

In the United States Court of Federal Claims

No. 10-420C
(Filed: May 17, 2017)

CLEAR CREEK COMMUNITY *
SERVICES DISTRICT, *
Plaintiff, *
v. *
THE UNITED STATES, *
Defendant. *

RCFC 12; Motion to Dismiss; RCFC 56;
Motion for Summary Judgment; Breach of
Contract; Statute of Limitations; Accrual
Suspension; Fifth Amendment Takings
Claim

Walter Patterson McNeill, Redding, CA, for plaintiff.

Igor Helman, United States Department of Justice, Washington, DC, for defendant.

OPINION AND ORDER

SWEENEY, Judge

Before the court is defendant’s combined motion to dismiss pursuant to Rules 12(b)(1) and (6) of the Rules of the United States Court of Federal Claims (“RCFC”) and motion for summary judgment pursuant to RCFC 56. Plaintiff, Clear Creek Community Services District (“plaintiff” or “the District”), is a local government agency that provides water service to the Clear Creek watershed, which is located in Shasta County, California. Second Am. Compl. ¶¶ 2, 5. Defendant is the United States, acting through the United States Department of the Interior’s Bureau of Reclamation (“BOR”). Plaintiff asserts three counts: (1) “breach of contract,” (2) “inverse condemnation,” and (3) “declaratory relief.” *Id.* ¶¶ 31-63. The court deems oral argument unnecessary and, for the reasons set forth below, grants in part and denies in part defendant’s combined motion.

I. BACKGROUND

A. Factual Background

In support of its combined motion to dismiss and for summary judgment, defendant submitted proposed findings of uncontroverted fact, to which plaintiff responded. See Def.’s

Proposed Findings; Pl.’s Resps. & Objs. to Def.’s Proposed Findings. The court’s statement of material facts is derived from both parties’ submissions and from the record before it.

1. 1963 Contract

On May 14, 1963, plaintiff entered into a contract (Contract 14-06-200-489A) with defendant. Def.’s Proposed Findings A218-73. Pursuant to the contract, defendant agreed to construct a water distribution system, transfer that system to plaintiff, and then provide water to plaintiff via that system. In turn, plaintiff agreed to operate and maintain the water distribution system upon its transfer. See generally id.

The contract contains thirty-nine articles and is divided into three parts: Part A (Articles 2-10), Part B (Articles 11-15), and a final collection of uncaptioned provisions (Articles 16-39). Id. at A218-19. Part A consists of nine articles, each of which relates to the provision of water:

1.	Article 2	“Effective Date of Contract—Term of Part A”
2.	Article 3	“Transfer of Operation and Maintenance [(“O&M”)] of Project Works to the District”
3.	Article 4	“Water to be Furnished to District”
4.	Article 5	“Water Use Schedules”
5.	Article 6	“Rates and Method of Payment for Water”
6.	Article 7	“Adjustments”
7.	Article 8	“Need of District for More Water than Agreed Quantity”
8.	Article 9	“Point of Delivery—Maintenance of Flows and Levels—Measurement and Responsibility for Distribution of Water”
9.	Article 10	“United States Not Liable for Water Shortage”

Part B consists of five articles, each of which relates to the construction of a distribution system:

1.	Article 11	“Construction of Works and Limit of Expenditures Therefor”
2.	Article 12	“Payment by District”
3.	Article 13	“Computation of Cost”
4.	Article 14	“Development Period”
5.	Article 15	“Transfer of Operation and Maintenance of Distribution System to the District”

The last section consists of twenty-four articles, which address a variety of additional items related to the relationship between the two parties:

1.	Article 16	“Operation, Inspection, and Retransfer of Transferred Works—United States to be Held Harmless”
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2.	Article 17	“Accumulation and Use of Reserve Fund for Operation and Maintenance”
3.	Article 18	“Estimated Cost of Operation and Maintenance of Works to be Paid in Advance”
4.	Article 19	“District to Pay Certain Miscellaneous Costs Relating to Transferred Works”
5.	Article 20	“Drainage Studies and Facilities”
6.	Article 21	“Agreed Charges a General Obligation of the District”
7.	Article 22	“All Benefits Conditioned Upon Payment”
8.	Article 23	“Levy of Taxes and Assessments—Fixing of Rates and Tolls”
9.	Article 24	“Refusal of Water in Case of Default”
10.	Article 25	“Penalty Upon Delinquency in Payment”
11.	Article 26	“District to Keep Books and Records and Report Crop and Other Data”
12.	Article 27	“Inspection of Books and Records”
13.	Article 28	“Changes in Organization of [Plaintiff]”
14.	Article 29	“Land Not to Receive Service or Water Until Owners Thereof Execute Certain Contracts”
15.	Article 30	“Valuation and Sale of Excess Lands”
16.	Article 31	“Excess Lands”
17.	Article 32	“Amendment of Federal Reclamation Laws”
18.	Article 33	“Title to Remain in the United States”
19.	Article 34	“Contingent Upon Appropriations or Allotment of Funds”
20.	Article 35	“Officials Not to Benefit”
21.	Article 36	“Notices”
22.	Article 37	“Assignment Prohibited—Remedies Under Contract Not Exclusive—Waivers—Opinions and Determinations”
23.	Article 38	“Assurance Relating to Validity of Contract”
24.	Article 39	“Equal Employment Opportunity”

a. Explanatory Recitals

Generally, the contract provides:

[T]he United States is constructing and operating the Central Valley Project [(“CVP”)] for flood control, for the diversion, storage, carriage, and distribution for irrigation, municipal, domestic, industrial, and other beneficial uses of water of the Sacramento River, the Trinity River, the American River, the San Joaquin River and their tributaries for generation and distribution of electric energy, for navigation and other purposes;

* * *

[T]he District and the United States desire to contract, pursuant to the Federal reclamation laws and the laws of the State of California, for the furnishing by the United States of a supplemental water supply from the Central Valley Project and for the construction of a general distribution and lateral system by the United States for the District upon the terms and conditions hereinafter set forth;

* * *

[T]he United States proposes to construct the Clear Creek South Unit as a feature of the Central Valley Project in order to furnish water to the District pursuant to the terms of this contract;

* * *

[I]t is intended that the District, subject to the terms and conditions contained herein, will operate and maintain the Clear Creek South Unit and said distribution system.

Id. at A220-22.

b. Water Service

The contract provides that plaintiff is to receive, and pay for, a specified quantity of water from the Central Valley Project. Id. at A221-22, A225-28. Part A, Article 2 of the contract states: “Insofar as it relates to the furnishing of water, this contract shall terminate on December 31, 1994.” Id. at A224. Under Part A, Article 4, the contract contains the following disclaimer: “[T]he United States shall not be obligated to furnish more than fifteen thousand three hundred (15,300) acre-feet of water during any such year.” Id. at A226.

c. Transfer of O&M of the Conduit

Part A, Article 3 of the contract provides that “the Contracting Officer will furnish to [plaintiff] a written notice announcing the initial delivery date and stating the time of transfer to [plaintiff] for operation and maintenance during the term of Part A of this contract of the completed Project works.” Id. at A225. The contract defines the term “project works” as the “Muletown Conduit[, a pipe that distributes water,] extending from the outlet works of Whiskeytown Dam to the eastern edge of the service area, and all necessary lands and related facilities and structures located thereon.” Id. at A223. Thus, the contract states that during the term of Part A, plaintiff is to assume the operation and maintenance of the conduit following its completion.

d. Construction and O&M of the Distribution System

Part B, Article 11 of the contract provides that defendant is to construct a distribution system, id. at A239-44, and that “[s]aid distribution system shall not include the Project works,” id. at A240. Furthermore, Part B, Article 14 states that “[t]he development period for the lands in the District is hereby fixed at ten (10) years from and including the year in which the initial delivery date occurs.” Id. at A244. Lastly, Part B, Article 15 notes:

On the date of the commencement of the development period, pursuant to Article 14, or such earlier date as may be agreed upon by the Contracting Officer and [plaintiff], [plaintiff] shall take over and at its own expense during the term of Part B of this contract operate and maintain the distribution system or any part thereof described in a written transfer notice to be furnished to [plaintiff] by the Contracting Officer.

Id.

e. Transfer of O&M Responsibilities

The last section of the contract, Articles 16-39, details the parties’ O&M obligations with respect to, inter alia, both the conduit and distribution system. Id. at A245-73. The contract broadly defines O&M as “all operation, maintenance, and replacements necessary to keep the Project works and distribution works in a safe and proper operating condition.” Id. In addition, Article 16 states: “[Plaintiff] agrees to accept . . . the care, operation, and maintenance of the transferred works, and thereafter, without expense to [defendant] . . . in such a manner that said works will remain in good and efficient condition.” Id. at A245. The contract defines “transferred works” as “project works” or “distribution works,” or both. Id. at A223. Although the contract does not define the term “distribution works,” the contract defines the term “distribution systems” as “the general distribution and lateral system, surface drainage, and other related works or a portion or portions thereof constructed by the United States pursuant to this contract, and all lands and interests in lands held in connection therewith.” Id. at A240.

2. 1968 Transfer Notice

On October 7, 1968, BOR Regional Manager R.J. Pafford, Jr. sent plaintiff a letter, in which he wrote: “[A]s Contracting Officer, and pursuant to article 3 (Conveyance Facilities) and article 15 (Distribution System) of the [1963] contract, . . . I hereby confirm the transfer of operation and maintenance of the conveyance facilities and distribution system to your District on July 1, 1967.” Id. at A213. Mr. Pafford added: “Effective July 1, 1967, [plaintiff] assumed responsibility of caring for, operating and maintaining the project works and completed portions of the distribution system without cost to [defendant], in such a manner that the project works and distribution system shall remain in good and efficient condition.” Id.

3. 1994-2004 Interim Contracts

On December 28, 1994, just prior to the expiration of the water service provisions of the 1963 contract, the parties entered into an “Interim Renewal Contract.” Id. at A52-90. The 1994 interim contract states that it is to be in effect from January 1, 1995 through December 31, 1997. Id. at A59. The majority of the 1994 interim contract pertains to plaintiff’s contractual right to specified quantities of water and plaintiff’s corresponding payment responsibilities. Id. at A52-84. The final section of the 1994 interim contract, entitled “Continuation of Contract No. 14-06-200-489-A,” addresses the 1963 contract and provides:

The parties hereto acknowledge and agree that Part A (i.e., Articles 2 through 10) of [the 1963 contract] (as amended, and as modified by the letter agreement dated December 14, 1971) is replaced by this interim renewal contract. The respective duties, covenants, and obligations of the parties in [the 1963 contract], as amended, which are not replaced by this interim renewal contract shall continue in full force and effect, pending prompt completion of good faith negotiations between the parties to agree upon an amendatory contract.

Id. at A84.

From 1997 through 2004, the parties entered into a series of additional interim renewal contracts, each of which similarly provided for the continuation of all “duties, covenants, and obligations.” See id. at A367-404 (contract dated December 24, 1997); A409-48 (contract dated February 20, 1998); A456-97 (contract dated February 29, 2000); A553-97 (contract dated November 30, 2000); A600-02 (contract dated February 28, 2002); A608-10 (contract dated February 14, 2003); A614-16 (contract dated February 27, 2004).

4. 2001 Title Transfer Agreement

On May 29, 2001, defendant transferred title of the distribution system to plaintiff. Id. at A503-29. The transfer agreement defines the “distribution system” as:

the distribution and lateral system, surface drainage, and other related works or a portion or portions thereof constructed by the United States for the District pursuant to the Existing Repayment Contract, and the control tank located at mile 8.7 of Clear Creek South Unit conveyance system, all lands and interests in lands held in connection with those facilities, and all appurtenant facilities and items

Id. at A508. In addition, the transfer agreement provides for the following amendments to the payment provisions of the 1963 contract: (1) Article 12 (Payment by District) no longer applies; (2) Article 15 (Transfer of Operation and Maintenance of Distribution System to the District) is replaced by Article 5 of the transfer agreement; and (3) Article 16 (Operation, Inspection, and

Re-transfer of Transferred Works—United States to be Held Harmless) is replaced by Articles 3 and 5 of the transfer agreement with regard to the distribution system. Id. at A511. The transfer agreement further states: “Article 16 shall remain operative relative to the Transferred Works, which remain in [defendant’s name] and were previously accepted by [plaintiff] for care, operation, and maintenance pursuant to Article 16 of [the 1963 contract].” Id. at A511-12. Finally, the transfer agreement defines the term “Transferred Works” as “those components of the Clear Creek South Unit, which were previously transferred to [plaintiff] for operation and maintenance . . . and are not included in the ‘Distribution System.’” Id. at A509.

5. 2005 Long-Term Renewal Contract

On February 25, 2005, the parties entered into a long-term renewal contract that they agreed would be effective from March 1, 2005, through February 28, 2030. Id. at A315-66. Like the interim contracts, the 2005 long-term contract provides that, although Part A of the 1963 contract is no longer in effect, “[t]he respective duties, covenants, and obligations of the parties in [the 1963 contract] which are not replaced by this Contract shall be unaffected.” Id. at A360-61. In addition, the 2005 long-term contract establishes plaintiff’s entitlement to water beginning in 2005. Id. at A328-31. Specifically, the contract provides that defendant must furnish plaintiff with 15,300 acre-feet of water for irrigation and municipal and industrial (“M&I”) purposes. Id. at A328.

The 2005 long-term contract further provides that in water shortage years, plaintiff’s entitlement to water is limited. Id. at A344-45. Article 12 of the 2005 long-term contract, entitled “Constraints on the Availability of Water,” states: “[Water] furnished under this Contract will be allocated in accordance with the then-existing Project M&I Water Shortage Policy.” Id. at A345. Article 12 further notes that the water shortage policy “shall be amended, modified, or superseded only through a public notice and comment procedure.” Id. In addition, Article 12 addresses defendant’s liability in the case of a shortage: “If there is a Condition of Shortage because of . . . drought [or] other physical causes beyond the control of [the BOR] then, except as provided in subdivision (a) of Article 18 of this Contract, no liability shall accrue against the United States.” Id. If such a shortage occurs, the long-term contract provides that “the Contracting Officer shall apportion Project Water among [plaintiff] and others entitled, under existing contracts and future contracts . . . , to receive Irrigation Water consistent with the contractual obligations of the United States.” Id. Article 18(a), in turn, states: “Where the terms of this Contract provide for actions to be based upon the opinion or determination of either party to this Contract, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations.” Id. at A349.

Finally, the 2005 long-term contract provides that, upon entering into the contract, plaintiff does not waive “any legal rights or remedies it may have” to contest “the sufficiency of the manner” in which a subsequent water shortage policy is adopted, “the substance of such a policy,” or “the applicability of such a policy.” Id. at A345.

