M 1143

AGREEMENT FOR STORAGE AND RECOVERY OF NON-NATIVE WATER FROM THE SEASIDE GROUNDWATER BASIN

THIS AGREEMENT is made and entered into on October 21, 2011, by and between the SEASIDE BASIN WATERMASTER (the "WATERMASTER"), and California – American Water Company , (the "PRODUCER"), as follows:

Recitals

1. The WATERMASTER was created by the Amended Decision of the Monterey County Superior Court, filed February 9, 2007, Case No. M66343 (the "Decision"). This Decision was made for the purposes of managing and protecting the Seaside Groundwater Basin ("Basin") for the benefit of the businesses, individuals, and public agencies that overlie or extract groundwater from the Basin.

2. The PRODUCER has applied to the WATERMASTER for permission to store Non-Native water in, and to subsequently recover that stored water from, the Basin.

3. Under the authorities granted to the WATERMASTER by the Decision, the WATERMASTER has approved PRODUCER's application and hereby grants permission to the PRODUCER to store Non-Native water in, and to recover that stored water from, the Basin, subject to the Terms and Conditions contained in this Agreement.

Terms and Conditions

NOW, THEREFORE, in consideration of the foregoing and the mutual promises contained herein, the parties hereto agree to the following terms and conditions:

1. Definitions. Unless otherwise specifically defined herein, the defined terms shall be given the same definition and meaning set forth in the Decision, as listed in Attachment A.

2. Storage Quantity. The PRODUCER is authorized to store by means of direct injection 2,426 acre-feet per year of Non-Native Water in the Basin. In the event the WATERMASTER revises the Total Usable Storage Space of the Basin in accordance with Section III.H.4 of the Decision, or if one or more Alternative Producers converts entirely or in part from an Alternative Production Allocation to a Standard Production Allocation in accordance with Section III.B.3.e of the Decision, the PRODUCER's Storage Allocation may change, and this may affect the storage quantity authorized by this Agreement. In such instance this Agreement will be modified to reflect these changes.

3. Storage Location(s). The storage of water authorized under paragraph 2 above will be performed at the following location(s):

A. ASR-1 injection and recovery well located at the Santa Margarita ASR site located at 1910 General Jim Moore Blvd, Seaside, CA 93955.
B. ASR-2 injection and recovery well located at the Santa Margarita ASR site located at 1910 General Jim Moore Blvd, Seaside, CA 93955.

Also located at the Santa Margarita ASR site is a well blow off pit that normally receives ASR water during injection periods to flush the well injection screens to maximize ASR injection rate.

4. Recovery Location(s). Recovery of water stored at the location(s) described under paragraph 3 above must be performed within the same Subarea of the Basin as the location(s) within which it was stored. Recovery of this water will be performed at some or all of the following location(s):
   A. Santa Margarita Well #1, 1910 General Jim Moore Blvd, Seaside CA 93955 (Santa Margarita)
   B. Santa Margarita Well #2, 1910 General Jim Moore Blvd, Seaside CA 93955 (Santa Margarita)
   C. Ord Grove Well #2, 1987 Park Ct., Seaside CA 93955 (Santa Margarita)
   D. Paralta Well, 2104 Paralta Ave., Seaside CA 93955 (Santa Margarita)
   E. Luzern Well #2, 1984 Luzern St., Seaside CA 93955 (Paso Robles)
   F. Playa Well #3, 1237 Playa Ave., Seaside CA 93955 (Paso Robles)
   G. Plumas Well #4, 1453 Plumas Ln., Seaside CA 93955 (Paso Robles)

5. Recovery Quantity. The PRODUCER is initially authorized to recover (Extract) the full amount of the water actually Stored in accordance with this Agreement. However, due to the hydrogeologic characteristics of the Seaside Basin, naturally occurring losses of Stored Water may result in the WATERMASTER reducing the percentage of Stored Water that may be Extracted. Should the WATERMASTER determine that this needs to be done, this Agreement will be modified to reflect the reduced quantity of water that the PRODUCER may recover, and the technical basis for this determination will be provided to all PRODUCERs.

