**Section 845.620 Hydrogeologic Site Characterization**

a) The owner or operator of the CCR surface impoundment must design and implement a hydrogeologic site characterization.

b) The hydrogeologic site characterization must include, but is not limited to, the following:

1) Geologic well logs/boring logs;

2) Climatic aspects of the site, including seasonal and temporal fluctuations in groundwater flow;

3) Identification of nearby surface water bodies and drinking water intakes;

4) Identification of nearby pumping wells and associated uses of the groundwater;

5) Identification of nearby dedicated nature preserves;

6) Geologic setting;

7) Structural characteristics;

8) Geologic cross-sections;

9) Soil characteristics;

10) Identification of confining layers;

11) Identification of potential migration pathways;

12) Groundwater quality data;

13) Vertical and horizontal extent of the geologic layers to a minimum depth of 100 feet below land surface, including lithology and stratigraphy;

14) A map displaying any known underground mines beneath a CCR surface impoundment;

15) Chemical and physical properties of the geologic layers to a minimum depth of 100 feet below land surface;

16) Hydraulic characteristics of the geologic layers identified as migration pathways and geologic layers that limit migration, including:

A) Water table depth;

B) Hydraulic conductivities;

C) Effective and total porosities;

D) Direction and velocity of groundwater flow; and

E) Map of the potentiometric surface;

17) Groundwater classification under 35 Ill. Adm. Code 620; and

18) Any other information requested by the Agency that is relevant to the hydrogeologic site characterization.