6. Construction of the Conduit

Prior to the parties' execution of the agreements described above, in November 1962, defendant published the Clear Creek South Unit Definite Plan Report ("Definite Plan"), which describes the proposed Muletown Conduit and its associated distribution system. See id. at A274-312; Pl.'s Resps. & Objs. to Def.'s Proposed Findings A753-846. In 1964, defendant completed the specification drawings for the Muletown Conduit, prior to receiving bids for its construction. See Def.'s Proposed Findings A1-31. The drawings provide detailed designs for the air release valves, which are located at the top of the 45-inch diameter main conduit. Id. The drawings also include designs for the blowoff and drain valves, generally located at the low points of the main conduit, and indicate that the drain pipes from the blowoff and drain valves are to be "extend[ed] as directed." Id. at A9. Finally, the specifications provide detailed vault designs for the concrete vaults that protect and encase the air release valves. Id. at A5.

In addition to drawings, the Definite Plan also includes a discussion of the area's need for additional water suitable for "domestic" purposes:

The present supply for the suburban development is partly obtained from deep, low-yielding wells. The average deep well in the area produces about 20 gallons per minute. Some of the homes in the area depend upon the existing irrigation system for a culinary water supply, either by direct service or by collecting irrigation seepage water in cistern-type wells and repumping. This latter method is very unsatisfactory for a domestic water supply because of the possibility of pollution from septic tanks and also because of the erratic delivery pattern of irrigation water. Some residents must import domestic water by tank truck during periods of no rainfall when irrigation water is not available.

Id. at A304. The Definite Plan further notes that "suburban lands [are projected to] develop in two concentrated areas," and that "[w]hile the unit will receive excellent quality water, minor treatment will be required before it is used for domestic purposes." Id. at A309.

On January 29, 1965, defendant awarded the construction contract for the Muletown Conduit to Baker-Anderson Co. Id. at A167. On February 25, 1965, the contractor received the notice to proceed with construction. Id. at A747. Defendant estimated that the project would be completed by January 26, 1967. Id. On June 14, 1967, the parties conducted a joint inspection of the conduit and determined that it was ready for use. Id. at A213. Present on behalf of defendant were Donald Alexander, Project Construction Engineer for Red Bluff, California, and members of his staff. Id. at A214. Present on behalf of plaintiff were Mr. Arlan Tift, plaintiff's manager, and Mr. Roy Romero, one of plaintiff's directors. Id. "Effective July 1, 1967, [plaintiff] assumed responsibility of caring for, operating and maintaining the project works and completed portions of the distribution system without cost to [defendant], in such a manner that the project works and distribution system shall remain in good and efficient condition." Id. at A213.

In 1967, defendant prepared a draft version of the Designers' Operating Criteria ("DOC") for the conduit and associated distribution system. See id. at A656-720. In March 1968, defendant provided plaintiff with five copies of the final version of the DOC. Id. at A171. The stated purpose of the DOC is "to provide the operating and maintenance personnel with a more detailed working knowledge of the operating scheme for the Main Aqueduct and its lateral and to define basic operational and maintenance requirements for each installation." Id. at A663.

The DOC addresses the conduit's air valve structures and provides:

These structures house combination air-inlet and air-release valves designed to release air during filling of the Main Aqueduct and its laterals or whenever air is released from solution. The valves also allow air to enter a conduit when it is being drained. Several air valves are housed in monolithic concrete structures which include turnouts. Generally, the air valves are situated at summits along the conduits; and because of the large pipe diameters, some of the air valves are placed on top of access manholes whose secondary function is to act as a trap for collecting air bubbles which might otherwise pass by the relatively small air valve nozzle inlet. The gate valve installed between the pipeline and the air valve must be open at all times during active or quiescent periods of operation. When an air valve is being inspected, its gate valve should also be checked by closing it and then opening it. The petcock on the air valve is provided so that an inspector may ascertain if the valve is functioning properly.

Opening the petcock should allow emission of a small amount of air followed by a jet of water. If a large volume of air escapes, the air valve is not working as it should. The air valves should be inspected and tested monthly to be sure they are operating properly. Operation and maintenance of the air valves should be in accordance with the manufacturer's instructions.

Id. at A665.

On March 4, 1975, defendant provided plaintiff with a copy of the "Manufacturer's Drawings, Reclamation Construction Drawings, Logs of Exploration, Alignment and Profile-Geology, Electrical System Diagrams, Plan and Profiles, [and] Topography and Unit ownership Drawings." Id. at A172-94.

7. Problems With the Conduit

Since the conduit was built, plaintiff has encountered problems in seven distinct areas.

a. Valve Corrosion

The first area in which plaintiff encountered problems concerns the corrosion of the conduit's valves. The following facts are salient:

* Pursuant to the DOC:

In order to drain the conduit and laterals or to flush out accumulated deposits of sediment at periodic intervals, blowoffs are provided at low points along the Main Aqueduct and the laterals. . . .

Draining is by gravity to the level of the blowoff connection; then residual water is removed by using a portable pump with a flexible intake hose which can be inserted into and lowered down the riser pipe until its intake end is approximately at the low point of the conduit invert. . . .

In order to minimize pressure drops or rises caused by water hammer, the blowoff valves should be opened or closed at a slow rate. When the entire system is being unwatered, the blowoffs situated upon the highest terrain should be opened first and drained. Unwatering at successively lower levels should take place in sequence. The object of this procedure is to reduce the volume and erosive power of the initial blowoff discharge.

Id. at A665-66.

* In a January 16, 1970 letter to defendant, Mr. Tift stated that “[a]ll air relief and blowoff structures were examined, serviced, and repainted.” Id. at A632. He further noted: “The water inside the structures apparently comes in during the winter and does not completely drain out. Hereafter we will pump out all concrete structures after the winter season.” Id.

* Defendant's meeting notes from an August 16, 1971 conference call with plaintiff state that “[several blowoff valves] still require periodic pumping due to high ground water conditions,” and that “[r]usty water indicated [that] more frequent inspection and testing of air valves would be desirable.” Id. at A144.

* In its 1975 Facility Review, defendant recommended that plaintiff “[i]nitiate a program for disassembling, cleaning and overhauling a portion of the air valves each year.” Id. at A644.

* In its 1977 Facility Review, defendant noted that it had tested several air release valves and found them to be operating satisfactorily. Id. at A651. Defendant also stated:

“Recently, [plaintiff] completed a two year program in which [it] serviced all the air release valves on [its] system.” Id.

* In its 1980 Facility Review, defendant stated: “Several manholes with blowoffs or air valves were examined and found to be in good condition.” Id. at A43. At the end of its review, defendant concluded that “[plaintiff] ha[d] continued an aggressive and innovative operation and maintenance program,” and that “[t]he facilities are in good condition.” Id. at A44.

* On February 19, 1988, PACE Engineering, a civil engineering firm retained by plaintiff, reported to plaintiff on the conduit’s condition. See id. at A46-51. In its report, PACE Engineering stated that the exterior of the conduit was in “excellent condition.” Id. at A46. PACE Engineering further noted that “[s]ome corrosion problems have occurred at air/vacuum valves and [blowoff] valves,” and recommended that the steel nipples be replaced with stainless steel ones. Id.

* In a December 4, 1989 internal memorandum, defendant stated:

Based on available information, cathodic protection of the entire pipeline is not necessary.¹ However, problems with the air/vacuum and blowoff valve assemblies do require attention. If the pipe nipple mentioned in the letter is between the gate valve and the air/vacuum valve, replacing the nipple is a simple solution. But, if the affected nipple is between the manhole cover and the gate valve, replacing the nipple will require dewatering the system. Also, the specification drawings indicate that the 6-inch and 8-inch nipples are welded to the manhole cover. In the latter case, installation of cathodic protection systems at each structure may be the most economical and, therefore, the most feasible option.

[Plaintiff] should be encouraged to adopt the most feasible option, or combination of options, and to proceed to correct the problems without delay.

Id. at A164.

* On December 14, 1989, the parties met to discuss cathodic protection for the Muletown Conduit. Id. at A165. At the meeting, defendant approved plaintiff’s request to add cathodic corrosion protection to the conduit, encouraged plaintiff to make the addition, and offered assistance. Id.

* In its 1992 Facility Review, defendant stated: “The galvanized steel nipple on the blowoff valve adjacent to the Need Camp flow meter was rusted out and leaking. Other

¹ “Cathodic protection is a technique used to control the corrosion of a metal surface, such as the steel pipe that was used to construct the conduit. . . . Cathodic protection requires the installation of continuous electrical bonding” Def.’s Mot. 19-20.

blowoff valve and air valve nipples have begun to corrode and will probably also begin to leak.” Id. at A155.

* In January 1999, defendant informed plaintiff that replacement of the corroded parts on the conduit’s air-release valves constitutes routine maintenance for which plaintiff is responsible:

We share the concern of [the District] for providing corrosion protection for [the conduit]. The Conduit is owned by the United States, but is operated and maintained by the District. We reviewed [the BOR’s] guidelines for replacements and determined that such corrosion protection falls into the category of a typical maintenance item which is the District’s responsibility. It is recommended that the District use a portion of its reserve funds to help pay for the necessary corrosion protection.

Id. at A313.

* On February 17, 1999, PACE Engineering provided plaintiff with a report concerning the condition of the conduit. See id. at A91-112. The 1999 PACE Engineering report stated that “[observation of the blowoffs] and air-release valve installations revealed that a wide range of corrosion activity [was] occurring.” Id. at A92.

* In its October 24, 2002 “Review of Operation and Maintenance Examination Report,” defendant stated:

The vault located at Station 144+50 was observed lying on its side partially filled with rounded river cobble. . . . The [blowoff] for this particular vault was buried and not visible. Its condition is therefore undeterminable.

* * *

District management has expressed concerns that in their opinion, the Main Aqueduct has design deficiencies that limit the District’s ability to adequately maintain it. Specifically, the concern is that sectionalizing valving was not designed and constructed to facilitate unwatering of portions of the Pipeline for examination, repair, and maintenance. Additionally, the District contends that it has been unable to completely inspect the Pipeline since they cannot rapidly unwater it. The small 2 inch diameter drains in the [blowoff] structures in the Aqueduct extend the time required for drainage beyond what the District can compensate for with its treated water storage capacity. Since municipal and industrial water users in the District demand a constant supply of treated water, only brief shutdowns are acceptable.

The District feels that if larger drains were installed, the Aqueduct could be rapidly drained, inspected, and repaired. In recent years, the District developed water storage wells as a short-term emergency water source for use during shutdowns of their main system from unwatering of the Aqueduct for repairs. Installation of the new wells should serve to help mitigate these constraints. The District further contends that [blowoff]/air release valve vaults were not properly designed to facilitate drainage of the vaults of standing water. This has led to submergence and substantial corrosion and deterioration [of] the pipework inside many of the vaults.

Id. at A120-21.

* On August 8, 2003, PACE Engineering provided plaintiff with a report on “the external corrosion activity on the three types of valves ([blowoff], vacuum/air release, and drain) along the Muletown Conduit.” Id. at A132. The report stated: “[S]evere corrosion activity is occurring at nearly all of the [blowoffs], most of the vacuum/air release valves, and most likely at all of the drains.” Id. The report further stated: “[P]ractically none of the valves have been operating since they were installed nearly 40 years ago.” Id. PACE Engineering concluded that the corrosion was “due in part to the: (1) design and selection of materials of construction leading to galvanic cell corrosion; (2) design and construction of vaults open to water and debris collection; and (3) selection of [blowoff] locations in streambeds prone to constant water and biological intrusion.” Id. at A142. PACE Engineering further concluded that had these issues “been properly addressed during the original design and construction, most of the recommended repair and upgrades would not have been necessary.” Id. at A143.

* In its September 28, 2005 Facility Review, defendant noted: “All air vacuum valves have been replaced and one [blowoff] has been replaced. [Plaintiff] plans to replace all drains and remaining [blowoffs] and repair damaged valve vault structures over the course of the next 5 years in accordance with its conduit rehabilitation project with expected completion in 2009-2010.” Id. at A624.

b. Flooding of Concrete Vaults

The second area in which plaintiff encountered problems concerns the flooding of the concrete vaults. The following facts are salient:

* In its October 7, 1969 Facility Review, defendant noted: “Several of the air relief and blowoff structures were examined. The majority were found to be full of water.” Id. at A35. Defendant concluded that “[s]ince the [DOC] suggests the valves should be inspected and tested monthly to be sure they are operating properly, this may be an indication that this procedure has not been followed and it is recommended that [plaintiff] make a more diligent effort to comply with this requirement.” Id.

* In a July 23, 1970 letter to defendant, Mr. Tift stated: “[Plaintiff has] deviated from the recommended monthly inspection to a quarterly inspection and servicing of the air relief and blowoff valves due to the very large number of valves, and the inaccessibility of their locations during inclement weather.” Id. at A210.

* In a December 24, 1986 letter, defendant asked plaintiff to describe its concerns in writing regarding the operation and maintenance of the conduit. Id. at A161. Defendant then suggested that plaintiff might find solutions to its problems in the DOC, specifically the following sections: (1) Article 3. Purpose and Scope of Criteria, (2) Article 5. Pipelines, (3) Article 6. Air Valve Structures, (4) Article 7. Blowoff Structures, (5) Article 8. Access Manholes, (6) Article 11. 48-Inch Butterfly Valve, (7) Article 12. Valve Pit Heating System, (8) Article 15. Regulating and Auxiliary Tanks, (9) Chapter VI, Article 18. Preparation for Filling, (10) Article 19. Filling, and (11) Article 20. Unwatering. Id. at A161-62. With regard to blowoff structures, defendant specifically recommended: “Draining is by gravity to the level of the blowoff connection; then residual water is removed by using a portable pump with flexible intake hose which can be inserted into and lowered down the riser pipe.” Id. at A162.

* In its February 17, 1999 report, PACE Engineering stated: “Because of the nipple locations, the flow in the conduit must be shut off in order to replace the 2-inch nipples that have severely corroded in many instances. Shutting off the water in the conduit is a drastic action, but it must be done many times in order for [plaintiff] to repair over [one] hundred installations[,] most of which are extremely difficult to access.” Id. at A95. The report further stated: “The vaults and the included piping and valves that were examined were constructed in accordance with the construction drawings. Unfortunately[, defendant’s original] vault design has created some serious corrosion problems. The design flaws include vault location, vault drainage and ventilation, and material choices for piping valves and fittings.” Id. at A94.

* In its October 24, 2002 Facility Review, defendant stated: “This examination found various [blowoffs], riser pipes, and air release valves of the Pipeline to be in poor condition as a result of submersion of the pipework, due to their respective vaults usually being partially or completely filled with standing water.” Id. at A119. Defendant then recommended that plaintiff “[p]erform a complete assessment of the condition of the pipework in all [blowoff]/air release valve vaults[] and all drains of the Main Aqueduct[, r]epair/replace all corroded/damaged components as necessary, and remove all encroaching vegetative root masses.” Id. at A117.

* In a January 27, 2003 internal memorandum, plaintiff stated: “As a result of the Corrosion Study conducted in 1999, there arose questions concerning the original design and installation of the conduit. After reviewing all available information, [plaintiff] is of the opinion that many of the underlying problems [it is] now facing with corrosion and flooded vaults are indeed [the result of] flaws in the original design (i.e., lack of isolation valve(s), location of vaults in creek beds, inadequate drain size, etc.)” Id.

