

TYPE OR PRINT  
IN BLACK INK  
(For instructions, see  
booklet: "How to File an  
Application to Appropriate  
Water in California")



California Environmental Protection Agency

STATE WATER RESOURCES  
CONTROL BOARD

State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000, Sacramento, CA 95812-2000  
Tel: (916) 341-5300 Fax: (916) 341-5400  
www.waterrights.ca.gov

2004 AUG 20 PM 2:22

APPLICATION NO. \_\_\_\_\_  
(leave blank)

DIV. OF WATER RIGHTS  
SACRAMENTO

APPLICATION TO APPROPRIATE WATER

SECTION A: NOTICE INFORMATION

T 031531

1. APPLICANT/AGENT

APPLICANT		ASSIGNED AGENT (if any)
Name	Monterey Peninsula Water Management District	
Mailing Address	PO Box 85	
City, State & Zip	Monterey, CA 93942	
Telephone	(831) 658-5640	
Fax	(831) 644-9560	
E-mail	andy@mpwmd.dst.ca.us	

2. OWNERSHIP INFORMATION (Please check type of ownership.)

- Sole Owner                       Limited Liability Company (LLC)                       General Partnership\*  
 Limited Partnership\*                       Business Trust                       Husband/Wife Co-Ownership  
 Corporation                       Joint Venture                       Other Public Agency
- \*Please provide a copy of your partnership agreement.

3. PROJECT DESCRIPTION (Provide a detailed description of your project, including, but not limited to, type of construction activity, area to be graded or excavated, and how the water will be used.)

Please see Attachment 1.

For continuation, see Attachment No. 1

4. PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON

a. PURPOSE OF USE (irrigation, domestic, etc.)	DIRECT DIVERSION				STORAGE		
	AMOUNT		SEASON OF DIVERSION		AMOUNT	SEASON OF COLLECTION	
	Rate (cfs or gpd)*	Acre-feet per year	Beginning date (month & day)	Ending date (month & day)	Acre-feet per year	Beginning date (month & day)	Ending date (month & day)
Groundwater recharge/ municipal	3.5 cfs	350 afy	Dec. 1	May 31			

See Attachment No. \_\_\_\_\_ \* If rate is less than 0.025 cubic feet per second (cfs), use gallons per day (gpd).

- b. Total combined amount taken by direct diversion and storage during any one year will be 350 acre-feet.  
 c. Reservoir storage is:  onstream  offstream  underground (If underground storage, attach Form APP-UGSTOR.)  
 d. County in which diversion is located: Monterey County in which water will be used: Monterey  
 e. Assessor's Parcel Number(s): Various -- see Item 7. Place of use.

5. SOURCES AND POINTS OF DIVERSION/REDIVERSION

a. Sources and Points of Diversion (POD)/Points of Rediversion (PORD):

- POD /  PORD #: Carmel River tributary to Pacific Ocean  
 thence \_\_\_\_\_  
 POD /  PORD #: \_\_\_\_\_ tributary to \_\_\_\_\_  
 thence \_\_\_\_\_  
 POD /  PORD #: \_\_\_\_\_ tributary to \_\_\_\_\_  
 thence \_\_\_\_\_  
 POD /  PORD #: \_\_\_\_\_ tributary to \_\_\_\_\_  
 thence \_\_\_\_\_

See Attachment No. 2 for list of sources and points of diversion.

3500.00  
850.00  
8-20-04  
DC

Please see Attachment 2 for list of locations.

b. State Planar and Public Land Survey Coordinate Description:

POD/ PORD #	CALIFORNIA COORDINATES (NAD 27)	ZONE	POINT IS WITHIN (40-acre subdivision)	SECTION	TOWN -SHIP	RANGE	BASE AND MERIDIAN
			¼ of ¼				
			¼ of ¼				
			¼ of ¼				
			¼ of ¼				

See Attachment No. 2

c. Name of the post office most often used by those living near the proposed point(s) of diversion:

Carmel Valley, CA 93924

6. WATER AVAILABILITY

a. Have you attached a water availability analysis for this project?  YES  NO

If NO, provide sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation:

See Attachment No. 3

b. Is your project located on a stream system declared to be fully appropriated by the State Water Resources Control Board during your proposed season of diversion?  YES  NO

c. In an average year, does the stream dry up at any point downstream of your project?  YES  NO If YES, during which months?  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

d. What alternate sources of water are available if a portion of your requested diversion season must be excluded because water is not available for appropriation? (e.g., percolating groundwater, purchased water, etc.)

N/A

See Attachment No. \_\_\_\_\_

7. PLACE OF USE

USE IS WITHIN (40-acre subdivision)	SECTION*	TOWNSHIP	RANGE	BASE & MERIDIAN	IF IRRIGATED	
					Acres	Presently cultivated?
NE ¼ of NE ¼	23 (P)	15 S	1 E	MD		<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼	(This is the location of the points of injection to the					<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼	Seaside Groundwater Basin)					<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼	And 110,000 acres within boundaries of MPWMD.					<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
Total:						

\*Please indicate if section is projected with a "(P)" following the section number.

See Attachment No. \_\_\_\_\_

8. PROJECT SCHEDULE

a. Project is:

proposed. Year construction will begin: \_\_\_\_\_

partially complete. Extent of completion: Pilot injection well, full-scale test injection well, and appurtenant facilities are in place. Improvements are planned for Water Year 2005.

complete. Year completed: \_\_\_\_\_

b. Year of first use: WY 1999 Year water will be used to the full extent intended: N/A - Project is the continuation of a feasibility study.

