



SOIL AND PLANT SCIENCE DIVISION

Technical Soil Services

Southwest Soil Survey Region

Ancient Lake Bonneville Major Land Resource Area (MLRA)

Soil Suitability for Irrigation Pond in Leamington, Utah

Purpose

The purpose of this technical soil service was to determine if a soil map unit and soil component are as indicated on the Web Soil Survey (WSS) and to verify the suitability of soil for an irrigation pond.

Background

Keith Crossland of the Richfield MLRA Soil Survey Office was contacted by Brent Campbell, a Natural Resources Conservation Service (NRCS) engineer, to perform a soils assessment for a potential irrigation pond location. The potential location is near a soil map unit boundary with the adjacent soil map unit having coarse-loamy soil textures. Planners would like confirmation on the soil map unit and soil component. Russell Monroe, an NRCS natural resource specialist, planned a site visit with the landowner on May 7, 2024.

Key Outcomes

At the time of the visit, a backhoe was not available to excavate a trench. This limited assessment to the top 180 cm (70 in) of soil. Soil samples were collected at 25 to 35 cm (10 to 14 in) intervals and hand textured on site. It was confirmed that the planned pond location is within the soil map unit indicated on WSS (68-Jigsaw-Oak City complex, 0 to 2 percent slopes). The soil component for the planned pond location is Oak City, which has the fine-loamy textures that result in a suitable location for the irrigation pond. The clay contents ranged from 21 to 25 percent. The soil auger did pick up some gravel in the bottom 8 to 12 cm (3 to 5 in) of the auger hole. It was advised to set aside the top meter of soil while excavating to line the lower pond if a gravelly or sandy layer is discovered.



NRCS engineers and planners will proceed with the design and planning of an irrigation pond at the proposed location.