* In its August 8, 2003 report, PACE Engineering noted that some of the valve stations contain “water (sometimes 8 feet and more), rocks (some weighing 150 pounds or more), beer cans and bottles, moss and root balls (sometimes completely encapsulating the equipment), dead and live reptiles, and animal remains.” Id. at A135. It then concluded that the valve corrosion is caused by entrapped water: “The cause of the corrosion is usually entrapped water in the vault which facilitates the galvanic corrosion cell created by the threaded galvanized steel connection to the bronze gate valve.” Id. at A141.

c. Absence of Horizontal Drain Pipes

The third area in which plaintiff encountered problems concerns the absence of horizontal drain pipes. The following facts are salient:

* In 1964, defendant created specification drawings for the conduit. See id. at A1-31. The drawings provided detailed designs of the drain valves and blowoff valves, located at the low points along the main conduit, and indicated that the drain pipes from those valves were to be “extend[ed] as directed.” Id. at A9.

* In his January 17, 2014 deposition, Mr. Tift stated that the conduit was drained “lots of times” and that the rate of dewatering of the conduit was limited to avoid the risk of the conduit collapsing due to a sudden drop in water pressure. Id. at A647.

d. Toppled Concrete Vault at Station 144+50

The fourth area in which plaintiff encountered problems concerns the toppled concrete vault at Station 144+50. The following facts are salient:

* In his January 17, 2014 deposition, Mr. Tift stated that the concrete vault located at Station 144+50 had toppled in the mid-1970s. Id. at A647-48.

* In his March 5, 2015 deposition, William Gustavson, an environmental consultant who has worked for plaintiff and was retained by plaintiff as an expert in this case, stated that the vault enclosing the air release valve located at Station 144+50 had toppled more than once, probably in the mid-1970s. Id. at A631.

* According to defendant, when the same vault again toppled in 2002, plaintiff informed defendant that it was likely due to high Salt Creek flows from what had been an extremely wet season. Id. at A120.

e. Corrosion of Main Conduit Piping and Use of Inadequate Joint Sealant

The fifth area in which plaintiff encountered problems concerns the corrosion of the main conduit piping and defendant’s use of an inadequate joint sealant. The following facts are salient:

* The November 1962 Definite Plan states:

While the unit will receive excellent quality water, minor treatment may be required before it is used for domestic purposes. Treatment of domestic water can be accomplished either as a [D]istrict function or on an individual basis. If the suburban lands develop in two concentrated areas as projected, an economical method of treating their water may be found in using elevated tanks containing chlorinating facilities for each area. Chlorination is not considered to be a project function, however, and costs for these facilities were not included in the official estimate.

Id. at A309. It further states: “When domestic use develops in concentrated areas, the District may elect to build separate lines from the proposed distribution system to treatment plants and storage tanks.” Id. at A311-12.

* On August 31, 1965, defendant modified the construction contract to provide for electrical bonding across pipe joints in the conduit. Id. at A166-69.

* In its August 7, 1969 Facility Review, defendant discussed its efforts “to evaluate the Polycalk 210 sealer used at the joints of the O-ring pipe.”² Id. at A35. Defendant noted that it had not been able to complete its evaluation because the conduit had “not been out of service since start up.” Id. Defendant then noted that it had asked plaintiff to notify defendant’s regional office any time the conduit was “expected to be out of service in order [that] the material [could] be examined.” Id.

* On December 7, 1971, plaintiff repaired a leak in the conduit, which necessitated the partial draining of the conduit. Id. at A721. In a December 20, 1971 memorandum to its files, plaintiff noted that the electrical bonding across the joint was intact: “Examination of the exterior of the excavated portion of the pipe showed the finish to be in excellent condition. The cathodic protection across the joint was still intact and the coal tar enamel was well-bonded to the steel pipe.” Id. at A722.

* On February 28, 1972, plaintiff asked defendant to reimburse it for the cost of repairing a leak arising from the failure of a gasket joining two sections of the conduit:

At the time of the installation of the main aqueduct by the contractor, and without the District’s knowledge or approval, [the BOR] authorized the experimental application of poly caulking, a pliable, rubber-like material, to a few joints. However, all of the inside joints of the 45 inch main aqueduct were shot, under pressure, with the poly caulking. . . . [T]he poly caulking compound is deteriorating and separating from the joints, and

² The record refers to “Polycalk 2010,” “Rubber Calk 210,” “Rubber Calk 2010,” and “Polycalk 210,” but does not explain if there any differences between them or if they are all references to the same polyurethane caulk material.

[plaintiff] is finding large quantities of this material in its regulating tank at periodic inspections.

* * *

Therefore, in consideration of the above facts, it is the District's opinion that it is the responsibility of [the BOR] to reimburse the District for costs incurred in the repair of the subject leak, and any future leaks that are proven to be the result of [the District's use of the poly caulking material].

Id. at A211. In its April 29, 1972 response letter, the BOR refused: "We regret that there is nothing in the contract that will permit [the BOR] to assume financial responsibility for the repair of leaks." Id. at A212. In addition, the BOR noted that it was not obliged to obtain the District's approval prior to changing the material originally used on the interior of the joints from the preferred coal-tar enamel to Rubber Calk 210, and that the District was aware of the change. Id.

* In a November 19, 1984 letter to defendant, plaintiff stated: "We are concerned about the cathodic protection of this pipeline[—the conduit]." Id. at A723. Plaintiff also asked defendant whether any cathodic protection studies were conducted when the conduit was originally designed and built and whether such studies should now be conducted. Id. On February 22, 1985, defendant responded to plaintiff's letter:

During construction in 1965, cathodic protection was considered and as a result, electrical bonding across the joint-couplings was installed. Therefore, if [defendant] installs cathodic protection at a later time, the pipe will not have to be reexcavated to install bonding.

* * *

If any evidence of corrosion is found, then corrective action should be taken, and cathodic protection would be an important consideration. We do not see any need at this time for more cathodic protection studies.

Id. at A724.

* In its September 15, 1992 Facility Review, defendant stated: "[The District's] Manager feels that if larger drains were installed, the Aqueduct could be rapidly drained, inspected and repaired." Id. at A153. Furthermore, defendant noted that the "small (2 inch) diameter drains in the blowoff structures in the Aqueduct extend the time required for drainage beyond what the District can compensate for with its treated water storage capacity." Id.

* In a January 7, 1999 letter, defendant's area manager informed plaintiff that it was plaintiff's responsibility to provide corrosion protection for the conduit:

The Conduit is owned by the United States but is operated and maintained by the District. We reviewed [BOR's] guidelines for replacements and determined that such corrosion protection falls into the category of a typical maintenance item which is the District's responsibility.

Id. at A313.

* Following a June 6, 2002 inspection of the conduit, the California Department of Health Services noted in its report that, for major repairs, the entire length of the conduit must be drained. Id. at A749. It then concluded that because "[defendant] installed only 2-inch drains at low spots, . . . it will take a long time to drain." Id.

* In its October 24, 2002 Facility Review, defendant recommended that plaintiff "[d]etermine whether a corrosion monitoring and/or cathodic protection system is necessary and/or feasible." Id. at A117. Defendant further recommended: "If necessary and feasible, then design and install an effective monitoring or cathodic protection system for the Main Aqueduct." Id.

* In its August 8, 2003 report, PACE Engineering stated that it had conducted corrosion investigations for plaintiff in 1988 and 1999. Id. at A135. PACE Engineering further stated that "[b]oth of these investigations dealt with the external corrosion issues of the conduit itself [and] . . . concluded that the original design of the pipeline neglected to provide positive continuity bonds across the rubber gasket joints of the pipe, thereby precluding the use of impressed current as a means of cathodic protection." Id. Finally, PACE Engineering noted that a company called Utility Services Associates had "performed an aerial thermographic leak survey in 2002" and had not found any "anomalies (leaks)." Id.

* In his September 25, 2012 deposition, Henry ("Hank") Harrington, a civil engineer for BOR, testified that between 1986 and 1998, the District repaired six leaks in the conduit. Id. at A727. These repairs occurred in April 1986, October 1990, November 1998, February 2007, August 2011, and September 2011. Id.

f. Lack of Sectionalizing Valves

The sixth area in which plaintiff encountered problems concerns the lack of sectionalizing valves. The following facts are salient:

* In its October 24, 2002 Facility Review, defendant stated: "District management has expressed concerns that in [its] opinion, the Main Aqueduct has design deficiencies that limit the District's ability to adequately maintain it. Specifically, the concern is that sectionalizing valving was not designed and constructed to facilitate unwatering of

portions of the Pipeline for examination, repair, and maintenance.” Id. at A120. Defendant further stated: “In recent years, the District developed water storage wells as a short-term emergency water source for use during shutdowns of [its] main system from unwatering of the Aqueduct for repairs.” Id. According to defendant, “[i]n installation of the new wells should serve to help mitigate these constraints.” Id.

g. Inadequate Burial Depth

The seventh and final area in which plaintiff encountered problems concerns the conduit’s inadequate burial depth. The following facts are salient:

* In a December 24, 1986 letter, defendant recommended that plaintiff consult the DOC with regard to the operation and maintenance of the conduit. Id. at A161-62.

* In its February 17, 1999 report, PACE Engineering stated that the burial depth of the conduit “is from a few feet to nearly 30 feet, as the pipeline traverses the undulating terrain.” Id. at A91.

* In its October 24, 2002 Facility Review, defendant stated that “[a]t Station 21+42, the drainage draw down a hillside has eroded material at the base of the vault to the point where the junction of the vertical vault and the Pipeline may eventually become exposed.” Id. at A120. Defendant then suggested that “[a]t the Main Aqueduct, [plaintiff] repair/replace all damaged concrete valve vaults, and ensure that proper cover exists over the Pipeline at the junctions of the vertical vaults to prevent further erosion and/or undercutting of the vaults.” Id. at A117.

8. Defendant’s Water Shortage Policies and Water Allocation

In addition to the problems plaintiff encountered with the water distribution system, plaintiff also questioned the legitimacy of defendant’s water shortage policies and the allocation of water that occurred thereunder.

a. Defendant’s Water Shortage Policies

On September 11, 2001, defendant issued a draft M&I water shortage policy. Def.’s Mot. A884-88. The draft policy guided defendant’s allocation of water to agricultural and M&I water service contractors during conditions of shortage:

During Conditions of Shortage when the CVP is unable to deliver sufficient water to meet the CVP water service contractors’ Contract Total, M&I water service contractor[] allocations are maintained at 100 percent of their Contract Total as the agricultural water service contractor allocations are reduced to 75 percent of their Contract Total in incremental steps. Then, M&I water service contractor allocations are reduced to 75 percent of their historical use in incremental steps as agricultural water service contractor

allocations are reduced to 50 percent of their Contract Total. The M&I water service contractor allocations are maintained at 75 percent of historical use until agricultural water service contractor allocations are reduced in incremental steps to 25 percent of Contract Total. M&I water service contractor allocations are then reduced in incremental steps to 50 percent of historical use until agricultural water service contract allocations are reduced in incremental steps from 25 percent to zero.

In years when the M&I water service contractor allocations are less than 75 percent of historical use, [defendant] would attempt to provide the amount of [public health and safety (“PHS”)] need unmet by contractors’ CVP allocation and other available non-CVP supplies, up to 75 percent of the historical use, subject to the availability of CVP water supplies. There are some years in which allocations to agricultural water service contractors are at or near zero. In those years, CVP water deliveries for unmet PHS need to M&I water service contractors may not be fully realized. Water made available to M&I water service contractors may be reduced below 75 percent of historical use and below the unmet PHS needs when CVP water is not available.

Id. at A909-10.

In November 2015, defendant issued a final “Central Valley Project Municipal and Industrial Water Shortage Policy.” Id. at A903-19. In the Record of Decision, defendant noted that the policy it had applied up to that point was the 2001 draft policy:

The M&I [water shortage policy (“WSP”)] currently being implemented by [defendant] is the 2001 Draft M&I WSP, as amended by Alternative 1B from the 2005 [Environmental Assessment (“EA”)]. Because the assumptions supporting the 2005 EA became outdated and due to significant changes in the Sacramento-San Joaquin River Delta (Delta) and CVP/State Water Project (SWP) operations, [defendant] decided in 2009 to undertake the M&I WSP [Environmental Impact Statement (“EIS”)] to provide an updated M&I WSP that best recognizes the needs of various segments of the water user community and how those needs could be addressed under Conditions of Shortage.

Id. at A906-07.

b. Water Allocation

In 2008 and 2009, defendant declared a water shortage for the Sacramento River Valley, which includes Clear Creek.³ Id. at A531. Defendant determined the amount of M&I water due plaintiff by “averaging [plaintiff’s] use of water for M&I purposes from the three prior unconstrained years and then reduc[ing plaintiff’s] allocation by a percentage determined by [defendant] administratively.” Pl.’s Resps. & Objs. to Def.’s Proposed Findings 77. Ultimately, defendant determined the amount of agricultural water due plaintiff “by subtracting the previously determined M&I allocation from the total quantity of the contract.” Id. at 77-78.

In 2014 and 2015, defendant again declared a water shortage for the entire Sacramento River Valley. Id. at A751. Defendant operated under the same water shortage policy that was in effect in 2008 and 2009; defendant’s calculations as to how much M&I and agricultural water plaintiff was to receive were based on the same formula used for those years. Id.

B. Procedural Background

The original complaint in this case was filed on July 1, 2010. Defendant filed its answer on October 28, 2010, and its first motion to dismiss and for summary judgment on June 22, 2011. On July 22, 2011, plaintiff moved, inter alia, for discovery. On July 26, 2011, briefing on defendant’s motion was stayed pending resolution of plaintiff’s discovery motion. Plaintiff’s motion for discovery was granted on September 8, 2011.

On July 29, 2014, plaintiff filed its first amended complaint. Defendant filed its answer on September 5, 2014. On October 7, 2015, defendant filed its second motion to dismiss and for summary judgment. On April 6, 2016, plaintiff filed its second amended complaint and on June 21, 2016, defendant filed its answer. Defendant’s third motion to dismiss and for summary judgment was filed on July 22, 2016. In response to a court order issued February 15, 2017, the parties filed supplemental briefs addressing plaintiff’s inverse condemnation claim, the second count in its second amended complaint.

