives

In developing our land assets and related water resources, we are subject to local, state, and federal statutes, ordinances, rules and regulations concerning zoning, resource protection, environmental impacts, infrastructure design, subdivision of land, construction and similar matters. Our development activities are subject to the risk of adverse interpretations or changes to U.S. federal, state and local laws, regulations and policies. Further, our development activities require governmental approvals and permits. If such permits were to be denied or granted subject to unfavorable conditions or restrictions, our ability to successfully implement our development programs would be adversely impacted.

Prior to construction of the Water Project, terms for moving water supplies in the Colorado River Aqueduct must be negotiated with Metropolitan Water District of Southern California (“Metropolitan”), which owns and controls the CRA. Water Project supplies entering the CRA will comply with Metropolitan’s published engineering, design and water quality standards and will be subject to all applicable fees and charges routinely established by Metropolitan for the conveyance of water within its service territory. The Metropolitan Board must consider and approve the terms and conditions of the Water Project’s use of the CRA to transport water to its participating agencies.

Our activities have faced additional risk from state legislative and administrative communications that could result in additional permitting and review requirements for the Water Project. In 2019, the California Legislature adopted and the Governor signed Senate Bill 307 (“SB 307”), which created a new section of the California Water Code, Section 1815, requiring new review of conveyance of groundwater from groundwater basins in the California desert within California’s public water transportation facilities, including the CRA, via an application to the State Lands Commission. The new law became effective January 1, 2020. We cannot predict with certainty the outcome of any State Lands Commission review of our Water Project.

In December 2018, we received a letter from the California Department of Fish and Wildlife (“CDFW”) related to permits that the Water Project must secure under CDFW’s Land and Streambed Alteration (“LSA”) program prior to construction of the Project’s 43-mile conveyance pipeline. The letter described ongoing study of springs in the watershed surrounding the project area and asserts that further environmental review under the California Environmental Quality Act (“CEQA”) may be required prior to processing of the LSA permit applications. The CDFW review of LSA permits is to be confined to localized plans within ephemeral streambeds along the pipeline route, not springs, which is a matter in the purview of the CEQA Lead Agency and the County of San Bernardino, a CEQA Responsible Agency with an oversight role over groundwater in the Project area. The letter has been provided to the Lead Agency and the County for review. We cannot predict with certainty at this time whether further environmental review will be required or pursued.

Finally, the statutes, regulations and ordinances governing the approval processes provide third parties the opportunity to challenge proposed plans and approvals. Opposition from third parties will cause delays and increase the costs of our development efforts or preclude such development entirely. While we have worked with representatives of various environmental and third-party interests and agencies to minimize and mitigate the impacts of our planned projects, certain groups may remain opposed to our development plans and pursue legal action.

Our Failure to Make Timely Payments of Principal and Interest on Our Indebtedness or To Obtain Additional Financing Will Impact our Ability to Implement Our Asset Development Programs

As of December 31, 2019, we had total indebtedness outstanding to our lenders of approximately \$137.8 million. Approximately \$72.3 million of our indebtedness is secured by our assets and is due in May 2021 (see Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources”). To the extent that we do not make principal and interest payments on the indebtedness when due, or if we otherwise fail to comply with the terms of agreements governing our indebtedness, we may default on our obligations. Additionally, the completion of the acquisition of the 124-mile extension of our Northern Pipeline will require an \$19 million payment within thirty days of satisfaction of certain conditions precedent under our purchase agreement with EPNG. We do not currently have the cash resources on hand to make this payment in full.

We will continue to require additional working capital to meet our cash resource needs until such time as our asset development programs, including the Water Project, produce revenues sufficient to fund operations. If we cannot raise funds if and when needed, we might be forced to make substantial reductions in our operating expenses, which could adversely affect our ability to implement our current business plan and ultimately our viability as a company. We cannot assure you that our current lenders, or any other lenders, will give us additional credit should we seek it. If we are unable to obtain additional credit, we may engage in further financings. Our ability to obtain financing will depend, among other things, on the status of our asset development programs and general conditions in the capital markets at the time funding is sought. Any further equity or convertible debt financings would result in the dilution of ownership interests of our current stockholders.

The Issuance of Equity Securities Under At Market Issuance Sales Agreements and Management Equity Incentive Plans Will Cause Dilution

We have and may continue to issue equity securities pursuant to at market issuance sales agreements. Further, our compensation programs for management emphasize long-term incentives, primarily through the issuance of equity securities and options to purchase equity securities. It is expected that plans involving the issuance of shares, options, or both will be submitted from time to time to our stockholders for approval. In the event that any such plans are approved and implemented, the issuance of shares and options under such plans may result in the dilution of the ownership interest of other stockholders and will, under currently applicable accounting rules, result in a charge to earnings based on the value of our common stock at the time of issue and the fair value of options at the time of their award. The expense would be recorded over the vesting period of each stock and option grant.

The Volatility of Our Stock Price Could Adversely Affect Current and Future Stockholders

The market price of our common stock is volatile and fluctuates in response to various factors which are beyond our control. Such fluctuations are particularly common in companies such as ours, which have not generated significant revenues. The following factors, in addition to other risk factors described in this section, could cause the market price of our common stock to fluctuate substantially:

- developments involving the execution of our business plan;
- disclosure of any adverse results in litigation;
- regulatory developments affecting our ability to develop our properties;
- the dilutive effect or perceived dilutive effect of additional debt or equity financings;
- perceptions in the marketplace of our company and the industry in which we operate; and
- general economic, political and market conditions.

In addition, the stock markets, from time to time, experience extreme price and volume fluctuations that may be unrelated or disproportionate to the operating performance of companies. These broad fluctuations may adversely affect the market price of our common stock. Price volatility could be worse if the trading volume of our common stock is low.

ITEM 1B. Unresolved Staff Comments

Not applicable at this time.

ITEM 2. Properties

Following is a description of our significant properties.

The Cadiz/Fenner Valley Property

We own approximately 35,000 acres of largely contiguous land in the Cadiz and Fenner valleys of eastern San Bernardino County, California (the “Cadiz/Fenner Property”). This area is located approximately 30 miles north of the Colorado River Aqueduct (“CRA”). We first began acquiring this land in 1983 and shortly thereafter conducted investigations into the feasibility of agricultural development at these lands and overall access to groundwater. These investigations confirmed the availability of high-quality groundwater in quantities appropriate for agricultural development.

Additional independent geotechnical and engineering studies conducted since 1985 have confirmed that the Cadiz/Fenner Property overlies a significant aquifer system that would not only support agricultural development, but also is ideally suited for the conservation and recovery of indigenous groundwater, as well as the storage of conserved or imported water, as contemplated by the Water Project. See Item 1, “Business – Narrative Description of Business – Water Resource Development”.

Additional Eastern Mojave Properties

In addition to the Cadiz/Fenner Valley property, we also own approximately 11,000 additional acres in the eastern Mojave Desert portion of San Bernardino County, California at two separate properties.

The first property consists of approximately 9,000 acres in the Piute Valley. This landholding is located approximately 15 miles from the resort community of Laughlin, Nevada, and about 12 miles from the Colorado River town of Needles, California. Extensive hydrological studies, including the drilling and testing of a full-scale production well, have demonstrated that this landholding is underlain by high-quality groundwater. The aquifer system underlying this property is naturally recharged by precipitation (both rain and snow) within a watershed of approximately 975 square miles and could be suitable for a water supply project, agricultural development or solar energy production. Certain of these properties are proximate to or border areas designated by the federal government as Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and are suitable candidates for preservation and conservation. In February 2015, the California Department of Fish and Wildlife approved our establishment of the Fenner Valley Desert Tortoise Conservation Bank on approximately 7,500 acres of our Piute Valley properties. The Fenner Bank, which is the largest land bank in California dedicated to protecting the desert tortoise, offers credits that can be acquired by public and private entities required to mitigate or offset impacts to the desert tortoise linked to planned development. We are presently marketing these credits to a variety of planned developments in the region.

Additionally, we own nearly 2,000 acres near Danby Dry Lake in Ward Valley, approximately 30 miles southeast of our Cadiz/Fenner landholdings. Our Danby Dry Lake property is located approximately 10 miles north of the Colorado River Aqueduct. Initial hydrological studies indicate that it has excellent potential for a water supply project. Certain of the properties in this area may also be suitable for agricultural development and/or preservation and conservation.

Executive Offices

We lease approximately 7,200 square feet of office space in Los Angeles, California for our executive offices. The lease terminates in August 2020. Current base rent under the lease is approximately \$18,500 per month.

Cadiz Real Estate

The title of all of our real estate assets are held by Cadiz Real Estate LLC (“Cadiz Real Estate”), a wholly owned subsidiary of Cadiz Inc. The Board of Managers of Cadiz Real Estate currently consists of two managers appointed by us. As the ownership of the real estate held by Cadiz Real Estate has no effect on our ultimate beneficial ownership of these assets, we refer throughout this Report to assets owned of record either by Cadiz Real Estate or by us as “our” properties.

Cadiz Real Estate is a co-obligor under our senior secured term loan, for which assets of Cadiz Real Estate have been pledged as security.

Debt Secured by Properties

Our assets have been pledged as collateral for \$72.3 million of senior secured debt outstanding as of December 31, 2019. Information regarding interest rates and principal maturities is provided in Note 6 to the Consolidated Financial Statements, “Long-Term Debt”.

ITEM 3. Legal Proceedings

There are no material legal proceedings pending to which we are a party or of which any of our property is the subject.

ITEM 4. Mine Safety Disclosures

Not Applicable.

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchase of Equity Securities

Our common stock is currently traded on The NASDAQ Global Market ("NASDAQ") under the symbol "CDZI." The following table reflects actual sales transactions for the dates that we were trading on NASDAQ, as reported by NASDAQ.

Quarter Ended	High Sales Price	Low Sales Price
2018:		
March 31	\$ 13.70	\$ 13.05
June 30	\$ 13.25	\$ 12.95
September 30	\$ 11.15	\$ 10.50
December 31	\$ 10.45	\$ 10.11
2019:		
March 31	\$ 9.77	\$ 9.53
June 30	\$ 11.39	\$ 10.88
September 30	\$ 12.70	\$ 12.17
December 31	\$ 11.07	\$ 10.94

On March 6, 2020, the high, low and last sales prices for the shares were \$10.23, \$9.63, and \$10.22, respectively.

As of March 6, 2020, the number of stockholders of record of our common stock was 64.

To date, we have not paid a cash dividend on our common stock and do not anticipate paying any cash dividends in the foreseeable future. Our senior secured term loan has covenants that prohibit the payment of dividends.

All securities sold by us during the three years ended December 31, 2019, which were not registered under the Securities Act of 1933, as amended, have been previously reported in accordance with the requirements of Rule 12b-2 of the Securities Exchange Act of 1934, as amended.

ITEM 6. Selected Financial Data

We are a smaller reporting company as defined by Reg. 240.12b-2 of the Securities and Exchange Act of 1934 and are not required to provide the information under this item.

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

In connection with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, the following discussion contains trend analysis and other forward-looking statements. Forward-looking statements can be identified by the use of words such as "intends", "anticipates", "believes", "estimates", "projects", "forecasts", "expects", "plans" and "proposes". Although we believe that the expectations reflected in these forward-looking statements are based on reasonable assumptions, there are a number of risks and uncertainties that could cause actual results to differ materially from these forward-looking statements. These include, among others, our ability to maximize value from our land and water resources and our ability to obtain new financings as needed to meet our ongoing working capital needs. See additional discussion under the heading "Risk Factors" above. Our forward-looking statements are made only as of the date hereof. We assume no duty to update these forward-looking statements to reflect new, changed or unanticipated events or circumstances, other than as may be required by law.

Overview

We are a natural resources development company dedicated to creating sustainable water and agricultural opportunities in California. We own approximately 45,000 acres of land with high-quality, naturally recharging groundwater resources in three areas of Southern California's Mojave Desert. These properties are located in eastern San Bernardino County situated in close proximity to major highway, rail, energy and water infrastructure, including the Colorado River Aqueduct ("CRA"), which is the primary transportation route for water imported into Southern California from the Colorado River.

Our properties offer opportunities for a wide array of sustainable activities including water supply projects, groundwater storage, large-scale agricultural development and land conservation and stewardship programs. In addition to our land and water assets, we also own pipeline and well infrastructure able to irrigate existing agriculture and to convey water to and from other communities and agricultural ventures that may be short of supply and/or storage.

Our main objective is to realize the highest and best use of our land, water and infrastructure assets in an environmentally responsible way. We believe that the highest and best use of our assets will be realized through the development of a combination of water supply, water storage and agricultural projects in accordance with a holistic land management strategy. Our present activities are focused on developing our assets in ways that meet growing long-term demand for access to sustainable water supplies and agricultural products.

Upon our founding in 1983 as Cadiz Land Company, we began an agricultural development on a portion of our primary property in Cadiz, California, which is a 34,500-acre property at the base of the Fenner and Orange Blossom Wash watersheds in eastern San Bernardino County (the "Cadiz/Fenner Property"). These watersheds span an area of more than 1,300 square miles and have 17 to 34 million acre-feet of fresh, high-quality groundwater in storage – an amount comparable to Lake Mead, America's largest surface reservoir.

We have sustainably farmed portions of the Cadiz/Fenner Property since the late 1980s in accordance with permits from the County of San Bernardino, the public agency responsible for groundwater use at the Cadiz/Fenner Property. The permits authorize the development of upto 9,600 acres of the Cadiz/Fenner Property for farming and the associated use of underlying groundwater for irrigation.

The Cadiz/Fenner Property is well-suited for various permanent and seasonal crops, and we have successfully grown citrus, organic table grapes and raisins, and seasonal vegetables such as melons, squash and asparagus. Today, we are engaged in agricultural joint ventures at the Cadiz/Fenner Property and are the largest private agricultural operation in San Bernardino County. Presently, the property has 2,100 acres leased to third parties for cultivation of citrus and 242 acres leased to our joint venture, SoCal Hemp JV LLC, for the cultivation of industrial hemp (see “Agricultural Development”, below).

In addition to our agricultural ventures, we are presently developing the Cadiz Valley Water Conservation, Recovery and Storage Project (“Water Project” or “Project”), which is approved to capture and conserve millions of acre-feet of native groundwater currently being lost to evaporation from the aquifer system beneath our Cadiz/Fenner Property, and provide 50,000 acre-feet of water per year, enough water for 400,000 people, to water providers throughout Southern California (see “Water Resource Development”, below). A second phase of the Water Project would offer storage in the aquifer system for up to one million acre-feet of imported water. Following a multi-year California Environmental Quality Act (“CEQA”) review and permitting process, the Water Project received permits that allow the capture and conservation of 2.5 million acre-feet of groundwater over 50 years in accordance with the terms of a groundwater management plan approved by San Bernardino County. We believe that the ultimate implementation of the Cadiz Water Project would provide a significant return on our investment and future cash flow.

By making new water supply and storage available in Southern California, we believe we can be part of the solution to the State’s persistent water challenge. Available water supply in Southern California is constrained every year by regulatory restrictions on each of the State’s three main water sources: (1) the CRA; (2) the State Water Project, which provides water supplies from Northern California to the central and southern parts of the state; and (3) the Los Angeles Aqueduct, which delivers water from the eastern Sierra Nevada mountains to Los Angeles. Southern California’s water providers and farmers rely on imports from these systems to meet demand, but deliveries from all three into the region are consistently below capacity, even in wet years.

Further, the availability of supplies in California differs greatly from year to year due to natural hydrological variability. Over the last decade, California experienced an historic drought featuring record-low winter precipitation, followed by record wet years. The 2018-2019 winter was a wet year, with snowpack and rainfall well above average through the summer of 2019, however 2020 is on track to be another dry year, with snowpack at 45% of normal through February. The rapid swings between wet and dry years challenges California’s traditional supply system and supports the need for reliable storage and local supply.

Given the variety of challenges and limitations presented by the State’s existing infrastructure, Southern California water providers and farmers are presently pursuing investments in storage, supply and infrastructure to meet long-term demand and pursuing sustainable water and agriculture sources. We have a record of sustainable agricultural development and groundwater management to support our continued integration into California’s water and agriculture portfolio.

Our current working capital requirements relate largely to the final development activities associated with the Water Project and those activities consistent with the Water Project related to further development of our land and agricultural assets. While we continue to believe that the ultimate implementation of the Water Project will provide a significant source of future cash flow, we also believe there is substantial value in our underlying agricultural assets and in our current agricultural ventures and lease arrangements.

We also continue to explore additional sustainable beneficial uses of our land and water resource assets, including the marketing of our approved desert tortoise land conservation bank, which is located on our properties outside the Water Project area, and other long-term legacy uses of our properties, such as land stewardship and conservation programs.

Water Resource Development

The Water Project is designed to capture and conserve renewable native groundwater currently being lost to evaporation from the aquifer system underlying our Cadiz/Fenner Property and provide a new reliable water supply for approximately 400,000 people in Southern California. In this first phase, Phase I, the total quantity of groundwater to be recovered and conveyed to Water Project participants will not exceed a long-term annual average of 50,000 acre-feet per year for 50 years. The Water Project also offers participants in Phase I the ability to carry-over their annual supply and store it in the groundwater basin from year to year. Up to 150,000 acre-feet can be stored as part of Phase I. A second phase of the Water Project, Phase II, will offer up to one million acre-feet of storage capacity that can be used to hold water supplies imported to the project area.

Water Project facilities required for Phase I primarily include, among other things:

- High-yield wells designed to efficiently recover available native groundwater at the Water Project area;
- A water conveyance pipeline to deliver water from the well-field to Project participants;
- An energy source to provide power to the well-field, pipeline and pumping facilities; and
- A water treatment facility at the wellfield to meet anticipated water quality requirements set by the operator of the CRA.

If an imported water storage component of the Project is ultimately implemented in Phase II, the following additional facilities would be required, among other things:

- Facilities to pump water through the conveyance pipeline from the CRA to the Water Project well-field and/or through our pipeline from Barstow, CA, to our Cadiz Valley property; and

- Spreading basins, which are shallow settling ponds that will be configured to efficiently percolate water from the ground surface down to the water table using subsurface storage capacity for the storage of water.

Phase I

Phase I has been fully reviewed and permitted in accordance with the California Environmental Quality Act (“CEQA”). The Project was also separately reviewed and approved by the County of San Bernardino in accordance with its local ordinances regulating groundwater. The Project presently is permitted to provide an average of 50,000 acre-feet of water for 50 years at Cadiz to meet municipal and industrial (M&I) water needs in Southern California. The permits also authorize up to 150,000 acre-feet of carry-over groundwater storage, allowing water agencies to hold conserved water in the aquifer system for future dry years.

Construction of the Water Project facilities that would allow for conservation, carry-over storage and delivery of groundwater to public water providers is expected to cost approximately \$310 million and will require capital financing that we expect will be secured by definitive Purchase and Sale Agreements with Project participants and the new facility assets.

Prior to construction, the Water Project must (1) finalize contracts with Project participating agencies, (2) finalize arrangements and secure necessary permits and approvals to transport water conserved at Cadiz via water transportation infrastructure and into each participant’s service area, and (3) complete final design and permitting. Below is a discussion of present activities to advance these objectives.

(1) Contracts with Public Water Agencies or Private Water Utilities

We have executed Letters of Intent (“LOIs”), option agreements and purchase agreements, or contracts (collectively, “Agreements”) with public water agencies and private water utilities in California during the Project’s development. These participating agencies serve more than one million customers in cities throughout California’s San Bernardino, Riverside, Los Angeles, Orange, Imperial and Ventura Counties. Twenty percent of Water Project supplies have been reserved for San Bernardino County-based agencies.