**SECTION B: MISCELLANEOUS DIVERSION INFORMATION**

**1. JUSTIFICATION OF AMOUNTS REQUESTED**

a.  IRRIGATION: Maximum area to be irrigated in any one year: \_\_\_\_\_ acres.

CROP	ACRES	METHOD OF IRRIGATION (sprinklers, flooding, etc.)	WATER USE (Acre-feet/Yr.)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)

See Attachment No. \_\_\_\_\_

b.  DOMESTIC: Number of residences to be served: \_\_\_\_\_ Separately owned?  YES  NO  
 Number of people to be served: \_\_\_\_\_ Estimated daily use per person is: \_\_\_\_\_ gallons per day  
 Area of domestic lawns and gardens: \_\_\_\_\_ square feet  
 Incidental domestic uses: \_\_\_\_\_  
 (dust control area, number and kind of domestic animals, etc.)

c.  STOCKWATERING: Kind of stock: \_\_\_\_\_ Maximum number: \_\_\_\_\_  
 Describe type of operation: \_\_\_\_\_  
 (feedlot, dairy, range, etc.)

d.  RECREATIONAL: Type of recreation:  Fishing  Swimming  Boating  Other \_\_\_\_\_

e.  MUNICIPAL:

POPULATION		MAXIMUM MONTH		ANNUAL USE		
List for 5-year periods until use is completed		Average daily use (gallons per capita)	Rate of diversion (cfs)	Average daily use (gallons per capita)	Acre-foot (per capita)	Total (acre-feet)
Period	Population					
Present						

See Attachment No. \_\_\_\_\_

Month of maximum use during year: \_\_\_\_\_ Month of minimum use during year: \_\_\_\_\_

f.  HEAT CONTROL: Area to be heat controlled: \_\_\_\_\_ net acres  
 Type of crops protected: \_\_\_\_\_  
 Rate at which water is applied to use: \_\_\_\_\_ gpm per acre  
 Heat protection season will begin \_\_\_\_\_ and end \_\_\_\_\_  
 (month & day) (month & day)

g.  FROST PROTECTION: Area to be frost protected: \_\_\_\_\_ net acres  
 Type of crops protected: \_\_\_\_\_  
 Rate at which water is applied to use: \_\_\_\_\_ gpm per acre  
 The frost protection season will begin \_\_\_\_\_ and end \_\_\_\_\_  
 (month & day) (month & day)

h.  INDUSTRIAL: Type of industry: \_\_\_\_\_  
 Basis for determination of amount of water needed: \_\_\_\_\_

i.  MINING: Name of the claim: \_\_\_\_\_  Patented  Unpatented  
 Nature of the mine: \_\_\_\_\_ Mineral(s) to be mined: \_\_\_\_\_  
 Type of milling or processing: \_\_\_\_\_  
 After use, the water will be discharged into \_\_\_\_\_ (watercourse)  
 in \_\_\_\_\_ ¼ of \_\_\_\_\_ ¼ of Section \_\_\_\_\_, T \_\_\_\_\_, R \_\_\_\_\_, \_\_\_\_\_ B. & M.

j.  POWER: Total head to be utilized: \_\_\_\_\_ feet  
 Maximum flow through the penstock: \_\_\_\_\_ cfs  
 Maximum theoretical horsepower capable of being generated by the works (cfs x fall + 8.8): \_\_\_\_\_  
 Electrical capacity (hp x 0.746 x efficiency): \_\_\_\_\_ kilowatts at: \_\_\_\_\_ % efficiency  
 After use, the water will be discharged into \_\_\_\_\_ (watercourse)  
 in \_\_\_\_\_ ¼ of \_\_\_\_\_ ¼ of Section \_\_\_\_\_, T \_\_\_\_\_, R \_\_\_\_\_, \_\_\_\_\_ B. & M. FERC No.: \_\_\_\_\_

k.  FISH AND WILDLIFE PRESERVATION AND/OR ENHANCEMENT: List specific species and habitat type that will be preserved or enhanced in Item 7a of Section C.

l.  OTHER: Describe use: **Groundwater recharge**  
 Basis for determination of amount of water needed: (1) Report titled "Reconnaissance - Level Feasibility Study for Seaside Basin Injection/Recovery Project," prepared for MPWMD by Fugro West, Inc., February 1997; (2) Water Years 1999 through 2004 testing of Seaside Basin injection wells.

**2. DIVERSION AND DISTRIBUTION METHOD**

- a. Diversion will be by gravity by means of: existing pipeline from San Clement Dam; and  
(dam, pipe in unobstructed channel, pipe through dam, siphon, weir, gate, etc.)
- b. Diversion will be by pumping from: 19 wells in Carmel Valley  
(sump, offset well, channel, reservoir, etc)  
 Pump discharge rate: Various  cfs or  gpd Horsepower: Various Pump Efficiency: Various
- c. Conduit from diversion point to first lateral or to offstream storage reservoir: N/A

CONDUIT (pipe or channel)	MATERIAL (type of pipe or channel lining; indicate if pipe is buried or not)	CROSS-SECTION (pipe diameter, or ditch depth and top and bottom width) (inches or feet)	LENGTH (feet)	TOTAL LIFT OR FALL		CAPACITY (cfs, gpd or gpm)
				feet	+ or -	

See Attachment No. \_\_\_\_\_

- d. Storage reservoirs: (For underground storage, complete and attach form APP-UGSTOR)

RESERVOIR NAME OR NUMBER	DAM				RESERVOIR		
	Vertical height from downstream toe of slope to spillway level (feet)	Construction material	Length (feet)	Freeboard: dam height above spillway crest (feet)	Surface area when full (acres)	Capacity (acre-feet)	Maximum water depth (feet)

See Attachment No. 4, Supplement to WR-1

- e. Outlet pipe: Complete for storage reservoirs having a capacity of 10 acre-feet or more.