As noted above, in its second amended complaint, plaintiff asserts three counts. In Count I, captioned “Breach of Contract for [O&M] and Water Service and Delivery,” plaintiff claims that defendant breached its contractual obligation to both make certain repairs to the conduit and to deliver water. Second Am. Compl. ¶ 32. With respect to the United States’ obligation to repair the conduit, the District contends that “[a]ll of the causes of the failures in the Muletown Conduit arise from defects in construction of the Conduit and failure of the United States to cure those defects.” Id. In addition, plaintiff claims that the remedial efforts required to cure such defects “are not in the nature of ‘Operation and Maintenance’ for which [plaintiff] would be responsible even if it had contractual responsibility for O&M.” Id. Plaintiff then identifies the following specific physical defects in the construction of the conduit: (1) defective and corroded blowoff and drain valves; (2) improper backfill materials; (3) defective valve 144+50; (4) danger of vacuum collapse as a result of undersized air valves, shallow burial of the conduit, and absence of side compaction of backfill materials; (5) absence of cathodic protection; (6) absence

³ The court takes no position at this time with regard to defendant’s authority to declare a water shortage—the court merely notes that defendant made such a declaration.

of a sectionalizing valve below the Centerville turnout; (7) defective air valve vaults; (8) absence of horizontal drains; (9) burial of the conduit at extraordinary depths; (10) placement of blowoff valves and vaults in streambeds and watercourses and stacked vaults; (11) no replacement or upgrade of mercury pressure-based measuring devices for water flow; and (12) inadequate joint sealing. Id. ¶¶ 34-47. With respect to the United States' obligation to deliver water, the District argues that "[w]hen there is an interruption of water service from any cause requiring repairs or maintenance to the Muletown Conduit, the United States has refused to undertake the necessary repairs to make the Conduit serviceable for water delivery," thereby forcing the District, "to mitigate its damages and undertake at least minimal repairs and maintenance to cure the interruption of water service and prevent the endangerment of the more than 10,000 people dependent upon water service from the District." Id. ¶ 32. Finally, plaintiff claims that defendant breached the contract through its loss and/or destruction of all construction records. Id. ¶ 48.

In Count II, captioned "Inverse Condemnation," plaintiff claims that it has "a vested and valuable compensable property interest in its rights to receive annually up to 15,300 acre feet of water that it can treat and serve to its customers for domestic [M&I] use," and that defendant refuses to recognize plaintiff's property interest:

(a) by and through the administration of CVP contracts by the Mid-Pacific region of the Bureau of Reclamation, arbitrarily and discriminatorily, reduced the allocation of water to the District equivalent to the amount of water the District pumped from the Redding Groundwater Basin, in violation of the intent and terms of the District's water service contract predating the WSP, and singling out the District without imposing similar penalties on similarly situated CVP contractors making use of non-CVP water[;] (b) refuses to account for domestic "M&I" use for human beings living on agricultural parcels, and withdraws water from such domestic use as if it were only for agriculture, then physically diverts that water to other users in the CVP; and (c) refuses to recognize the "area of origin" rights of the District to first use of water from the "watershed of origin" (Clear Creek) and "County of origin" (Shasta County) before that water is diverted to downstream users who are outside of the area of origin, and accordingly physically diverts that water to other users in the CVP who are outside the "area of origin."

Id. ¶ 55.

Finally, in Count III, captioned "Declaratory Relief," plaintiff seeks a declaration from the court that defendant is obligated to operate and maintain the conduit, and that defendant

cannot deprive plaintiff of its “interest and entitlement to the water under its long term water service contract in contravention of the intent and terms of the contract as well as state laws that control policy implementation of shortage allocations of water.” Id. ¶ 63.

II. STANDARDS OF REVIEW

A. RCFC 12

Defendant’s motion to dismiss was made pursuant to RCFC 12(b)(1) for “lack of subject-matter jurisdiction,” and pursuant to RCFC 12(b)(6) for “failure to state a claim upon which relief can be granted.” According to RCFC 12(b), “[e]very defense to a claim for relief in any pleading must be asserted in the responsive pleading if one is required.” In this case, defendant filed its motion to dismiss plaintiff’s second amended complaint on July 22, 2016, approximately one month after it filed its answer to plaintiff’s second amended complaint. Thus, defendant’s motion to dismiss based on RCFC 12(b)(1) and (6) is, technically, untimely. That is not to say, however, that the court’s subject matter jurisdiction may not be considered.

First, pursuant to RCFC 12(h)(2)(B), the failure to “state a legal defense to a claim may be raised . . . by a motion under RCFC 12(c), which provides: “After the pleadings are closed—but early enough not to delay trial—a party may move for judgment on the pleadings.” Thus, even if a party neglects to present its defense through a timely motion pursuant to RCFC 12(b), the party may still move for judgment on the pleadings pursuant to RCFC 12(c). Furthermore, “courts consider improperly filed motions to dismiss as motions for judgment on the pleadings.” TigerSwan v. United States, 110 Fed. Cl. 336, 339 (2013). “Courts have routinely construed a motion to dismiss for failure to state a claim filed after the answer as a motion for judgment on the pleadings.” Peterson v. United States, 68 Fed. Cl. 773, 776 (2005) (and cases cited therein). In other words, “[t]he legal standard applied to evaluate a motion for judgment on the pleadings is the same as that for a motion to dismiss.” Id.; see also Cary v. United States, 552 F.3d 1373, 1376 (Fed. Cir. 2009) (applying the FRCP 12(b)(6) standard of review to a motion made pursuant to FRCP 12(c)).⁴ Second, pursuant to RCFC 12(h)(3), “[i]f the court determines at any time that it lacks subject matter jurisdiction, the court must dismiss the action.” Accord Arbaugh v. Y&H Corp., 546 U.S. 500, 506 (2006) (The objection that a federal court lacks subject-matter jurisdiction . . . may be raised by a party, or by a court on its own initiative, at any stage in the litigation, even after trial and the entry of judgment. . . . [S]ubject-matter jurisdiction, because it involves a court’s power to hear a case, can never be forfeited or waived.”) (internal quotation marks omitted). In this case, the court will deem plaintiff’s untimely motion to dismiss pursuant to RCFC 12(b)(1) and (6) as an RCFC 12(c) motion for judgment on the pleadings.

⁴ “[T]o the extent permitted by this court’s jurisdiction,” the RCFC “must be consistent with the [FRCP] . . .” RCFC 83(a). Thus, “[t]his court may use interpretations of the Federal Rules in applying analogous Claims Court rules.” Allgonac Mfg. v. United States, 458 F.2d 1373, 1376 (Ct. Cl. 1972); accord Eden Isle Marina v. United States, 89 Fed. Cl. 480, 492 (2009) (“Moreover, because the RCFC’s discovery rules mirror the discovery rules set forth in the Federal Rules of Civil Procedure, the court’s interpretation of its rules ‘will be guided by case law and the Advisory Committee Notes that accompany the Federal Rules of Civil Procedure.’”) (quoting RCFC, 2002 Rules Committee Note 1).

B. RCFC 56

Summary judgment is appropriate when there is no genuine issue of material fact and the moving party is entitled to a judgment as a matter of law. RCFC 56(a); Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). A fact is material if it “might affect the outcome of the suit under the governing law.” Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). An issue is genuine if it “may reasonably be resolved in favor of either party.” Id. at 250.

The moving party bears the initial burden of demonstrating the absence of any genuine issue of material fact. Celotex Corp., 477 U.S. at 323. The nonmoving party then bears the burden of showing that there are genuine issues of material fact for trial. Id. at 324. Both parties may carry their burden by “citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials” or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” RCFC 56(c)(1).

The court must view the inferences to be drawn from the underlying facts in the light most favorable to the nonmoving party. Matsushita Elec. Ind. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986). However, the court must not weigh the evidence or make findings of fact. See Anderson, 477 U.S. at 249 (“[A]t the summary judgment stage the judge’s function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial.”); Contessa Food Prods. v. Conagra, 282 F.3d 1370, 1376 (Fed. Cir. 2002) (“On summary judgment, the question is not the ‘weight’ of the evidence, but instead the presence of a genuine issue of material fact . . .”), abrogated on other grounds by Egyptian Goddess v. Swisa, 543 F.3d 665 (Fed. Cir. 2008) (en banc); Ford Motor Co. v. United States, 157 F.3d 849, 854 (Fed. Cir. 1998) (“Due to the nature of the proceeding, courts do not make findings of fact on summary judgment.”); Mansfield v. United States, 71 Fed. Cl. 687, 693 (2006) (“[T]he Court may neither make credibility determinations nor weigh the evidence and seek to determine the truth of the matter. Further, summary judgment is inappropriate if the factual record is insufficient to allow the Court to determine the salient legal issues.”). Entry of summary judgment is mandated against a party who fails to establish “an element essential to that party’s case, and on which that party will bear the burden of proof at trial.” Celotex Corp., 477 U.S. at 322.

III. DISCUSSION

A. The Tucker Act

Under the Tucker Act, the Court of Federal Claims has jurisdiction to render judgment on any claim against the United States founded upon the Constitution or a contract. 28 U.S.C. § 1491(a)(1). However, the claim must be brought “within six years after such claim first accrues.” Id. § 2501. Under 28 U.S.C. § 2501, a claim accrues “as soon as all events have occurred that are necessary to enable the plaintiff to bring suit, *i.e.*, when ‘all events have occurred to fix the Government’s alleged liability, entitling the claimant to demand payment and sue here for his money.’” Martinez v. United States, 333 F.3d 1295, 1303 (Fed. Cir. 2003) (en

banc) (quoting Nager Elec. Co. v. United States, 368 F.2d 847, 851 (Ct. Cl. 1966)). Because section 2501 “is a jurisdictional requirement for a suit in the Court of Federal Claims,” John R. Sand & Gravel Co. v. United States, 457 F.3d 1345, 1354 (Fed. Cir. 2006), aff’d, 552 U.S. 130 (2008), and serves “as a condition of the government’s waiver of sovereign immunity[,] . . . [it] must be strictly construed,” Hopland Band of Pomo Indians v. United States, 855 F.2d 1573, 1576-77 (Fed. Cir. 1988). Therefore, the limitations period in section 2501 cannot be equitably tolled. John R. Sand & Gravel Co., 552 U.S. at 133-34.

However, claims against the United States are subject to the doctrine of accrual suspension, which provides “that the accrual of a claim against the United States is suspended, for purposes of 28 U.S.C. § 2501, until the claimant knew or should have known that the claim existed.” Martinez, 333 F.3d at 1319. The accrual suspension rule is “strictly and narrowly applied,” Welcker v. United States, 752 F.2d 1577, 1580 (Fed. Cir. 1985), and therefore “it is not necessary that the plaintiff obtain a complete understanding of all the facts before the tolling ceases and the statute begins to run,” Hopland Band of Pomo Indians, 855 F.2d at 1577 (citing Japanese War Notes Claimants Ass’n v. United States, 373 F.2d 356, 359 (1967)). Rather, a plaintiff “must either show that defendant has concealed its acts with the result that plaintiff was unaware of their existence or it must show that its injury was ‘inherently unknowable’ at the accrual date.” Japanese War Notes Claimants Ass’n, 373 F.2d at 359.

An injury is inherently unknowable “until [the claimant] learns or reasonably should have learned of his cause of action.” Id., quoted in Holmes v. United States, 657 F.3d 1303, 1318 (Fed. Cir. 2011); L.S.S. Leasing Corp. v. United States, 695 F.2d 1359, 1366 (Fed. Cir. 1982). Thus, “the ‘concealed or inherently unknowable’ test, which has been used interchangeably with the ‘knew or should have known’ test, includes an intrinsic reasonableness component.” Holmes, 657 F.3d at 1320. That reasonableness component is present in the oft-used example of an inherently unknowable injury given by the United States Court of Claims in Japanese War Notes Claimants Ass’n:

An example . . . would be when defendant delivers the wrong type of fruit tree to plaintiff and the wrong cannot be determined until the tree bears fruit. In this situation the statute will not begin to run until plaintiff learns or reasonably should have learned of his cause of action.

373 F.2d at 359. Describing the concept of inquiry notice, the court stated:

Defendant is not required to wait until plaintiff has started substantiating its claims by the discovery of evidence. Once plaintiff is on inquiry that it has a potential claim, the statute can start to run. This standard is in line with the modern philosophy of pleading which has reduced the requirements of the petition and left for discovery and other pretrial procedures the opportunity to flesh out claims and to define more narrowly the disputed facts and issues.

Id.

B. Plaintiff's Breach-of-Contract Claims Regarding the Structure of the Conduit

1. The Parties' Positions

Defendant argues that plaintiff's allegations concerning the conduit are untimely. Def.'s Mot. 10. Defendant contends that plaintiff was either aware or should have been aware of the structure of the conduit because plaintiff was involved in its initial planning and design, which occurred in the 1960s. Id. According to defendant, plaintiff's knowledge included or should have included "the specifications for the air release valves, the concrete vaults housing the valves, the piping within the vaults and means of drainage from the vaults, drain valve size, and the placement of valves and vaults along the length of the conduit." Id. Specifically, defendant notes that (1) the 1962 Definite Plan for the conduit stated that plaintiff's board of directors worked closely with defendant; (2) following construction, plaintiff was provided with a copy of the conduit's design, which contained detailed drawings of the conduit's pertinent features; (3) plaintiff inspected the conduit after construction was complete; and (4) plaintiff worked with defendant to determine how best to transfer operation and maintenance responsibilities for the conduit from defendant to plaintiff. Id.

In addition, defendant argues that plaintiff was aware of its obligation to operate and maintain the conduit. Id. According to defendant, when plaintiff assumed these responsibilities in 1967, defendant provided plaintiff with a draft version of the DOC, "a manual setting forth Clear Creek's duties to operate and maintain the conduit and associated distribution system." Id. Defendant claims that the DOC contained "record-keeping requirements, inspection schedules, maintenance procedures, and operating requirements for the Muletown Conduit, distribution system, and treatment plant." Id. Defendant further notes that in March 1968, it provided plaintiff with a final version of the DOC, id., and that in 2001, the parties signed an agreement that transferred title to the distribution system from defendant to plaintiff: "That agreement provided that Article 16 of the 1963 agreement, the provision in which Clear Creek assumed responsibility for repairs to the conduit, remained 'operative' as to the conduit," id. at 11.

Plaintiff counters that its claims are not barred by the six-year statute of limitations. Pl.'s Resp. 8-9. According to plaintiff, many of its monetary breach of contract claims are for incidents that occurred after plaintiff entered into its current long-term water service contract in 2005, and thus are timely. Id. at 8. With respect to its defective design/construction claims relating to leaks in the conduit that occurred at three separate locations in February 2007, August

2011, and September 2011, plaintiff argues that these claims are timely. Id. Finally, with respect to defendant’s overarching argument that plaintiff’s defective design/construction claims are in fact O&M claims—for which defendant denies responsibility—plaintiff contends that herein lies a genuine issue of material fact, thereby precluding summary judgment. Id. Despite plaintiff’s final contention, it nevertheless provides the court with arguments as to why each of its defective design/construction claims should not be viewed as O&M claims. Id. at 9-16.

In its reply, defendant argues that plaintiff misapplies the law on claim accrual. Def.’s Reply 1-4. Defendant argues that “[t]he discovery rule applies only when a plaintiff lacks knowledge of his injury; it does not apply when he knows of his injury but does not comprehend its legal or technical ramifications.” Id. at 2. Thus, according to defendant, because plaintiff was aware of various problems with the conduit more than six years before it filed its complaint, plaintiff should have sought expert analysis at an earlier date: “Once Clear Creek knew of its injuries, it was no longer powerless to do something about them.” Id. at 4.