6. Water Quality. The PRODUCER hereby certifies that prior to the Non-Native water being introduced into the Basin for Storage in accordance with this Agreement, all such water will meet all of the requirements imposed on the PRODUCER by permits and/or approvals issued to the PRODUCER by the California Regional Water Quality Control Board and any other water quality standards imposed by any other government entity, including without limitation the California Department of Public Health and the Monterey County Department of Environmental Health.

   The representative water quality characteristics of the water that will be stored under this Agreement are contained in Attachment B, and are considered by both parties to this Agreement to not pose a threat of harm to the Basin.

7. Carryover of Unused Production Allocation and Carryover Credits. In accordance with Section III.F of the Decision, if during a particular Water Year the PRODUCER does not Extract from the Basin a total quantity equal to the PRODUCER's Standard Production Allocation for the particular Water Year, the PRODUCER may establish Carryover Credits, up to the total amount of the PRODUCER's Storage Allocation.

However, in accordance with the Decision in no circumstance may the sum of the PRODUCER's Stored Water Credits and Carryover Credits exceed the PRODUCER's available Storage Allocation. In accordance with the Decision in consideration of the Seaside Basin's hydrogeologic characteristics, the WATERMASTER may reduce the quantity of Water that may be Extracted pursuant to a Carryover Credit.

In accordance with Section III.H.5 of the Decision, the PRODUCER has the right to use its Storage Allocation to Store any Carryover Water subject to the provisions of the Decision and this Agreement. In accordance with the Decision unused (not Extracted) Stored Water Credits and Carryover Credits may be carried over from year to year, but the amount that may be carried over in any year is subject to a percentage decrease, if a decrease in the Basin's Operating Yield is declared by the WATERMASTER in accordance with Section III.B.2 of the Decision.

8. Measurement and Reporting of Extractions and Storage. In accordance with Section III.J of the Decision, the PRODUCER shall install, maintain, and use adequate measuring devices on all Storage and Extraction facilities as required by the WATERMASTER's Rules and Regulations and this Agreement.

   The PRODUCER shall provide to the WATERMASTER, as part of each monthly Production Report, data for the reporting period stating:
   - The quantity of water that was stored
   - The quantity of stored water that was recovered (Extracted)
   - The location(s) where the water was stored
   - The location(s) where the water was recovered (Extracted)

9. Indemnification. The PRODUCER shall assume the defense of, indemnify and hold harmless, the WATERMASTER, its officers, agents and employees from all claims, liability, loss, damage or injury of any kind, nature or description arising directly or indirectly from actions or omissions by PRODUCER or any of its officers, agents, employees, or independent contractors relating to this Agreement, , excepting claims, liability, loss, damage or injury which arise from the willful or negligent acts, omissions, or activities of an officer, agent or employee of the WATERMASTER.

10. Successors and Assigns. This Agreement, and all the terms and conditions hereof, shall apply to and bind the successors and assigns of the respective parties hereto; provided that the PRODUCER shall not assign this Agreement without prior written consent of the WATERMASTER.

11. Further Cooperation. Each of the parties agree to reasonably cooperate with each other, and to execute and deliver to the other all such documents and instruments, and to take such further actions, as may reasonably be required to give effect to the terms and conditions of this Agreement.

12. Interpretation. It is agreed and understood by the parties hereto that this Agreement has been arrived at through negotiation and that neither party is to be deemed the party which prepared this Agreement within the meaning of Civil Code §1654. The provisions of this Agreement shall be interpreted in a reasonable manner to effect the purpose of the parties and this Agreement.