RESERVOIR NAME OR NUMBER	OUTLET PIPE				
	Diameter (inches)	Length (feet)	Fall: vertical distance between entrance and exit of outlet pipe (feet)	Head: vertical distance from spillway to entrance of outlet pipe (feet)	Dead Storage: storage below entrance of outlet pipe (acre-feet)
<u>San</u>	<u>24</u>	<u>20</u>	<u>45</u>	<u>55</u>	<u>45</u>
<u>Clemente</u>					

See Attachment No. \_\_\_\_\_

- f. If water will be stored and the reservoir is not at the point of diversion, the maximum rate of diversion to offstream storage will be N/A cfs. Diversion to offstream storage will be made by:  Pumping  Gravity

**3. CONSERVATION AND MONITORING**

- a. What methods will you use to conserve water? Explain. \_\_\_\_\_  
Visual inspections for leaks, spills, and equipment breakage or malfunction.  
 \_\_\_\_\_  
 \_\_\_\_\_
- b. How will you monitor your diversion to be sure you are within the limits of your water right and you are not wasting water?  Weir  Meter  Periodic sampling  Other (describe) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**4. RIGHT OF ACCESS**

- a. Does the applicant own all the land where the water will be diverted, transported and used?  YES  NO  
 If NO, I  do  do not have a recorded easement or written authorization allowing me access.
- b. List the names and mailing addresses of all affected landowners and state what steps are being taken to obtain access: California-American Water  
PO Box 951  
Monterey, CA 93942
- See Attachment No. \_\_\_\_\_

**5. EXISTING WATER RIGHTS AND RELATED FILINGS**

- a. Do you claim an existing right for the use of all or part of the water sought by this application?  YES  NO  
 If YES, please specify:  Riparian  Pre-1914  Registration  Permit  License  
 Percolating groundwater  Adjudicated  Other (specify) \_\_\_\_\_
- b. For each existing right claimed, state the source, year of first use, purpose, season and location of the point of diversion (to within quarter-quarter section). Include number of registration, permit, license, or statement of

water diversion and use, if applicable. N/A

c. List any related applications, registrations, permits, or licenses located in the proposed place of use or that utilize the same point(s) of diversion? License 11866, Permit 7130B, Permit 20808

See Attachment No. \_\_\_\_\_

**6. OTHER SOURCES OF WATER**

Are you presently using, or do you intend to use, purchased water or water supplied by contract in connection with this project?  Yes  No If yes, please explain: \_\_\_\_\_

**7. MAP REQUIREMENTS**

The Division cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the township, range, section and quarter/quarter section of (1) the proposed points of diversion and (2) the place of use. A copy of a U.S.G.S. quadrangle/topographic map of your project area is preferred, and can be obtained from sporting goods stores or through the Internet at <http://topomaps.usgs.gov>. A certified engineering map is required when (1) appropriating more than three cfs by direct diversion, (2) constructing a dam which will be under the jurisdiction of the Division of Safety of Dams, (3) creating a reservoir with a surface area in excess of ten acres or (4) appropriating more than 1000 acre-feet per annum by underground storage. See the instruction booklet for more information. The project map, titled "Seaside Basin Pilot Test Injection/Storage Project" and dated August 1997, is on file with the Division of Water Rights under Application T30676/Permit 20963.

See Attachment No. \_\_\_\_\_

**SECTION C: ENVIRONMENTAL INFORMATION**

Note: Before a water right permit may be issued for your project, the State Water Resources Control Board (SWRCB) must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared for your project, a determination must be made of who is responsible for its preparation. If the SWRCB is determined to be responsible for preparing the CEQA document, the applicant will be required to pay all costs associated with the environmental evaluation and preparation of the required documents. Please answer the following questions to the best of your ability and submit with this application any studies that have been conducted regarding the environmental evaluation of your project.

**1. COUNTY PERMITS**

a. Contact your county planning or public works department and provide the following information:

Person contacted: Linda Weiland Date of contact: July 16, 1997  
Department: Monterey County Planning Department Telephone: (831) 755-5306  
County Zoning Designation: \_\_\_\_\_

Are any county permits required for your project?  YES  NO If YES, check appropriate box below:  
 Grading permit  Use permit  Watercourse  Obstruction permit  Change of zoning  
 General plan change  Other (explain): \_\_\_\_\_

b. Have you obtained any of the required permits described above?  YES  NO

If YES, provide a complete copy of each permit obtained.  
 See Attachment No. \_\_\_\_\_

**2. STATE/FEDERAL PERMITS AND REQUIREMENTS None**

a. Check any additional state or federal permits required for your project:

- Federal Energy Regulatory Commission  U.S. Forest Service  U.S. Bureau of Land Management
- U.S. Corps of Engineers  U.S. Natural Res. Conservation Service  Calif. Dept. of Fish and Game
- State Lands Commission  Calif. Dept. of Water Resources (Div. of Safety of Dams)
- Calif. Coastal Commission  State Reclamation Board  Other (specify) \_\_\_\_\_

b. For each agency from which a permit is required, provide the following information:

AGENCY	PERMIT TYPE	PERSON(S) CONTACTED	CONTACT DATE	TELEPHONE NO.