Santa Margarita Water District (“SMWD”), Orange County’s second largest water provider, was the first participant to convert its option agreement and adopt resolutions approving a Water Purchase and Sale Agreement for 5,000 acre-feet of water. The structure of the SMWD purchase agreement calls for an annually adjusted water supply payment, plus a pro rata portion of the capital recovery charge and operating and maintenance costs. The capital recovery charge is calculated by amortizing the total capital investment by the Company over a 30-year term.

Agreements entered into prior to the beginning of the CEQA review process provide to participants the right to acquire an annual supply of 5,000 acre-feet of water at \$775 per acre-foot (2010 dollars, subject to adjustment), which is competitive with the incremental cost of new water. In addition, these agencies received options to acquire storage rights in the Water Project to allow for the management of their Water Project supplies in complement with their own water resources. Up to 150,000 acre-feet of carry-over storage is available for reservation by the agencies prior to construction commencement. Participants that elect to achieve year-to-year flexibility in their use of Project water by utilizing carry-over storage will reserve storage capacity for \$1,500 per acre-foot prior to construction.

LOIs that have been entered into since completion of the CEQA review process reserve supplies from the Water Project at \$960 per acre-foot (2014 dollars, subject to adjustment). These LOIs also include the option to reserve carry-over storage capacity for \$1,500 per acre-foot prior to construction.

Prior to construction of the Water Project, we expect to convert existing option agreements and LOIs to purchase agreements. We will work collaboratively with the participating water agencies to allow for inclusive participation across Southern California.

(2) Transportation Infrastructure and Conveyance Arrangements

a. Southern Route

Prior to construction of the Water Project, and in coordination with final participation contracts described in (1) above, we must obtain approvals from government agencies for conveyance of water from our property in Cadiz to water users via the Colorado River Aqueduct (“CRA”). These approvals include:

- (i) arrangements with the US Bureau of Land Management (“BLM”) to construct a 43-mile water conveyance pipeline within a portion of the Arizona & California Railroad Company (“ARZC”) right-of-way that intersects with the CRA (Southern Pipeline);
- (ii) an agreement for moving water supplies in the CRA with Metropolitan Water District of Southern California (“Metropolitan”), which owns and controls the CRA; and
- (iii) a review and finding by the California State Lands Commission of an application filed under newly established Water Code Section 1815 that conveying water in the CRA will not adversely affect the desert environment.

i. BLM Approval of Southern Pipeline

In October 2017, the BLM provided a letter finding that the Project’s proposed use of a portion of the ARZC right-of-way from our Cadiz Valley property to Freda, California to construct and operate the Water Project’s water conveyance pipeline and related railroad improvements is within the scope of the original right-of-way grant and not subject to additional permitting. The buried pipeline would be constructed parallel to the railroad tracks and be used to convey water between our Cadiz Valley property and the CRA. The letter was challenged in Los Angeles Central District Federal Court in 2018 by national environmental organizations, which claimed it violated the law. In a June 2019 procedural ruling, the Court remanded the letter back to BLM, concluding that the agency needed to explain more explicitly why it withdrew and reversed specific findings previously made in 2015 on the same issue. However, the Court did not find that the conclusions of the 2017 evaluation were in error.

On February 7, 2020 we received from the BLM a revised evaluation responsive to the Court's remand ("2020 Evaluation"). The 2020 Evaluation reaffirmed that the Project's proposed use of the ARZC right-of-way for the Southern Pipeline and related railroad improvements furthers a railroad purpose and is within the scope of the right-of-way, consistent with BLM's conclusion in October 2017. The 2020 Evaluation references an extensive record and sets forth the factual basis for its conclusions in detail while reaffirming the agency's 2017 finding. We expect the Court will review the 2020 Evaluation this year per its remand order.

ii. Aqueduct Transportation via MWD

Water supplies conserved by the Project would enter the CRA at the termination of the project's conveyance pipeline near Rice, CA. The CEQA process considered a variety of options to enter the CRA and assumed final entry into the CRA would be determined by MWD in consultation with the Project's participating agencies. Once arrangements are reached, the Metropolitan Board would take action as a responsible agency under CEQA regarding the terms and conditions of the Water Project's use of the CRA to transport water to its participating agencies.

There is no application yet before Metropolitan related to entry and transportation of Project supplies, but we expect such a formal application will be filed by SMWD, the Project's lead agency, when the Project's contractual arrangements with participants are finalized. Any agreement as to the terms and conditions of the Water Project's use of the CRA will be negotiated between and entered into by Metropolitan and the Project participating agencies, not the Company.

Water Project supplies entering the CRA will comply with Metropolitan's published engineering, design and water quality standards and will be subject to all applicable fees and charges routinely established by Metropolitan for the conveyance of water within its service territory. Groundwater at Cadiz presently meets all state and federal water quality requirements without treatment and total dissolved solids or salts in the Cadiz water supply are substantially lower than the water in the CRA, offering a water quality benefit. Cadiz water also has no PFAs, a recently added constituent of concern by California water regulators, improving its attractiveness for the service area. Some naturally occurring constituents are lower than State and Federal standards but potentially higher than the water in the CRA; however, based on extensive pilot testing, they can be lowered via treatment to ambient levels or removed entirely. This year-long pilot testing of treatment options at the Project area confirmed the capability of cost-effective treatment technologies. We believe there are multiple benefits that can be realized by MWD and water users throughout its service area, such as water quality improvements, upon making space reasonably available for the Cadiz water supplies and providing the region the flexibility of relying on the Water Project in both wet and dry years.

iii. State Lands Commission Review under Water Code Section 1815

On July 31, 2019, California Governor Gavin Newsom signed into law Senate Bill 307 (“SB 307”), which added terms to the section of the California Water Code known as the “wheeling statutes” that regulate the conveyance of water by third parties in facilities such as the CRA. Effective January 1, 2020, the wheeling statutes now include Water Code Section 1815 which requires water projects in a section of the Mojave Desert where our Cadiz Valley property is located to apply for a review by the California State Lands Commission (“SLC”) prior to transporting water in public conveyance facilities. Upon receiving an application, this review will determine whether such projects would have “unreasonable effects on the environment and water dependent ecosystems in the surrounding watersheds.” The review by SLC must be conducted within 15 months of any filed application, with an option to extend an additional 9 months upon public notice and explanation. Any application to the SLC for review of the Water Project’s plans to convey water in the CRA from the Cadiz/Fenner Property will be accompanied by evidence of the Project’s extensive record of environmental sustainability as well as data and reports that can withstand critical scrutiny.

b. Northern Pipeline

In addition to the conveyance arrangements described above, we currently own a 96-mile long, 30-inch wide existing idle natural gas pipeline that extends northwest from the Cadiz/Fenner Property terminating in Barstow, California, and have entered into a purchase agreement to a further 124-mile segment connecting this line from Barstow to Wheeler Ridge, California. The pipeline crosses San Bernardino, Los Angeles and Kern counties, including the Barstow and Bakersfield areas, which serve as hubs for water delivered from northern and central California to communities in Southern California.

Initial feasibility studies indicated that, upon conversion, the 30-inch pipeline could transport between 18,000 and 30,000 acre-feet of water per year between the Water Project area and the Central and Northern California water transportation network. As a result, this pipeline could diversify delivery opportunities for the Water Project and our broader water resource development efforts.

If this pipeline were to become operational, then the Water Project would link the CRA and State Water Project systems – two of Southern California’s main water delivery systems – providing flexible opportunities for both supply and storage. The Northern Pipeline could deliver Phase I supplies, either directly or via exchange, to existing and potential customers of Phase I of the Project. Any use of the pipeline would be conducted in conformity with the Water Project’s groundwater management plan and is subject to further CEQA evaluation and potentially federal environmental permitting.

In December 2018, we entered into an amendment (the "Amendment") to our option agreement ("Option Agreement") with El Paso Natural Gas Company (“EPNG”) to purchase the 124-mile segment of the pipeline. The Option Agreement, as amended, allowed us to purchase the 124-mile pipeline segment with an initial payment of \$2 million and a subsequent payment of \$18 million ("Deferred Payment"). Following entry into the Amendment, we exercised the option and entered into a purchase agreement for the 124-mile pipeline, providing to EPNG the initial consideration of \$2 million. On February 3, 2020, we entered into a First Amendment to the Amended Option Agreement. As amended, the Option Agreement (i) extended the time period within which we must complete the purchase of the pipeline segment contemplated by the Agreement from 30 to up to 180 days following the satisfaction by EPNG of certain conditions precedent, with the actual time period depending upon the date upon which such conditions are satisfied, and (ii) increased the balance of the Deferred Payment from \$18 million to \$19 million.

We do not currently have the cash resources on hand to satisfy the Deferred Payment. If we do not complete the purchase of the additional 124-mile pipeline, then our Northern Pipeline opportunities will be limited to the 96-mile segment that we own.

(3) Final Design and Permitting

Prior to final construction of the Water Project facilities, we must also finalize facility design and acquire relevant construction permits with state and local agencies. Together with SMWD we have engaged engineering and environmental consultants to complete design plans for a water conveyance pipeline, Project wellfield, any necessary water treatment facilities, and facilities required to connect to the Metropolitan system at and near the CRA. This work is ongoing and expected to proceed in coordination with the negotiation of contracts and conveyance arrangements.

In coordination with facility design and layout, we may need to obtain additional permits and approvals from state or local entities prior to construction. This may include, but is not limited to, confirmation of existing access rights, easements and rights-of-way, for areas that may be crossed by Project facilities in the Project area subject to final pipeline configuration.

Phase II

In a second phase of the Water Project (“Phase II”), we expect to make available up to one million acre-feet of capacity (an additional 850,000 acre-feet from Phase I) in the aquifer system at the Project area for storage of imported surplus water. Under Phase II, or the Imported Water Storage Component, water from the Colorado River or the State Water Project, via the Southern Pipeline and the Northern Pipeline could be conveyed to spreading basins that would be constructed on our private property to percolate into the aquifer system and held in storage. When needed, previously stored water would be returned to Phase II participating agencies via the Southern Pipeline or the Northern Pipeline.

Phase II has already been the subject of programmatic environmental review in accordance with CEQA, but still requires project-level environmental review and permitting once participating agencies are identified. Phase II may also require federal permits subject to the National Environmental Policy Act, or NEPA.

Agricultural Development

Farming is a main driver of the California economy. According to the California Department of Food and Agriculture, more than one-third of the U.S.’s vegetable crops and two-thirds of its fruits and nuts are grown in California. Additionally, California is the leading U.S. state for cash farm receipts, accounting for over 13% of national agricultural value.

Our Cadiz/Fenner Property, consisting of approximately 34,500 acres of desert land is zoned for agricultural development. In 1993, we secured conditional use permits to develop agricultural facilities on up to 9,600 acres of the property and withdraw groundwater from the underlying aquifer system for irrigation. We have since maintained various levels of crops on the Property as we developed the Water Project. In 2013, we entered into a lease agreement with a third party to develop up to 1,480 acres of lemons at the site, 640 acres of which have been planted to date.

In February 2016, we entered into a lease agreement with Fenner Valley Farms LLC ("FVF"), a subsidiary of Water Asset Management LLC (at the time a related party), pursuant to which FVF leased, for a 99-year term, 2,100 acres at the Cadiz/Fenner property to be used to plant, grow and harvest agricultural crops ("FVF Lease"). As consideration for the lease, FVF paid us a one-time payment of \$12,000,000 in February 2016. Acreage that has been historically farmed and includes infrastructure for farming and the acreage that is leased to a third party to develop lemons was included within the acreage leased to FVF.

In July 2019, we entered into a joint venture ("JV") that operates under the name SoCal Hemp JV LLC to sustainably cultivate organic, sun-grown, industrial hemp on up to 9,600 acres at our Cadiz Valley property. In compliance with all state, federal and local regulatory requirements, the JV is currently under contract to lease 242 acres and has entered into option agreements to utilize up to 9,600 acres over the next four years.

As part of the agricultural development to be conducted under the lease arrangements, the groundwater production capacity of the property's existing well-field will be enhanced through infrastructure improvements that are complementary to the Water Project. All agricultural production is fully compatible with the Cadiz Water Project. Overlying farming demands will be coordinated with project operations and existing Court-validated permits.

Additional Eastern Mojave Properties

In addition to the Cadiz/Fenner Property, we also own approximately 11,000 acres in two additional locations within the Mojave Desert in eastern San Bernardino County.

Our primary landholding outside of the Cadiz/Fenner area is approximately 9,000 acres in the Piute Valley. This landholding is located approximately 15 miles from the resort community of Laughlin, Nevada, and about 12 miles from the Colorado River town of Needles, California. Extensive hydrological studies, including the drilling and testing of a full-scale production well, have demonstrated that this landholding is underlain by high-quality groundwater. The aquifer system underlying this property is naturally recharged by precipitation (both rain and snow) within a watershed of approximately 975 square miles and could be suitable for a water supply project, agricultural development or solar energy production. These private properties are proximate to or border areas designated by the federal government as National Monument, Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and are suitable candidates for preservation and conservation (see "Land Conservation Bank", below).

Additionally, we own approximately 2,000 acres located near Danby Dry Lake in Ward Valley, approximately 30 miles southeast of our Cadiz/Fenner Valley properties. The Danby Dry Lake property is located approximately 10 miles north of the CRA. Initial hydrological studies indicate that the area has excellent potential for a water supply project. Certain of the properties in this area may also be suitable for agricultural development and/or preservation and conservation.

Land Conservation Bank

Approximately 7,500 acres of our properties outside of the Cadiz/Fenner Valley area in the Piute Valley are located within terrain designated by the federal government as Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and offer limited development opportunities. In February 2015, the California Department of Fish and Wildlife approved our establishment of the Fenner Valley Desert Tortoise Conservation Bank (“Fenner Bank”), a land conservation bank that makes available these properties for mitigation of impacts to tortoise and other sensitive species that would be caused by development across the Southern California desert. Under its enabling documents, the Fenner Bank offers credits that can be acquired by entities that must mitigate or offset impacts linked to planned development. For example, this bank can service the mitigation requirements of renewable energy, military, residential and commercial development projects being considered throughout the desert. Credits sold by the Fenner Bank will fund the permanent preservation of the land as well as research by outside entities, including San Diego Zoo Global, into desert tortoise health and species protection.

Northern Pipeline

The Northern Pipeline asset, described above, also represents new opportunities for the Company independent of the Water Project to offer water transportation to locations along the 220-mile pipeline route that are not presently interconnected by existing water infrastructure. The existing pipeline crosses California's major water infrastructure as well as urban and agricultural centers and can be re-purposed to transport water, independent of the Water Project, between users who presently lack direct interconnections along the pipeline route. We are presently engaged in discussions with parties that may be interested in such transportation. The ability to serve points along the 124-mile portion of the pipeline from Barstow to Wheeler Ridge is dependent upon completion of certain conditions precedent under our purchase agreement with EPNG, described above. If the acquisition of the 124-mile segment is not completed, then our Northern Pipeline opportunities will be limited to the 96-mile segment that we own.

Professional water quality and structural testing of a five-mile segment of the pipeline has been conducted. The testing resulted in a determination that there were no residual petroleum products in the tested segment and that the pipeline is structurally sound to transport water between Cadiz and Barstow.

Other Opportunities

Other opportunities in the water and agricultural or related infrastructure business complementary to our current objectives could provide new opportunities for our Company.

Over the longer-term, we believe the population of Southern California, Nevada and Arizona will continue to grow, and that, in time, the economics of commercial and residential development at our properties may become attractive.

We remain committed to the sustainable use of our land, water and infrastructure assets and will continue to explore all opportunities for sustainable development in an environmentally responsible way. We cannot estimate which of these opportunities will ultimately be realized.

Results of Operations

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

We have not received significant revenues from our water resource and real estate development activities to date. Our revenues have been limited to rental income from the FVF Lease (see “Agricultural Development”, above). As a result, we have historically incurred a net loss from operations. The net loss totaled \$29.5 million for the year ended December 31, 2019, compared with a net loss of \$26.3 million for the year ended December 31, 2018. The higher loss in 2019 was primarily related to higher general and administrative expenses related to our water development efforts, higher proxy costs, higher interest expense and a recorded loss on investment related to a new joint venture (see “Agricultural Development”, above), partially offset by \$1.5 million in unrealized gains recorded for warrant liabilities in 2018. The underlying warrants were reclassified to equity on January 1, 2019 upon adoption of the related accounting standard (see Note 2 to our Consolidated Financial Statements, “Summary of Significant Accounting Policies”).

Our primary expenses are our ongoing overhead costs associated with the development of the Water Project (i.e., general and administrative expense) and our interest expense. We will continue to incur non-cash expense in connection with our management and director equity incentive compensation plans.

Revenues. Revenue totaled \$441 thousand during the year ended December 31, 2019, compared to \$440 thousand during the year ended December 31, 2018. The revenue is primarily related to rental income from the FVF Lease (see “Agricultural Development”, above).

General and Administrative Expenses. General and administrative expenses during the year ended December 31, 2019, totaled \$12.2 million compared with \$11.4 million for the year ended December 31, 2018. Non-cash compensation costs related to stock and option awards are included in general and administrative expenses.

Compensation costs from stock and option awards for the year ended December 31, 2019, totaled \$0.6 million compared with \$0.5 million for the year ended December 31, 2018.

Depreciation. Depreciation expense totaled \$265 thousand for the year ended December 31, 2019, and \$258 thousand for the year ended December 31, 2018.

Interest Expense. Interest expense totaled \$17.1 million during the year ended December 31, 2019, compared to \$15.3 million during the year ended December 31, 2018. The following table summarizes the components of net interest expense for the two periods (in thousands):

	Year Ended	
	December 31,	
	2019	2018
Interest on outstanding debt	\$ 13,097	\$ 12,594
Unrealized gains on warrants	-	(1,522)
Amortization of debt discount	3,894	4,095
Amortization of deferred loan costs	81	103
	<u>\$ 17,072</u>	<u>\$ 15,270</u>

The interest on outstanding debt increased from \$12.6 million to \$13.1 million due to compounded interest on a larger credit facility associated with our May 2017 debt refinancing. Additionally, during the year ended December 31, 2018, the Company recorded net unrealized gains on warrants of \$1.5 million (see Note 6 to the Consolidated Financial Statements, “Long-Term Debt”). The underlying warrants were reclassified to equity on January 1, 2019 upon adoption of the related accounting standard (see Note 2 to the Consolidated Financial Statements, “Summary of Significant Accounting Policies”).

Interest Income. Interest income totaled \$226 thousand during the year ended December 31, 2019, and \$223 thousand for the year ended December 31, 2018.

Liquidity and Capital Resources

(a) Current Financing Arrangements

As we have not received significant revenues from our development activities to date, we have been required to obtain financing to bridge the gap between the time water resource and other development expenses are incurred and the time that revenue will commence. Historically, we have addressed these needs primarily through secured debt financing arrangements and private equity placements.

In November 2018, we entered into an At Market Issuance Sales Agreement under which the Company could issue and sell shares of its common stock having an aggregate offering price of up to \$25 million from time to time in an “at-the-market” offering (the “November 2018 ATM Offering”). As of December 31, 2019, the Company issued 1,960,178 shares of common stock in the November 2018 ATM Offering for gross proceeds of \$21.0 million and aggregate net proceeds of approximately \$20.3 million. The November 2018 ATM offering was completed in March 2020 (see Note 14 to the Consolidated Financial Statements, “Subsequent Events”).