13. Disputes. If any dispute under this Agreement arises the parties shall first meet and confer in a good faith attempt to resolve the matter between themselves. Each party shall make all reasonable efforts to provide to the other party all the information that the party has in its possession that is relevant to the dispute, so that both parties will have ample information with which to reach a decision. If the dispute is not resolved by meeting and conferring, the matter shall be submitted to the Court for resolution pursuant to the Court's reserved jurisdiction as set forth in the Decision.

14. Modification. This Agreement may be amended, altered or modified only by a writing, specifying such amendment, alteration or modification, executed by authorized representatives of both of the parties hereto.

15. Attorney's Fees and Costs. In the event it should become necessary for either party to enforce any of the terms and conditions of this Agreement by means of court action or administrative enforcement, the prevailing party, in addition to any other remedy at law or in equity available to such party, shall be awarded all reasonable costs and reasonable attorney's fees in connection therewith, including the fees and costs of experts reasonably consulted by the attorneys for the prevailing party.

16. Counterparts. This Agreement may be executed in two counterparts, each of which shall be deemed an original, but both of which shall be deemed to constitute one and the same instrument.

17. Written Notice. Written notice shall be deemed to have been duly served if delivered in person or by mail to the individuals and at the addresses listed below:

A. WATERMASTER: Chief Executive Officer
Seaside Basin Watermaster
2600 Garden Road, Suite 228
Monterey, CA 93940

B. PRODUCER: General Manager
California American Water
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

18. Conflicts with the Decision. The PRODUCER's rights under this Agreement are subject to the Decision and in the event of any conflict between the provisions of this Agreement and the Decision, the Decision shall control.

19. Entire Agreement. This Agreement constitutes the entire and complete agreement between the parties regarding the subject matter hereof, and supersedes all prior or contemporaneous negotiations, understandings or agreements of the parties, whether written or oral, with respect to such subject matter.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement consisting of five (5) pages and two (2) attachments in duplicate on the date hereinabove written.

WATERMASTER

By
Dewey Evans
Chief Executive Officer

PRODUCER

By
Edward Simon
Vice President, Operations

ATTACHMENT A

DEFINITIONS
(Excerpted from the Decision)

"Artificial Replenishment" means the act of the WATERMASTER, directly or indirectly, engaging in or contracting for Non-Native Water to be added to the Groundwater supply of the Seaside Basin through Spreading or Direct Injection to offset the cumulative Over- Production from the Seaside Basin in any particular Water Year pursuant to Section III.L.3.j.iii. It shall also include programs in which Producers agree to refrain, in whole or in part, from exercising their right to produce their full Production Allocation where the intent is to cause the replenishment of the Seaside Basin through forbearance in lieu of the injection or spreading of Non-Native Water.

"Carryover" means that portion of a Party's Production Allocation that is not Extracted from the Basin during a particular Water Year. Each acre-foot of Carryover establishes an acre-foot of Carryover Credit.

"Carryover Credit(s)" means the quantity of Water established through Carryover, that a Party is entitled to Produce from the Basin pursuant to Section III.F.

"Extraction," "Extractions," "Extracting," "Extracted," and other variations of the same noun or verb, mean pumping, taking, diverting or withdrawing Groundwater by any manner or means whatsoever from the Seaside Basin.

"Groundwater" means all Water beneath the ground surface in the Seaside Basin, including Water from Natural Replenishment, Artificial Replenishment, Carryover, and Stored Water.

"Natural Replenishment" means all processes by which Water may become a part of the Groundwater supply of the Seaside Basin without the benefit of the Physical Solution and the coordinated management it provides. Groundwater that occurs in the Seaside Basin as a result of the Physical Solution, which is not Natural Replenishment, includes, but is not limited to Storage, Carryover, and Artificial Replenishment.

"Non-Native Water" means all Water that would not otherwise add to the Groundwater supply through natural means or from return flows from surface applications other than intentional Spreading.