2. Analysis

a. Valve Corrosion

First, plaintiff seeks reimbursement of \$221,594, the amount it incurred repairing the conduit’s “defective and corroded [blowoff] and drain valves.” Second Am. Compl. ¶¶ 34-36. Although a specific date is not set forth in the complaint, according to plaintiff:

It was discovered by [plaintiff] that the blowoff and drain valves on the Muletown Conduit had been improperly designed and installed during the original construction of the Conduit, and that those valves had become corroded, defective, broken, and/or “frozen.” The subject valves were and are in vaults at low points in the Conduit that are flooded almost year-round due to their placement in streambeds or watercourses, resulting in corrosion of the valves due to constant inundation in water and exposure to organic materials, and the need for their replacement. The potential for valve failures, breaks, leakage from the Conduit, and extended interruption of water service from the Conduit posed a threat to public health and safety for the residents and customers of the District.

Id. ¶ 34.

Defendant, citing the following examples, argues that plaintiff knew about the corroded valves for decades: (1) in 1988, plaintiff received a report from PACE Engineering in which the firm identified “galvanic corrosion of nipples at valves and specifically suggested that the ‘air and blowoff valve steel nipples be replaced’”; (2) in its 1992 Facility Review, defendant noted that “the galvanized steel nipple on the blowoff valve adjacent to the Need Camp flow meter was rusted out and leaking” and that “[o]ther blowoff valve and air valve nipples have begun to corrode and will probably also begin to leak”; (3) in January 1999, defendant told plaintiff that

replacement of the corroded parts on the air-release valves falls within the category of routine maintenance, which was plaintiff's responsibility; (4) in February 1999, PACE Engineering informed plaintiff that "observation of the [blowoffs] and air-release valve installations revealed that a wide range of corrosion activity [was] occurring"; and (5) in October 2002, as noted in defendant's Facility Review, plaintiff complained to defendant that the "valve vaults were not properly designed," and that the improper design "led to submergence and substantial corrosion and deterioration of the pipework inside many of the vaults." Id. at 11-12. Defendant also contends that during this period plaintiff knew—by virtue of defendant's unwillingness to make any necessary repairs to the conduit and by virtue of the parties' 2001 title transfer agreement, which provided for the continuing operation of Article 16 of the 1963 agreement (wherein plaintiff assumed responsibility for repairs to the conduit)—that defendant expected plaintiff to make any necessary repairs to the conduit. Id. at 13. Thus, defendant argues, because plaintiff did not file suit until July 1, 2010, more than six years after it should have been aware of its claim, plaintiff's claim is untimely and the court lacks jurisdiction. Id.

In its response to defendant's motion, plaintiff "freely admits it was aware of severely corroding valves more than six years prior to the complaint." Pl.'s Resp. 9. However, plaintiff argues that "the fundamental cause of the severe corrosion and its origin in defective design/construction of the Conduit was not actually known to Plaintiff until shortly before litigation commenced." Id. Specifically, plaintiff argues that "[w]hile the corrosion was visible on inspection, [it] was not aware of the relation of the corrosion to the design and placement of the vault and valve structures in drainages and streams, nor was [it] aware except through expert analysis that any alternative locations were available that would avoid constant inundation of the valves in drainage water[,] nor was [it] aware that the design/construction of the vault and valve assemblies was a violation of the standard of care prevalent in 1963." Id. Plaintiff further notes that it was not until after it obtained expert advice did it learn that defendant should not have located the vault and valve assemblies in the lowest point in the topography, because it was here that these structures coincided with drainage channels and streambeds, thus necessitating that the vaults be pumped prior to inspection. Id.

The court is not persuaded by plaintiff's explanation. In its motion for summary judgment, defendant demonstrates, through its identification of four examples, that plaintiff knew about the corroding valves as early as 1988—knowledge plaintiff concedes. Defendant then cites an example from the record that demonstrates not just that plaintiff was aware that the valves were corroding but that plaintiff unequivocally believed that the corrosion was due to defendant's defective design and construction of the conduit. In its October 24, 2002 report on plaintiff's O&M of its water distribution system, defendant memorialized plaintiff's concern that the conduit's "sectionalizing valving was not designed and constructed to facilitate unwatering of portions of the Pipeline for examination, repair, and maintenance." Def.'s Proposed Findings A120.

In its objections to defendant's proposed findings of fact, plaintiff provides another unpersuasive rationale for its failure to file suit earlier. According to plaintiff, its "primary claim with respect to the inadequate air valves was not discovered until around the time of initiation of this litigation as the concern is the extreme hazard of pipeline vacuum collapse caused by the inadequate air valves if there is a rapid uncontrolled dewatering of the Conduit." Pl.'s Resps. &

Objs. to Def.’s Proposed Findings 59. This statement does not withstand scrutiny, however, in light of plaintiff’s obvious concern in 2002 with the basic design of the conduit. That concern, which plaintiff voiced to defendant at some point prior to defendant’s preparation of its October 24, 2002 report, should have triggered an investigation on plaintiff’s part into the nature of the alleged deficiencies. If plaintiff had investigated the problem at that point in time, it would have become aware, as it did just prior to the instant litigation, of potential claims for multiple design and construction deficiencies. Having failed to do so, however, plaintiff cannot now escape the Tucker Act’s six-year statute of limitations by claiming that its initial concern regarding the inadequacy of the air valves—that the design of the air valve did not allow plaintiff to efficiently and expeditiously unwater the pipes, thereby limiting shutdown times, allowing for quick repairs, and lessening the need for short-term water sources—is wholly unrelated to its recent discovery that the inadequacy of the air valves increased the potential for pipeline collapse due to the uncontrolled dewatering of the conduit.

With respect to plaintiff’s claim that valve corrosion was due to defendant’s defective design and construction of the conduit, plaintiff knew or should have known that it had a potential cause of action by no later than October 24, 2002, at the latest. Therefore, the court lacks subject matter jurisdiction over this claim.

b. Flooding of Concrete Vaults

Second, plaintiff claims that defendant’s design for the conduit “did not make any provision to carry away the water [from the concrete vaults], resulting in the flooding of the vaults and danger to operation of the air valves.” Second Am. Compl. ¶ 42.

According to defendant, within two years after the conduit began operating, in 1967, plaintiff was aware that certain concrete vaults had the propensity to fill with water. Def.’s Mot. 13. In support of its argument, defendant references its October 7, 1969 Facility Review, wherein defendant observed that “[s]everal of the air relief and blowoff structures were examined,” and that “[t]he majority were found to be full of water.” Id. at 13-14. Defendant further notes that, due to the findings in the Facility Review, it recommended that plaintiff make more of an effort to inspect and test the valves on a monthly basis, as required by the DOC. Id. at 14. Finally, defendant notes that Mr. Tift, plaintiff’s maintenance manager, indicated in two letters written to defendant in 1970 that he agreed that more frequent pumping of the vaults was necessary. Id. Defendant argues that this knowledge demonstrates that, as early as 1970, plaintiff was aware that defendant believed it was plaintiff’s obligation to maintain the valves, despite the difficulty of doing so in inclement weather. Id. In addition, defendant argues that between 1999 and 2002—if not earlier—plaintiff should have been aware of the alleged defects in the design of the concrete vault, as indicated in the studies conducted by PACE Engineering in 1999 and 2003. Id. at 15.

Plaintiff argues that defendant improperly characterizes vault design as an issue distinct from valve corrosion. Pl.’s Resp. 10. In addition, plaintiff claims that “[defendant] merely demanded repairs to these structures without acknowledging its own responsibility for their singular cause through its own defective design/construction.” Id. According to plaintiff, it only

learned of the faulty vault design as a result of the expert it retained shortly before this suit was filed. Id.

It is clear from defendant's October 7, 1969 Facility Review, Mr. Tift's correspondence from 1970, and PACE Engineering's February 17, 1999 and August 8, 2003 reports that plaintiff was aware that the vaults were flooding regularly and that more frequent pumping of the vaults was necessary. Furthermore, it is clear that at some point prior to October 24, 2002, the date of defendant's "Review of Operation and Maintenance Examination Report," plaintiff concluded that the conduit possessed various "design deficiencies that limit[ed its] ability to adequately maintain it." Def.'s Proposed Findings A120. Whether characterized as an issue of valve corrosion or vault design, plaintiff cannot escape the fact that it, not defendant, viewed these problems as design defects and therefore had a duty to inquire—in 2003 at the latest—whether it had a potential cause of action against defendant. Therefore, the court lacks subject matter jurisdiction over this claim.

c. Absence of Horizontal Drain Pipes

Third, plaintiff claims that "each [blowoff] and drain was to have had a horizontal drainpipe extending at various distances underground until they emerged into daylight on the ground surface for effective draining of water from the Conduit." Second Am. Compl. ¶ 43.

Defendant argues that plaintiff was or should have been aware, before the conduit was constructed, "that the blowoff valve drain pipes were not horizontal, were not specified to be horizontal, and were placed in drainage courses and were sometimes inaccessible due to weather." Def.'s Mot. 17. Specifically, defendant claims that plaintiff was closely involved in the initial planning of the conduit and received a copy of the detailed design drawings and specifications either before or immediately after construction was completed. Id. at 16. According to defendant, these drawings specified that the drain valves were to be located at the bottom of the main conduit and that the pipes from the drain valves were to be "extended as directed." Id. In addition, defendant notes that after construction of the conduit was completed, plaintiff worked with defendant to determine the conditions by which the conduit's O&M responsibilities would be transferred from defendant to plaintiff. Id. According to defendant, not only did plaintiff inspect the conduit prior to the transfer, but plaintiff had—on numerous occasions—previously drained the conduit and inspected its vaults and valves. Id.

Plaintiff contends that it was only during the discovery phase of the current litigation, "after strenuous and extensive investigation and search for any scrap of evidence or documentation relating to the plans and specifications for the Conduit," that it discovered that the construction specifications required horizontal drains. Pl.'s Resp. 10. In addition, plaintiff notes that defendant's expert, Mark Gemperline, concluded that the drains were supposed to be vertical—as constructed—rather than horizontal. Id. at 11. When confronted with the discrepancy between the specifications and the actual construction, Mr. Gemperline claimed that the change to the conduit's design must have been made in the field—a fact plaintiff argues it could not possibly have been expected to discover. Id.

In November 1962, defendant published the Definite Plan, which provided a broad overview of the proposed conduit. See Def.’s Proposed Findings A274-312; Pl.’s Resps. & Objs. to Def.’s Proposed Findings A753-846. Two years later, in 1964, defendant completed the conduit’s specification drawings. Def.’s Proposed Findings A1-31. That document, which provided details regarding the design of the valves and vaults, was prepared in advance of defendant’s receipt of contractor bids for the construction of the conduit. Id. On January 29, 1965, defendant awarded the construction contract for the conduit to a third party, Baker-Anderson Co. Id. at A167. On June 14, 1967, the parties conducted a joint inspection of the conduit and determined that it was ready for use and, effective July 1, 1967, plaintiff assumed its O&M responsibilities for the conduit and distribution system. Id. at A213. At that time, defendant gave plaintiff a draft version of the DOC. Id. at A656-720 (1968 version). Plaintiff received a final version of the same manual in 1968. See id. at A171. Finally, in 1975, defendant provided plaintiff with a copy of the “Manufacturer’s Drawings, Reclamation Construction Drawings, Logs of Exploration, Alignment and Profile-Geology, Electrical System Diagrams, Plan and Profiles, [and] Topography and Unit ownership Drawings.” Id. at A172-94.

It is clear, therefore, that before, during, and after the construction of the conduit, plaintiff was aware of the conduit’s specifications. What is unclear, however, is whether plaintiff knew or should have known, by virtue of the parties’ June 14, 1967 joint inspection of the conduit, that the drain pipes were installed vertically. With respect to the absence of horizontal drain pipes, the court concludes that there is a genuine issue of material fact as to whether plaintiff knew or should have known that vertical drain pipes were installed even though the construction specifications called for horizontal drain pipes. Therefore, defendant’s motion for summary judgment will be denied as to this claim.

d. Toppled Concrete Vault at Station 144+50

Fourth, plaintiff claims that defendant bears a contractual responsibility to repair the toppled vault located at Station 144+50. Second Am. Compl. ¶ 38.

Defendant argues that this claim is barred by the statute of limitations because plaintiff has been aware of the toppled vault and has refused to repair it for more than six years prior to filing suit in this case. Def.’s Mot. 17-18. Specifically, defendant claims that the vault had toppled at least twice—once in the 1970s and one in the early 2000s—and that, as noted in defendant’s October 24, 2002 Facility Review, plaintiff informed defendant that the vault had toppled. Id. at 17. In addition, defendant contends that plaintiff has long been aware that defendant would not repair the vault and that defendant believed that it was plaintiff’s responsibility, pursuant to the 2001 title transfer agreement, to make any such repairs. Id.

Plaintiff contends that defendant’s argument is based on the erroneous assumption that plaintiff either observed the vault toppling or had some means of investigating the incident and thereby appreciated why the vault toppled on two occasions. Pl.’s Resp. 11. In addition, plaintiff notes that the vault at this location was a stacked vault that was located “in the middle of a stream that carries high velocity water and debris during the peak flows of storm events in the winter.” Id. According to plaintiff, it only learned of this significant fact during discovery:

A “stacked vault” is a combination of one concrete cylinder stacked on top of another and secured at their junction with mortar, in lieu of using a single but longer length of vault. What Plaintiff learned from its experts was that a mortar joint in a stacked vault does not have the tensile strength to withstand high flows of water or the impact of heavy debris carried by storm flows, and therefore vaults designed/constructed this way are at high risk of toppling, breakage, and destruction (contrasted with single length vaults that would have the structural integrity to remain intact).

Id. at 12.

The parties do not dispute that plaintiff was aware, at least in 2002, that the vault located at Station 144+50 had collapsed. Thus, at the point that plaintiff discovered the collapsed vault, it was on notice that it had a potential cause of action that demanded investigation. This discovery triggers the accrual of plaintiff’s claim, not its understanding of the exact nature of its claim. In other words, it is of no moment that plaintiff believed, as revealed in defendant’s October 24, 2002 Facility Review, that the sole cause of the toppled vault was high water flows. See Def.’s Proposed Findings A120 (“The vault located at Station 144+50 was observed lying on its side partially filled with rounded river cobble The [blowoff] for this particular vault was buried and not visible. Its condition is therefore undeterminable. According to [plaintiff’s] personnel, high Salt Creek flows during a past extremely wet season likely undermined and toppled the vault.”). Furthermore, plaintiff has not established that defendant in some way concealed the toppled vault or that the existence of the toppled vault was inherently unknowable. Therefore, the court lacks subject matter jurisdiction over this claim.

e. Corrosion of Main Conduit Piping

Fifth, plaintiff asserts two claims concerning the corrosion of the main conduit piping. First, plaintiff claims that defendant bears a contractual responsibility to repair a series of pinhole leaks in the conduit. Second Am. Compl. ¶ 37. Plaintiff contends that, at the time of the conduit’s construction, defendant failed to comply with specifications that called for the use of backfill materials that contained “rocks no larger than 1 and ½ inches in size for a distance of 6 inches from the coating of the Conduit.” Id. According to plaintiff, defendant’s use of native soil, which contained rocks larger than those allowed, increased corrosion of the coal tar enamel coating and resulted in pinhole leaks. Id. Second, plaintiff contends that “engineered means of electrical continuity[,] in combination with cathodic protection and installation of monitoring facilities[,] should have been installed along the entire Conduit alignment at the time of Conduit construction as a strategy to control external conduit corrosion.” Id. ¶ 40.

i. Backfill Materials

With respect to plaintiff’s first contention, defendant argues that plaintiff “should have been aware of the condition of the surrounding soil from having repaired numerous leaks in 1986, 1990, and 1998 in the so-called ‘hot spot’ area.” Def.’s Mot. 19. Defendant thus concludes that plaintiff’s claim is untimely because plaintiff “was aware of the soil conditions

prior to July 2004.” Id. Defendant also argues that plaintiff should have been aware that it was defendant’s position that plaintiff was “responsible for routine leak repairs, whatever the cause.” Id.