In May 2017, we entered into a new \$60 million credit agreement with funds affiliated with Apollo Global Management, LLC (“Apollo”) that replaced and refinanced our then existing \$45 million senior secured mortgage debt and provided \$15 million of new senior debt to fund immediate construction related expenditures (“Senior Secured Debt”). The Senior Secured Debt and the 7.00% Convertible Senior Notes due March 2020 (“Convertible Senior Notes”) contain representations, warranties and covenants that are typical for agreements of this type, including restrictions that would limit our ability to incur additional indebtedness, incur liens, pay dividends or make restricted payments, dispose of assets, make investments and merge or consolidate with another person. However, while there are affirmative covenants, there are no financial maintenance covenants and no restrictions on our ability to issue additional common stock to fund future working capital needs. The debt covenants associated with the Senior Secured Debt were negotiated by the parties with a view towards our operating and financial condition as it existed at the time the agreements were executed. At December 31, 2019, we were in compliance with our debt covenants. In March 2020, all Convertible Senior Notes were either converted into common stock pursuant to the terms of the existing Indenture or exchanged for a new Preferred Stock. Additionally, we entered into an agreement with Apollo that allows us to extend the maturity of the Apollo debt for an additional year from its current maturity of May 2021 to May 2022 at our option (see Note 14 to the Consolidated Financial Statements, “Subsequent Events”).

Limitations on our liquidity and ability to raise capital may adversely affect us. Sufficient liquidity is critical to meet our resource development activities. As discussed further in “Outlook” below, we do not have adequate resources on hand to complete the acquisition of the 124-mile extension of our Northern Pipeline, which will require a \$19 million payment within one hundred and eighty days of satisfaction of certain conditions precedent under our purchase agreement with EPNG. To the extent additional capital is required, we may increase liquidity through a variety of means, including equity or debt placements, through the lease, sale or other disposition of assets or reductions in operating costs. If additional capital is required, no assurances can be given as to the availability and terms of any new financing.

As we continue to actively pursue our business strategy, additional financing will continue to be required (see “Outlook”, below). The covenants in the term debt do not prohibit our use of additional equity financing and allow us to retain 100% of the proceeds of any equity financing. We do not expect the loan covenants to materially limit our ability to finance our water development activities.

At December 31, 2019, we had no outstanding credit facilities other than the Senior Secured Debt and the Convertible Senior Notes.

Cash Used for Operating Activities. Cash used for operating activities totaled \$13.7 million for the year ended December 31, 2019, and \$12.2 million for the year ended December 31, 2018. The cash was primarily used to fund general and administrative expenses related to our water development efforts.

Cash Used For Investing Activities. Cash used for investing activities in the year ended December 31, 2019, was \$2.5 million, compared with \$3.7 million for the year ended December 31, 2018. The costs consisted of engineering and design related to the development of the Water Project. In addition, the 2019 period included additions to our interest in SoCal Hemp JV LLC (see “Agricultural Development”, above) and the 2018 period included investments in the Northern Pipeline (see “Water Resource Development”, above).

Cash Provided by Financing Activities. Cash provided by financing activities totaled \$19.3 million for the year ended December 31, 2019, compared with cash provided by financing activities of \$15.4 million for the year ended December 31, 2018. Proceeds from financing activities for both periods reported are related to the issuance of shares under at-the-market offerings.

(b) Outlook

Short-Term Outlook. Principal and interest payments aggregating approximately \$65.5 million at December 31, 2019 that were due in March 2020 were either converted into common stock pursuant to the terms of the existing Indenture or exchanged for a new Preferred Stock (see Note 14 to the Consolidated Financial Statements, “Subsequent Events”). Additionally, we entered into an agreement that allows us to extend the contractual May 2021 maturity of our Senior Secured Debt of approximately \$72.3 million as of December 31, 2019 until May 2022 at our option (see Note 14 to the Consolidated Financial Statements, “Subsequent Events”). As such, we currently have no near-term debt maturity obligations. However, in order to complete our acquisition of an additional 124-mile extension of our Northern Pipeline, we will require a further \$19 million payment that will be due within 180 days upon completion of certain conditions precedent under our purchase agreement with EPNG (see “Water Resource Development”, above). If the acquisition of the 124-mile segment is not completed, then our Northern Pipeline opportunities will be limited to the 96-mile segment we already own. As we require additional working capital to fund operations, we expect to continue our historical practice of structuring our financing arrangements to match the anticipated needs of our development activities (see “Long-Term Outlook”, below). No assurances can be given, however, as to the availability or terms of any new financing.

Long-Term Outlook. In the longer term, we will need to raise additional capital to finance working capital needs, capital expenditures and any payments due under our Senior Secured Debt at maturity (see “Current Financing Arrangements”, above). Our future working capital needs will depend upon the specific measures we pursue in the entitlement and development of our water resources and other developments. Future capital expenditures will depend primarily on the progress of the Water Project.

We are evaluating the amount of cash needed, and the manner in which such cash will be raised, on an ongoing basis. We may meet any future cash requirements through a variety of means, including equity or debt placements, or through the sale or other disposition of assets. Equity placements would be undertaken only to the extent necessary, so as to minimize the dilution effect of any such placements upon our existing stockholders. No assurances can be given, however, as to the availability or terms of any new financing. Limitations on our liquidity and ability to raise capital may adversely affect us. Sufficient liquidity is critical to meet our resource development activities.

(c) Critical Accounting Policies

As discussed in Note 2 to our Consolidated Financial Statements, “Summary of Significant Accounting Policies”, the preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect amounts reported in the accompanying consolidated financial statements and related footnotes. In preparing these financial statements, management has made its best estimates and judgments of certain amounts included in the financial statements based on all relevant information available at the time and giving due consideration to materiality. However, application of these policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. Management has concluded that the following critical accounting policies described below affect the most significant judgments and estimates used in the preparation of the consolidated financial statements.

(1) Intangible and Other Long-Lived Assets. Property, plant and equipment, intangible and certain other long-lived assets are depreciated or amortized over their useful lives. Useful lives are based on management's estimates of the period over which the assets will generate revenue.

(2) Valuation of Goodwill and Long-Lived Assets. The Company assesses long-lived assets, excluding goodwill, for recoverability whenever events or changes in circumstances indicate that their carrying value may not be recoverable through the estimated undiscounted future cash flows resulting from the use of the assets. If it is determined that the carrying value of long-lived assets may not be recoverable, the impairment is measured by using the projected discounted cash-flow method.

The Company performs an annual impairment test to identify potential goodwill impairment and measure the amount of a goodwill impairment loss to be recognized (if any) for the Company. This quantitative assessment is performed at least annually and compares a reporting unit's fair value to its carrying amount to determine if there is a potential impairment. An impairment loss will be recognized for the amount by which the reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill in that reporting unit. No impairment charge was recorded during the current fiscal year.

(3) Deferred Tax Assets and Valuation Allowances. To date, the Company has not generated significant revenue from its water development programs, and it has a history of net operating losses. As such, the Company has generated significant deferred tax assets, including large net operating loss carryforwards for federal and state income taxes for which it has recorded a full valuation allowance. Management is currently working on water storage, water supply, and agricultural projects, including the Water Project, that are designed to generate future taxable income, although there can be no guarantee that this will occur. If taxable income is generated in future years, some portion or all of the valuation allowance will be reversed, and an increase in net income would consequently be reported.

(4) Stock-Based Compensation. The Company applies the Black-Scholes valuation model in determining the fair value of options granted to employees and consultants. For employees, the fair value is then charged to expense on the straight-line basis over the requisite service period. For consultants, the fair value is remeasured at each reporting period and recorded as a liability until the award is settled.

As of December 31, 2019, all options outstanding are fully vested; therefore, there is no potential impact of forfeitures.

(d) New Accounting Pronouncements

See Note 2 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies".

(e) **Off Balance Sheet Arrangements**

The Company does not have any off-balance sheet arrangements at this time.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk

We are a smaller reporting company as defined by Reg. 240.12b-2 of the Securities and Exchange Act of 1934 and are not required to provide the information under this item.

ITEM 8. Financial Statements and Supplementary Data

The information required by this item is submitted in response to Part IV below. See the Index to Consolidated Financial Statements.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

ITEM 9A. Controls and Procedures

Disclosure Controls and Procedures

We have established disclosure controls and procedures to ensure that material information related to the Company, including its consolidated entities, is accumulated and communicated to senior management, including Chief Executive Officer (the “Principal Executive Officer”) and Chief Financial Officer (the “Principal Financial Officer”) and to our Board of Directors. Based on their evaluation as of December 31, 2019, our Principal Executive Officer and Principal Financial Officer have concluded that the Company’s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) are effective to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and such information is accumulated and communicated to management, including the principal executive and principal financial officers as appropriate, to allow timely decisions regarding required disclosures.

Management’s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Principal Executive Officer and Principal Financial Officer, we evaluated the effectiveness of our internal control over financial reporting based on the criteria in the Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under that framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2019. The effectiveness of our internal control over financial reporting as of December 31, 2019, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

In connection with the evaluation required by paragraph (d) of Rule 13a-15 under the Exchange Act, there was no change identified in the Company's internal control over financial reporting that occurred during the last fiscal quarter ended December 31, 2019, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. Other Information

Not applicable.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

The information called for by this item is incorporated herein by reference to the definitive proxy statement involving the election of directors which we intend to file with the SEC pursuant to Regulation 14A under the Securities and Exchange Act of 1934 not later than 120 days after December 31, 2019.

ITEM 11. Executive Compensation

The information called for by this item is incorporated herein by reference to the definitive proxy statement involving the election of directors which we intend to file with the SEC pursuant to Regulation 14A under the Securities and Exchange Act of 1934 not later than 120 days after December 31, 2019.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by this item is incorporated herein by reference to the definitive proxy statement involving the election of directors which we intend to file with the SEC pursuant to Regulation 14A under the Securities and Exchange Act of 1934 not later than 120 days after December 31, 2019.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by this item is incorporated herein by reference to the definitive proxy statement involving the election of directors which we intend to file with the SEC pursuant to Regulation 14A under the Securities and Exchange Act of 1934 not later than 120 days after December 31, 2019.

ITEM 14. Principal Accounting Fees and Services

The information called for by this item is incorporated herein by reference to the definitive proxy statement involving the election of directors which we intend to file with the SEC pursuant to Regulation 14A under the Securities and Exchange Act of 1934 not later than 120 days after December 31, 2019.

PART IV

ITEM 15. Exhibits, Financial Statement Schedules

1. Financial Statement. See Index to Consolidated Financial Statements.
- *** 2. Financial Statement Schedule. See Index to Consolidated Financial Statements.
3. Exhibits.

The following exhibits are filed or incorporated by reference as part of this Form 10-K.

- * 3.1 [Cadiz Certificate of Incorporation, as amended](#)
- * 3.2 [Cadiz Bylaws, as amended](#)
- ** 3.3 [Certificate of Designation of Series 1 Preferred Stock of Cadiz Inc.](#)
- ** 4.1 [Warrant dated May 25, 2017 issued to Apollo Special Situations Fund, L.P.](#)
- ** 4.2 [Amendment No. 1 to Warrant, dated as of March 5, 2020, by and between Cadiz Inc. and other party thereto](#)
- * 4.3 [Description of Securities Registered Under Section 12 of the Securities Exchange Act of 1924](#)
- ** 10.1 [Limited Liability Company Agreement of Cadiz Real Estate LLC dated December 11, 2003](#)
- ** 10.2 [Amendment No. 1, dated October 29, 2004, to Limited Liability Company Agreement of Cadiz Real Estate LLC](#)
- ** 10.3 [Amendment No. 2 dated March 5, 2013, to Limited Liability Company Agreement of Cadiz Real Estate LLC](#)
- ** 10.4 [Longitudinal Lease Agreement dated September 17, 2018 between Arizona & California Railroad Company and Cadiz Real Estate LLC](#)
- †** 10.5 [2009 Equity Incentive Plan](#)
- †** 10.6 [2019 Equity Incentive Plan](#)
- ** 10.7 [Form of Option Agreement with Santa Margarita Water District](#)
- ** 10.8 [Form of Environmental Processing and Cost Sharing Agreement with Santa Margarita Water District](#)

- ** 10.9 [Form of Environmental Processing and Cost Sharing Agreement with Three Valleys Municipal Water District](#)
- ** 10.10 [Option Agreement with Golden State Water Company dated June 25, 2010](#)
- ** 10.11 [Option Agreement with Suburban Water Systems dated October 4, 2010](#)
- †** 10.12 [Letter agreement with Scott S. Slater dated April 12, 2011](#)
- ** 10.13 [Option Agreement with California Water Service Company dated December 1, 2011](#)
- ** 10.14 [Form of Memorandum of Understanding by and among Cadiz Inc., County of San Bernardino and Santa Margarita Water District](#)
- ** 10.15 [Water Purchase and Sale Agreement among Cadiz Inc., Cadiz Real Estate LLC, Fenner Valley Mutual Water Company and Santa Margarita Water District dated July 31, 2012](#)
- ** 10.16 [Groundwater Management, Monitoring, and Mitigation Plan for the Cadiz Valley Groundwater Conservation, Recovery and Storage Project approved by the Santa Margarita Water District and the County of San Bernardino Board of Supervisors effective October 1, 2012](#)
- †** 10.17 [Revised Terms of Engagement with Brownstein Hyatt Farber and Schreck dated January 9, 2013](#)
- †** 10.18 [Letter agreement with Scott Slater dated January 10, 2013](#)
- ** 10.19 [Track Utilization Agreement dated September 16, 2013, between Arizona & California Railroad Company and Cadiz Real Estate LLC](#)
- †** 10.20 [Amended and Restated Employment Agreement between Keith Brackpool and Cadiz Inc. dated June 13, 2014](#)
- †** 10.21 [Amended and Restated Employment Agreement between Timothy J. Shaheen and Cadiz Inc. dated June 13, 2014](#)
- †** 10.22 [Amendment No. 1 to Amended and Restated Employment Agreement between Timothy J. Shaheen and Cadiz Inc. dated March 10, 2020](#)
- ** 10.23 [Form of Water Purchase and Sale Agreement, dated as of December 29, 2014, by and between Cadiz Inc. and San Luis Water District](#)
- ** 10.24 [Lease Agreement, dated as of December 23, 2015, by and among Cadiz Real Estate LLC, Cadiz Inc. and Water Asset Management LLC](#)

- ** 10.25 [Amended and Restated Lease Agreement, dated as of February 8, 2016, by and among Cadiz Real Estate LLC, Cadiz Inc. and Fenner Valley Farm, LLC](#)
- ** 10.26 [Waiver Agreement under Amended and Restated Credit Agreement, dated as of March 9, 2016, by and among Cadiz Inc., Cadiz Real Estate LLC and the Required Lenders](#)
- ** 10.27 [\\$60,000,000 Credit Agreement, dated as of May 1, 2017, by and among Cadiz Inc. and Cadiz Real Estate LLC as borrowers, Apollo Special Situations Fund, L.P. and the other lenders from time to time party thereto, and Wells Fargo Bank, National Association, as administrative agent](#)
- ** 10.28 [Security Agreement made by Cadiz Inc. and Cadiz Real Estate LLC, as loan parties, in favor of Wells Fargo Bank, National Association, as Agent, dated as of May 25, 2017](#)
- ** 10.29 [Deed of Trust, Assignment of Leases and Rents, Security Agreement, Financing Statement and Fixture Filing dated as of May 25, 2017 from Cadiz Inc., Cadiz Real Estate LLC, and Octagon Partners, LLC, collectively, as Trustor to Chicago Title Company, as Trustee and Wells Fargo Bank, National Association, as Agent for the Lenders from time to time under the Credit Agreement, as Beneficiary](#)
- ** 10.30 [Letter Agreement, dated November 8, 2017, by and among Cadiz Inc., and Apollo Special Situations Fund, L.P.](#)
- ** 10.31 [Purchase and Sale Agreement between El Paso Natural Gas Company, LLC, and Cadiz Inc. dated December 31, 2018](#)
- ** 10.32 [First Amendment to Purchase Agreement dated February 3, 2020 by and between El Paso Natural Gas Company, LLC, a Delaware limited liability company and Cadiz Inc., a Delaware corporation](#)
- ** 10.33 [Agricultural Lease dated as of July 31, 2019 between Cadiz Real Estate LLC and SoCal Hemp JV LLC](#)
- ** 10.34 [Limited Liability Company Agreement of SoCal Hemp JV LLC](#)
- ** 10.35 [Conversion and Exchange Agreement, dated March 5, 2020, by and between Cadiz Inc. and LC Capital Master Fund, Ltd.](#)
- ** 10.36 [Conversion and Exchange Agreement, dated March 5, 2020, by and between Cadiz Inc. and Elkhorn Partners Limited Partnership](#)
- ** 10.37 [Registration Rights Agreement, dated March 5, 2020, by and among Cadiz Inc. and the other parties thereto](#)

- ** 10.38 [Waiver and Amendment No. 1 to Credit Agreement, dated as of March 5, 2020, by and among Cadiz Inc., Cadiz Real Estate LLC, the Required Lenders and Wells Fargo Bank, National Association, as administrative agent](#)
 - * 21.1 [Subsidiaries of the Registrant](#)
 - * 23.1 [Consent of Independent Registered Public Accounting Firm](#)
 - * 31.1 [Certification of Scott Slater, Chief Executive Officer of Cadiz Inc. pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
 - * 31.2 [Certification of Timothy J. Shaheen, Chief Financial Officer and Secretary of Cadiz Inc. pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
 - * 32.1 [Certification of Scott Slater, Chief Executive Officer of Cadiz Inc. pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
 - * 32.2 [Certification of Timothy J. Shaheen, Chief Financial Officer and Secretary of Cadiz Inc. pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 101.INS XBRL Instance Documents
- 101.SCH XBRL Taxonomy Extension Schema
- 101.CAL XBRL Taxonomy Extension Calculation
- 101.DEF XBRL Extension Definition
- 101.LAB XBRL Taxonomy Extension Label
- 101.PRE XBRL Taxonomy Extension Presentation

† Management contract or compensatory plan or agreement.

* Filed herewith.

** Previously filed.

*** All financial statement schedules are omitted since the required information is not present or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements and notes thereto.

ITEM 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereto duly authorized.

CADIZ INC.

By: /s/ Scott S. Slater
Scott S. Slater,
Chief Executive Officer

Date: March 13, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

<u>Name and Position</u>	<u>Date</u>
<u>/s/ Keith Brackpool</u> Keith Brackpool, Chairman	<u>March 13, 2020</u>
<u>/s/ Scott S. Slater</u> Scott S. Slater, Chief Executive Officer, President and Director (Principal Executive Officer)	<u>March 13, 2020</u>
<u>/s/ Timothy J. Shaheen</u> Timothy J. Shaheen, Chief Financial Officer (Principal Financial and Accounting Officer)	<u>March 13, 2020</u>
<u>/s/ Maria Echaveste</u> Maria Echaveste, Director	<u>March 13, 2020</u>
<u>/s/ Geoffrey T. Grant</u> Geoffrey T. Grant, Director	<u>March 13, 2020</u>
<u>/s/ Winston H. Hickox</u> Winston H. Hickox, Director	<u>March 13, 2020</u>
<u>/s/ Murray H. Hutchison</u> Murray H. Hutchison, Director	<u>March 13, 2020</u>
<u>/s/ Stephen E. Courter</u> Stephen E. Courter, Director	<u>March 13, 2020</u>
<u>/s/ Richard Nevins</u> Richard Nevins, Director	<u>March 13, 2020</u>
<u>/s/ Carolyn Webb de Macias</u> Carolyn Webb de Macias, Director	<u>March 13, 2020</u>

CADIZ INC. CONSOLIDATED FINANCIAL STATEMENTS

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<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Statements of Operations and Comprehensive Loss for each of the two years in the period ended December 31, 2019</u>	F-4
<u>Consolidated Balance Sheets as of December 31, 2019 and 2018</u>	F-5
<u>Consolidated Statements of Cash Flows for each of the two years in the period ended December 31, 2019</u>	F-6
<u>Consolidated Statements of Stockholders' Deficit for each of the two years in the period ended December 31, 2019</u>	F-7
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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Cadiz Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Cadiz Inc. and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, and the related consolidated statements of operations and comprehensive loss, stockholders’ deficit and cash flows for the years then ended, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Los Angeles, California
March 13, 2020

We have served as the Company's auditor since at least 1995. We have not been able to determine the specific year we began serving as auditor of the Company.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

<i>(In thousands, except per share data)</i>	December 31,	
	2019	2018
Total revenues (rental income)	\$ 441	\$ 440
Costs and expenses:		
General and administrative	12,165	11,402
Depreciation	265	258
Total costs and expenses	12,430	11,660
Operating loss	(11,989)	(11,220)
Interest expense	(17,072)	(15,270)
Interest income	226	223
Debt conversion expense	(197)	-
Loss before income taxes	(29,032)	(26,267)
Income tax expense	(6)	(6)
Loss from equity-method investments	(490)	-
Net loss and comprehensive loss	\$ (29,528)	\$ (26,273)
Basic and diluted net loss per share	\$ (1.11)	\$ (1.09)
Weighted-average shares outstanding	26,549	23,998

See accompanying notes to the consolidated financial statements.