See Attachment No. \_\_\_\_\_

- c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank, or riparian habitat of any stream or lake?  YES  NO  
If YES, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

See Attachment No. \_\_\_\_\_

- d. Have you contacted the California Department of Fish and Game concerning your project?  YES  NO  
If YES, name and telephone number of contact: \_\_\_\_\_

### 3. ENVIRONMENTAL DOCUMENTS

- a. Has any California public agency prepared an environmental document for your project?  YES  NO  
c. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency: Monterey Peninsula Water  
d. If NO, check the appropriate box and explain below, if necessary: Management District  
 The applicant is a California public agency and will be preparing the environmental document.\*  
 I expect that the SWRCB will be preparing the environmental document.\*\*  
 I expect that a California public agency other than the State Water Resources Control Board will be preparing the environmental document.\* Public agency: \_\_\_\_\_  
 See Attachment No. 5

\* **Note:** When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the SWRCB, Division of Water Rights. Processing of your application cannot proceed until these documents are submitted.

\*\* **Note:** CEQA requires that the SWRCB, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the applicant and at the applicant's expense under the direction of the SWRCB, Division of Water Rights.

### 4. WASTE/WASTEWATER

- a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation?  
 YES  NO  
If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):  
\_\_\_\_\_  
\_\_\_\_\_

See Attachment No. \_\_\_\_\_

- b. Will a waste discharge permit be required for your project?  YES  NO  
Person contacted: \_\_\_\_\_ Date of contact: \_\_\_\_\_  
c. What method of treatment and disposal will be used? \_\_\_\_\_  
\_\_\_\_\_

See Attachment No. \_\_\_\_\_

### 5. ARCHEOLOGY

- a. Have any archeological reports been prepared on this project?  YES  NO  
b. Will you be preparing an archeological report to satisfy another public agency?  YES  NO  
c. Do you know of any archeological or historic sites located within the general project area?  YES  NO  
If YES, explain: \_\_\_\_\_  
\_\_\_\_\_

See Attachment No. \_\_\_\_\_

### 6. ENVIRONMENTAL SETTING

Attach **three complete sets of color photographs**, clearly dated and labeled, showing the vegetation that exists at the following three locations:

- Along the stream channel immediately downstream from the proposed point(s) of diversion.  
 Along the stream channel immediately upstream from the proposed point(s) of diversion.  
 At the place(s) where the water is to be used.

See Attachment No. \_\_\_\_\_

## SECTION D: SUBMITTAL FEES

Calculate your application filing fee using the "Water Right Fee Schedule Summary" that was enclosed in the application packet. The "Water Right Fee Schedule Summary" can also be viewed at the Division of Water Rights' website ([www.waterrights.ca.gov](http://www.waterrights.ca.gov)).

A check for the application filing fee, payable to the "Division of Water Rights" and an \$850 check for the environmental review fee, payable to the "California Department of Fish and Game," must accompany this application. All applicable fees are required at the time of filing. Your application will be returned to you if it is not accompanied by all required fees.

## SECTION E: DECLARATION AND SIGNATURE

I declare under penalty of perjury that all information provided is true and correct to the best of my knowledge and belief. I authorize my agent, if I have designated one above, to act on my behalf regarding this water right application.

Andrew M. Bell District Engineer August 19, 2004  
Signature of Applicant Title or Relationship Date  
Andrew M. Bell

\_\_\_\_\_  
Signature of Co-Applicant (if any)

\_\_\_\_\_  
Title or Relationship

\_\_\_\_\_  
Date



### "APPLICATION TO APPROPRIATE WATER" CHECKLIST

Before you submit your application, be sure to:

- Answer each question completely in Sections A, B, and C.
- Number and include all necessary attachments.
- Include a legible map that meets the requirements discussed in the instruction booklet (Item B6).
- Include the Water Availability Analysis or sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation (Item A6).
- Include three complete sets of color photographs of the project site (Item C6).
- Enclose a check for the required fee, payable to the Division of Water Rights, as specified in Section D.
- Enclose a \$850 check for the environmental review fee, payable to the Department of Fish and Game, as specified in Section D.
- Sign and date the application in Section E.

Send the original and one copy of the entire application to:

State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000

**APPLICATION TO APPROPRIATE WATER**

**SECTION A: NOTICE INFORMATION**  
**ITEM 3. PROJECT DESCRIPTION**

DIV. OF WATER RIGHTS  
SACRAMENTO

**SEASIDE BASIN TEST INJECTION WELL PROJECT**

The Monterey Peninsula Water Management District (MPWMD) proposes to divert surplus water from the Carmel River Basin for underground injection and storage in the Seaside Ground Water Basin, as part of a feasibility project during the Water Year (WY) 2005 precipitation season. This is a continuation of the pilot feasibility project conducted by MPWMD upon completion of the Paso Robles Test Injection Well (PRTIW) in May 1998. Testing at the PRTIW has been conducted during the last six full recharge seasons (WYs 1999 through 2004). A second test well, the Santa Margarita Test Injection well (SMTIW), was completed in April 2001. Testing at the SMTIW was conducted in WYs 2002, 2003, and 2004. The proposed test project will utilize the existing Carmel River diversion, treatment, and transmission facilities owned and operated by the California-American Water Company (Cal-Am) to transport treated surface and subsurface water from the Carmel River to one or more of three injection wells located within Cal-Am's production wellfield in the Seaside Basin. The three injection wells are the PRTIW, the SMTIW, and the Ord Grove #1 Well, an inactive Cal-Am production well. The production and distribution systems for the two basins are linked via the existing Cañada de la Segunda pipeline, which is a 16- to 30-inch diameter water transmission line approximately 3 miles long, extending from Carmel Valley to the Seaside portion of the Cal-Am distribution system at Highway 68 southeast of the City of Seaside.