"Physical Solution" means the efficient and equitable management of Groundwater resources within the Seaside Basin, as prescribed by this Decision, to maximize the reasonable and beneficial use of Water resources in a manner that is consistent with Article X, Section 2 of the California Constitution, the public interest, and the basin rights of the Parties, while working to bring the Production of Native Water to Natural Safe Yield.

"Producer" means a Party possessing a Base Water Rights.

"Standard Production Allocation" is the amount of Groundwater that a Producer participating in this allocation method may Produce from a Subarea of the Seaside Basin as provided in Section III.B.2, which is determined by multiplying the Base Water Right by the Operating Yield.

"Storage" means the existence of Stored Water in the Seaside Basin.

"Storage Allocation" means that quantity of Stored Water in acre feet that a Party is allowed to Store in the Coastal Subarea or the Laguna Seca Subarea at any particular time.

"Storage Allocation Percentage" means the percentage of Total Usable Storage Space allocated to each Producer proceeding under the Standard Production Allocation. Producers proceeding under the Alternative Production Allocation are not allocated Storage rights and, consequently, their share of the Total Usable Storage Space is apportioned to the Producers proceeding under the Standard Production Allocation. Pursuant to the terms of Section III.B.3, Parties proceeding under the Alternative Production Allocation enjoy a one-time right to change to the Standard Production Allocation. Due to the recalculation of the Storage Allocation Percentage necessitated when a Party changes to the Standard Production Allocation, the WATERMASTER will maintain the up-to-date Seaside Basin Storage Allocation Percentages.

"Storage and Recovery Agreement" means an agreement between WATERMASTER and a Party for Storage pursuant to Section III.L.3.j.xx.

"Store" and other variations of the same verb refer to the activities establishing Stored Water in the Seaside Basin.

"Stored Water" means (1) Non-Native Water introduced into the Seaside Basin by a Party or any predecessors-in-interest by Spreading or Directly Injecting that Water into the Seaside Basin for Storage and subsequent Extraction by and for the benefit of that Party or their successors-in-interest; (2) Groundwater within the Seaside Basin that is accounted for as a Producer's Carryover; or (3) Non-Native water introduced into the Basin through purchases by the WATERMASTER, and used to reduce and ultimately reverse Over-Production.

"Stored Water Credit" means the quantity of Stored Water augmenting the Basin's Retrievable Groundwater Supply, which is attributable to a Party's Storage and further governed by this Decision and a Storage and Recovery Agreement.

"Total Useable Storage Space" means the maximum amount of space available in the Seaside Basin that can prudently be used for Storage as shall be determined and modified by WATERMASTER pursuant to Section III.L.3.j.xix, less Storage space which may be reserved by the WATERMASTER for its use in recharging the Basin.