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2019	2018
<i>(\$ in thousands, except per share data)</i>		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 15,682	\$ 12,558
Accounts receivable	49	38
Prepaid expenses and other	386	408
Total current assets	<u>16,117</u>	<u>13,004</u>
Property, plant, equipment and water programs, net	49,947	46,619
Long-term deposit/prepaid expenses	2,000	2,000
Equity-method investments	729	-
Goodwill	3,813	3,813
Other assets	4,118	3,873
Total assets	<u>\$ 76,724</u>	<u>\$ 69,309</u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	\$ 194	\$ 225
Accrued liabilities	4,536	2,070
Current portion of long-term debt	31	59
Warrant liabilities	-	865
Other liabilities	44	923
Total current liabilities	4,805	4,142
Long-term debt	137,565	136,246
Long-term lease obligations with related party, net	15,707	14,411
Deferred revenue	750	750
Other long-term liabilities	15	-
Total liabilities	<u>158,842</u>	<u>155,549</u>
Commitments and contingencies (Note 11)		
Stockholders' deficit:		
Common stock - \$0.01 par value; 70,000,000 shares authorized; shares issued and outstanding: 28,480,567 at December 31, 2019, and 24,654,911 at December 31, 2018	285	247
Additional paid-in capital	419,194	383,521
Accumulated deficit	(501,597)	(470,008)
Total stockholders' deficit	<u>(82,118)</u>	<u>(86,240)</u>
Total liabilities and stockholders' deficit	<u>\$ 76,724</u>	<u>\$ 69,309</u>

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,	
	2019	2018
<i>(\$ in thousands)</i>		
Cash flows from operating activities:		
Net loss	\$ (29,528)	\$ (26,273)
Adjustments to reconcile net loss to net cash used for operating activities:		
Depreciation	265	258
Unrealized gain on warrant derivative liabilities	-	(1,522)
Amortization of deferred loan costs	81	103
Amortization of debt discount	3,856	3,920
Interest expense added to loan principal	10,031	9,767
Interest expense added to lease liability	1,272	1,111
Loss on equity method investments	490	-
Loss on debt conversions	38	175
Debt conversion expense	197	-
Compensation charge for stock awards and share options	562	473
Changes in operating assets and liabilities:		
Accounts receivable	(11)	(2)
Prepaid expenses and other current assets	22	3
Other assets	(186)	73
Accounts payable	(68)	(98)
Accrued and other liabilities	(729)	(181)
Net cash used for operating activities	<u>(13,708)</u>	<u>(12,193)</u>
Cash flows from investing activities:		
Additions to long-term deposit	-	(2,000)
Contributions and advances to equity-method investments	(904)	-
Additions to property, plant and equipment	<u>(1,599)</u>	<u>(1,726)</u>
Net cash used for investing activities	<u>(2,503)</u>	<u>(3,726)</u>
Cash flows from financing activities:		
Net proceeds from issuance of common stock	19,395	15,503
Principal payments on long-term debt	<u>(59)</u>	<u>(56)</u>
Net cash provided by financing activities	<u>19,336</u>	<u>15,447</u>
Net increase (decrease) in cash and cash equivalents and restricted cash	3,125	(472)
Cash and cash equivalents and restricted cash, beginning of period	<u>12,691</u>	<u>13,163</u>
Cash and cash equivalents and restricted cash, end of period	\$ 15,816	\$ 12,691

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT

(\$ in thousands)	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance as of December 31, 2017	22,987,434	\$ 230	\$ 364,806	\$ (443,735)	\$ (78,699)
Issuance of shares pursuant to ATM offerings	1,256,824	13	15,490	-	15,503
Issuance of shares pursuant to bond conversions	376,463	4	2,752	-	2,756
Stock compensation expense	34,190	-	473	-	473
Net loss	-	-	-	(26,273)	(26,273)
Balance as of December 31, 2018	24,654,911	247	383,521	(470,008)	(86,240)
Issuance of shares pursuant to ATM offerings	1,863,072	19	19,376	-	19,395
Issuance of shares pursuant to bond conversions	1,918,444	19	12,809	-	12,828
Reclassification of warrant liability to additional paid-in capital ⁽¹⁾	-	-	2,896	(2,031)	865
Impact of warrant down-round feature	-	-	30	(30)	-
Stock compensation expense	44,140	-	562	-	562
Net loss	-	-	-	(29,528)	(29,528)
Balance as of December 31, 2019	28,480,567	\$ 285	\$ 419,194	\$ (501,597)	\$ (82,118)

(1) A cumulative effect adjustment of \$2,031 thousand was recognized as of January 1, 2019, upon adoption of ASU 2017-11.

See accompanying notes to the consolidated financial statements.

*NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS***NOTE 1 – DESCRIPTION OF BUSINESS**

Cadiz Inc. (“Cadiz” or “the Company”) is a natural resources development company dedicated to creating sustainable water and agricultural opportunities in California. The Company owns approximately 45,000 acres of land with high-quality, naturally recharging groundwater resources in three areas of Southern California’s Mojave Desert. These properties are located in eastern San Bernardino County situated in close proximity to major highway, rail, energy and water infrastructure, including the Colorado River Aqueduct (“CRA”), which is the primary transportation route for water imported into Southern California from the Colorado River.

The Company’s properties offer opportunities for a wide array of sustainable activities including water supply projects, groundwater storage, large-scale agricultural development and land conservation and stewardship programs. In addition to its land and water assets, Cadiz also owns pipeline and well infrastructure able to irrigate existing agriculture and to convey water to and from other communities and agricultural ventures that may be short of supply and/or storage.

The Company’s main objective is to realize the highest and best use of its land, water and infrastructure assets in an environmentally responsible way. Cadiz believes that the highest and best use of its assets will be realized through the development of a combination of water supply, water storage and agricultural projects in accordance with a holistic land management strategy. The Company’s present activities are geared towards developing its assets in ways that meet growing long-term demand for access to sustainable water supplies and agricultural products.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**Basis of Presentation**

The Consolidated Financial Statements of the Company have been prepared on a going concern basis, which contemplates the continuity of operations, the realization of assets and the satisfaction of liabilities in the normal course of business.

The Company incurred losses of \$29.5 million and \$26.3 million for the years ended December 31, 2019 and 2018, respectively. The Company had working capital of \$11.3 million at December 31, 2019 and used cash in operations of \$13.7 million for the year ended December 31, 2019. Cash requirements during the year ended December 31, 2019 primarily reflect certain administrative costs related to the Company’s water project development efforts. Currently, the Company’s sole focus is the development of its land and water assets.

In November 2018, the Company entered into an At Market Issuance Sales Agreement under which the Company could issue and sell shares of its common stock having an aggregate offering price of up to \$25 million from time to time in an “at-the-market” offering (the “November 2018 ATM Offering”). As of December 31, 2019, the Company issued 1,960,178 shares of common stock in the November 2018 ATM Offering for gross proceeds of \$21.0 million and aggregate net proceeds of approximately \$20.3 million. The November 2018 ATM Offering was completed in March 2020 (see Note 14, “Subsequent Events”).

In May 2017, the Company entered into a new \$60 million credit agreement (“Credit Agreement”) with funds affiliated with Apollo Global Management, LLC (“Apollo”) that replaced and refinanced its then existing \$45 million senior secured mortgage debt (“Prior Senior Secured Debt”) and provided \$15 million of new senior debt to fund immediate construction related expenditures (“Senior Secured Debt”). The Company’s Senior Secured Debt and its convertible notes contain representations, warranties and covenants that are typical for agreements of this type, including restrictions that would limit the Company’s ability to incur additional indebtedness, incur liens, pay dividends or make restricted payments, dispose of assets, make investments and merge or consolidate with another person. However, while there are affirmative covenants, there are no financial maintenance covenants and no restrictions on the Company’s ability to issue additional common stock to fund future working capital needs. The debt covenants associated with the Senior Secured Debt were negotiated by the parties with a view towards the Company’s operating and financial condition as it existed at the time the agreements were executed. At December 31, 2019, the Company was in compliance with its debt covenants. Additionally, the Company entered into an agreement with Apollo that allows the Company to extend the maturity of the Apollo debt for an additional year from its current maturity of May 2021 to May 2022 at the Company’s option (see Note 14, “Subsequent Events”).

As of December 31, 2019, the Company had principal and interest payments aggregating approximately \$65.5 million coming due in March 2020 related to its 7.00% Convertible Senior Notes (“Convertible Senior Notes”). These Convertible Senior Notes were either converted into common stock pursuant to the terms of the existing Indenture or exchanged for a new Preferred Stock (see Note 14, “Subsequent Events”). The Company’s acquisition of a 124-mile extension of its Northern Pipeline will require a \$19 million payment within 180 days upon completion of certain conditions precedent under the purchase agreement with EPNG. If the acquisition of the 124-mile segment is not completed, then the Company’s Northern Pipeline opportunities will be limited to the 96-mile segment it already owns. The Company may meet its debt and working capital requirements through a variety of means, including extension, refinancing, equity placements, the sale or other disposition of assets, or reductions in operating costs.

Limitations on the Company’s liquidity and ability to raise capital may adversely affect it. Sufficient liquidity is critical to meet the Company’s resource development activities. Although the Company currently expects its sources of capital to be sufficient to meet its near-term liquidity needs, there can be no assurance that its liquidity requirements will continue to be satisfied. If the Company cannot raise needed funds, it might be forced to make substantial reductions in its operating expenses, which could adversely affect its ability to implement its current business plan and ultimately impact its viability as a company.

Principles of Consolidation

The consolidated financial statements include the accounts of Cadiz Inc. and all subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. We apply the equity method of accounting for investments in which we have significant influence but not a controlling interest.

Reclassifications

Certain amounts in the prior year's Consolidated Financial Statements have been reclassified to conform to the current year presentation.

Use of Estimates in Preparation of Financial Statements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In preparing these financial statements, management has made estimates with regard to goodwill and other long-lived assets, stock compensation and deferred tax assets. Actual results could differ from those estimates.

Revenue Recognition

The Company recognizes rental income through its lease with Fenner Valley Farms LLC.

Stock-Based Compensation

General and administrative expenses include \$0.6 million and \$0.5 million of stock-based compensation expenses in the years ended December 31, 2019 and 2018, respectively.

The Company applies the Black-Scholes valuation model in determining the fair value of options granted to employees and consultants. For employees, the fair value is then charged to expense on the straight-line basis over the requisite service period. For consultants, the fair value is remeasured at each reporting period and recorded as a liability until the award is settled.

As of December 31, 2019, all options outstanding are fully vested; therefore, there is no potential impact of forfeitures. The Company is in a tax loss carryforward position and is not expected to realize a benefit from any additional compensation expense recognized under Topic 718 (see Note 7, "Income Taxes").

Net Loss Per Common Share

Basic net loss per share is computed by dividing the net loss by the weighted-average common shares outstanding. Options, deferred stock units, warrants, and the zero-coupon term loan convertible into or exercisable for certain shares of the Company's common stock were not considered in the computation of net loss per share because their inclusion would have been antidilutive. Had these instruments been included, the fully diluted weighted average shares outstanding would have increased by approximately 11,477,000 shares and 11,398,000 shares for the years ended December 31, 2019 and 2018, respectively.

Property, Plant, Equipment and Water Programs

Property, plant, equipment and water programs are stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the assets, generally ten to forty-five years for land improvements and buildings, and five to fifteen years for machinery and equipment. Leasehold improvements are amortized over the shorter of the term of the relevant lease agreement or the estimated useful life of the asset.

Water rights, storage and supply programs are stated at cost. Certain costs directly attributable to the development of such programs have been capitalized by the Company. These costs, which are expected to be recovered through future revenues, consist of direct labor, drilling costs, consulting fees for various engineering, hydrological, environmental and additional feasibility studies, and other professional and legal fees. We have not commenced depreciation of these assets as they are not yet in service. While interest on borrowed funds is currently expensed, interest costs related to the construction of project facilities will be capitalized at the time construction of these facilities commences.

Goodwill and Other Assets

As a result of a merger in May 1988 between two companies which eventually became known as Cadiz Inc., goodwill in the amount of \$7,006,000 was recorded. Approximately \$3,193,000 of this amount was amortized prior to the adoption of Accounting Standards Codification 350, “Intangibles – Goodwill and Other” (“ASC 350”) on January 1, 2002. Since the adoption of ASC 350, there have been no goodwill impairments recorded. The Cadiz reporting unit to which \$3.8 million of goodwill is allocated had a negative carrying amount on December 31, 2019 and 2018.

Deferred loan costs represent costs incurred to obtain debt financing. Such costs are amortized over the life of the related loan using the effective interest method. At December 31, 2019, the deferred loan fees are not material.

Impairment of Goodwill and Long-Lived Assets

The Company assesses long-lived assets, excluding goodwill, for recoverability whenever events or changes in circumstances indicate that their carrying value may not be recoverable through the estimated undiscounted future cash flows resulting from the use of the assets. If it is determined that the carrying value of long-lived assets may not be recoverable, the potential impairment charge is measured by using the projected discounted cash-flow method.

The Company performs an annual impairment test to identify potential goodwill impairment and measure the amount of a goodwill impairment loss to be recognized (if any). This quantitative assessment is performed at least annually in the fourth quarter and compares a reporting unit’s fair value to its carrying amount to determine if there is a potential impairment. An impairment loss will be recognized for the amount by which the reporting unit’s carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill in that reporting unit. No impairment charge was recorded during the current fiscal year.

Income Taxes

Income taxes are provided for using an asset and liability approach which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax bases of assets and liabilities at the applicable enacted tax rates. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Fair Value of Financial Instruments

Financial assets with carrying values approximating fair value include cash and cash equivalents and accounts receivable. Financial liabilities with carrying values approximating fair value include accounts payable and accrued liabilities due to their short-term nature. The carrying value of the Company's secured debt approximates fair value, based on interest rates available to the Company for debt with similar terms. The fair value of the Company's convertible debt exceeds its carrying value due to the increased value of its conversion feature, which is determined using the Black-Scholes model. See Note 6, "Long-Term Debt", for discussion of fair value of debt.

SoCal Hemp JV

On July 31, 2019, SoCal Hemp JV LLC (the "JV") was created by Cadiz Real Estate LLC (a fully owned subsidiary of Cadiz Inc.) and SoCal Hemp Co, LLC (a fully owned subsidiary of Glass House Farms, a division of California Cannabis Enterprises, Inc., which is an unrelated company to Cadiz Inc.) when the two parties entered into a Limited Liability Company Agreement ("LLC Agreement"). The JV is 50% owned by Cadiz Real Estate LLC and 50% owned by SoCal Hemp Co., LLC. Pursuant to the LLC Agreement, the JV profits and losses are allocated to the members based on their ownership share. The Company accounts for its investment in the JV using the equity method of accounting. Additionally, the LLC Agreement provides that, at the request of SoCal Hemp Co, LLC, their share of initial costs could be funded by Cadiz in the form of a loan which would bear interest at 8% per annum ("Stage 1 Loan"). Repayment of the Stage 1 Loan would be through priority distribution from the JV. As of December 31st, 2019, the Company recorded a note receivable in the amount of \$377 thousand related to the Stage 1 Loan.

The carrying value of the investment was \$729 thousand at December 31, 2019. During the year, we made contributions to the JV of \$741 thousand through payment of JV expenses, capitalized \$162 thousand of direct start-up costs and recorded \$490 thousand of losses. In addition, \$315 thousand of contributions to the JV were recorded in accrued expenses at December 31, 2019, and are expected to be paid in the first fiscal quarter of 2020.

Supplemental Cash Flow Information

Under the terms of the Senior Secured Debt, the Company is required to pay 25% of all future quarterly interest payments in cash. During the year ended December 31, 2019, approximately \$1.37 million in interest payments on the Senior Secured Debt was paid in cash. No other payments are due on the Senior Secured Debt or the Company's Convertible Senior Notes prior to their maturities.

During the year ended December 31, 2019, approximately \$12.7 million in convertible notes were converted by certain of the Company's lenders. As a result, 1,918,444 shares of common stock were issued to the lenders.

At December 31, 2019, accruals for purchases of PP&E received was \$3.2 million, and are expected to be paid in the first fiscal quarter of 2020. At December 31, 2018, this amount was immaterial.

The balance of cash, cash equivalents, and restricted cash as shown in the condensed consolidated statements of cash flows is comprised of the following:

Cash, Cash Equivalents and Restricted Cash	December 31,	December 31,
<i>(in thousands)</i>	2019	2018
Cash and Cash Equivalents	\$ 15,682	\$ 12,558
Restricted Cash included in Other Assets	134	133
Cash, Cash Equivalents and Restricted Cash in the Consolidated Statement of Cash Flows	\$ 15,816	\$ 12,691

The restricted cash amounts included in Other Assets primarily represent a deposit from a water project participant related to a cost-sharing agreement.

Cash payments for income taxes were \$6,000 for each of the years ended December 31, 2019 and 2018.

Recent Accounting Pronouncements

Accounting Guidance Not Yet Adopted

In August 2018, the Financial Accounting Standards Board (“FASB”) issued an accounting standards update which modifies the disclosure requirements for fair value measurements. This update is effective for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. The Company is currently assessing this new guidance and expects this new standard will not have a material impact on the consolidated financial statements.

In August 2018, the FASB issued an accounting standards update on a customer’s accounting for implementation costs incurred in a cloud computing arrangement. This update is effective for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. The Company is currently assessing this new guidance and expects this new standard will not have a material impact on the consolidated financial statements.

In June 2016, FASB issued an accounting standards update which introduces new guidance for the accounting for credit losses on certain financial instruments. This update is effective for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. The Company is currently assessing this new guidance and expects this new standard will not have a material impact on the consolidated financial statements.

In December 2019, FASB issued an accounting standards update which reduces complexity in accounting standards by removing certain exceptions to the general principles in Topic 740. This update is effective for fiscal years beginning after December 15, 2021, and for interim periods within those fiscal years, with early adoption permitted. The Company is currently assessing this new guidance and expects this new standard will not have a material impact on the consolidated financial statements.

Accounting Guidance Adopted

In February 2016, the FASB issued ASU 2016-02, Leases (“Topic 842”), which supersedes the existing guidance for lease accounting (“Topic 840”). The new standard requires lessees to recognize leases on their balance sheets, and leaves lessor accounting largely unchanged. The Company adopted the provisions of Topic 842 on January 1, 2019, using the modified retrospective approach and the option presented under ASU 2018-11 to transition only active leases as of January 1, 2019, with a cumulative effect adjustment as of that date. All comparative periods prior to January 1, 2019, retain the financial reporting and disclosure requirements of Topic 840.

The Company elected to utilize the transition package of practical expedients permitted within the new standard, which among other things, allowed the Company to carryforward the historical lease classification. The Company made an accounting policy election that will keep leases with an initial term of 12 months or less off the Company’s Consolidated Balance Sheets which resulted in recognizing those lease payments in the Consolidated Statements of Operations and Comprehensive Loss on a straight-line basis over the lease term. The Company did not elect the hindsight practical expedient when determining the lease terms.