Under the test project, up to 3.5 cubic feet per second (1,500 gallons per minute) will be diverted from the Carmel River to underground storage in the Seaside Basin, for a maximum of 350 acre-feet during the winter and spring high flow months. The proposed season of diversion is December 1 through May 31. Diversions will only be made during periods when there is adequate instream flow. The minimum instream flow requirements will be as described in Condition 7 of Temporary Permit 21163, the permit issued for WY 2004. These flows are consistent with the instream flow requirements presented in the report titled Instream Flow Needs for Steelhead in the Carmel River, Bypass flow recommendations for water supply projects using Carmel River waters (National Marine Fisheries Service, Southwest Region, Santa Rosa Field Office, June 3, 2002).

The water will be used for groundwater recharge. Injection testing will be performed to determine the rate of injection, fate of injected water, and possible chemical interaction between the injected water and the native groundwater. It is also planned to conduct recovery testing of the SMTIW to determine recovery efficiency and quality characteristics of the recovered water.



**APPLICATION TO APPROPRIATE WATER**

**SECTION A: NOTICE INFORMATION**

**ITEM 5. SOURCES AND POINTS OF DIVERSION AND REDIVERSION**

**POINTS OF DIVERSION**

San Clemente Dam

Point is approximately 1,700 feet North, 100 feet East of the SW corner of Section 24, T.17S., R.2E., MDB&M. Point is within the NW 1/4 of SW 1/4 of Section 24.

Carmel Valley Aquifer

Points are 19 wells owned by California-American Water Co. that are integrated into the production and distribution system delivering water from Carmel Valley. A listing of the wells and their locations is given on the following page.

**POINTS OF INJECTION TO UNDERGROUND STORAGE**

Paso Robles Test  
Injection Well (PRTIW)

Point is approximately 100 feet South, 1,200 feet West of the NE corner of projected Section 23, T.15S., R.1E., MDB&M. Point is within the NE 1/4 of NE 1/4 of projected Section 23.

Santa Margarita Test  
Injection (SMTIW)

Point is approximately 200 feet South, 500 feet West of the NE corner of projected Section 23, T.15S., R.1E., MDB&M. Point is within the NE 1/4 of NE 1/4 of projected Section 23.

Ord Grove #1 Well

Point is approximately 900 feet South, 2,200 feet West of the NE corner of projected Section 23, T.15S., R.1E., MDB&M. Point is within the NW 1/4 of NE 1/4 of projected Section 23.

**LOCATIONS OF WELLS IN CARMEL VALLEY AQUIFER  
(POINTS OF DIVERSION)**

<b>Common Name</b>	<b>Approximate Coordinate Distances From Section Corner</b>	<b>Section</b>	<b>Township</b>	<b>Range</b>
1. Cañada	2,000' N, 2,000' E of SW corner	17	16 S	1 E
2. San Carlos	1,700' N, 900' W of SE corner	17	16 S	1 E
3. Cypress	2,200' S, 600' E of NW corner	22	16 S	1 E
4. Pearce	2,500' S, 2,200' E of NW corner	22	16 S	1 E
5. Schulte	2,300' S, 100' E of NW corner	23	16 S	1 E
6. Manor #2	2,000' N, 2,100' E of SW corner	23	16 S	1 E
7. Begonia #2	1,300' N, 300' E of SW corner	24	16 S	1 E
8. Berwick #7	200' N, 800' E of SW corner	24	16 S	1 E
9. Berwick #8	300' N, 1,700' E of SW corner	24	16 S	1 E
10. Scarlett #8	400' N, 900' E of SW corner	19	16 S	2 E
11. Los Laureles #5	1,700' N, 2,500' W of SE corner	29	16 S	2 E
12. Los Laureles #6	900' N, 700' W of SE corner	29	16 S	2 E
13. West Garzas #4	2,200' N, 2,000' E of SW corner	33	16 S	2 E
14. Garzas Creek #3	500' N, 1,900' W of SE corner	33	16 S	2 E
15. Panetta #2	800' S, 200' E of NW corner	3	17 S	2 E
16. Panetta #1	1,000' S, 100' E of NW corner	3	17 S	2 E
17. Robles #3	600' S, 100' W of NE corner	10	17 S	2 E
18. Russell #4	0' S, 800' W of NE corner	14	17 S	2 E
19. Russell #2	400' S, 800' W of NE corner	14	17 S	2 E

Notes: All townships are referenced to Mount Diablo Base Line and Meridian.  
All sections are projected, except for the location of San Clemente Dam.

**COORDINATES OF  
POINTS OF DIVERSION AND INJECTION TO UNDERGROUND STORAGE**

<u>Point of Diversion/ Injection</u>	<u>California Coordinate System of 1927 (CCS27)– California Zone 4 Northing</u>	<u>Easting</u>
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Dam/Reservoir

San Clemente Dam	412,600 feet North	1,203,650 feet East
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Wells in Carmel Valley Aquifer

1. Cañada	451,600	1,153,800
2. San Carlos	451,250	1,156,600
3. Cypress	447,200	1,163,250
4. Pearce	446,950	1,164,750
5. Schulte	447,000	1,167,850
6. Manor #2	446,050	1,169,950
7. Begonia #2	445,100	1,173,350
8. Berwick #7	444,050	1,173,900
9. Berwick #8	444,100	1,174,700
10. Scarlett #8	444,100	1,179,200
11. Los Laureles #5	439,900	1,187,200
12. Los Laureles #6	439,100	1,188,050
13. West Garzas #4	434,850	1,190,800
14. Garzas Creek #3	433,200	1,191,650
15. Panetta #2	431,700	1,193,350
16. Panetta #1	431,550	1,193,250
17. Robles #3	426,700	1,198,100
18. Russell #4	421,400	1,202,650
19. Russell #2	421,000	1,202,650

