

FACT SHEET

City of Sanford Aquifer Storage and Recovery (ASR) Well
Permit Modification No. 0307357-002-UC/5M
April 22, 2014

A UIC construction permit modification is requested by the City of Sanford Utilities Department to add untreated ground water to the permitted cycle testing of one Class V, Group Seven ASR well system.

1. General Information

A. Statutory Basis for Requiring/Issuing Permit

The Department has permitting jurisdiction under Chapter 403 Florida Statutes (F.S.), and the rules adopted thereunder. The project is not exempt from permitting procedures. The Department has determined that a construction permit modification is required for the proposed project.

B. Name and Address of Applicant

Mr. Paul R. Moore
Director of Utilities
City of Sanford
300 N. Park Avenue
Sanford, FL 32771-0000

C. Description of Applicant's Proposed Operation

Continue cycle testing one potable water Class V Group Seven Aquifer Storage and Recovery (ASR) injection well system with two storage zone monitoring wells (SZMW-1 and SZMW-2), and one confining zone monitoring well (CZMW-1). This modification allows untreated ground water from the Hidden Lakes wellfield to be stored and recovered in the ASR well.

D. Permitting History of this Facility

FDEP Construction Permit 59-0259876-001-UC (9/26/06 – 9/27/11)

FDEP Permit Modification with Administrative Order AO-08-0015 (January 6, 2009)

FDEP Construction Permit 59-0307357-001-UC with Administrative Order, July 5, 2012.

E. Documents Used in Permitting Decision

1. City of Sanford Potable Water ASR Project, Class V ASR Injection Well Permit Modification Application, February 2014.
2. Response to Request for Further Information, by *CDM Smith*, March 17, 2014
3. Aquifer Storage and Recovery, Pretreatment System Project Report for the City of Sanford, Florida, by *CDM*, October 2010

4. Aquifer Storage and Recovery Project, Expanded Executive Summary for the City of Sanford, Florida, by CDM, September 2011
5. "Exploratory Well Project Report for City of Sanford, Florida" for St. Johns Water Management District, by CDM, December 2005.

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 exploratory well that was completed in December 2005 defined the confinement at the site within the Hawthorn Group clays at depths of approximately 25 to 95 feet below land surface (bls), and the dolomite of the Avon Park Formation, at 430-480 feet bls. See Documents 4 and 5 for details.

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

The storage zone to be utilized for this ASR will be in the dolomite of the Avon Park Formation, at depths between 530 and 630 feet bls. See Documents 4 and 5 for details.

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

The 250 mg/L chloride interface occurs at depths between 420 and 510 feet bls, and the storage zone is completed to the depths of 530 to 630 feet bls. This zone is well above the base of the USDW, which is located at depths greater than 1000 feet bls in this region.

E. Well Construction:

ASR Well

Pit casing, steel, set to 85' bls

24" .375" steel surface casing, set to 198' bls

17.4" O.D. SDR CERTA-LOK PVC transition pipe

16", 14" and 12" SDR CERTA-LOK PVC transition pipe adapters telescope to join final:

10.75" SDR CERTA-LOK PVC set to 540' bls

Open hole drilled to TD of 631' bls

Well SZMW-1

20" O.D. Pit Pipe, set to 80' bls

12.75" O.D. .75" SDR 17 PVC to 14" O.D. coupling surface csg, set to 191' bls

6.625" O.D. 0.432" SCH 80 PVC, set to 530' bls

6" open hole drilled to TD of 685', backfilled to 628'

Well SZMW-2

18" O.D. 0.375" steel pit pipe, set to 85' bls

12.75" O.D. SDR 17 PVC surface csg, set to 195' bls

6.625" O.D. PVC monitor csg, set to 530' bls

open hole drilled to TD of 630 feet

Well CZMW-1

Pit casing, steel, set to 85' bls
12.75" O.D. PVC surface csg, set to 196' bls
6.625" O.D. PVC monitor csg, set to 430' bls
Open hole drilled to TD of 480 feet.

See Document 4, Figure 8.2 for details.

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

The monitoring plan will include the ASR well and monitor wells SZMW-1, SZMW-2 and CZMW-1. The sampling schedule frequency varies depending on the current phase of each cycle. The parameters to be monitored will also vary by well. Injection and recovery rates, well pressures, and well water quality will be monitored. The monitoring tables can be found in the Specific Conditions of the Draft Permit.

G. Financial Responsibility

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

H. Area of Review (Rule 62-528.300(4), F.A.C.)

A one mile area of review was performed for the 2012 permit, and was not required to be updated for this modification application.

3. Agency Action

A draft permit modification will be issued.

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

Any interested person may submit written comments on the draft permit for a minimum of 30 days after publication of this public notice. A public meeting will be held on April 30, 2014, at 4:00 p.m. at the Utility Training Room Sanford City Hall, First Floor, 300 N. Park Avenue, Sanford, Florida 32771 for the purpose of receiving oral and written comments concerning this project. Written comments shall be submitted to the Department of Environmental Protection, Aquifer Protection Program, 2600 Blair Stone Road, MS 3530, Tallahassee, Florida 32399-2400, which is the office processing this permit application. All comments received within the 30-day period and through the public meeting date, will be considered in formulation of the Department's final decision regarding permit issuance.

After the conclusion of the public comment period and public meeting described above, the Department may revise the conditions of the permit based on such public comment. Then 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 of Proposed Agency Action.

The petition must conform to the requirements specified in the Notice and be filed (received) within 14 days of publication of the Notice in the Department's Office of General Counsel, MS 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000.

The failure of any person to file a Petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will only be at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the 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 the Department of Environmental Protection (DEP), Aquifer Protection Program, MS 3530, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and the DEP, Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

5. Agency Contact

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Florida Department of Environmental Protection
Aquifer Protection Program, MS 3530
Tallahassee, Florida 32399-2400
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