The adoption of the new standard resulted in the recording of additional net right-of-use assets and corresponding lease liabilities of approximately \$151 thousand and \$100 thousand, respectively, as of January 1, 2019. The difference between the right-of-use assets and the lease liabilities was recorded to eliminate existing accrued rent balances recorded under Topic 840. The adoption of the new standard did not impact the Company’s consolidated net earnings and had no impact on cash flows.

In June 2018, the FASB issued an accounting standards update which simplifies the accounting for share-based payments granted to nonemployees for goods and services. This update is effective for fiscal years beginning after December 15, 2018, and for interim periods within those fiscal years. The Company adopted this guidance on January 1, 2019, and the new standard had no impact on the Company’s condensed consolidated financial statements.

In July 2017, the FASB issued an accounting standards update to provide new guidance for the classification analysis of certain equity-linked financial instruments, or embedded features, with down round features, as well as clarify existing disclosure requirements for equity-classified instruments. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. The Company adopted this guidance on January 1, 2019. As a result, the Company reclassified a warrant liability in the amount of \$865 thousand to additional paid-in capital, as the Company's Warrant no longer met the definition of a derivative. In addition, during the years ended December 31, 2018 and 2017, the Company recognized annual gains of \$1.5 million and \$0.5 million, respectively, related to the historical remeasurement of the warrant derivative liability at fair value. Upon adoption of this guidance as of January 1, 2019, the Company recorded \$2.0 million in additional paid-in capital with a corresponding adjustment to the opening balance of accumulated deficit related to these previously recorded gains.

NOTE 3 – PROPERTY, PLANT, EQUIPMENT AND WATER PROGRAMS

Property, plant, equipment and water programs consist of the following (dollars in thousands):

	December 31,	
	2019	2018
Land and land improvements	\$ 25,064	\$ 25,064
Water programs	27,127	23,812
Buildings	1,576	1,572
Leasehold improvements	570	570
Furniture and fixtures	461	461
Machinery and equipment	1,543	1,422
Construction in progress	299	146
	<u>56,640</u>	<u>53,047</u>
Less accumulated depreciation	(6,693)	(6,428)
	<u>\$ 49,947</u>	<u>\$ 46,619</u>

NOTE 4 – OTHER ASSETS

Other assets consist of the following (dollars in thousands):

	December 31,	
	2019	2018
Prepaid rent	\$ 3,925	\$ 3,740
Right-of-use asset	59	-
Security deposits	134	133
	<u>\$ 4,118</u>	<u>\$ 3,873</u>

Prepaid rent primarily consists of fees incurred to obtain the right-of-way for the Water Project. Amortization of prepaid rent was approximately \$115,000 for each of the years ended December 31, 2019 and 2018.

NOTE 5 – ACCRUED LIABILITIES

At December 31, 2019 and 2018, accrued liabilities consist of the following (dollars in thousands):

	December 31,	
	2019	2018
Payroll, bonus, and benefits	\$ 628	\$ 1,163
Legal and consulting	510	405
Stock-based compensation	71	71
Well Development	1,038	-
Northern Pipeline Quality Test	1,868	-
Other accrued expenses	421	431
	<u>\$ 4,536</u>	<u>\$ 2,070</u>

NOTE 6 – LONG-TERM DEBT

At December 31, 2019 and 2018, the carrying amount of the Company's outstanding debt is summarized as follows (dollars in thousands):

	December 31,	
	2019	2018
Senior secured debt due May 25, 2021		
Interest accrues at 8% per annum	\$ 72,341	\$ 67,401
Convertible note instrument due March 5, 2020		
Interest accrues at 7% per annum	65,514	73,158
Other loans	45	104
Debt discount and debt issuance costs, net of accumulated accretion	(304)	(4,358)
Total outstanding long-term debt	<u>137,596</u>	<u>136,305</u>
Less current portion	<u>31</u>	<u>59</u>
Total outstanding debt	<u>\$ 137,565</u>	<u>\$ 136,246</u>

The carrying value of the Company's Senior Secured Debt approximates fair value. The fair value of the Company's Senior Secured Debt (Level 2) is determined based on an estimation of discounted future cash flows of the debt at rates currently quoted or offered to the Company by its lenders for similar debt instruments of comparable maturities by its lenders.

The fair value of the Company's convertible debt exceeds its carrying value of approximately \$65.2 million, which includes accreted interest, by approximately \$41.4 million due to the increased value of its conversion feature. The conversion feature's fair value increases as the Company's common stock price increases. The fair value of the conversion feature (Level 3) is determined using the Black-Scholes model. Significant inputs to the model were the conversion price (\$6.75), the number of shares of common stock that could be acquired upon conversion as of December 31, 2019, the Company's stock price as of December 31, 2019 of \$11.02 and stock volatility of 32%, which was determined using our publicly-traded stock price over the last year.

Pursuant to the Company's loan agreements, annual maturities of long-term debt outstanding on December 31, 2019, are as follows:

<u>Year Ending December 31</u>	<u>(\$ in thousands)</u>
2020	\$ 65,545
2021	72,355
2022	-
2023	-
2024+	-
Total	\$ 137,900

Credit Agreement

On May 25, 2017 ("Closing Date"), the Company entered into a new \$60 million credit agreement with funds affiliated with Apollo Global Management, LLC ("Apollo") that replaced and refinanced the Company's then existing \$45 million senior secured mortgage debt and provided \$15 million of new senior debt to fund immediate construction related expenditures. Further, in March 2020, the Company entered into an agreement with Apollo that allows the Company to extend the maturity of the Apollo debt for an additional year from May 2021 to May 2022 at the Company's option ("Extension Option") (see Note 14, "Subsequent Events").

Interest on the Senior Secured Debt is due quarterly on each March 31, June 30, September 30 and December 31 (each an "Interest Date") beginning on June 30, 2017. Interest on the Senior Secured Debt will (i) accrete to the outstanding principal amount at a rate per annum equal to 6% (the "PIK Rate") compounded quarterly on each Interest Date and (ii) accrue on the outstanding principal amount at a rate per annum equal to 2% (the "Cash Rate"). The Company, in its discretion, may make any quarterly interest payment in cash on the applicable Interest Date at the PIK Rate, in lieu of accretion of such interest to the principal amount at the PIK Rate.

The Accreted Loan Value plus the Applicable Prepayment Premium will be due and payable on the Maturity Date. "Accreted Loan Value" means, as of the date of determination, the outstanding principal amount of the applicable Loan, plus all accreted interest as of the calendar day immediately prior to such date of determination. "Applicable Prepayment Premium" means with respect to any repayment of the Senior Secured Debt (a) the Accreted Loan Value of the Senior Secured Debt being prepaid or repaid, as applicable, multiplied by (b) 3.00%. The Applicable Prepayment Premium was further modified in connection with the Extension Option described above (see Note 14, "Subsequent Events").

The Company paid Apollo an upfront fee of 2.00% of the aggregate principal amount of the Senior Secured Debt funded on the Closing Date. This amount was recorded as additional debt discount and is being amortized over the remaining term of the loan.

In conjunction with the closing of the Senior Secured Debt in May 2017, the Company issued to its lender a warrant to purchase an aggregate 362,500 shares of its common stock (“Warrant”). The warrant has a five-year term and had an initial exercise price of \$14.94 per share, subject to adjustment. The warrant exercise price was further modified in connection with the Extension Option described above (see Note 14, “Subsequent Events”).

The Company recorded a debt discount at the time of the closing of the Senior Secured Debt in the amount of \$2.9 million which was the fair value of the Warrant at the time it was issued. The debt discount was amortized through December 2019.

On January 1, 2019, the Company adopted ASU 2017-11. As a result, the Company reclassified a warrant liability in the amount of \$865 thousand to additional paid-in capital, as the Company’s Warrant no longer met the definition of a derivative. In addition, during the years ended December 31, 2018 and 2017, the Company recognized annual gains of \$1.5 million and \$0.5 million, respectively, related to the historical remeasurement of the warrant derivative liability at fair value. Upon adoption of this guidance as of January 1, 2019, the Company recorded \$2.0 million in additional paid-in capital with a corresponding adjustment to the opening balance of accumulated deficit related to these previously recorded gains.

During 2019, the Company sold shares of common stock under the November 2018 ATM at a per-share price less than the Warrant’s initial exercise price, which triggered a down-round, reset provision and resulted in an adjusted exercise price of \$14.54 as of December 31, 2019. In addition, the Company recorded an adjustment of \$30 thousand in additional paid-in capital related to the increase in the value of the effect of the down-round feature as of December 31, 2019.

Convertible Notes

The Convertible Notes accrue interest at 7.00% per year, with no principal or interest payments due prior to maturity on March 5, 2020. The Convertible Senior Notes were either converted into common stock pursuant to the terms of the existing Indenture or exchanged for a new Preferred stock prior to their maturity in March 2020 (see Note 14, “Subsequent Events”).

The Company’s Senior Secured Debt and its Convertible Senior Notes contain representations, warranties and covenants that are typical for agreements of this type, including restrictions that would limit the Company’s ability to incur additional indebtedness, incur liens, pay dividends or make restricted payments, dispose of assets, make investments and merge or consolidate with another person. However, while there are affirmative covenants, there are no financial maintenance covenants and no restrictions on the Company’s ability to issue additional common stock to fund future working capital needs. The debt covenants associated with the Senior Secured Debt were negotiated by the parties with a view towards the Company’s operating and financial condition as it existed at the time the agreements were executed. At December 31, 2019, the Company was in compliance with its debt covenants.

NOTE 7 – INCOME TAXES

Deferred taxes are recorded based upon differences between the financial statement and tax bases of assets and liabilities and available carryforwards. Temporary differences and carryforwards which gave rise to a significant portion of deferred tax assets and liabilities as of December 31, 2019 and 2018 are as follows (dollars in thousands):

	December 31,	
	2019	2018
Deferred tax assets:		
Net operating losses	\$ 70,202	\$ 65,852
Fixed asset basis difference	4,547	4,551
Contributions carryover	30	32
Deferred compensation	1,098	1,073
Accrued liabilities	271	492
Total deferred tax assets	76,148	72,000
Valuation allowance for deferred tax assets	(76,148)	(72,000)
Net deferred tax asset	\$ -	\$ -

The valuation allowance increased \$4,148,000 and \$5,563,000 in 2019 and 2018, respectively. The change in deferred tax assets resulted from current year net operating losses and changes to future tax deductions resulting from expiring net operating losses, terms of stock compensation plans, fixed assets, and accrued liabilities. One of the tax law changes in the 2017 Tax Reform Act was to reduce the effective federal corporate tax rate to 21%, effective January 1, 2018.

As of December 31, 2019, the Company had net operating loss (NOL) carryforwards of approximately \$322 million for federal income tax purposes and \$213 million for California income tax purposes. Such carryforwards expire in varying amounts through the year 2038. For federal losses arising in tax years ending after December 31, 2017, the NOL carryforwards are allowed indefinitely. Use of the carryforward amounts is subject to an annual limitation as a result of a previous ownership change.

As of December 31, 2019, the Company possessed unrecognized tax benefits totaling approximately \$1.5 million. None of these, if recognized, would affect the Company's effective tax rate because the Company has recorded a full valuation allowance against these tax assets.

The Company's tax years 2016 through 2019 remain subject to examination by the Internal Revenue Service, and tax years 2015 through 2019 remain subject to examination by California tax jurisdictions. In addition, the Company's loss carryforward amounts are generally subject to examination and adjustment for a period of three years for federal tax purposes and four years for California purposes, beginning when such carryovers are utilized to reduce taxes in a future tax year.

A reconciliation of the income tax benefit to the statutory federal income tax rate is as follows (dollars in thousands):

	Year Ended December 31,		
	2019	2018	2017
Expected federal income tax benefit: (2019 & 2018 at 21%; 2017 at 34%)	\$ (6,200)	\$ (5,516)	\$ (11,477)
Loss with no tax benefit provided	2,508	4,175	8,156
State income tax	6	6	4
Expiring carryforwards	2,427	-	-
Non-deductible expenses and other	1,265	1,341	3,321
Income tax expense	\$ 6	\$ 6	\$ 4

Because it is more likely than not that the Company will not realize its net deferred tax assets, it has recorded a full valuation allowance against these assets. Accordingly, no deferred tax asset has been recorded in the accompanying balance sheet.

NOTE 8 – COMMON STOCK

The Company is authorized to issue 70 million shares at a \$0.01 par value. As of December 31, 2019, and December 31, 2018, the Company had 28,480,567 and 24,654,911 shares issued and outstanding, respectively.

In January 2013, the Company revised its then existing agreement with the law firm of Brownstein Hyatt Farber Schreck LLP (“Brownstein”), a related party. Under this agreement, the Company is to issue up to a total of 400,000 shares of the Company’s common stock, with 100,000 shares earned upon the achievement of each of four enumerated milestones as follows:

- i. 100,000 shares earned upon the execution of the revised agreement, which was earned in 2013;
- ii. 100,000 shares earned upon receipt by the Company of a final judicial order dismissing all legal challenges to the Final Environmental Impact Report for the Project, which was earned in 2016;
- iii. 100,000 shares earned upon the signing of binding agreements for more than 51% of the Project’s annual capacity, which is not yet earned; and
- iv. 100,000 shares earned upon the commencement of construction of all of the major facilities contemplated in the Final Environmental Impact Report necessary for the completion and delivery of the Project, which is not yet earned.

All shares earned upon achievement of any of the four milestones will be payable three years from the date earned.

Additionally, the Company incurred direct expenses to Brownstein of approximately \$2.3 million and \$1.9 million in 2019 and 2018, respectively.

NOTE 9 – STOCK-BASED COMPENSATION PLANS AND WARRANTS

The Company has issued options and has granted stock awards pursuant to its 2009 Equity Incentive Plan, 2014 Equity Incentive Plan and 2019 Equity Incentive Plan, as described below.

2009 Equity Incentive Plan

The 2009 Equity Incentive Plan was approved by stockholders at the 2009 Annual Meeting. The plan provides for the grant and issuance of up to 850,000 shares and options to the Company's employees and consultants. The plan became effective when the Company filed a registration statement on Form S-8 on December 18, 2009. All options issued under the 2009 Equity Incentive Plan have a ten-year term with vesting periods ranging from issuance date to 24 months.

2014 Equity Incentive Plan

The 2014 Equity Incentive Plan was approved by stockholders at the June 10, 2014 Annual Meeting. The plan provides for the grant and issuance of up to 675,000 shares and options to the Company's employees, directors and consultants. Upon approval of the 2014 Equity Incentive Plan, all shares of common stock that remained available for award under the 2009 Equity Incentive Plan were cancelled.

2019 Equity Incentive Plan

The 2019 Equity Incentive Plan was approved by stockholders at the July 10, 2019 Annual Meeting. The plan provides for the grant and issuance of up to 1,200,000 shares and options to the Company's employees, directors and consultants. Upon approval of the 2019 Equity Incentive Plan, all shares of common stock that remained available for award under the 2014 Equity Incentive Plan were cancelled.

Under the 2019 Equity Incentive Plan, each outside director receives \$50,000 of cash compensation and receives a deferred stock award consisting of shares of the Company's common stock with a value equal to \$25,000 on June 30 of each year. The award accrues on a quarterly basis, with \$12,500 of cash compensation and \$6,250 of stock earned for each fiscal quarter in which a director serves. The deferred stock award vests automatically on the January 31 that first follows the award date.

All options that have been issued under the above plans have been issued to officers, employees and consultants of the Company. In total, options to purchase 492,500 shares were unexercised and outstanding on December 31, 2019 under the equity incentive plans.

For consultants of the Company, the fair value of each option granted under the 2009 Equity Incentive Plan is estimated at each reporting period using the Black-Scholes option pricing model and recorded as a liability until the award is settled.

For officers and employees of the Company, the fair value of each option granted under the plans was estimated on the date of grant using the Black-Scholes option pricing model.

The risk-free interest rate is assumed to be equal to the yield of a U.S. Treasury bond of comparable maturity, as published in the Federal Reserve Statistical Release for the relevant date. The expected life estimate is based on an analysis of the employees receiving option grants and the expected behavior of each employee. The expected volatility is derived from an analysis of the historical volatility of the trading price per share of the Company's common stock on the NASDAQ Global Market. The Company does not anticipate that it will pay dividends to common stockholders in the future.

The Company recognized no stock-option-related compensation costs for the years ended December 31, 2019 and 2018 relating to these options. No stock options were exercised during 2019.

No options were granted in 2019 and 2018. A summary of option activity under the plans as of December 31, 2019, and changes during the year ended December 31, 2018 are presented below:

	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>	<u>Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u> <u>(\$000's)</u>
Outstanding at January 1, 2018	507,500	\$ 11.66	2.3	\$ 3,934
Granted	-	\$ -		
Forfeited, Expired or canceled	15,000	\$ 11.75		\$ 100
Exercised	<u>-</u>	<u>\$ -</u>		
Outstanding at December 31, 2018	492,500	\$ 11.66	1.3	\$ 3,834
Granted	-	\$ -		
Forfeited, Expired or canceled	-	\$ -		\$ -
Exercised	<u>-</u>	<u>\$ -</u>		
Outstanding at December 31, 2019	<u>492,500(a)</u>	\$ 11.66	0.3	\$ 3,834
Options exercisable at December 31, 2019	<u>492,500</u>	\$ 11.66	0.3	\$ 3,834
Weighted-average years of remaining contractual life of options outstanding at December 31, 2019	<u>0.3</u>			

(a) Exercise prices vary from \$9.88 to \$12.51, and expiration dates vary from January 2020 to December 2021.

Stock Awards to Directors, Officers, Consultants and Employees

The Company has granted stock awards pursuant to its 2009 Equity Incentive Plan, 2014 Equity Incentive Plan and 2019 Equity Incentive Plan.

Of the total 850,000 shares reserved under the 2009 Equity Incentive Plan, 297,265 shares were issued as share grants and 507,500 were issued as options. Upon approval of the 2014 Equity Incentive Plan in June 2014, 45,235 shares remaining available for award under the 2009 Equity Incentive Plan were cancelled.

Of the total 675,000 shares reserved under the 2014 Equity Incentive Plan, 674,987 shares have been awarded to the Company's directors, consultants and employees. Of the 674,987 shares awarded, 15,312 shares were awarded for service during the plan year ended June 30, 2019, became effective on that date and vested on January 31, 2020. Upon approval of the 2019 Equity Incentive Plan in July 2019, 13 shares remaining available for award under the 2014 Equity Incentive Plan were cancelled.

Of the total 1,200,000 shares reserved under the 2019 Equity Incentive Plan, 15,909 shares have been awarded to the Company directors and consultants as of December 31, 2019.

The accompanying consolidated statements of operations and comprehensive loss include approximately \$562,000 and \$473,000 of stock-based compensation expense related to stock awards in the years ended December 31, 2019 and 2018, respectively.

A summary of stock awards activity under the plans during the years ended December 31, 2018 and 2019 is presented below:

	<u>Shares</u>	<u>Weighted- Average Grant-date Fair Value</u>
Nonvested at December 31, 2017	8,694	\$ 13.81
Granted	35,720	\$ 12.67
Forfeited or canceled	-	\$ -
Vested	<u>(34,190)</u>	\$ 12.94
Nonvested at December 31, 2018	10,224	\$ 12.71
Granted	49,228	\$ 10.76
Forfeited or canceled	-	\$ -
Vested	<u>(44,140)</u>	\$ 11.33
Nonvested at December 31, 2019	<u>15,312</u>	\$ 10.45

NOTE 10 – SEGMENT INFORMATION

The primary business of the Company is to acquire and develop land and water resources. As a result, the Company's financial results are reported in a single segment.