ATTACHMENT B

WATER QUALITY

Summary of WY 2010 Water Quality Data
Injectate

Parameter	Unit	PQL	Sampling Results										WY 2010
			12/16/09	1/22/10	2/3/10	2/16/10	3/2/10	3/17/10	4/14/10	5/7/10	5/12/10	6/2/10	Injectate
Sample Description			Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	Injectate	Averages
Major Cations													
Calcium	mg/L	1	42	42		40		41	42		41		41
Magnesium	mg/L	1	15	14		13		12	13		14		14
Potassium	mg/L	0.5	3.4	3.2		2.8		2.8	3		2.9		3.0
Sodium	mg/L	1	44	41		43		43	40		41		42
Major Anions													
Bicarbonate (as HCO3-)	mg/L	10	187	184		157		155	157		151		155
Chloride	mg/L	1	27	27	25	26	23	28	28		26	23	26
Sulfate	mg/L	1	95	82		69		68	62		74		75
General Physical													
pH	Std Units	0.1	7.6	7.6		7.5		7.6	7.5		7.5		7.6
Specific Conductance (EC)	uS	10	522	526		494		493	470		486		499
Total Dissolved Solids	mg/L	10	355	385		348		300	288		308		331
Metals													
Arsenic (Total)	ug/L	1	ND	ND		ND		ND	ND		ND		0
Barium (Total)	ug/L	10	62	56		57		55	ND		61		49
Iron (Dissolved)	ug/L	50	ND	ND		ND		ND	ND		ND		0
Iron (Total)	ug/L	50	ND	ND		ND		ND	ND		55		9.2
Lithium	ug/L	1	4	6		7		5	5		5		5
Manganese (Dissolved)	ug/L	20	ND	ND		ND		ND	ND		ND		0
Manganese (Total)	ug/L	20	ND	ND		ND		ND	ND		ND		0
Molybdenum	ug/L	1	2	2		3		3	3		3		2.7
Nickel	ug/L	1	2	2				ND	ND		ND		0.5
Selenium	ug/L	2	ND	3		ND		ND	2		ND		0.8
Strontium (Total)	ug/L	5	238	218		218		200	203		213		214
Uranium (by ICP-MS)	ug/L	1	ND	ND		ND		ND	ND		ND		0
Vanadium (Total)	ug/L	1	2	2		2		ND	ND		ND		1
Zinc (Total)	ug/L	10	296	229		206		194	183		242		237
Miscellaneous													
Alkalinity, Total (as CaCO3)	mg/L	10	129	126		129		127	129		124		127.3333333
Ammonia-N	mg/L	0.05	ND	ND		0.05		0.08	ND		0.08		0.03
Boron	mg/L	0.01	0.04	0.04		0.38		0.07	ND		ND		0.09
Chloramines	mg/L	0.05	0.09	0.10	0.12	0.2	0.15	0.11	0.08		ND	ND	0.08
Fluoride	mg/L	0.1	0.2			0.33		0.28	0.28		0.27		0.27
Gross Alpha	pCi/L		1.89 +/- 1.05	ND +/- 1.1				0.444 +/- 0.894	0.187 +/- 1.13		-0.029 +/- 1.06		
Kjeldahl Nitrogen (Total)	mg/L	0.2	ND	ND		ND		ND	ND		ND		0
Methane	ug/L	0.4	ND	ND		ND		ND	ND		ND		0
Nitrate (as NO3)	mg/L	1	ND	ND		1		1	ND		ND		0.3
Nitrite (as Nitrogen)	mg/L	0.1	ND	ND		ND		ND	ND		ND		0
Nitrogen (Total)	mg/L	0.2	ND	ND		ND		ND	ND		ND		0.000
o-Phosphate-P	mg/L	0.1	0.3	ND		ND		0.2	0.2		0.5		0.2
Phosphorous (Total)	mg/L	0.03	0.32	ND		ND		0.28	0.25		0.55		0.24
Radium 226	pCi/L		0.148 +/- 0.29	ND +/- 0.16				0.418 +/- 0.335	0.0682 +/- 0.22		0.0535 +/- 0.348		
Organic Analyses													
Haloacetic Acids (Total)	ug/L	1.0	14	8	9.8	11	12	16	15	19		15	13
Dibromoacetic Acid	ug/L	1.0	2.2	ND	2.4	2.1	2.1	2.1	2.4	2.3		2.2	2.0
Dichloroacetic Acid	ug/L	1.0	5.4	2.1	3.8	4.8	5.2	6.5	5.5	7.7		6.8	5.4
Monobromoacetic Acid	ug/L	1.0	ND	ND	ND	ND	ND	ND	ND	2		ND	0.22
Monochloroacetic Acid	ug/L	2.0	ND	ND	ND	ND	ND	2.5	2.8	ND		ND	0.59
Trichloroacetic Acid	ug/L	1.0	3.7	3.9	3.6	3.7	4.3	5.3	4.0	7.2		6.6	4.9
Organic Carbon (Dissolved)	mg/L	0.2	1.3	1.0		1.1		1.1	1.1		1.3		1.2
Organic Carbon (Total)	mg/L	0.2	1.6	0.98		1.0		1.4	1.4		1.3		1.3
Trihalomethanes (Total)	ug/L	1.0	26	45	19	17	20	22	21	32		25	25
Bromodichloromethane	ug/L	0.5	8.5	14.0	7.1	6.2	6.9	7.6	6.9	10.0		8.6	8.4
Bromoform	ug/L	0.5	0.7	ND	0.67	0.59	0.84	0.82	0.71	0.66		ND	0.51
Chloroform	ug/L	1.0	11.0	26.0	5.7	5.0	8.4	9.6	8.6	15.0		12.0	11.3
Dibromochloromethane	ug/L	0.5	5.5	5.0	5.6	4.3	4.4	4.6	4.8	5.8		4.6	5.0
Field Parameters													
Temperature	°C		15.2	14.5	14.8	14.7	14.4		15.7	16.1	16.3	16.1	15.3
Specific Conductance (EC)	uS		568	328	559	407	520		476	492	490	501	491
pH	Std Units		7.1	7.4	7.5	7.4	7.3		7.2	7.3	7.3	7.3	7.3
ORP	mV		731	770			727						743
Free Chlorine Residual	mg/L		1.0	1.1	0.7	0.4	0.2		0.3	0.4	0.9	0.3	0.6
Dissolved Oxygen	mg/L		1.6	1.5	0.8	2.4	4.3		2.1	2.6	3.7	2.2	2.4
Silt Density Index	Std Units		1.6										1.6
Gas Volume	mL		0.5										0.5
H_2S	mg/L		ND										0

