

FACT SHEET

City of Cocoa Beach WRF – Reclaimed Water ASR

Permit No. 05-0224301-002-UC

January 21, 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 Cocoa Beach High School, 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 High-Level disinfection 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 1,400' 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:

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

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

SMW-1

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

6" PVC casing, 0.390" thick, set to 350' bls

total depth to 450' bls

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. 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 will accept public comment concerning this proposed permit action for a minimum of 30 days following publication of the Notice of Draft Permit. A public meeting will be 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 will be considered by the Department in formulating final decision concerning this project. The public meeting will be held at ___ pm on February ___, 2011 at _____, _____ Road, Cocoa Beach, Florida. Comments can be 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 will consider all comments received during the public comment period in making a final decision concerning this permit action. 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