Points of Injection to Underground Storage

1. Paso Robles Test Injection Well (PRTIW)	480,600	1,173,300
2. Santa Margarita Test Injection Well (SMTIW)	480,550	1,173,700
3. Ord Grove #1 Well	479,850	1,172,150

**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
SEASIDE BASIN AQUIFER STORAGE AND RECOVERY (ASR) PROJECT**

2004 AUG 20 PM 2:22

**SUMMARY OF SWRCB TEMPORARY PERMITS AND ASR  
TESTING ACTIVITIES**

August 2004

**Water Year (WY) 1998 Season:** Planning for the Monterey Peninsula Water Management District's (MPWMD's) Seaside Basin pilot injection well began in 1997, as discussed in our letter to the State Water Resources Control Board (SWRCB) dated May 6, 1997. MPWMD submitted an application for Temporary Urgency Permit on January 26, 1998 (Application T30676). Subsequent to MPWMD's response to an objection filed by the California Sportfishing Protection Alliance (CSPA), the SWRCB issued a temporary permit to divert up to 403 acre-feet (af) on April 6, 1998 (Temporary Permit 20963). Due to the timing of permit issuance and subsequent well drilling delays, we were only able to conduct minimal injection testing at the close of the WY 1998 recharge season (**Table 1**). The pilot injection well was constructed with perforations in the shallower of the two primary aquifer zones of the Seaside Basin, the Paso Robles Formation. Accordingly, this well is now referred to as the Paso Robles Test Injection Well (PRTIW), and its location is shown on **Figure 1**. Injection wells completed into this shallower zone would potentially be less expensive than wells penetrating into the deeper zone, the Santa Margarita Sandstone, so our testing program focused on this aquifer zone first.

**WY 1999 Season:** In anticipation of conducting a full season of testing at the PRTIW, MPWMD submitted an application for a new temporary permit on August 21, 1998 (Application T30769). Upon MPWMD's completion of the required noticing and responses to three objections that were filed (i.e., CSPA, Fran Farina and Patricia Bernardi, and Steve Schramm), the SWRCB issued a permit to divert up to 550 af on December 14, 1998 (Temporary Permit 20983). Carmel River flow conditions became acceptable for diversions under this permit in late January 1999, and we were able to divert a total of 195 acre-feet of Carmel River system water prior to the end of the recharge season on May 31, 1999 (**Table 1**). Much was learned during this first full season of injection testing. Most importantly, we gained a firmer understanding of the limitations of the shallower Paso Robles aquifer zone. The results of the injection testing during this season revealed that the aquifer characteristics of the shallower zone are not sufficient for effective backflushing to prevent well plugging. Accordingly, in March 1999 we began seeking the necessary approvals from local jurisdictions to install a full-scale test injection well into the deeper Santa Margarita aquifer zone. The proposed location for the new test well was adjacent to the PRTIW on former Fort Ord lands that are presently under the ownership of the U.S. Army. This test well location is within 1/4 mile of the PRTIW, as shown on **Figure 1**.

**WY 2000 Season:** In anticipation of more expanded injection testing this season, MPWMD submitted a temporary permit application to the SWRCB on August 25, 1999 (Application 30951T). Upon completion of MPWMD's noticing requirements and response to comments from Fran Farina, the SWRCB issued a permit to divert up to 550 af on December 13, 1999 (Temporary Permit 21016). Securing appropriate land use permit and access approvals for the full-scale test well proved to be more complex than originally envisioned, however. Accordingly, all the necessary approvals from the City of Seaside (the local land use authority) and the Army (the land owner) were not obtained before the Carmel River flows became acceptable for diversions in late January 2000. Consequently, we began testing again at the PRTIW and continued until Carmel River flow conditions diminished to 40 cubic feet per second (cfs) in late May 2000. During this period, the MWPMD injected approximately 170 acre-feet of water at the PRTIW (**Table 1**). A more complete summary of testing during this season was provided in our letter to the SWRCB dated June 30, 2000. This testing allowed the MPWMD to gain valuable experience with the operational aspects of ground-water injection in the Seaside Basin, and provided additional information regarding likely ongoing maintenance efforts and costs that would be encountered with a long-term injection program. During WY 2000, no testing was conducted at an alternate site, the Ord Grove #1 well, which is an inactive California American Water (Cal-Am) production well that has perforations within the Santa Margarita aquifer zone. The condition of this well was investigated, but a decision to conduct injection testing was deferred due to the poor condition of the well casing.

**WY 2001 Season:** As part of the effort to secure approvals for the next phase of ASR feasibility investigation (i.e., testing of the Santa Margarita aquifer zone), MPWMD submitted an application for temporary permit to the SWRCB on August 24, 2000 (Application 31100T). The SWRCB issued this temporary permit to divert up to 550 af on January 11, 2001 (Temporary Permit 21080). Although MPWMD had obtained local land use approval for the new full-scale injection well from the City of Seaside in April 2000, final approvals to allow initiation of well construction were not secured from the U.S. Army due to ordnance clearance delays until the beginning of the recharge season in late January 2001. Accordingly, injection testing of the PRTIW was continued January through May, but had to be suspended intermittently once drilling of the new well began in February 2001. The new test well was completed in April 2001, and preliminary testing of the new well was conducted for several days that month. The new full-scale test well is now referred to as the Santa Margarita Test Injection Well (SMTIW). A total of 77 acre-feet of water from the Carmel River basin was injected in the Seaside Basin in WY 2001 (**Table 1**). A more complete summary of testing during this season is provided in our letter to the SWRCB dated July 10, 2001.