NOTE 11 – COMMITMENTS AND CONTINGENCIES

In the normal course of its agricultural operations, the Company handles, stores, transports and dispenses products identified as hazardous materials. Regulatory agencies periodically conduct inspections and, currently, there are no pending claims with respect to hazardous materials.

Pursuant to cost-sharing agreements that have been entered into by participants in the Company's Water Project, \$750,000 in funds have been received in order to offset costs incurred in the environmental analysis of the Water Project. These funds may either be reimbursed or credited to participants participation in the Water Project and, accordingly, are fully reflected as deferred revenue as of December 31, 2019 and December 31, 2018.

There are no material legal proceedings pending to which the Company is a party or of which any of the Company's property is the subject.

NOTE 12 – LEASES

The Company has operating leases for corporate offices, vehicles and office equipment. The Company's leases have remaining lease terms of 8 months to 20 months, some of which include options to extend or terminate the lease. However, the Company is not reasonably certain to exercise options to renew or terminate, and therefore renewal and termination options are not considered in the lease term or the right-of-use asset and lease liability balances. The Company's current lease arrangements expire in 2021. The Company does not have any finance leases.

The Company's lease population does not include any residual value guarantees, and therefore none were considered in the calculation of the lease balances. The Company has leases with variable payments, most commonly in the form of common area maintenance charges which are based on actual costs incurred. These variable payments were excluded from the right-of-use asset and lease liability balances since they are not fixed or in-substance fixed payments.

The Company elected to utilize the transition package of practical expedients permitted within the new standard, including the practical expedient not to reassess existing land easements, which among other things, allows the Company to carryforward the historical lease classification. The Company has lease agreements with lease and non-lease components and has elected the practical expedient to account for lease and non-lease components as a single lease component for real-estate class of leases only. For leases with terms greater than 12 months, the Company records the related asset and lease liability at the present value of lease payments over the lease term. Leases with an initial term of 12 months or less with purchase options or extension options that are not reasonably certain to be exercised are not recorded on the Consolidated Balance Sheets; the Company recognizes lease expense for these leases on a straight-line basis over the term of the lease.

Lease balances. Amounts recognized in the accompanying consolidated balance sheet as of December 31, 2019 are as follows (in thousands):

Activity	Balance Sheet Location	Balance
ROU assets	Other assets	\$ 59
Short-term lease liability	Other liabilities	\$ 44
Long-term lease liability	Other long-term liabilities	\$ 15

Lease cost. The Company's operating lease cost for the year ended December 31, 2019 was \$97 thousand.

Lease commitments. The table below summarizes the Company's scheduled future minimum lease payments under operating, recorded on the balance sheet as of December 31, 2019 (in thousands):

2020	46
2021	15
Total lease payments	61
Less: Imputed interest	(2)
Present value of lease payments	59
Less: current maturities of lease obligations	(44)
Long-term lease obligations	\$ 15

Most of our lease agreements do not provide a readily determinable implicit rate nor is it available to us from our lessors. Instead, we estimate the Company's incremental borrowing rate based on information available at either the implementation date of Topic 842 or at lease commencement for leases entered into thereafter in order to discount lease payments to present value. The table below presents additional information related to our leases as of December 31, 2019:

Weighted Average Remaining Lease Term	
Operating leases	1 year
Weighted Average Discount Rate	
Operating leases	6%

From a lessor standpoint, in February 2016, the Company entered into a lease agreement with Fenner Valley Farms LLC ("FVF") (the "lessee"), a subsidiary of Water Asset Management LLC, a related party, pursuant to which FVF is leasing, for a 99-year term, 2,100 acres owned by Cadiz in San Bernardino County, California, to be used to plant, grow and harvest agricultural crops ("FVF Lease Agreement"). As consideration for the lease, FVF paid the Company a one-time payment of \$12.0 million upon closing.

Under the FVF Lease Agreement, the Company has a repurchase option to terminate the lease at any time during the twenty (20) year period following the effective date of the lease (“Termination Option Period”) upon (1) repayment of the one-time \$12 million lease payment plus a ten percent (10%) compounded annual return (provided that the amount of such payment shall be not less than \$14,400,000), (2) reimbursement of water-related infrastructure on the leased property plus 8% per annum as well as the actual costs of any farming-related infrastructure installed on the leased property and (3) reimbursement of certain pipeline-related development expenses, working in coordination with Cadiz, not to exceed \$3,000,000 (such payments, the “Termination Payments”). If (x) Cadiz does not exercise its termination right within such 20-year period or (y) the Agent under Cadiz’s credit agreement declares an event of default under Cadiz’s Senior Secured Debt and accelerates the indebtedness due and owing thereunder by Cadiz (or such indebtedness automatically accelerates under the terms of Cadiz’s Senior Secured Debt), then the lessee may purchase the leased property for \$1.00. The Company has recorded the one-time payment of \$12 million, before legal fees, paid by FVF as a long-term lease liability. The Company’s consolidated statement of operations reflects a net charge equal to a 10% finance charge compounding annually over the 20-year Termination Option Period. The net charge to the consolidated statement of operations reflects (1) rental income associated with the use of the land by FVF over the 20-year termination option period and (2) interest expense at a market rate reflective of a 20-year secured loan transaction. As a result of this transaction, the Company incurred approximately \$490 thousand of legal fees which was recorded as a debt discount and is being amortized over the 20-year Termination Option Period.

The Company expects to receive rental income of \$420 thousand annually over the next five years related to the FVF Lease Agreement.

On July 31, 2019, the JV entered into a lease agreement (the “Lease Agreement”) with the Company whereby the JV will cultivate industrial hemp on up to 9,600 acres at the Company’s agricultural property in eastern San Bernardino County, California (“Cadiz Ranch”). Under the terms of the Agreement, the JV initially leased 1,280 acres at the Cadiz Ranch and holds options to lease up to 8,320 additional acres by 2022. The Agreement has an initial term of five years and the JV has the option to extend the term for three successive periods of five years each. In consideration for the lease arrangement, the JV will provide the Company an annual rental payment equal to \$500 per acre of leased property, subject to periodic CPI adjustment. The lease commencement date is contingent on the Company performing certain activities to bring the property to the specifications required by the JV. We expect the lease commencement date to be in the first quarter of 2020.

NOTE 13 – FAIR VALUE MEASUREMENTS

The following table presents information about warrant derivative liabilities that are measured at fair value on a recurring basis as of December 31, 2018 and indicate the fair value hierarchy of the valuation techniques we utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are observable, such as quoted prices, interest rates and yield curves. Fair values determined by Level 3 inputs are unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability.

<i>(in thousands)</i>	Derivatives at Fair Value as of December 31, 2018			
	Level 1	Level 2	Level 3	Total
Warrant liabilities	-	-	(865)	(865)
Total warrant liabilities	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (865)</u>	<u>\$ (865)</u>

The following table presents a reconciliation of Level 3 activity for the years ended December 31, 2018 and 2019:

<u>(in thousands)</u>	<u>Level 3 Liabilities Warrant Liabilities</u>
Balance at January 1, 2018	\$ 2,387
Unrealized gains, net	(1,522)
Balance at December 31, 2018	\$ 865
Reclassification of warrant liability to additional paid-in capital upon adoption of ASU 2017-11	(865)
Balance at December 31, 2019	\$ -

NOTE 14 – SUBSEQUENT EVENTS

On March 5, 2020, the Company entered into Conversion and Exchange Agreements (the “Exchange Agreements”) with certain holders (the “Holders”) of the Company’s 7% Convertible Senior Notes due 2020 (the “Convertible Notes”) having an aggregate original principal amount of \$27.4 million. Pursuant to the terms of the Exchange Agreements, the Holders exchanged an aggregate amount payable of \$27.3 million under the Convertible Notes for an aggregate of 10,000 shares of Series 1 Preferred Stock and the Holders converted the remaining aggregate amount payable of \$17.5 million of Convertible Notes into 2.6 million shares of common stock in accordance with the terms of the existing Indenture. Following the transactions, all of the Convertible Notes held by the Holders, as well as all the remaining Convertible Notes held by others that were converted in accordance with the existing Indenture at maturity have been satisfied in full and cancelled.

On March 5, 2020, the Company entered into an agreement with its senior lender, Apollo Global Management LLC (“Apollo”), in which the Company acquired the option to extend the current May 2021 maturity date of its loan to May 2022. The fee to acquire this option included the repricing of 362,500 warrants held by Apollo to \$6.75 and an increase in the applicable prepayment premium of up to 7% of the accreted value of the loan.

During the first quarter of fiscal year 2020, the Company issued 408,992 shares of common stock in its November 2018 ATM Offering for gross proceeds of \$4.0 million. As of March 6, 2020, the Company completed its November 2018 At the Market Offering of up to \$25 million.

NOTE 15 – QUARTERLY FINANCIAL INFORMATION (UNAUDITED)*(in thousands, except per share data)*

	Quarter Ended			
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Revenues	\$ 109	\$ 111	\$ 110	\$ 111
Gross profit	109	111	110	111
Operating loss	(2,881)	(3,240)	(2,956)	(2,912)
Net loss	(7,260)	(7,476)	(7,444)	(7,348)
Basic and diluted net loss per common share	\$ (0.29)	\$ (0.28)	\$ (0.28)	\$ (0.27)

	Quarter Ended			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Revenues	\$ 108	\$ 109	\$ 112	\$ 111
Gross profit (loss)	108	109	112	111
Operating loss	(2,486)	(2,255)	(2,488)	(3,992)
Net loss	(5,971)	(6,032)	(6,240)	(8,030)
Basic and diluted net loss per common share	\$ (0.26)	\$ (0.25)	\$ (0.26)	\$ (0.33)

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 SECRETARY OF STATE
 DIVISION OF CORPORATIONS
 FILED 04:30 PM 04/27/1992
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4-27-92 : 2:50PM :
 DE WILMINGTON & BALTIMORE (310) 336-1990

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**CERTIFICATE OF INCORPORATION
 OF
 CADIZ LAND COMPANY, INC.**

FIRST: The name of the Corporation is Cadiz Land Company, Inc. (hereinafter sometimes referred to as the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, 19801, County of New Castle. The name of the registered agent at that address is The Corporation Trust Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

FOURTH:

A. The total number of shares of all classes of stock which the Corporation shall have authority to issue is twelve million one hundred thousand (12,100,000), consisting of:

(1) Twelve million (12,000,000) shares of Common Stock, par value one cent (\$.01) per share (the "Common Stock"); and

(2) One Hundred Thousand (100,000) shares of Preferred Stock, par value one cent (\$.01) per share (the "Preferred Stock").

B. The Board of Directors is authorized, subject to any limitations prescribed by law, to provide for the issuance of the shares of Preferred Stock in series, and by filing a certificate pursuant to the applicable law of the State of Delaware, to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences, and rights of the shares of each such series and any qualifications, limitations or restrictions thereon. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the Common Stock, without a vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the certificate or certificates establishing the series of Preferred Stock.

FIFTH: The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

A. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred upon them by Statute or by this Certificate of Incorporation or the Bylaws of the Corporation, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

C. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

D. Special meetings of stockholders of the Corporation may be called only (1) by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption) or (2) by the Chief Executive Officer or the President.

SIXTH:

A. The number of directors shall initially be four and, thereafter, shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption). All directors shall hold office until the expiration of the term for which elected, and until their respective successors are elected, except in the case of the death, resignation, or removal of any director.

B. Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, designation, retirement, removal from office, disqualification or other cause may be filled only by a majority vote of the directors then in office, though less than a quorum, and directors so chosen shall hold office for a term expiring at the annual meeting of stockholders at which the term of office of the class to which they have been elected expires. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

C. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any directors, or the entire Board of Directors, may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

SEVENTH: The Board of Directors is expressly empowered to adopt, amend or repeal bylaws of the Corporation. Any adoption, amendment or repeal of Bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board). The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Corporation. Any adoption, amendment or repeal of Bylaws of the Corporation by the stockholders shall require, in addition to any vote of the holders of any class or series of stock of this Corporation required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

EIGHTH: A director of this Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit.

If the Delaware General Corporation Law is hereafter amended to authorize the further elimination or limitation of the liability of a director, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Any repeal or modification of the foregoing provisions of this Article EIGHTH by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

-3-

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NINTH: The Board of Directors of the Corporation (the "Board"), when evaluating any offer of another party, (a) to make a tender or exchange offer for any Voting Stock of the Corporation (as defined in Article SIXTH) or (b) to effect any merger, consolidation, or sale of all or substantially all of

the assets of the Corporation, shall, in connection with the exercise of its judgment in determining what is in the best interests of the Corporation as a whole, be authorized to give due consideration to such factors as the Board determines to be relevant, including, without limitation:

(i) the interests of the Corporation's stockholders;

(ii) whether the proposed transaction might violate federal or state laws;

(iii) not only the consideration being offered in the proposed transaction, in relation to the then current market price for the outstanding capital stock of the Corporation, but also to the market price for the capital stock of the Corporation over a period of years, the estimated price that might be achieved in a negotiated sale of the Corporation as a whole or in part or through orderly liquidation, the premiums over market price for the securities of other corporations in similar transactions, current political, economic and other factors bearing on securities prices and the Corporation's financial condition and future prospects; and

(iv) the social, legal and economic effects upon employees, suppliers, customers and others having similar relationships with the Corporation, and the communities in which the Corporation conducts its business.

In connection with any such evaluation, the Board is authorized to conduct such investigations and to engage in such legal proceedings as the Board may determine.

TENTH: The Corporation reserves the right to amend or repeal any provision contained in this Certificate of Incorporation in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation, provided, however, that, notwithstanding any other provision of this Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any vote of the holders of any class or series of the stock of this Corporation required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal this Article TENTH, Article FIFTH, Article SIXTH, Article SEVENTH, Article EIGHTH or Article NINTH.

-4-

ELEVENTH: The name and address of the sole incorporator is as follows:

Name

Debra L. Pitney

Mailing Address

818 West Seventh
Los Angeles, CA 90017

I THE UNDERSIGNED, being the Incorporator, for the purpose of forming a corporation under the laws of the State of Delaware, do make, file and record this Certificate of Incorporation, do certify that the facts herein stated are true, and accordingly, have hereby

of April, 1992, have hereto set my hand this 27 day

Debra L. Pitney
Debra L. Pitney

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-5-

05/19/93 15:39 3026748340 CORP TRUST 002
SENT BY: 5-19-93 : 10:43 :C T SYS. LOS ANGELES- 3026748340: 27 3
94:002/April 30,19

**CERTIFICATE OF AMENDMENT OF
CERTIFICATE OF INCORPORATION OF
CADIZ LAND COMPANY, INC.
a Delaware Corporation**

CADIZ LAND COMPANY, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That at a meeting of the Board of Directors of Cadiz Land Company, Inc. resolutions were duly adopted setting forth a

proposed amendment to the Certificate of Incorporation of said corporation, declaring said amendment to be advisable and calling a meeting of the stockholders of said corporation for consideration thereof. The resolution setting forth the proposed amendment is as follows:

RESOLVED, That the Certificate of Incorporation of this corporation be amended by changing Subsection A of the Fourth Article thereof so that, as amended Subsection A of said Article shall be and read as follows:

"Fourth:

A. The total number of shares of all classes of stock which the Corporation shall have the authority to issue is Twenty Four million one hundred thousand (24,100,000), consisting of:

(1) Twenty Four million (24,000,000) shares of Common Stock, par value one cent (\$.01) per share (the "Common Stock"); and

(2) One Hundred Thousand (100,000) shares of Preferred Stock, par value one cent (\$.01) per share (the "Preferred Stock").

SECOND: That thereafter, pursuant to a resolution of its Board of Directors, a special meeting of the stockholders of said corporation was duly called and held, upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware at which meeting the necessary number of shares as required by statute were voted in favor of the amendment.

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 03:00 PM 05/19/1993
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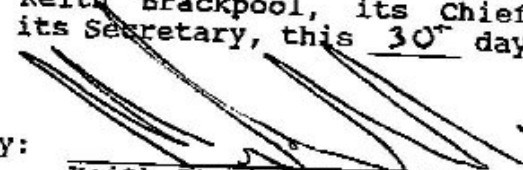
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94:002/April 30,19

THIRD: That said amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.


IN WITNESS WHEREOF, said Cadiz Land Company, Inc. has caused this certificate to be signed by Keith Brackpool, its Chief Executive Officer and George P. Rice, its Secretary, this 30th day of April, 1993.

By:


Keith Brackpool,
Chief Executive Officer

ATTEST:

By:


George P. Rice
Secretary

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- 2 -

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 10:00 AM 11/12/1996
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**CERTIFICATE OF AMENDMENT OF
CERTIFICATE OF INCORPORATION OF
CADIZ LAND COMPANY, INC.
a Delaware Corporation**

CADIZ LAND COMPANY, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That at a meeting of the Board of Directors of Cadiz Land Company,

FIRST: That at a meeting of the Board of Directors of Cadiz Land Company, Inc. resolutions were duly adopted setting forth a proposed amendment to the Certificate of Incorporation of said corporation, declaring said amendment to be advisable and calling a meeting of the stockholders of said corporation for consideration thereof. The resolution setting forth the proposed amendment is as follows:

RESOLVED, That the Certificate of Incorporation of this corporation be amended by changing Subsection A of the Fourth Article thereof so that, as amended Subsection A of said Article shall be and read as follows:

"Fourth:

A. The total number of shares of all classes of stock which the Corporation shall have the authority to issue is Forty Five Million One Hundred Thousand (45,100,000), consisting of:

- (1) Forty Five million (45,000,000) shares of Common Stock, par value one cent (\$.01) per share (the "Common Stock"); and
- (2) One Hundred Thousand (100,000) shares of Preferred Stock, par value one cent (\$.01) per share (the "Preferred Stock").

SECOND: That thereafter, pursuant to a resolution of its Board of Directors, an annual meeting of the stockholders of said corporation was duly called and held, upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware at which meeting the necessary number of shares as required by statute were voted in favor of the amendment.

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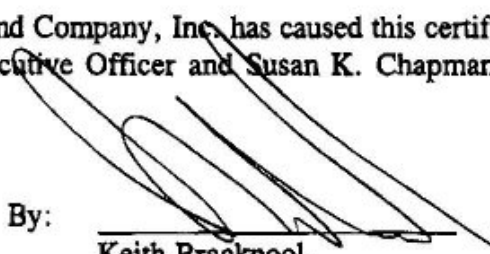
6022 459 016

NOV 11 1996 (MON) 15:11 MILLER & HOLDEN

THIRD: That said amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said Cadiz Land Company, Inc. has caused this certificate to be signed by Keith Brackpool, its Chief Executive Officer and Susan K. Chapman, its Secretary, this 24 day of November, 1996.

By:


Keith Brackpool,
Chief Executive Officer

ATTEST:

By:

Sch
Susan K. Chapman,
Secretary

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**CERTIFICATE OF AMENDMENT OF
CERTIFICATE OF INCORPORATION OF
CADIZ LAND COMPANY, INC.
a Delaware Corporation**

CADIZ LAND COMPANY, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That the Board of Directors of Cadiz Land Company, Inc. adopted a resolution setting forth a proposed amendment to the Certificate of Incorporation of said corporation and declaring said amendment to be advisable. The resolution setting forth the proposed amendment is as follows:

... of the Certificate of Incorporation of this corporation be

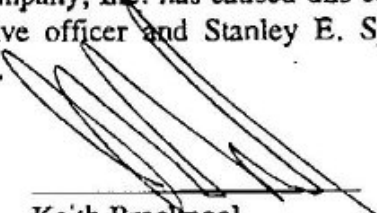
RESOLVED, That the Certificate of Incorporation of this corporation be amended by changing Article One thereof so that, as amended said Article shall be and read as follows:

"First. The name of the Corporation is Cadiz Inc., hereinafter sometimes referred to as the Corporation."