Plaintiff argues that “[t]he viewing of soil in an excavation, especially in the ‘hot spot’ area—especially where there have been several different and potentially overlapping excavations—poses difficulty in discerning that [defendant] used improper backfill materials as a standard practice or operating procedure when it built the Conduit in 1965.” Pl.’s Resp. 12. According to plaintiff, “it is problematic to confirm that the soil in a specific location has not been excavated and mixed on a prior occasion, and the extrapolation of that to an entire 8.5 miles of Conduit is far fetched with only that evidence.” Id. Plaintiff adds that it was only able to confirm defendant’s widespread use of nonconforming backfill material after it discovered, during the course of discovery in this case, 8 mm movies depicting the conduit’s construction in 1965. Id.

The court agrees with defendant that plaintiff should have known, after having had to make numerous repairs to the conduit in 1986, 1990, and 1998, that there was a possibility that the backfill material that caused the pinhole leaks in the hot spot area was used on the entire length of the conduit. Had there only been one such leak or perhaps even two, it would not be reasonable to conclude that plaintiff knew or should have known of the potential cause of action. However, when plaintiff discovered that native soil—soil that did not meet the conduit’s specifications—had been used as backfill material on multiple occasions, plaintiff was obliged to investigate whether the use of such material was widespread. This duty to investigate existed even though the sites at issue had previously been excavated and a mix of conforming and nonconforming soil had been found. Plaintiff should have known of defendant’s failure to utilize appropriately-sized backfill at least by 1998—well before plaintiff obtained and viewed, during the course of discovery, movies that depict the conduit’s construction. Therefore, the court lacks subject matter jurisdiction over this claim.

ii. Cathodic Protection

With respect to plaintiff’s second contention, defendant notes that “[t]he conduit also is protected from corrosion by other means, such as its coal-tar enamel coating on both the exterior and interior of the metal pipe,” and that “[c]athodic protection requires the installation of continuous electrical bonding, which was put in place during construction of the conduit.” Def.’s Mot. 19-20. According to defendant, plaintiff’s contention that defendant “should also have installed an ‘engineered means of electrical continuity in combination with cathodic protection and installation of monitoring facilities should have been installed along the entire Conduit” is without merit because (1) plaintiff knew that cathodic protection was not installed at the time the conduit was built; (2) plaintiff knew that the conduit did not have cathodic protection at the time plaintiff made repairs to the conduit in 1986, 1990, and 1998; and (3) plaintiff knew that defendant considered it plaintiff’s responsibility to install cathodic protection because in defendant’s 2002 Facility Review, defendant recommended that plaintiff determine whether “a corrosion monitoring and/or cathodic protection system is necessary and/or feasible,” and if so, that plaintiff should “design and install” one. Id. at 20.

Plaintiff argues that it “was not ‘aware’ that the electrical bonding was actually present on the Conduit and could not confidently confirm the presence of bonding, until [its] expert actually inspected and tested portions of the Conduit to determine that issue.” Pl.’s Resp. 13. Plaintiff also notes that both an engineer working for PACE Engineering as well as its own field crew concluded that electrical bonding was not present on the conduit. Id.

Irrespective of whether electrical bonding is actually present on the conduit—defendant claims it is, while plaintiff claims it is not—what is clear is that, when defendant issued its October 24, 2002 Facility Review, plaintiff was put on notice that the conduit did not possess “a corrosion monitoring and/or cathodic protection system.” Def.’s Proposed Findings A117. For purposes of analyzing claim accrual, plaintiff knew or should have known that it had a potential cause of action at that point. Therefore, the court lacks subject matter jurisdiction over this claim.

f. Lack of Sectionalizing Valves

Sixth, plaintiff claims that defendant breached the 1963 contract and violated the applicable standard of care at the time the conduit was constructed by failing to install a sectionalizing valve or valves just below the turnout to the Centerville Water District, as required by the construction plans. Second Am. Compl. ¶ 41. According to plaintiff, this failure resulted in the disruption of water service to its customers:

The absence of one or more sectionalizing valves results in a significantly longer period of time being required for the de-watering of the Conduit for repairs or maintenance and thereby contributes to a significantly extended interruption in water service to the District’s customers, with additional costs for labor and materials to accomplish the task, and additional risk/expense from release of larger quantities of chlorinated water which has to be de-chlorinated and protected from drainage into protected salmonid spawning habitat in Clear Creek, as well as unwarranted interruption of water service to about 5,000 people served by Centerville [Community Services District (“CSD”)].

Id.

Defendant argues that plaintiff’s claim as to the sectionalizing valves is time-barred. Def.’s Mot. 22. First, defendant argues that plaintiff cannot assert such a claim now because, having been involved in the planning and design of the conduit, plaintiff was aware of the lack of sectionalizing valves at the time the conduit was constructed. Id. Second, defendant notes that in 2002, plaintiff raised concerns regarding deficiencies in the conduit’s design but then mitigated the problem by installing “water wells as a short-term emergency water source for use during shutdowns of the main system.” Id.

Plaintiff admits that it was aware that sectionalizing valves were not present in the conduit, but argues that it did not become aware of the need for them until much later, as a result

of “the growth of Centerville CSD as a ‘wholesale’ customer.” Pl.’s Resp. 13-14. According to plaintiff:

The advent of a high growth suburban M&I water user in Centerville CSD that obtains all its water from the Conduit manifested the need for sectionalizing valves to protect the health and safety of these particular customers on an increasing basis that raised the absence of sectionalizing valves to the level of a health and safety risk to a significant human population.

Id. at 14.

The court is not persuaded by plaintiff’s argument that it was not aware of the need for sectionalizing valves until Centerville CSD became a wholesale customer. By virtue of its contemporaneous receipt of defendant’s October 24, 2002 Facility Review, it is clear that plaintiff knew or should have known in 2002 that it had a potential cause of action with respect to the sectionalizing valves. Not only did plaintiff recognize then that the addition of sectionalizing valves would allow it to more easily and rapidly unwater portions of the conduit for examination, repair, and maintenance, thereby lessening the need for a constant supply of treated water during shutdowns, but it actually mitigated the problem by installing water wells to supply emergency water during such shutdowns. Therefore, plaintiff’s claim regarding the lack of sectionalizing valves is untimely, and the court lacks subject matter jurisdiction over this claim.

g. Danger of Vacuum Collapse

Seventh, plaintiff alleges that the conduit is at risk of collapsing due to a vacuum created by the sudden dewatering of the conduit. Second Am. Compl. ¶ 39. According to plaintiff, three of the conduit’s design features “individually create” this risk. Id. They are:

- (a) Undersized air valves. The 2" air valves installed during construction of the Conduit are grossly undersized to protect against the risk of vacuum collapse of the Conduit, and failed to meet the standard of care in existence in 1965, at the time of construction. At a minimum 4" or larger air valves should have been installed.
- (b) Shallow burial. Under the standard of care in 1965 (and still today) the Conduit should have been buried at least one diameter underground—45" or 42" to provide “ring strength” to resist vacuum collapse. In many places the Conduit has been found to have been buried two feet or less beneath the surface. . . .
- (c) Absence of side compaction of backfill materials. The specifications for the construction of the Muletown Conduit, Specifications No. DC-6184, call for specific materials and procedures for compaction of the backfill surrounding the Conduit. Excavation of the Conduit has revealed no evidence of compaction per these Specifications, and the deposition of a US Bureau of

Reclamation inspector present during construction of the Conduit has indicated that compaction simply wasn't a practice during installation of the Conduit. The absence of compaction makes the Conduit vulnerable to side "deflection" and vacuum collapse.

Id.

Defendant argues that the claim is time-barred because plaintiff has been aware of these conditions for years. Def.'s Mot. 23. Defendant also contends that "the procedures in the DOC place restrictions on the rate [at which the valves are opened and closed], and [that plaintiff] is obligated to follow the DOC's procedures when operating and maintaining the conduit." Id. Finally, defendant argues that the risk of an event occurring does not give rise to a cause of action and that for plaintiff to have a cognizable claim for breach of contract, it must be able to prove the occurrence of an actual injury, not simply the potential for one. Id. at 24.

In its response, plaintiff addresses only one of the three factors it originally claimed were responsible for creating a risk that the conduit would collapse—the undersized air valves. Pl.'s Resp. 14. According to plaintiff, defendant incorrectly characterizes plaintiff's concerns relating to the size of the two-inch valves. Id. Plaintiff claims it was concerned that the small size of both the air and drain valves meant that it would take a long time to drain the water and replace the water with air, a process that had to occur before plaintiff could make any necessary repairs to the conduit. Id. Plaintiff further contends that "[i]t was only after [it] retained experts that it learned there was a major health and safety risk associated with the undersized valves." Id.

Again, the court concludes that plaintiff was on inquiry notice in 2002, the year in which plaintiff's general concerns about the design and construction of the conduit were memorialized in defendant's Facility Review, that the conduit was in danger of collapsing. If plaintiff had conducted an investigation at that time, it would have discovered then what it did recently—that the conduit was at risk of collapsing due to the creation of a vacuum caused by rapid dewatering. In other words, as previously concluded by the court with respect to the majority of plaintiff's defective design and construction claims, plaintiff should have—in 2002 at the latest—looked into the effect of valve size on the rate at which dewatering can occur, an issue that in turn impacts the potential for vacuum collapse.⁵ Therefore, the court lacks subject matter jurisdiction over this claim.

h. Excessive Burial Depth

In addition to arguing that the conduit is, in certain spots, buried at too shallow a depth, plaintiff also claims that, in other spots, the conduit is buried at "extraordinary depths of from 15' to 25' beneath the surface of the ground," and that this "enhances the risk of damage to the Conduit and water loss." Second Am. Compl. ¶ 44. According to plaintiff, "[t]here is no engineering purpose for such deep burial, and it enhances risk of damage to the Conduit and

⁵ Having determined that plaintiff's claim that the conduit was at risk for collapsing accrued, at the latest, in 2002, the court need not address defendant's alternative argument that plaintiff's claim is too speculative in nature to be entertained by the court.

water loss.” Id. Plaintiff then identifies three potential dangers associated with deep burial of the conduit:

(a) rock will be encountered in the excavation that will be unsuitable when (as was the practice of the Contractor for the United States that built the Conduit) the same rock is used as backfill on and around the Conduit; (b) stress from “dead load” (weight of the column of earth directly above the pipe) may damage the Conduit; and (c) any leaks at that depth will go straight to groundwater and will never surface or be discovered to allow for repairs.

Id.

Defendant argues that this claim is time-barred because plaintiff was aware of the conduit’s burial depth as a result of having seen the original drawings and having inspected the conduit after its completion. Def.’s Mot. 25. Defendant also argues that, like plaintiff’s claim regarding the risk of vacuum collapse, its claim regarding the risk of harm from the conduit’s burial depth is speculative, and therefore is not a cognizable claim for breach of contract. Id. In addition, defendant notes that the conduit’s burial depth has not actually prevented plaintiff from discovering and repairing leaks in the conduit. Id. Finally, defendant asserts that plaintiff knew—from a report that plaintiff commissioned from PACE Engineering in 1999—that the burial depth of the conduit is between several to thirty feet deep. Id.

In its response, plaintiff addresses its claim that portions of the conduit were not buried deep enough, rather than the issue raised by defendant in its motion for summary judgment—that plaintiff’s claim of excessive burial depth has no merit and is speculative. See Pl.’s Resp. 15 (stating that it did not appreciate that a “shallow burial enhances the vulnerability of the Conduit to vacuum collapse” until it hired an expert in preparation for this case). Thus, the court will disregard plaintiff’s response as irrelevant.

With regard to plaintiff’s claim that portions of the conduit were buried at too great a depth, the court concludes that plaintiff knew or should have known of at least two of the three potential dangers it identifies in its Second Amended Complaint when PACE Engineering issued its report in 1999. While knowledge of the depth at which the conduit was buried would not have put plaintiff on notice that the contractor had potentially used inappropriate backfill materials, it certainly would have alerted plaintiff to the possibility that the weight of the soil above the column would be too great for the conduit to withstand and that any leaks in the conduit at such depths would be difficult to detect and repair. Furthermore, even if plaintiff had not been prompted by PACE Engineering’s 1999 report to investigate further at that time, had it conducted an investigation in 2002—the year in which plaintiff apparently first articulated its concerns regarding the design and construction of the conduit to defendant—plaintiff arguably would have been on notice then that there was a likelihood that defendant’s contractor had used the same improper backfill materials throughout the project, to include those portions of the conduit buried at greater depths. Therefore, plaintiff’s claim regarding excessive burial depth is untimely, and the court lacks subject matter jurisdiction over this claim.

i. Use of Measuring Devices Containing Mercury

Ninth, plaintiff contends that during the conduit's construction in the 1960s, certain devices containing mercury were installed at the southern terminus of the conduit. Second Am. Compl. ¶ 46. These meters measured the rate, pressure, and quantity of water delivered through the conduit at this location. Id. These devices were removed in the early 1980s due to concerns related to mercury poisoning. Id. Plaintiff now claims that defendant breached its duty to replace these gauges with appropriate alternative measuring devices. Id.

Defendant argues that plaintiff knew about the need to replace the meters in the early 1980s and therefore its claim is untimely. Def.'s Mot. 26. Plaintiff does not address this issue in its response to defendant's motion for summary judgment.

Irrespective of whether or not it is defendant's responsibility under the contract to replace the meters, the court concludes that plaintiff's claim is untimely because plaintiff was aware of this potential claim in the 1980s, at the time the gauges were removed. Therefore, the court lacks subject matter jurisdiction over this claim.

j. Use of Inadequate Joint Sealant

Tenth, plaintiff alleges that at some time during the construction of the conduit, defendant "approved the substitution of Rubber Calk 210 in lieu of coal tar enamel," which "falls below the standard of care for manufacture and installation of a large diameter water pipeline at the time the Conduit was constructed." Second Am. Compl. ¶ 47. According to plaintiff, Rubber Calk 2010 peels away from the conduit, degrades over time, and loses its effectiveness as a sealing for pipe joints. Id.

Defendant argues that plaintiff knew of defendant's use of Rubber Calk 210 as early as 1972, and therefore its claim regarding Rubber Calk 2010 is untimely. Def.'s Mot. 26. In support of its argument, defendant references a February 28, 1972 letter written by plaintiff to defendant, wherein plaintiff seeks reimbursement from defendant for the cost of repairing leaks that plaintiff claimed were caused by using an inadequate sealant. Id. Defendant also references a 1969 Facility Review Report, which discusses defendant's efforts to evaluate the Polycalk 210 sealer on joints. Id.