**WY 2002 Season:** MPWMD submitted an application for the WY 2002 season on July 16, 2001 (Application T031230). Subsequent to MPWMD's response to concerns filed on behalf of Cal-Am, the SWRCB issued this temporary permit to divert up to 750 af on December 3, 2001 (Temporary Permit 21116). Based on the results from the preliminary testing of the SMTIW at the close of the WY 2001 season, it was determined that significant modifications would be required to the Cal-Am distribution system in Seaside

to accommodate the desired flow rates for injection testing at the SMTIW during WY 2002. Accordingly, MPWMD developed the design plans and worked with Cal-Am to complete installation of the required modifications in February 2002. Immediately upon completion of these system modifications, formal testing of the SMTIW was conducted for approximately six weeks until Carmel River flow conditions declined below the permitted limits in April 2002. Despite the brief testing period at the SMTIW during WY 2002, the results exceeded initial injection capacity expectations and allowed for additional understanding about future operation of an expanded injection well field in the Seaside Basin. During WY 2002, approximately 310 acre-feet of Carmel River Basin water were diverted for injection at both the PRTIW and SMTIW in the Seaside Basin (**Table 1**). WY 2002 testing is more completely described in our letter to the SWRCB dated June 26, 2002.

**WY 2003 Season:** MPWMD submitted an application for the WY 2003 season on September 6, 2002 (Application T031359), and the SWRCB issued a temporary permit to divert up to 750 af on January 22, 2003 (Temporary Permit 21143). The principal reason for the delay in permit issuance was that objections were filed on behalf of the National Marine Fisheries Service (NOAA Fisheries), the California Department of Fish and Game (CDFG), Carmel River Steelhead Association (CRSA), Save Our Carmel River (SOCR), and Roy Kaufman. The resource agencies' objections centered on the MPWMD's proposed use of the instream flow requirements that had been specified in permits for prior years' testing. Subsequently the MPWMD agreed to the instream flow recommendations regime presented in the report titled Instream Flow Needs for Steelhead in the Carmel River, Bypass flow recommendations for water supply projects using Carmel River waters (National Marine Fisheries Service, Southwest Region, Santa Rosa Field Office, June 3, 2002). Beginning in WY 2003, injection testing was focused exclusively on the SMTIW that is completed in the more productive Santa Margarita aquifer. SMTIW injection testing commenced on January 24, 2003, and continued intermittently until May 15, 2003. During the WY 2003 recharge season, a total of 168 acre-feet were diverted from Carmel River sources for injection testing purposes at the SMTIW (**Table 1**). The District and Cal-Am worked together with the California Department of Health Services (CDHS) to secure approval to conduct the "recovery" phase of testing this season. The recovery phase assisted in evaluating the fate of injectate water in the aquifer and chemical interactions during storage. As part of the WY 2003 testing, approximately 440 acre-feet were "recovered" from September to November 2003 and delivered to the Cal-Am distribution system while conducting water quality monitoring. In this sense the SMTIW was operated as a normal Cal-Am Seaside production well. The water quality monitoring focused general chemistry characterization and on sampling for Disinfection By-Products (DBPs) to assist in determining the fate of DBPs in the recovered water, as requested by the CDHS. WY 2003 testing is more completely described in our letter to the SWRCB dated July 1, 2003.

**WY 2004 Season:** MPWMD submitted an application for a temporary permit for WY 2004 on August 7, 2003 (Application 031449). Again, the time delay between application and permit issuance was influenced by two objections filed on behalf of Cal-Am and Clinton Eastwood and Margaret Eastwood. Subsequent to submittal of MPWMD

responses to the objections, the SWRCB issued this temporary permit to divert up to 750 af on January 16, 2004 (Temporary Permit 21163). Carmel River flow conditions were suitable for injection testing only intermittently between early February and late March 2004, during which approximately 160 acre-feet were injected (**Table 1**). The MPWMD and Cal-Am again worked with CDHS to secure approval for recovery of SMTIW water into the Cal-Am distribution system during WY 2004. CDHS approval was received in time for the SMTIW to be utilized as an emergency back up supply to Cal-Am's Paralta well, which failed on July 11, 2004. Without the use of the SMTIW during this time, Cal-Am would need to operate additional wells in Carmel Valley, which would adversely affect Carmel River streamflow and related habitat, and increase the risk of exceeding the Carmel River production limit set by the SWRCB. Currently, the SMTIW is operating in recovery mode, and the MPWMD and Cal-Am are collecting valuable water quality data during this recovery period. Preliminary findings based on the water quality testing indicate that the recovered water is a blend of Carmel River system water and native Seaside Basin ground water, and that the recovered water has retained some chemical imprints of the Carmel River system water even after 100% of the injected volume was removed. This suggests that injection is capable of "conditioning" the aquifer beyond the injectate "plume", thereby reducing the occurrence of hydrogen sulfide in the native ground water, which is an ancillary benefit of the ASR testing program.





