

## FACT SHEET

### City of Cocoa Beach WRF – Reclaimed Water ASR

Permit No. 05-0224301-002-UC

Revised March 28, 2011

A construction permit is requested for the reclaimed water Aquifer Storage and Recovery (ASR) system which includes an ASR well (TPW-1) and two monitor wells, at the City of Cocoa Beach Water Reclamation Facility (WRF). The permit is requested by the City of Cocoa Beach.

#### 1. General Information

##### A. Statutory Basis for Requiring /Issuing Permit

The Department has permitting jurisdiction under Chapter 403 Florida Statutes (F.S.), and 62-4, 62-528 and 62-550 Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that an injection well construction permit is required.

##### B. Name and Address of Applicant

Darby Blanchard, Director, CCB Utilities  
City of Cocoa Beach  
1600 Minutemen Causeway  
Cocoa Beach, Florida 32931-0000

##### C. Description of Applicant's Proposed Operation

The proposed well site is located approximately three miles south of State Highway 520, 1.5 miles west of State Highway A1A, and adjacent to the City of Cocoa Beach Water Reclamation Facility, in Cocoa Beach, Florida. The target storage zone (sz) for the ASR well will be beneath the Underground Source of Drinking Water (USDW). The permit is for construction and testing of one Class V **Group 3** well (ASR TPW-1) using water from the City's reclaimed water distribution system, for the purpose of cycle testing the ASR capabilities. The reclaimed water to be used in the ASR system is treated at the WRF and meets the public access reclaimed water standards. Current construction at the plant consists of additional upgrades that will improve treatment efficiency to meet advanced wastewater treatment standards.

The Latitude/Longitude coordinates at the facility are 28° 18'55" North, 80° 38'4.4" West.

##### D. Permitting History of this Facility

This facility has no previous FDEP UIC permit.

##### E. Documents Used in Permitting Decision

1. QLH City of Cocoa Beach, Application to Construct a New Class V Injection Well, August 2010
2. FDEP UIC Draft permit No. 05-02243301-002-UC, January 2011

3. Response to Request for Additional Information, MWH, Inc. November 26, 2010;
4. Response to Request for Additional Information, MWH, Inc. November 5, 2010.

2. Reasons Permit was Issued; Derivation of Conditions

A. Mechanical Integrity Demonstration

Not required by Chapter 62-528, F.A.C., for Class V wells.

B. Confinement (Rule 62-528.405(2), F.A.C.)

The low permeability sandy clays of the Hawthorn Group overlie the target storage zone. Beneath the Hawthorn Group is the middle confining unit of the Avon Park Formation. These units have been recognized previously in other Brevard County Class I injection wells drilled for local municipalities. See Document 1 for details.

C. Injection Zone (Rule 62-528.405(3), F.A.C.)

The storage zone for this test well will extend from approximately 1,200' to 1,500' below land surface (bls). This is part of the lower Floridan aquifer, within the Avon Park Formation, composed primarily of limestone and minor dolomite. See Document 1 for details.

D. Underground Source of Drinking Water (Rule 62-528.605, F.A.C.)

The Underground Source of Drinking Water (USDW), which contains water with total dissolved solids (TDS) less than 10,000 mg/L, has been documented at multiple UIC facilities in Brevard County ranging from 800' to 1,500' bls. The USDW at the subject WRF will be determined during drilling of TPW-1, but is expected to occur above the storage zone.

E. Well Construction:

Aquifer Storage and Recovery Well (TPW-1)

42" steel pit casing, 0.375" thick, set to 30' bls  
36" steel surface casing, 0.375" thick, set to 180' bls  
28" steel intermediate casing, 0.375" thick, set to 800' bls  
18" FRP casing, .76" thick, set to 1,200' bls  
open hole from 1,200' to total depth of 1,500' bls or as necessary

Storage Zone Monitor Well (SZMW-1)

28" steel pit casing, .375" thick, set to 30' bls  
20" steel surface casing, .375" thick, set to 180' bls  
14" steel intermediate casing, .375" thick, set to 800' bls  
6" final FRP casing to 1,200' bls  
total depth to 1,500' bls

Shallow Aquifer Monitor Well (SMW-1)

14" steel surface casing, .375" thick, set to 30' bls

6" PVC casing, 0.390" thick, set to 800' bls

total depth to 950' bls (revised March 28, 2011)

See Document 1, Figure 4-1, and Appendix D for details.

F. Monitor Plan (Rule 62-528.615, F.A.C.)

The Department must approve completion of all construction before cycle testing can take place. Testing of TPW-1 and the monitor wells will follow schedules and volumes as described in Table 1 of the Permit. The frequency of chemical parameter sampling will be dependent on the current phase of a cycle test and which well is being analyzed. The parameters to be monitored during the cycle testing will be proposed after the completion of construction of ASR System for Department's review and approval prior to commencement of cycle tests. Physical parameters will be monitored initially to test if the aquifer will provide a successful ASR zone.

G. Financial Responsibility

Not required under Rule 62-528, F.A.C., for Class V wells

3. Agency Action

The UIC Program staff recommends approval of the construction permit.

4. Public Rights (Rules 62-528.310, .315, and .326, F.A.C.)

The Department accepted public comment concerning this proposed permit action for a minimum of 30 days following publication of the Notice of Draft Permit. A public meeting was held no less than 30 days after publication of this Notice for the purpose of receiving verbal and written comment concerning this project. Comments received within the 30-day period and during the public meeting were considered by the Department in formulating final decision concerning this project. The public meeting was held at 10:00 am on March 3, 2011 at the City Hall Commission, Room 2, South Orlando Avenue, Cocoa Beach, Florida. Comments were mailed to the Department of Environmental Protection to the attention of Duane Watroba at the address listed below.

After the conclusion of the public comment period as described above, the Department considered all comments received during the public comment period in making a final decision concerning this permit action. **The depth of the Shallow Aquifer Monitor Well was revised after the public meeting.**

When the Department has made a decision concerning the final permit, the applicant will publish notice of the proposed agency action. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing).

Accordingly, the Department's final action may be different from the position taken by it in the Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified in the Notice and be filed (received) within 14 days of publication of this Notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Sections 120.569 and 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-106.205, Florida Administrative Code.

The application and draft permit are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at Department of Environmental Protection, Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. Please contact Duane Watroba at (407) 894-7555 for additional information concerning this project.

5. Agency Contact

Duane Watroba, Technical Advisory Committee  
Florida Department of Environmental Protection  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767  
(407) 894-7555