Plaintiff counters that defendant either failed to preserve or destroyed the records pertaining to the conduit's construction and that it was only after plaintiff hired its own expert that plaintiff discovered that "polycalk could not possibly have a useful life similar to that of the Conduit or other material used on the Conduit and would prematurely fail." Pl.'s Resp. 15.

Although plaintiff blames its lack of knowledge regarding the deficiencies of the polycalk compound on defendant's loss or destruction of the records regarding the conduit's design and construction, in fact, plaintiff's 1972 letter to defendant clearly demonstrates that plaintiff was intimately familiar with the sealing material and its shortcomings:

At the time of installation of the main aqueduct by the contractor, and without [plaintiff's] knowledge or approval, [defendant] authorized the experimental application of poly caulking, a pliable, rubber-like material, to a few joints. . . . However, the poly caulking compound is deteriorating and separating from joints, and [plaintiff] is finding large quantities of this material in its regulating tank at periodic inspections.

Def.'s Proposed Findings A211. Therefore, plaintiff's claim that defendant used an inadequate joint sealant is untimely, and the court lacks subject matter jurisdiction over this claim.

C. Plaintiff's Breach-of-Contract Claim Regarding the Loss or Destruction of Records

1. The Parties' Positions

In addition to asserting breach-of-contract claims regarding the structure of the conduit, plaintiff declares that "the records, plans and reports containing the detailed information for [the conduit's] installation," including those "that are necessary for safe and reliable continuous long term operation of the facility . . . that were created and kept by [defendant] have mysteriously been lost or destroyed." Second Am. Compl. ¶ 48. According to plaintiff: "As a direct consequence of the loss of these records [plaintiff], in order to perform any work on the Conduit to protect the health and safety of its customers, has had to employ experts to attempt to investigate and analyze issues related to the construction and condition of the Conduit that otherwise would have been addressed by records that should have been preserved and maintained by [defendant]." Id.

Defendant argues that it does not have a contractual obligation to maintain these records and that even if it does, plaintiff has known of the lack of records since the conduit was completed in 1967, because it was then that plaintiff assumed the O&M responsibilities for the conduit. Def.'s Mot. 27. Thus, defendant contends that this claim is untimely. Id.

Plaintiff counters that "[e]xamination of persons familiar with the Conduit during discovery revealed that the normal practice of construction of the Conduit would have produced daily logs, weekly and monthly reports, and confirmation testing along the entire length of the Conduit," all of which are missing. Pl.'s Resp. 15. Plaintiff therefore argues that it should not have to bear the consequences of the loss of this important information. Id. at 15-16.

2. Analysis

Irrespective of whether or not it is defendant's responsibility under the contract to maintain the conduit's construction records, plaintiff's claim is untimely because plaintiff could have made the argument in 1967, when the conduit was completed and plaintiff assumed O&M responsibilities. In other words, plaintiff knew or should have known then that those records were missing. Therefore, the court lacks subject matter jurisdiction over this claim.

D. Plaintiff's Breach-of-Contract Claim Regarding Water Delivery

1. The Parties' Positions

Plaintiff also alleges that defendant breached its contract with defendant by failing to provide plaintiff all the water to which it was contractually entitled:

[Defendant] has also breached the CONTRACT as it provides for water service and delivery, in that [defendant]: (a) arbitrarily and discriminatorily applies a provision of the WSP to reduce allocations of CVP water to [plaintiff] in amounts equivalent to [plaintiff's] pumping of groundwater from the Redding Groundwater Basin, in violation of the intent of the long term water service contract that preceded any official WSP, while failing to impose such draconian reductions on similarly situated CVP contractors in the Shasta/Trinity division; (b) refuses to account for domestic "M&I" use for human beings living on agricultural parcels, and withdraws water from such domestic use as if it were only for agriculture; and (c) refuses to recognize on a policy basis for the allocation of water under shortage conditions the "area of origin" rights of [plaintiff] to first use of water from the "watershed of origin" (Clear Creek) and "County of origin" (Shasta County) before that water is diverted to downstream users who are outside of the area of origin.

Second Am. Compl. ¶ 50. Plaintiff further alleges that, as a result of defendant's breach of contract with respect to the provision of water in water years 2009, 2014-15, and 2015-16, plaintiff was forced to spend \$160,000, \$200,000, and \$250,000, respectively, for the emergency purchase of water on the open market. *Id.* ¶¶ 51-53. Finally, plaintiff claims that in water year 2015-16, it was also forced to spend "an additional approximately \$61,109 for the 301 acre feet of water pumped from wells instead of purchased as CVP M&I water." *Id.* ¶ 53.

Defendant argues that it has always provided plaintiff with all of the water to which it was contractually entitled. Def.'s Mot. 31-35. According to defendant, plaintiff is not asserting a breach-of-contract claim but rather is voicing its discontent with defendant's water shortage policy. *Id.* at 32. Defendant claims that for water years 2008, 2009, 2014-15, and 2015-16, there was a water shortage in California, which had the effect of reducing plaintiff's contractual entitlement to water. *Id.* Defendant further claims that plaintiff "cannot belatedly challenge the terms of the water shortage policy in this breach of contract action because Article 12 of the 2005 Long-term Renewal Contract explicitly provides that water 'furnished under this Contract will be allocated in accordance with the then-existing Project M&I Water Shortage Policy.'" *Id.* at 33. In addition, in response to plaintiff's contention that defendant reduced the amount of water allocated to plaintiff in amounts equivalent to water plaintiff pumped from the Redding Groundwater Basin, defendant claims that the 2005 long-term contract expressly provides that, with the exception of Article 18(a), which states that defendant cannot make "arbitrary, capricious, or unreasonable . . . determinations," defendant "shall apportion Project Water

among [plaintiff] and others entitled, under existing contracts and future contracts.” Id. at 34. Thus, defendant argues that its decision to offset plaintiff’s water allocation in shortage years, in light of plaintiff’s ability to procure water from another source, cannot be viewed as arbitrary, capricious, or unreasonable, given that defendant is required under the contract to apportion water among the various entities contractually entitled to it. Id. Finally, defendant contends that although plaintiff reserved, in the contract, the right to contest “(i) the sufficiency of the manner in which any Project M&I Water Shortage Policy was promulgated; (ii) the substance of such a policy; or (iii) the applicability of such a policy,” it may only do so in district court by bringing an action pursuant to the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701-706 (2012). Id.

In its response, plaintiff first argues that it was entitled to 15,300 acre feet of water and that therefore defendant did not provide plaintiff the water to which it was contractually entitled. Pl.’s Resp. 18. Second, plaintiff contends that there was no M&I water shortage policy until November 2015, when defendant adopted one through a Record of Decision. Id. Before that time, plaintiff argues, “[d]efendant engaged in a purely administrative process of water allocation in years it determined were ‘shortage years’, a process that was not subject to public notice and hearing, and which was entirely opaque to [plaintiff] and other CVP water contractors.” Id. Finally, plaintiff states that defendant’s allocation decisions did in fact violate the contract because defendant failed to do so “in a manner consistent with its ‘legal obligations’ pursuant to Article 12(b),” which include its obligations under California state law:

Included in [defendant’s] “legal obligations” are its legal duties under the California state law provisions which inform and constrain [defendant’s] administration of its water permits from the State of California and its allocations of water to agencies subject to the state of California county of origin statutes (California Water Code §§10505 – 10505.5) and watershed protection statutes (California Water Code §§11460 – 11463). Pursuant to the county of origin statutes, the water rights permits held by [defendant] require that it “shall not authorize the use of any water outside the county of origin which is necessary for the development of the county.” California Water Code §10505.5. Under the watershed protection statutes [defendant] shall not exercise its permit in a manner so as to deprive [plaintiff] of water in the “watershed or area wherein water originates” of the “water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or property owners therein.” California Water Code §11460.

Id. at 18-19.

2. Analysis

With respect to plaintiff’s claim that it did not receive the quantity of water it was contractually due, the issue is not whether the claim was timely, but whether defendant breached

the terms of the parties' contract. To prove a breach of contract, a plaintiff must establish "(1) a valid contract between the parties; (2) an obligation or duty arising from that contract; (3) a breach of that duty; and (4) damages caused by the breach." Century Expl. New Orleans, LLC v. United States, 110 Fed. Cl. 148, 163 (2013) (citing San Carlos Irr. & Drainage Dist. v. United States, 877 F.2d 957, 959 (Fed. Cir. 1989)). Once a breach of contract is established, the burden shifts to the defendant to plead and prove affirmative defenses that excuse performance. Shell Oil Co. v. United States, 751 F.3d 1282, 1297 (Fed. Cir. 2014) (citing Stockton E. Water Dist. v. United States, 583 F.3d 1344, 1360 (Fed. Cir. 2009)). Damages are awarded in breach-of-contract cases in an amount "sufficient to place the injured party in as good a position as it would have been had the breaching party fully performed." Ind. Mich. Power Co. v. United States, 422 F.3d 1369, 1373 (Fed. Cir. 2005); accord Bluebonnet Sav. Bank, F.S.B. v. United States, 339 F.3d 1341, 1344-45 (Fed. Cir. 2003) ("One of the basic principles of contract damages is that 'damages for breach of contract shall place the wronged party in as good a position as it would have been in, had the breaching party fully performed its obligation.'" (quoting Mass. Bay Transp. Auth. v. United States, 129 F.3d 1226, 1232 (Fed. Cir. 1997))). They are calculated by "perform[ing] the necessary comparison between the breach and non-breach worlds." Yankee Atomic Elec. Co. v. United States, 536 F.3d 1268, 1273 (Fed. Cir. 2008). Finally, to be recoverable, (1) damages must be "reasonably foreseeable by the breaching party at the time of contracting," (2) the breach must be a substantial cause of the damages, and (3) the damages must be "shown with reasonable certainty." Sys. Fuels v. United States, 666 F.3d 1306, 1311 (Fed. Cir. 2012) (internal quotation marks omitted). A party may not recover damages that could have been avoided with reasonable efforts. Ind. Mich. Power Co., 422 F.3d at 1375 (citing Robinson v. United States, 305 F.3d 1330, 1333 (Fed. Cir. 2002)).

First and foremost, the court notes that despite plaintiff's contention that there was no official M&I water shortage policy during the water shortage years of 2009, 2014-15, and 2015-16—*i.e.*, a policy that was promulgated through formal rulemaking under the APA—it is clear from the record before the court that prior to November 2015, when defendant issued a Record of Decision, there was a set of rules in place that the 2005 long-term contract referred to as the "then-existing" water shortage policy. However, with respect to plaintiff's claim that defendant violated the contract between them insofar as it called for the provision of water for M&I and agricultural purposes, the court finds that there are multiple genuine issues of material fact that preclude the court from granting summary judgment as to plaintiff's breach of contract claim with respect to water delivery. Specifically, the record does not provide definite answers as to the following questions:

- (1) What factors led defendant to conclude that there was a water shortage in the years 2009, 2014-15, and 2015-16?
- (2) How did defendant arrive at its "then-existing" water shortage policy?
- (3) What values did defendant use in its 2008 and 2009 water allocation calculations such that "Sacramento Valley agricultural contractors [were allocated] 40 percent of contract entitlement and [M&I] contractors [were allocated] 75 percent of contractual entitlement"?⁶

⁶ Def.'s Proposed Findings A531.

(4) What values did defendant use in its 2014 calculations such that “Sacramento Valley agriculture contractors [were allocated] zero percent of contract entitlement and [M&I] contractors [were allocated] 50 percent of historic use”?⁷

(5) What values did defendant use in its 2015 calculations such that “Sacramento Valley agriculture contractors [were allocated] zero percent of contract entitlement and [M&I] contractors [were allocated] 25 percent of historic use”?⁸

(6) When did the November 2015 water shortage policy take effect?

(7) What allocation occurring in 2016 does plaintiff claim was arbitrary and capricious and why does plaintiff claim that it does not seek review of any allocations occurring pursuant to the formal water shortage policy established by the November 2015 Record of Decision?

(8) During the water shortage years, to whom and in what quantities (both agricultural and M&I) did defendant provide water and how therefore was plaintiff treated differently with respect to the laws regarding county of origin or watershed of origin?

Until more information is before the court concerning defendant’s water shortage policies during the relevant years, any ruling by the court on the merits of defendant’s motion for summary judgment motion as to plaintiff’s breach of contract claim with respect to water delivery would be premature. Therefore, defendant’s motion for summary judgment will be denied as to this claim.

E. Plaintiff’s Fifth Amendment Takings Claim

1. The Parties’ Positions

In addition to its breach-of-contract claims, plaintiff also asserts a Fifth Amendment takings claim, which it captions “Inverse Condemnation,” based on the same allegations underlying its claim for breach of contract with respect to water delivery. Second Am. Compl. ¶¶ 55-59. Specifically, plaintiff alleges that the United States has effected a taking of its contractual right to receive up to 15,300 feet of water annually without just compensation in violation of the Fifth Amendment to the Constitution:

The United States, for the public purpose of advancing its own public policy designs in the M&I WSP and general scheme of water distribution in the CVP refuses to recognize the District’s property interest in the water to be made available under the

⁷ Def.’s Proposed Findings A751.

⁸ Def.’s Proposed Findings A751.

15,300 acre feet of M&I water in the District's long term water service contract, and instead has (a) by and through the administration of CVP contracts by the Mid-Pacific region of the Bureau of Reclamation, arbitrarily and discriminatorily, reduced the allocation of water to the District equivalent to the amount of water the District pumped from the Redding Groundwater Basin, in violation of the intent and terms of the District's water service contract predating the WSP, and singling out the District without imposing similar penalties on similarly situated CVP contractors making use of non-CVP water[;] (b) refuses to account for domestic "M&I" use for human beings living on agricultural parcels, and withdraws water from such domestic use as if it were only for agriculture, then physically diverts that water to other users in the CVP; and (c) refuses to recognize the "area of origin" rights of the District to first use of water from the "watershed of origin" (Clear Creek) and "County of origin" (Shasta County) before that water is diverted to downstream users who are outside of the area of origin, and accordingly physically diverts that water to other users in the CVP who are outside the "area of origin."

Id. ¶ 55.⁹ According to plaintiff, such diversions of water occurred in 2009, 2014-2015, and 2015-2016. Id. ¶¶ 56-58. Defendant counters simply that because plaintiff has not proven the deprivation of a contractually derived property right, it cannot prevail on its takings claim. Def.'s Mot. 35-36. In its reply, plaintiff argues that its taking claim does not fail because, by virtue of depriving plaintiff of its full contract quantity of water, defendant "has deprived it of a vested and valuable compensable property interest." Pl.'s Resp. 19.