Table 1

**WATER DIVERTED FROM THE CALIFORNIA AMERICAN WATER DISTRIBUTION SYSTEM FOR THE MPWMD SEASIDE BASIN AQUIFER STORAGE AND RECOVERY (ASR) TESTING PROJECT**

WATER YEAR MONTH		DIVERSION QUANTITIES							
		MONTHLY				ANNUAL			
		PR TEST INJECT. WELL		SM TEST INJECT. WELL		BOTH WELLS		BOTH WELLS	
(gallons)	(acre-feet)	(gallons)	(acre-feet)	(gallons)	(acre-feet)	(gallons)	(acre-feet)		
1998	Mar	118,782	0.36			118,782	0.36		
	Apr		0.00			0	0.00		
	May	6,734,400	20.67			6,734,400	20.67		
								6,853,182	21.03
1999	Jan	7,423,000	22.78			7,423,000	22.78		
	Feb	14,653,300	44.97			14,653,300	44.97		
	Mar	16,513,000	50.68			16,513,000	50.68		
	Apr	10,091,100	30.97			10,091,100	30.97		
	May	14,880,950	45.67			14,880,950	45.67		
								63,561,350	195.06
2000	Jan	3,236,500	9.93			3,236,500	9.93		
	Feb	13,740,000	42.17			13,740,000	42.17		
	Mar	14,588,400	44.77			14,588,400	44.77		
	Apr	11,949,500	36.67			11,949,500	36.67		
	May	11,950,700	36.68			11,950,700	36.68		
								55,465,100	170.22
2001	Jan	6,697,300	20.55	0	0.00	6,697,300	20.55		
	Feb	2,942,400	9.03	284,156	0.87	3,226,556	9.90		
	Mar	8,832,100	27.10	0	0.00	8,832,100	27.10		
	Apr	4,492,700	13.79	371,490	1.14	4,864,190	14.93		
	May	1,491,700	4.58	0	0.00	1,491,700	4.58		
								25,111,846	77.07
2002	Dec	6,007,800	18.44	0	0.00	6,007,800	18.44		
	Jan	13,502,000	41.44	0	0.00	13,502,000	41.44		
	Feb	11,333,000	34.78	2,554,000	7.84	13,887,000	42.62		
	Mar	11,497,800	35.29	42,565,000	130.63	54,062,800	165.91		
	Apr	1,587,700	4.87	11,893,000	36.50	13,480,700	41.37		
	May		0.00	86,000	0.26	86,000	0.26		
								101,026,300	310.04
2003	Jan			9,350,000	28.69	9,350,000	28.69		
	Feb			0	0.00	0	0.00		
	Mar			8,583,000	26.34	8,583,000	26.34		
	Apr			20,773,000	63.75	20,773,000	63.75		
	May			15,884,000	48.75	15,884,000	48.75		
								54,590,000	167.53
2004	Dec			51,000	0.16	51,000	0.16		
	Jan			0	0.00	0	0.00		
	Feb			26,430,000	81.11	26,430,000	81.11		
	Mar			25,636,000	78.67	25,636,000	78.67		
								52,117,000	159.94
<b>TOTAL DIVERSIONS</b>									
<b>ALL YEARS</b>		<b>596.17</b>		<b>504.71</b>				<b>1,100.89</b>	

**NOTES:**

1. Paso Robles (PR) Test injection Well (aka Seaside Pilot Injection Well) is located in the northeastern corner of Mission Memorial Park. It was constructed in 1998 and is 460 feet deep, with well screens in the Paso Robles Formation.
2. Santa Margarita (SM) Test Injection Well (aka Full-Scale Test Well) is located southeast of the intersection of General Jim Moore Boulevard and Eucalyptus Road on former Fort Ord. It was constructed in 2001 and is 720 feet deep, with well screens in the Santa Margarita Sandstone.
3. Diversion quantities are as measured from 6" flow meter at PRTIW site, and 12" flow meter at SMTIW site.

**NOTICE OF EXEMPTION**

STATE WATER RESOURCES CONTROL BOARD

**TO:**      Office of Planning and Research  
 1400 Tenth Street, Room 121  
 Sacramento, CA 95814

**FROM:** Monterey Peninsula Water Mgt. Dist.  
 P.O. Box 85  
 Monterey, CA 93942-0085

2004 AUG 23 PM 2:42  
 DIV. OF WATER RIGHTS  
 SACRAMENTO

County Clerk -- County of Monterey  
 240 Church Street, PO Box 29  
 Salinas, CA 93902

**Project Title:** *Water Year 2005 Seaside Basin Test Injection Well Project*

**Project Location -- Specific:** *220 feet east of General Jim Moore Boulevard and 485 feet south of Eucalyptus Rd., Presidio of Monterey Annex (former Fort Ord)*

**Project Location -- City:** *Seaside (SOI)*

**Project Location-- County:** *Monterey*

**Description of Nature, Purpose and Beneficiaries of Project:** *This is a temporary project to further investigate the feasibility of the ground water injection-recovery concept in the Seaside Ground Water Basin. Excess winter flow from the Carmel River will be treated to meet drinking water standards, then transported to the Seaside Basin via the existing California-American Water Company (Cal-Am) pipeline that connects the Carmel Valley and Seaside distribution systems. A full-scale test well (and associated pipeline, valves and power) has been installed into the Santa Margarita Sandstone aquifer zone. Up to 350 acre-feet of water could be injected during the winter rainy season, depending on weather and resultant river flow conditions. After the rainy season, the injected water will be pumped into the Cal-Am distribution system to test recovery efficiency. Extensive monitoring of water levels and quality will be carried out as part of the testing project. The project beneficiaries are Monterey Peninsula water consumers; the project (if successful) could lead to a long-term water supply project that would help Cal-Am and the community meet the requirements of State Water Resources Control Board Order WR 95-10.*

**Name of Public Agency Approving Project:** *Monterey Peninsula Water Management District (MPWMD)*

**Name of Person or Agency Carrying Out Project:** *MPWMD*

**Exempt Status:**  
 *Statutory Exemption (Sec. 15262); Feasibility and Planning Studies*

**Reason(s) Why Project Is Exempt:** *Temporary feasibility and planning study to determine whether a permanent, long-term project should be pursued.*

Contact Person	Area Code	Telephone	Extension
Joe Oliver	831	658-5640	n/a

*Henrietta Stern* 8/18/04

Henrietta Stern, MPWMD Project Manager

**Date Received for Filing:**