SECOND: That said amendment was duly adopted by the Corporation's Board of Directors and by each outstanding class of stockholders in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

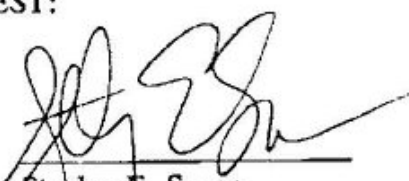
IN WITNESS WHEREOF, said Cadiz Land Company, Inc. has caused this certificate to be signed by Keith Brackpool, its Chief Executive officer and Stanley E. Speer, its Secretary, this 1st day of September, 1998.

By:


Keith Brackpool
Chief Executive Officer

ATTEST:

By:


Stanley E. Speer,
Secretary

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STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 09/01/1998
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STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 05/18/2000
001254696 - 2295882

**CERTIFICATE OF AMENDMENT OF
CERTIFICATE OF INCORPORATION OF
CADIZ INC.**
a Delaware Corporation

CADIZ INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That the Board of Directors of Cadiz Inc. adopted a resolution setting forth a proposed amendment to the Certificate of Incorporation of said corporation and declaring said amendment to be advisable. The resolution setting forth the proposed amendment is as follows:

RESOLVED, That the Certificate of Incorporation of this corporation be amended by changing Subsection A of the Fourth Article thereof so that, as amended Subsection A of said Article shall be and read as follows:

"Fourth:

A. The total number of shares of all classes of stock which the Company shall have the authority to issue is Seventy Million One Hundred Thousand (70,100,000), consisting

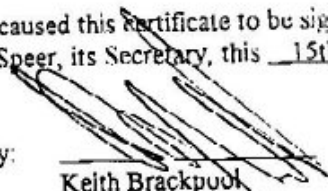
authority to issue is Seventy Million (70,000,000) shares of Common Stock, par value one cent (\$0.01) per share (the "Common Stock"); and

- (1) Seventy Million (70,000,000) shares of Common Stock, par value one cent (\$0.01) per share (the "Common Stock"); and
- (2) One Hundred Thousand (100,000) shares of Preferred Stock, par value one cent (\$0.01) per share (the "Preferred Stock")."

SECOND: That said amendment was duly adopted by the Corporation's Board of Directors and by each outstanding class of stockholders in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

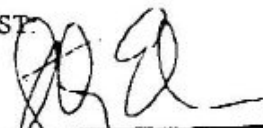
IN WITNESS WHEREOF, said Cadiz Inc. has caused this Certificate to be signed by Keith Brackpool, its Chief Executive Officer and Stanley E. Speer, its Secretary, this 15th day of May, 2000.

By:


Keith Brackpool
Chief Executive Officer

ATTEST

By:


Stanley E. Speer,
Secretary

DEC-15-2003 10:17

C T CORPORATION SYSTEM

State of Delaware
213.614 344
Secretary of State P.03
Division of Corporations
Delivered 02:07 PM 12/15/2003
FILED 01:57 PM 12/15/2003
SRV 030805265 - 2295882 FILE

CERTIFICATE OF AMENDMENT
OF THE
CERTIFICATE OF INCORPORATION
OF
CADIZ INC.

Adopted in accordance with the provisions
of Section 242 of the General Corporation Law
of the State of Delaware

Cadiz Inc. (the "Corporation"), a corporation organized and existing by virtue of the General Corporation Law of the State of Delaware, as amended (the "DGCL"), by its duly authorized officers, hereby certifies as follows:

FIRST: That the Board of Directors of the Corporation has duly adopted a resolution authorizing the Corporation to reclassify and change each 25 outstanding shares of the Corporation's Common Stock, par value one cent (\$0.01) per share, into one share of Common Stock, par value one cent (\$0.01) per share.

SECOND: That, pursuant to authorization by the affirmative vote, in accordance with the provisions of the DGCL, of the holders of a majority of the outstanding voting

shares of Common Stock and Preferred Stock of the Corporation entitled to vote thereon at a special meeting of stockholders of the Corporation held on August 21, 2003, the Certificate of Incorporation of the Corporation be amended by adding a new paragraph to Article FOURTH to read as follows:

"C. Each 25 shares of the Common Stock, par value one cent (\$0.01) per share, of the Corporation issued and outstanding or held in treasury as of 12:01 a.m. Los Angeles time on December 15, 2003 (the "Effective Time") shall be reclassified as and changed into one share of Common Stock, par value one cent (\$0.01) per share, of the Corporation, without any action by the holders thereof. Each stockholder who, immediately prior to the Effective Time, owns a number of shares of Common Stock which is not evenly divisible by 25 shall, with respect to such fractional interest, be entitled to receive from the Corporation cash in an amount equal to such fractional interest multiplied by the average of the high and low sales prices (as adjusted to reflect the reverse stock split) of the Common Stock as last reported in the OTC U.S. Market immediately prior to the Effective Time."

THIRD: That the amendment to the Corporation's Certificate of Incorporation set forth herein has been duly adopted in accordance with the provisions of Section 242 of the DGCL.

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IN WITNESS WHEREOF, the Corporation has caused this certificate to be executed on its behalf by Keith Brackpool, its Chairman and Chief Executive Officer, on this 15th day of December, 2003.

By: 

Keith Brackpool
Chief Executive Officer

ATTEST:

By: 

Jennifer Hanks Painter
Secretary

**STATE OF DELAWARE
CERTIFICATE OF AMENDMENT OF
CERTIFICATE OF INCORPORATION OF
CADIZ INC.**

The corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware does hereby certify:

FIRST: That at a meeting of the Board of Directors of Cadiz Inc. resolutions were duly adopted setting forth a proposed amendment of the Certificate of Incorporation of said corporation, declaring said amendment to be advisable and directing that the proposed amendment be considered at the next annual meeting of the stockholders of said corporation. The resolution setting forth the proposed amendment is as follows:

RESOLVED, that the Certificate of Incorporation of the Corporation be amended by changing Subsection C of the Sixth Article thereof so that, as amended Subsection C of said Article shall be and read as follows:

“C. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any directors, or the entire Board of Directors, may be removed from

office at any time, with or without cause, by the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.”;

SECOND: That thereafter, pursuant to resolution of its Board of Directors, the annual meeting of the stockholders of said corporation was duly called and held upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware at which meeting the necessary number of shares as required by statute were voted in favor of the amendment.

THIRD: That said amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said corporation has caused this certificate to be executed this 9th day of June, 2016.

By: /s/ Timothy J. Shaheen

Name: Timothy J. Shaheen

Title: Secretary

BYLAWS OF CADIZ, INC.

ARTICLE I

CORPORATE OFFICES

1.1 Registered Office.

 The registered office of the corporation shall be Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, State of Delaware 19801. The name of the registered agent of the corporation at such location shall be the Corporation Trust Company.

1.2 Principal Offices.

 The Board of Directors shall fix the location of the principal executive office of the corporation at any place within or outside the State of Delaware. If the principal executive office is located outside this State and the corporation has one or more business offices in this State, the Board of Directors shall likewise fix and designate a principal business office in the State of Delaware.

1.3 Other Offices.

 The Board of Directors may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 Place of Meetings.

 Meetings of stockholders shall be held at any place, within or outside the State of Delaware as designated by the Board of Directors. In the absence of any such designation, stockholders' meetings shall be held at the principal executive office of the corporation.

2.2 Annual Meeting.

 The Annual Meeting of Stockholders shall be held each year on a date and at a time designated by the Board of Directors. At the meeting, directors shall be elected and any other proper business may be transacted.

2.3 Special Meeting.

 A special meeting of the stockholders may be called only (a) by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption) or (b) by the Chief Executive Officer or the President. Special meetings may not be called by any other person or persons. Business transacted at each special meeting shall be confined to the purpose or purposes stated in the notice of such meetings.

2.4 Notice of Stockholders' Meetings.

 Notices of meeting with stockholders shall be in writing and shall be sent or otherwise given in accordance with Section 2.5 of these Bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.5 Manner of Giving Notice; Affidavit of Notice.

 Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage

prepaid, directed to the stockholder at his address as it appears on the records of the corporation, unless he shall have filed with the Secretary of the corporation a written request that notices be mailed to some other address, in which case it shall be directed to the stockholder at such other address. An affidavit of the Secretary or an assistant secretary or of the transfer agent of the corporation that the notice has been given shall be, in the absence of fraud, prima facie evidence of the facts stated therein.

2.6 Quorum.

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either the chairman of the meeting of the stockholders entitled to vote thereat, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which, by provision of the statutes or of the Certificate of Incorporation, a different vote is required, in which case such express provision shall govern and control the decision of the questions.

2.7 Adjourned Meeting; Notice.

When a meeting is adjourned to another time or place, unless these Bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.8 Conduct of Business.

At each meeting of stockholders, the Chairman of the Board, the President and Chief Operating Officer or a Vice President, as determined by the Board of Directors or, if not so determined, in the order referred to and by seniority if there be more than one officer of any rank so referred to, or in the absence of any such officer, a chairman chosen by the vote of the stockholders present in person or represented by proxy at the meeting and entitled to cast a majority of the votes which might be cast at such meeting for the election of directors or, if in the case of a special meeting at which directors are not to be elected, the other matter(s) to be voted on at the meeting, shall act as chairman. The Secretary, or in his or her absence an Assistant Secretary, or in the absence of the Secretary and all Assistant Secretaries, a person whom the Chairman of the meeting shall appoint, shall act as Secretary of the meeting and keep a record of the proceedings thereof. The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the Chairman of

the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such Chairman, are necessary, appropriate or convenient to the proper conduct of the meeting, including without limitation, establishing an agenda or order for business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the Chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. Unless, and except to the extent determined by the Board of Directors or the Chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

2.9 Voting.

A stockholder may vote in person or by proxy. Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, any corporate action to be taken by a vote of the stockholders shall be authorized by the affirmative vote of the majority of shares present in person or represented by proxy at the meeting and entitled to vote thereon.

Except as may be otherwise provided in the Certificate of Incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

2.10 Waiver of Notice.

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware, the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need to be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

2.11 Record Date for Stockholder Notice; Voting; Giving Consents.

In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) nor less than ten (10) days prior to any other action. If the Board of Directors does not so fix a record date:

a. The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

b. The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution thereto.

A determination of stockholders of record entitled to

notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

2.12 Proxies.

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for him by a written proxy, signed by the stockholder and filed with the Secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact.

2.13 Stockholder Action by Written Consent Not Authorized.

Any election or other action by stockholders must be effected at an annual or special meeting of stockholders, and may not be effected by written consent without a meeting.

2.14 List of Stockholders.

The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.15 Inspectors of Election.

Before any meeting of stockholders, the Board of Directors may appoint any persons to act as inspectors of election at the meeting or its adjournment. If no inspectors of election are appointed, the Chairman of the meeting may, and on the request of any stockholder or his proxy shall, appoint inspectors of election of the meeting. The number of inspectors shall be either one (1) or three (3). If inspectors are appointed at a meeting on the request of one (1) or more stockholders or proxies, the holders of a majority of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, the vacancy may be filled by appointment by the Board of Directors before the meeting, or by the Chairman at the meeting. The duties of the inspectors of election shall be as follows:

- a. Determine the number outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum and the authenticity, validity and effect of proxies;
- b. Receive votes or ballots;
- c. Hear and determine all challenges and questions in any way arising in connection with the right to vote;
- d. Count and tabulate all votes;
- e. Determine the election result; and
- f. Do any other acts that may be proper to conduct the

election or vote with fairness to all stockholders.

2.16 Notice of Stockholder Business

At an annual meeting of stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (a) specified in the notice of the meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (b) otherwise properly brought before the meeting by or at the direction of the Board of Directors or (c) otherwise properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, a stockholder must have given timely notice in writing to the Secretary of the Corporation. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the Corporation, not less than 90 days prior to the meeting. A stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the meeting (a) a brief description of the business desired to be brought before the meeting and the reasons for conducting such business at the annual meeting, (b) the name and address, as they appear on the Corporation's books, of the stockholder proposing such business, (c) the class and number of shares of the Corporation which are beneficially owned by the stockholder and (d) any material interest of the stockholder in such business.

Notwithstanding anything to the contrary, no business shall be conducted at an annual meeting except in accordance with the provisions of this Section 2.16. The Chairman of an annual meeting shall, if the facts warrant, determine and declare to the meeting that business was not properly brought before the meeting and in accordance with the provisions of this Section, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before such meeting shall not be transacted.

ARTICLE III

DIRECTORS

3.1 Powers.

Subject to the provisions of the General Corporation Law of Delaware and any limitations in the Certificate of Incorporation or these Bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board of Directors.

Without prejudice to such general powers, but subject to the same limitations, it is hereby expressly declared that the Board of Directors shall have the power and authority to:

- a. Select and remove all officers, agents and employees of the corporation, prescribe such powers and duties for them as may not be inconsistent with law, with the Certificate of Incorporation or these Bylaws, fix their compensation and require from them security for faithful service.
- b. Change the principal executive office or the principal business office in the State of Delaware, if any, from one location to another; cause the corporation to be qualified to do business in any other State, territory, dependency or foreign country, and conduct business within or without the State; designate any place within or without the State for the holding of any stockholders' meeting or meetings, including annual meetings; adopt, make and use a corporate seal, and prescribe the forms of certificates of stock, and alter the form of such seal and of such certificates from time to time as in their judgment they may deem best, provided that such forms shall at all times comply with the provisions of law.
- c. Authorize the issuance of shares of stock of the corporation from time to time, upon such terms as may be lawful.

d. Borrow money and incur indebtedness for the purposes of the corporation, and cause to be executed and delivered therefor, in the corporate name, promissory notes, bonds, debentures, deeds of trust, mortgages, pledges, hypothecations or other evidences of debt and securities therefor.

3.2 Number of Directors.

This Board of Directors shall consist of seven (7) persons, and thereafter shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption). No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 Election, Qualification and Term of Office of Directors.

Directors need not be stockholders unless so required by the Certificate of Incorporation or these Bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his successor is elected and qualified or until his earlier resignation or removal.

3.4 Resignation and Vacancies.

Any director may resign at any time effective upon written notice to the attention of the Secretary of the corporation unless the notice specifies a later date for the effectiveness of such resignation, in which case such resignation shall be effective at the time specified. Unless such resignation specified otherwise, its acceptance by the corporation shall not be necessary to make it effective. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, though less than quorum, including those who have so resigned, or the sole remaining directors, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the Certificate of Incorporation or these Bylaws:

- a. Vacancies and newly created directorships resulting from any increase in the authorized number of directors, elected by all of the stockholders having the right to vote as a single class, may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.
- b. Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of these Bylaws, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.
- c. A director elected or appointed to fill a vacancy shall serve until the next election of the class for which such director shall have been chosen, and until a successor shall be elected and qualified.

3.5 Place of Meetings; Meetings by Telephone.

The Board of Directors of the corporation may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the Board of Directors, or any committee designated by the Board, may participate in a meeting of the Board of Directors, or any

committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participating in a meeting shall constitute presence in person at the meeting.

3.6 Regular Meetings.

Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board. In the absence of such determination, regular meetings shall be held at the principal executive office of the corporation.

3.7 Special Meetings; Notice.

Special meetings of the Board of Directors for any purposes may be called at any time by the Chairman of the Board, the President, any vice president, the Secretary or any two (2) directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram or other facsimile transmission, charges prepaid, addressed to each director at that director's address as it is shown on the records of the corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or telegram, it shall be delivered personally or by telephone or to the telegraph company at least forty-eight (48) hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the place of the meeting if the meeting is to be held at the principal executive office of the corporation.

3.8 Annual Meetings.

Immediately following each annual meeting of stockholders, the Board of Directors shall hold a regular meeting for the purpose of transacting other business. Notice of this meeting shall not be required.

3.9 Quorum; Adjournment.

At all meetings of the Board of Directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute, by the Certificate of Incorporation or these Bylaws. If a quorum is not present at any meeting of the Board of Directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. Notice of the time and place of holding an adjourned meeting need not be given, unless the meeting is adjourned for more than twenty-four (24) hours, in which case notice of such time and place shall be given prior to the time of the adjourned meeting, in the manner specified in Section 3.7 of this Article III, to the directors who were not present at the time of the adjournment.

3.10 Waiver of Notice.

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware, the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except

when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need to be specified in any written waiver or notice unless so required by the Certificate of Incorporation or these Bylaws.

3.11 Board Action by Written Consent Without a Meeting.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or writings are filed with the minutes of proceedings of the Board or committee.

3.12 Fees and Compensation of Directors.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of a special or standing committee may be allowed compensation for attending committee meetings.

3.13 Approval of Loans to Officers.

The corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiary, including any officer or employee who is a director of the corporation or its subsidiary, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing contained in this section shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

3.14 Removal of Directors.

Unless otherwise allowed by statute, the Certificate of Incorporation or these Bylaws, any director or the entire Board of Directors may be removed only for cause by the holders of a majority of the shares voting and entitled to vote in an election of directors.

ARTICLE IV COMMITTEES

4.1 Committees of Directors.

The Board of Directors may, by resolution passed by a majority of the Board, designate one or more committees, with each committee to consist of one or more of the directors of the corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to

the extent provided in the resolution of the Board of Directors establishing such committee or in the Bylaws of the corporation, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it, but no such committee shall have the power or authority to (i) amend the Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board of Directors, fix any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the corporation, (ii) adopt an agreement of merger or consolidation, (iii) recommend to the stockholders the sale, lease or exchange of all of the corporation's property and assets, (iv) recommend to the stockholders a dissolution of the corporation or a revocation of a dissolution or (v) amend the Bylaws if the corporation; and, unless the Board resolution establishing the Committee, the Bylaws or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock or to adopt a certificate of ownership and merger.

4.2 Committee Minutes.

Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

4.3 Meetings and Actions of Committees.

Meetings and actions of committees shall be governed by, and held and taken in accordance with the provisions of Article III of these Bylaws, Section 3.5 (place of meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.9 (quorum), Section 3.10 (waiver of notice), and Section 3.11 (Board action by written consent without a meeting), with such changes in the context of those Bylaws as are necessary to substitute the committee and its members of the Board of Directors and its members; provided, however, that the time of regular meetings of committees may also be called by resolution of the Board of Directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have right to attend all meetings of the committee. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.

ARTICLE V

OFFICERS

5.1 Officers.

The officers of the corporation shall be a Chairman of the Board, a President, a Secretary, and a Chief Financial Officer. The corporation may also have, at the discretion of the Board of Directors, a Chief Executive Officer, one or more vice presidents, a treasurer, one or more assistant secretaries, one or more assistant treasurers, and any such other officer as may be appointed in accordance with the provisions of Section 5.3 of these Bylaws. Any number of offices may be held by the same person.

5.2 Election of Officers.

The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 or 5.5 of these Bylaws, shall be chosen by the Board of Directors.

5.3 Subordinate Officers.

The Board of Directors may appoint, or empower the President to appoint such other officers and agents as the business of the corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the Board of Directors may from time to time determine.

5.4 Removal and Resignation of Officers.

Any officer may be removed, whether with or without cause, by the Board of directors at any regular or special meeting of the board or, except in the case of an officer chosen by the Board of Directors, by any officer upon whom such power of removal may be conferred by the Board of Directors.

Any officer may resign at any time by giving written notice to the Secretary of the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and unless otherwise specified in that notice, the acceptance of the resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 Vacancies in Offices.

Any vacancy occurring in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in these Bylaws for regular appointments to that office.

5.6 Chairman of the Board.

The Chairman of the Board shall, if present, preside at meetings of the Board of Directors and exercise and perform such other powers and duties as may from time to time be assigned to him by the Board of Directors or as may be prescribed by these Bylaws. If there is no President or Chief Executive Officer, then the Chairman of the Board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.7 of these Bylaws.