Comparison of Average Water Quality Characteristics: Carmel River Basin vs. Seaside Groundwater Basin

All units are in milligrams per liter

Water Source	Total Dissolved Solids	CATIONS				ANIONS			
		Calcium	Sodium	Magnesium	Potassium	Bicarbonate	Chloride	Sulfate	Nitrate (as NO3)
Carmel River	211	35	15	12	1.4	--	11	29	0.8
CV Aquifer Subunit 1	223	40	--	13	--	212	18	--	1.4
CV Aquifer Subunit 2	346	51	--	16	--	236	37	--	1.8
CV Aquifer Subunit 3	502	72	46	26	4.1	149	53	210	0.8
CV Aquifer Subunit 4	641	103	49	30	3.9	212	58	241	0.4
Seaside Basin (Tsm aquifer)	618	85	88	19	5.3	273	120	95	<1.0
WY 2010 Cal-Am injectate	331	41	42	14	3.0	155	26	75	0.3

NOTES:

1. Data source for Carmel River water quality from California-American Water (Cal-Am) annual water quality reports; average surface water for 1990-96.
2. Data source for Carmel Valley (CV) Aquifer Subunit water quality from Cal-Am records: Subunit 1 - Russell #4 well (6 analyses); Subunit 2 - Laureles #6 well (5 analyses); Subunit 3 - Schulte well (14 analyses); Subunit 4 - Canada well (10 analyses).
3. Data source for Seaside Basin (Santa Margarita [Tsm] aquifer) from ASR-1 well 3/21/2001 sample, prior to Tsm injection in basin. Analytic results in *Summary of Operations, Well Construction and Testing, Santa Margarita Test Injection Well* (Padre Associates, Inc., May 2002, Appendix D).
4. Total Dissolved Solids concentrations for CV Subunit 1 and 2 data were derived by multiplying Electrical Conductance by 0.65, per USGS Water-Supply Paper 2254 (John Hem, 1985, page 67).
5. Bicarbonate concentrations for CV and Tsm aquifer data were derived by multiplying Total Alkalinity concentrations by 1.22, as determined from milliequivalent ratio.
6. WY 2010 Cal-Am injectate data are averages from 10 samples collected during ASR operations. Results in *Summary of Operations, Phase 1 ASR Project, Water Year 2010* (Pueblo Water Resources, July 2011 [draft], Table 14).