In its supplemental brief to the court regarding this claim, plaintiff argues that despite having contracted with defendant for the provision of water from the CVP, plaintiff has asserted a valid physical takings claim. Pl.'s Suppl. Fifth Amendment Mem. 1-4. First, plaintiff contends that its contract for CVP water is a protected property interest under the Fifth Amendment. Id. at 4-5. In support of its contention, plaintiff relies upon Tulare Lake Basin Water Storage District v. United States, 49 Fed. Cl. 313 (2001), a decision in which the Court of Federal Claims found the United States liable for a physical taking when it restricted plaintiff's contractual right to water by virtue of "the application of Endangered Species Act conditions, a biological opinion

⁹ Plaintiff also alleges, in the text of its inverse condemnation claim, that the actions of the United States violated the California state constitution. See Second Am. Compl. ¶ 59. Such claims, however, are not properly before this court under the Tucker Act. See 28 U.S.C. § 1491 (2012). See also Anderson v. United States, 117 Fed. Cl. 330, 331 (2014) ("This court does not have jurisdiction over any claims alleged against states, localities, state and local government entities, or state and local government officials and employees; jurisdiction only extends to suits against the United States itself."); Stephenson v. United States, 58 Fed. Cl. 186, 190 (2003) ("[T]he only proper defendant for any matter before this court is the United States."); RCFC 10(a) ("The title of the complaint must name all the parties . . . with the United States designated as the party defendant; the title of other pleadings, after naming the first party on each side, may refer generally to other parties.").

from the United States Fish and Wildlife Service, and the imposition of ‘reasonable and prudent alternatives’ [] raised by the National Marine Fisheries Service.” Id. at 5. Plaintiff also points to Stockton East Water District, wherein the Federal Circuit permitted plaintiff “to sue on alternative theories of breach of contract and inverse condemnation” in a case where plaintiff’s contractual right to water was reduced as a result of “environmental management decisions.” Id.

Second, plaintiff identifies the following specific government acts it contends effected a taking of its property interest: (1) in 2009-2010, 2014-2015, and 2015-2016, defendant denied water to three hundred farm families living on small parcel farms; and (2) in 2015-2016, defendant subtracted plaintiff’s CVP water allocation by the amount of groundwater plaintiff was pumping. Id. at 5-6. According to plaintiff, these acts also violated plaintiff’s “area of origin” rights under county and state law. Id. at 6.

Lastly, plaintiff suggests that the court analyze its claim as one alleging a physical taking:

This is not a close call. [Defendant] directly and specifically denied water under Plaintiff’s water contract both for farm families on [agricultural] parcels and the diversion of water equivalent to well pumpage. These are not indirect actions, nor do they come at the issue from the perspective of indirect regulation alleged to make the property without economic value. [Defendant] took the water, pure and simple.

Id. at 10.

Defendant counters plaintiff’s takings argument in its supplemental brief. According to defendant, plaintiff has no “independent property right to receive specific water allotments because the water that it seeks is ‘Project Water’ from the [CVP], rather than any natural flow water.” Def.’s Suppl. Fifth Amendment Mem. 1. Thus, defendant argues that “any right to Project Water comes from the contracts and any remedy Clear Creek has would be contractual.” Id. First, defendant claims that plaintiff does not possess any right to water allotments under California law. Id. at 2-7. Defendant argues that the issue in this case is plaintiff’s right to the allocation and delivery of Project Water from the CVP. Id. at 2. Project Water, defendant claims, is not natural flow water but is instead expressly defined in the parties’ contract as “all water that is developed, diverted, stored, or delivered by [defendant] in accordance with the statutes authorizing the [CVP] and in accordance with the terms and conditions of water rights acquired pursuant to California law.” Id. at 3 (internal quotation marks omitted). Thus, defendant avers, to the extent plaintiff claims it has a private property interest in CVP water, that interest only exists as a result of the parties’ contract. Id. at 4-5. Addressing plaintiff’s reliance on Tulare, defendant argues that it is not controlling because: (1) the court failed to consider possible limitations on the plaintiffs’ (several water districts) rights such as prior contracts, prior appropriations, or “some other state law principle,” id. at 5 (internal quotation marks omitted); (2) the court failed to consider possible limitations under state law given that the contracts in that case were between several water districts and the state of California, rather than the federal government, id. at 5-6; and (3) the court never reached the issue of whether plaintiff’s claims were more properly viewed as a taking or breach-of-contract claim, id. at 6. Addressing

plaintiff's reliance on Stockton East Water District, defendant argues that the case is distinguishable because the contract provided that the United States was only protected from liability for shortages beyond its control, id. at 6, and because the court "never examined whether the plaintiff had a Fifth Amendment right to the water outside of any contractual obligations," id. at 7.

Second, defendant argues that because plaintiff possesses no private property interest in the Project Water, there can be no government acts that effected a taking of that property in violation of the Fifth Amendment. Id. at 7-10. Defendant nevertheless addresses each of the acts plaintiff identifies as takings. With regard to defendant's decision to withhold water intended for agricultural use during the drought years, defendant claims that this was expressly permitted by Section 12(c) of the parties' most recent contract. Id. at 7-8. In addition, defendant argues that water for M&I purposes was provided to the entire population served by plaintiff during that time period. Id. at 8. With regard to defendant's decision to offset plaintiff's water allocation during drought years by the amount of water defendant was pumping from the Redding groundwater reservoir, defendant again states that its action was permitted under the terms of the parties' contract, specifically its water shortage policy. Id. at 8-10. Defendant argues: "The draft [water shortage] policy has been in effect since 2001. If Clear Creek disagreed with the application of the draft policy, it should not have signed the most recent water contract in 2005, which expressly refers to the then-existing Project M&I Water Shortage Policy." Id. at 9 (internal quotation marks omitted).

Third, defendant avers that California area of origin statutes do not apply to this case. Id. at 10. According to defendant, "[a]rea of origin laws apply to state-granted water rights for natural flow, not contracts for water stored in Federal CVP facilities." Id. (citing Tehama-Colusa Canal Auth. v. United States, 819 F. Supp. 2d 956, 1001 (E.D. Cal. 2011)). In other words, defendant argues that area of origin laws do not confer on plaintiff a preferential right to water that defendant has already diverted and stored—water that belongs to the federal government, not the state. Id.

Lastly, although defendant does not concede that a taking has occurred, it argues that the government's withholding of water should be analyzed "under the physical takings rubric." Id. at 15.

2. Analysis

The following is settled law:

Plaintiffs are permitted to plead, in the alternative, a breach of contract and a Fifth Amendment taking. Stockton E. Water Dist., 583 F.3d at 1368-69; accord Integrated Logistics Support Sys. Int'l, Inc. v. United States, 42 Fed. Cl. 30, 34 (1998) ("[T]aking claims are not presumed to be foreclosed by claims for breach of express contract merely because the claims share the same factual background."). However, "the concept of a taking as a compensable claim theory has limited application to the relative

rights of party litigants when those rights have been voluntarily created by contract. In such instances, interference with such contractual rights generally gives rise to a breach claim not a taking claim.” Sun Oil Co. v. United States, 572 F.2d 786, 818 (Ct. Cl. 1978) (citation omitted). Specifically, “[t]aking claims rarely arise under government contracts because the Government acts in its commercial or proprietary capacity in entering contracts, rather than in its sovereign capacity. Accordingly, remedies arise from the contracts themselves, rather than from the constitutional protection of private property rights.” Hughes Comm’cs Galaxy, Inc. v. United States, 271 F.3d 1060, 1070 (Fed. Cir. 2001) (citation omitted); accord St. Christopher Assocs., L.P. v. United States, 511 F.3d 1376, 1385 (Fed. Cir. 2008) (“In general, takings claims do not arise under a government contract because . . . the government is acting in its proprietary rather than its sovereign capacity, and because remedies are provided by the contract.”). Thus, when a plaintiff pleads, in the alternative, a breach of contract and a Fifth Amendment taking based on the same government action, recovery for breach of contract typically precludes recovery for a Fifth Amendment taking. See Stockton E. Water Dist., 583 F.3d at 1368 (“It has long been the policy of the courts to decide cases on non-constitutional grounds when that is available, rather than reach out for the constitutional issue. And of course when a plaintiff is awarded recovery for the alleged wrong under one theory, there is no reason to address the other theories.” (citation omitted)); Sun Oil, 572 F.2d at 817-18 (“Since plaintiffs would only be entitled to one recovery [due to the government action], it would seem that the taking claim is an alternative claim to the breach of lease contract claim. Therefore, recovery on one claim theory would seem to preclude recovery on the other claim theory.”).

Sonoma Apartment Assocs. v. United States, 124 Fed. Cl. 595, 598-99 (2015); accord Century Expl. New Orleans, 103 Fed. Cl. at 83 (“[T]his court is not required to dismiss a takings claim under RCFC 12(b)(6) for the mere reason that the property rights alleged to have been taken by the government were created by the same contract plaintiff asserts has been breached.”). That said, plaintiff’s Fifth Amendment takings claim against the United States fails.¹⁰

¹⁰ In its order directing the parties to submit additional briefing regarding plaintiff’s Fifth Amendment takings claim, the court noted that in Count II of its Second Amended Complaint, plaintiff describes defendant’s actions as being arbitrary and discriminatory, a characterization that would typically be fatal to plaintiff’s takings claim. See Tabb Lakes Ltd. v. United States, 10 F.3d 796, 802-03 (Fed. Cir. 1993) (holding that a plaintiff must “concede the validity of the government action which is the basis of the taking claim”). In its supplemental brief, however, plaintiff claims that defendant “was acting within the general scope of its regulatory authority (as opposed to its contract rights), to promote governmental purposes, and the actions were neither ultra vires, nor beyond the scope of the duties of the [BOR] officials performing these actions.”

“Whether a plaintiff can achieve success on a concurrently alleged taking claim requires examination of whether the property rights alleged to have been taken were solely created by the terms of the contract.” Barlow & Haun v. United States, 87 Fed. Cl. 428, 439 (2009).

“Although rights existing independently of a contract may be brought pursuant to a takings claim, . . . when a contract between a private party and the Government creates the property right subject to a Fifth Amendment claim, the proper remedy for infringement lies in contract, not taking.” Tamerlane, Ltd. v. United States, 80 Fed. Cl. 724, 738 (2008). Thus, the CVP water plaintiff claims was taken without just compensation, in violation of the Takings Clause of the Fifth Amendment, only exists by virtue of the commercial nature of the governmental action. In this case, the commercial activity is the management and distribution of water in the Central Valley Basin:

The Central Valley Project is the largest federal water management project in the United States. It was built to serve the water needs in California’s Central Valley Basin. Originally conceived by the State of California, the CVP was taken over by the Federal Government in 1935 and initially funded by Congress as part of the nation’s effort to use public works projects to return the economy to health during the Depression. Congress reauthorized the CVP in 1937, assigning to the Bureau of Reclamation the tasks of constructing and operating the CVP. The CVP today consists of twenty dams and reservoirs, eleven power plants, over 500 miles of major canals, and numerous other facilities. Reclamation continues to operate the CVP under the various federal reclamation laws that have been amended and supplemented many times over the years.

Stockton E. Water Dist., 583 F.3d at 1349. Because any claim plaintiff may have to CVP water necessarily implicates the federal contract through which plaintiff receives that water, plaintiff must seek relief through a breach-of-contract action. Moreover, because the contract at issue was reduced to a writing, it is clear that plaintiff’s most appropriate avenue for relief is a breach-of-contract action. See Buse Timber & Sales v. United States, 45 Fed. Cl. 258, 262 (1999) (“[Where] the rights respecting the ‘taken’ [property] were not reduced to writing by the parties, both takings and breach claims have been permitted.”), quoted in Barlow & Haun, 87 Fed. Cl. at 439. Therefore, there is no genuine issue of material fact concerning plaintiff’s takings claim, and defendant’s motion for summary judgment must be granted as to this claim.

F. Plaintiff’s Request for Declaratory Relief

1. The Parties’ Positions

Finally, plaintiff seeks “a declaration from this Court that (a) the United States is obligated to operate and maintain the Muletown Conduit and (b) the United States cannot

Pl.’s Suppl. Fifth Amendment Mem. 3. Thus, the court no longer finds that plaintiff is challenging the validity of defendant’s actions.

deprive the District of its entitlement to the water under its contract in contravention of the intent and terms of the contract as well as state laws that control policy implementation of shortage allocations of water.” Pl.’s Resp. 19. Plaintiff argues that it is entitled to such relief and that the court has the power to award such relief because the equitable relief sought is “clearly subordinate to Plaintiff’s claims for monetary damages for (1) breach of the United States’ obligation to operate and maintain the conduit; and (2) breach of the United States’ obligation to provide water service per the terms of the contract.” Id.

Defendant argues that this court does not possess the power to grant requests for equitable relief that are not tied or subordinate to a monetary judgment and because plaintiff is not due a monetary judgment, no equitable relief may be awarded. Def.’s Mot. 36-37.

2. Analysis

Except in a limited number of statutorily defined circumstances, the Court of Federal Claims cannot entertain claims for nonmonetary equitable relief. See Bowen v. Massachusetts, 487 U.S. 879, 905 & n.40 (1988); Gonzales & Gonzales Bonds & Ins. Agency v. Dep’t of Homeland Sec., 490 F.3d 940, 943 (Fed. Cir. 2007); Kanemoto v. Reno, 41 F.3d 641, 645 (Fed. Cir. 1994). None of those circumstances applies here. See 28 U.S.C. § 1491(a)(2) (providing the court with jurisdiction to issue, “as incident of and collateral to” an award of money damages, “orders directing restoration to office or position, placement in appropriate duty or retirement status, and correction of applicable records”); id. (providing the court with jurisdiction to render judgment in nonmonetary disputes arising under the Contract Disputes Act of 1978); id. § 1491(b)(2) (providing the court with jurisdiction to award declaratory and injunctive relief in bid protests); id. § 1507 (providing the court with jurisdiction to issue declaratory judgments under 26 U.S.C. § 7428). Therefore, the court lacks subject matter jurisdiction over plaintiff’s claim for declaratory judgment.

IV. CONCLUSION

For the reasons stated above, the court finds that there are genuine issues of material fact as to: (1) whether plaintiff knew or should have known that vertical drain pipes were installed even though the construction specifications called for horizontal drain pipes, and (2) whether defendant breached its contract with plaintiff by failing to deliver to plaintiff the quantity of water due under the contract. Therefore, defendant’s motion for summary judgment as to these breach-of-contract claims is **DENIED**.

The court further finds that it lacks subject matter jurisdiction over plaintiff’s remaining breach-of-contract claims because they are untimely under the Tucker Act’s six-year statute of limitations. Therefore, defendant’s motion for judgment on the pleadings as to these breach-of-contract claims is **GRANTED**.

Finally, the court finds that there are no genuine issues of material fact and that defendant is entitled to a judgment as a matter of law with respect to plaintiff’s Fifth Amendment takings claim and plaintiff’s request for declaratory relief. Therefore, defendant’s motion for summary judgment as to these claims is **GRANTED**.

The parties shall file a joint status report with a proposed pretrial and trial schedule on or before Monday, June 12, 2017,

IT IS SO ORDERED.

s/ Margaret M. Sweeney _____
MARGARET M. SWEENEY
Judge