5.7 Chief Executive Officer.

Subject to such supervisory powers, if any, as may be given by the Board of Directors to the Chairman of the Board, the Chief Executive Officer of the corporation shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and the officers of the corporation. He shall preside at all meetings of the stockholders and, in the absence or nonexistence of a Chairman of the Board, at all meetings of the Board of Directors. He shall have the general powers and duties of management usually vested in the chief executive officer of a corporation and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

5.8 President.

Subject to such powers as may be given by these Bylaws or the Board of Directors to the Chairman of the Board or the Chief Executive Officer, if there be such officers, the President shall have general supervision, direction and control of the business and other officers of the corporation. He shall have the general powers and duties of management usually vested in the president of a corporation, and such other powers and duties as may be prescribed by the Board of Directors or these Bylaws. In the absence or disability of the Chairman of the Board, the President shall perform all the duties of the Chairman of the Board, and when so acting shall have all of the powers of, and be subject to all of the restrictions upon, the Chairman of the Board.

5.9 Vice Presidents.

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the

Board of Directors, or, if not ranked, a vice president designated by the Board of Directors, shall perform all of the duties of the President and Chairman of the Board and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors, these Bylaws, the President or the Chairman of the Board.

5.10 Secretary.

The Secretary shall keep or use to be kept, at the principal executive offices of the corporation or such other place as the Board of Directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The Secretary shall keep, or cause to be kept, at the principal executive offices of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the Board of Directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The Secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board of Directors required to be given by law or by these Bylaws. He shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or by these Bylaws.

5.11 Chief Financial Officer.

The Chief Financial Officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The Chief Financial Officer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositories as may be designated by the Board of Directors. He shall disburse the funds of the corporation as may be ordered by the Board of Directors, shall render to the President and directors, whenever they request it, an account of all of his transactions as Chief Financial Officer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or these Bylaws.

5.12 Representation of Shares of Other Corporations.

The Chairman of the Board, the Chief Executive Officer, the President, any vice president, the Chief Financial Officer, the Secretary or assistant secretary of this corporation, or any other person authorized by the Board of Directors, the Chief Executive Officer, the President or a Vice President, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this corporation. The authority granted herein may be exercised by any other person authorized to do so by proxy or power of attorney duly executed by such persons having the authority.

ARTICLE VI

INDEMNITY

6.1 Third Party Actions.

The corporation shall indemnify and hold harmless to the fullest extent authorized by Delaware General Corporation Law, as the same exists and as hereafter amended (but, in the case of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than said Delaware General Corporation Law permitted the corporation to provide prior to such amendment) any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director or officer of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another foreign or domestic corporation, partnership, joint venture, trust or other enterprise, or was a director, officer, employee or agent of a foreign or domestic corporation which was a predecessor corporation of this corporation or of another enterprise at the request of such predecessor corporation (collectively, "Agent") against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit, or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful. Such indemnification right shall be a contract right between the Agent and the corporation.

6.2 Action By or in the Right of the Corporation.

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was an Agent of the corporation or serving at the request of the corporation against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with such defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which such action or suit was brought shall determine upon application that despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

6.3 Successful Defense; Service as a Witness.

To the extent that an Agent of the corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 6.1 or 6.2 of this Article VI, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

To the extent any person who is or was a director or

officer of the corporation has served or prepared to serve as a witness in any action, suit or proceeding (whether civil, criminal, administrative or investigative in nature), or in any investigation by the corporation or the Board of Directors thereof or a committee thereof or by any securities exchange on which securities of the corporation are or were quoted or listed, by reason of, or in connection with, such person's services as a director or officer of the corporation or as a director or officer of any affiliate or predecessor of the corporation (other than in a suit commenced by such person), the corporation shall indemnify such person against expenses (including attorneys' fees and disbursements) and costs actually and reasonably incurred by such person in connection therewith within thirty (30) days after the receipt by the corporation from such person of a statement requesting such indemnification, averring such service and reasonably evidencing such costs and expenses. The corporation may indemnify any employee or agent of the corporation to the same extent as, or to a lesser extent than, it may indemnify any director or officer of the corporation pursuant to the foregoing sentence of this Section 6.3 of this Article.

6.4 Determination of Conduct.

Subject to any rights under any contract between this corporation and any Agent, any indemnification (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the Agent is proper in the circumstances because he has met the applicable standard of conduct set forth in Sections 6.1 or 6.2 of this Article VI. Such determination shall be made (1) by the Board of Directors (or by an executive committee thereof) by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable, if a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders. Notwithstanding the foregoing, an Agent of the corporation shall be able to contest any determination that the director or officer has not met the applicable standard of conduct, set forth in Section 6.1 or 6.2 of this Article VI, by petitioning a court of appropriate jurisdiction.

6.5 Payment of Expenses in Advance.

Expenses incurred in defending or settling a civil or criminal action, suit or proceeding by an individual who may be entitled to indemnification pursuant to Section 6.1 or 6.2 of this Article VI shall be paid by the corporation in advance of the final disposition of such action, suit or proceeding as authorized by the Board of Directors upon receipt of an undertaking by or on behalf of the director or officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation as authorized in this Article VI. Such expenses incurred by other employees and agents may be so paid upon such terms and conditions, if any, as the Board of Directors deems appropriate.

6.6 Indemnity Not Exclusive.

The indemnification and advancement of expenses provided by, or granted pursuant to, the other subparagraphs of this Article VI shall not be deemed exclusive of, and shall be subject to, any other rights to which those seeking indemnification or advancement of expenses may be entitled under any Bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

6.7 Insurance Indemnification.

The corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was an

Agent of the corporation, or is or was serving at the request of the corporation as an Agent against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of this Article VI.

6.8 Indemnification Contracts.

The Board of Directors is authorized to enter into a contract with any director, officer, employee or agent of the corporation, or any person serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including employee benefit plans, providing for indemnification rights equivalent to or, if the Board of Directors so determines, greater than, those provided for in this Article VI.

6.9 Indemnity Fund.

Upon resolution passed by the Board of Directors, the Board of Directors may establish a trust or other designated account, grant a security interest or use other means (including, without limitation, a letter of credit), to ensure the payment of any or all of its obligations arising under this Article and/or agreements which may be entered into between the corporation and its officers from time to time.

6.10 Indemnification of Other Parties.

The provisions of this Article VI shall not be deemed to preclude the indemnification of any person who is not an Agent, but whom the corporation has the power or obligation to indemnify under the provisions of the General Corporation Law of the State of Delaware or otherwise. The corporation may, in its sole discretion, indemnify an employee, trustee or other agent as permitted by the General Corporation Law of the State of Delaware. The corporation shall indemnify an employee, trustee or other agent where required by law.

6.11 Accrual of Claims; Successors.

The indemnification provided or permitted under this Article VI shall apply in respect of any expense, cost, judgment, fine, penalty or amount paid in settlement, whether or not the claim or cause of action in respect thereof accrued or arose before or after the effective date of this Article. The right of any person who is or was a director or officer of the corporation to indemnification and expense advances under this Article shall continue after such person shall have ceased to be a director or officer and shall inure to the benefit of the heirs, distributees, executors, administrators and other legal representatives of such person.

6.12 Effect of Amendment.

Any amendment, repeal or modification of any provision of this Article VI by the stockholders and the director of the corporation shall not adversely affect any right or protection of a director or officer of the corporation existing at the time of such amendment, repeal or modification.

6.13 Settlement of Claims.

The corporation shall not be liable to indemnify any director or executive officer under this Article VI: (i) for any amounts paid in settlement of any action or claim effected without the corporation's written consent, which consent shall not be unreasonably withheld or (ii) for any judicial award, if the corporation was not given a reasonable and timely opportunity, at its expense, to participate in the defense of such action.

6.14 Subrogation.

In the event of payment under this Article VI, the

corporation shall be subrogated to the extent of such payment to all of the rights of recovery of the indemnified party who shall execute all papers required and shall do everything that may be necessary to enable the corporation effectively to bring suit to enforce such rights.

6.15 No Duplication of Payments.

The corporation shall not be liable under this Article VI to make any payment in connection with any claim made against a director or executive officer to the extent such director or officer has otherwise actually received payment (under any insurance policy, agreement, vote, or otherwise) of the amounts otherwise indemnifiable hereunder.

6.16 The Corporation.

For purposes of this Article VI, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger, so that any person which is or was an Agent of such constituent corporation, or is or was serving at the request of such constituent corporation as an Agent, shall stand in the same position under the provisions of this Article VI (including, without limitation, the provisions of Section 6.4 of this Agreement) with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

6.17 Employee Benefit Plans.

For purposes of this Article VI, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involved services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this Article VI.

6.18 Savings Clause.

If this Article or any portion thereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each Agent against expense (including attorneys' fees), judgments, fines and amounts paid in settlement with respect to any action, suit, proceeding or investigation, whether civil, criminal or administrative, and whether internal or external, including a grand jury proceeding and an action or suit brought by or in the right of the corporation, to the full extent permitted by any applicable portion of this Article that shall not have been invalidated or by any other applicable law.

ARTICLE VII

RECORDS AND REPORTS

7.1 Maintenance and Inspection of Share Register.

The Secretary of the corporation shall prepare and make, or cause to be made, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be

held, which place shall be specified in the notice of the meeting or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. The willful neglect or refusal of the directors to produce such a list at any meeting for the election of directors, shall make such directors ineligible for election to any office at such meeting.

The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list of stockholders required under this Section 7.1 of Article VII or the books of the corporation, or to vote in person or by proxy at any meeting of stockholders.

Any stockholder, in person or by attorney or other agent, shall, upon five (5) days written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the corporation's stock ledger, a list of its stockholders, and its other books and records, and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent shall be the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing which authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in this State or at its principal place of business.

If the corporation or an officer or agent thereof refuses to permit an inspection sought by a stockholder or attorney or other agent acting for the stockholder pursuant to this Section 7.1 or does not reply to the demand within five (5) business days after the demand has been made, the stockholder may apply to the Court of Chancery for an order to compel such inspection.

Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders and its other books and records for a purpose reasonably related to his position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought.

7.2 Maintenance and Inspection of Bylaws.

The corporation shall keep at its principal executive office, or if its principal executive office is not in this State at its principal business office in this State, if any, the original or a copy of the Bylaws as amended to date, which shall be open to inspection by the stockholders at all reasonable times during office hours. If the principal executive office of the corporation is outside this State and the corporation has no principal business office in this State, the Secretary shall, upon the written request of any stockholder, furnish to such stockholder a copy of the Bylaws as amended to date.

7.3 Maintenance and Inspection of Other Corporate Records.

The accounting books and records and minutes of proceedings of the stockholders and the board of directors and any committee or committees of the board of directors shall be kept at such place or places designed by the board of directors, or, in the absence of such designation, at the principal executive office of the corporation. The minutes shall be kept in written form and the accounting books and records shall be kept either in written form or in any other form capable of being converted into written form. Such minutes and accounting books and records shall be open to inspection upon the written demand of any stockholder or holder of a voting trust certificate, at any reasonable time during usual business hours, for a purpose reasonably related to such

holder's interests as a stockholder or as the holder of a voting trust certificate. Such inspection may be made in person or by an agent or attorney, and shall include the right to copy and make extracts.

Except as otherwise provided in Section 7.1 of this Article VII, every director shall have the absolute right at any reasonable time to inspect and copy all books, records and documents of every kind and to inspect the physical properties of the corporation and any subsidiary of the corporation in person or by agent or attorney and the right of inspection includes the right to copy and make extracts. The foregoing rights of inspection shall extend to the records of each subsidiary of the corporation.

7.4 Financial Statements.

A copy of any annual financial statement and any income statement of the corporation for each quarterly period of each fiscal year, and any accompanying balance sheet of the corporation as of the end of each such period, that has been prepared by the corporation shall be kept on file in the principal executive office of the corporation for twelve (12) months and each such statement shall be exhibited at all reasonable times to any stockholder demanding an examination of any such statement or a copy shall be mailed to any such stockholder.

The corporation also shall, upon the written request of any stockholder, mail to the stockholder a copy of the last annual, semiannual and quarterly income statement which it has prepared and a balance sheet as to the end of such period.

ARTICLE VIII

GENERAL MATTERS

8.1 Checks.

From time to time, the Board of Directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

8.2. Execution of Corporate Contracts and Instruments.

The Board of Directors, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.3 Stock Certificates; Partly Paid Shares

The shares of the corporation shall be represented by certificates, provided that the Board of Directors of the corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertified shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertified shares shall be entitled to have a certificate signed by, or in the name of the corporation by the Chairman of the Board, or the President or Vice President, and by the Chief Financial Officer, or the Secretary or an assistant secretary of such corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile

signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar, before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the corporation in the case of uncertified partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.4 Special Designation on Certificates.

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests such a statement of the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.5 Lost Certificates.

The Board of Directors may direct a new certificate or certificates or uncertified shares to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates or uncertified shares, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

8.6 Annual Statement.

The Board of Directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the corporation.

8.7 Construction; Definitions.

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these Bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes

both a corporation and a natural person.

8.8 Dividends.

The Board of Directors of the corporation, subject to any restrictions contained in the General Corporation Law of Delaware or the Certificate of Incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the corporation's capital stock.

The directors of the corporation may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

8.9 Fiscal Year.

The fiscal year of the corporation shall be fixed by resolution of the Board of Directors and may be changed by the Board of Directors.

8.10 Seal.

The corporation may adopt and may subsequently alter the corporation seal and it may use the same by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

8.11 Transfer of Stock.

Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

8.12 Stock Transfer Accounts.

The corporation shall have the power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the General Corporation Law of Delaware.

8.13 Registered Stockholders.

The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

8.14 Ratification.

Any transaction questioned in any lawsuit on the ground of lack of authority, defective or irregular execution, adverse interest of director, officer or stockholder, nondisclosure, miscomputation or the application of improper principles or practices of accounting may be ratified, before or after judgment, by the Board of Directors or the stockholders and, if so ratified, shall have the same force and effect as if the questioned transaction had been originally duly authorized. Such ratification shall be binding upon the corporation and its stockholders and shall constitute a bar to any claim or execution of any judgment in respect of such questioned transaction.

ARTICLE IX

AMENDMENTS

9.1 Amendment by Stockholders.

Subject to the provisions of the Certificate of Incorporation, these Bylaws may be altered, amended or repealed at any regular meeting of the stockholders (or at a special meeting duly called for that purpose) by the approval of at least a majority of the outstanding shares entitled to vote at such meeting; provided that in the notice of such special meeting, notice of such purpose shall be given.
9.2 Amendment by Directors.

Subject to the laws of the State of Delaware, the Certificate of Incorporation and these Bylaws, the Board of Directors may, by the majority vote of the entire Board of Directors, amend these Bylaws or enact such other bylaws as in their judgment may be advisable for the regulation of the conduct of the affairs of the corporation.

**AMENDMENT TO THE BYLAWS
OF CADIZ INC.**

This Amendment to the Bylaws of Cadiz Inc., a Delaware corporation, is effective as of June 10, 2016.

1. Section 3.14 of the Bylaws of the Company is amended to read as follows:

“3.14 Removal of Directors

Unless otherwise allowed by statute, the Certificate of Incorporation or these Bylaws, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares voting and entitled to vote in an election of directors.”

2. Except as modified by this Amendment, the Bylaws of the Company remain unchanged and, as modified, continue in full force and effect..

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following statements relating to the capital stock of Cadiz Inc. ("our", "we" or the "Company") do not purport to be complete, and are subject to, and are qualified in their entirety by reference to, the provisions of the Certificate of Incorporation, as amended, or the "Certificate," and By-Laws, as amended, or the "By-Laws," each of which are incorporated by reference as an exhibit to our Annual Report on Form 10-K.

General

The Company is authorized to issue (i) 70,000,000 shares of common stock, par value \$0.01 per share and (ii) 100,000 shares of preferred stock, par value \$0.01 per share.

Our common stock is registered pursuant to Section 12(b) of the Securities Exchange Act of 1934. Our common stock is listed on the Nasdaq Global Market under the symbol "CDZI."

Common Stock

Subject to the rights of the holders of any shares of preferred stock that may at the time be outstanding, record holders of common stock are entitled to such dividends as the Board of Directors may declare. Holders of common stock are entitled to one vote for each share held in their name on all matters submitted to a vote of stockholders and do not have preemptive rights or cumulative voting rights. Holders of common stock are not subject to further calls or assessments as a result of their holding shares of common stock.

If the Company is liquidated, the holders of shares of common stock are entitled to share ratably in the distribution remaining after payment of debts and expenses and of the amounts to be paid on liquidation to the holders of shares of preferred stock.

Certain Other Provisions of our Certificate and Bylaws

Neither our Certificate nor our Bylaws permit stockholder action by written consent in lieu of a meeting of stockholders. Further, special meetings of stockholders may be called only by the Board of Directors, the Chief Executive Officer or the President. In addition, our Bylaws provide advance notice procedures for stockholders seeking to bring business before the annual meeting of stockholders or to nominate candidates for election as directors at the annual meeting of stockholders, and specify certain requirements regarding the form and content of a stockholder's notice. The foregoing could have the effect of delaying or preventing unsolicited takeovers and changes in control or changes in our management.

Anti-Takeover Effects of Delaware Law

We are subject to the "business combination" provisions of Section 203 of Delaware law. In general, such provisions prohibit a publicly held Delaware corporation from engaging in various "business combination" transactions with any interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date the interested stockholder obtained such status, the Board of Directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or subsequent to such date, the business combination is approved by the Board of Directors of the corporation and authorized at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

A "business combination" is defined to include mergers, asset sales and other transactions resulting in financial benefit to an interested stockholder. In general, an "interested stockholder" is a person who, together with affiliates and associates, owns (or within three years, did own) 15% or more of a corporation's voting stock. The statute could prohibit or delay mergers or other takeover or change in control attempts with respect to the Company and, accordingly, may discourage attempts to acquire the Company even though such a transaction may offer the Company's stockholders the opportunity to sell their stock at a price above the prevailing market price.

CADIZ INC.

SUBSIDIARIES OF THE COMPANY

Cadiz Real Estate LLC
Rancho Cadiz Mutual Water Company
SWI Estate, Inc.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-228433, 333-211383) and Form S-8 (No. 333-233582) of Cadiz Inc. of our report dated March 13, 2020 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLC
Los Angeles, California
March 13, 2020

**CERTIFICATION PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Scott S. Slater, certify that:

1. I have reviewed this annual report on Form 10-K of Cadiz Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 13, 2020

/s/ Scott S. Slater
Scott S. Slater
Chief Executive Officer

**CERTIFICATION PURSUANT TO SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Timothy J. Shaheen, certify that:

1. I have reviewed this annual report on Form 10-K of Cadiz Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 13, 2020

/s/ Timothy J. Shaheen

Timothy J. Shaheen

Chief Financial Officer and Secretary

**STATEMENT PURSUANT TO SECTION 906 THE SARBANES-OXLEY ACT OF 2002
BY PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER**

I, Scott S. Slater, hereby certify, to my knowledge, that:

1. the accompanying Annual Report on Form 10-K of Cadiz Inc. for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities and Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Cadiz Inc.

IN WITNESS WHEREOF, the undersigned has executed this Statement as of the date first written above.

Dated: March 13, 2020

/s/ Scott S. Slater

Scott S. Slater

Chief Executive Officer

**STATEMENT PURSUANT TO SECTION 906 THE SARBANES-OXLEY ACT OF 2002
BY PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER**

I, Timothy J. Shaheen, hereby certify, to my knowledge, that:

1. the accompanying Annual Report on Form 10-K of Cadiz Inc. for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities and Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Cadiz Inc.

IN WITNESS WHEREOF, the undersigned has executed this Statement as of the date first written above.

Dated: March 13, 2020

/s/ Timothy J. Shaheen

Timothy J. Shaheen

Chief Financial Officer and Secretary