ANNEX G-1

GEOLOGICAL INVESTIGATIONS

G-1.1. Geologic Cross-Sections Across the C-18W reservoir Site

Geologic cross-sections were compiled from boring data and gINT logs reported in the Design Documentation Report (Arcadis, 2016). Selected cross-sections are reported below **(Figure G-1.1, G-1.2, and G-1.3)**. Please refer to **Section A.7.1** in the Engineering Appendix for additional information. Soils are classified using Universal Soil Classification System.

Figure G-1.1. Cross-section locations across the proposed C-18W reservoir site. Figure from Arcadis (2016). North-South and West-East cross sections are presented.

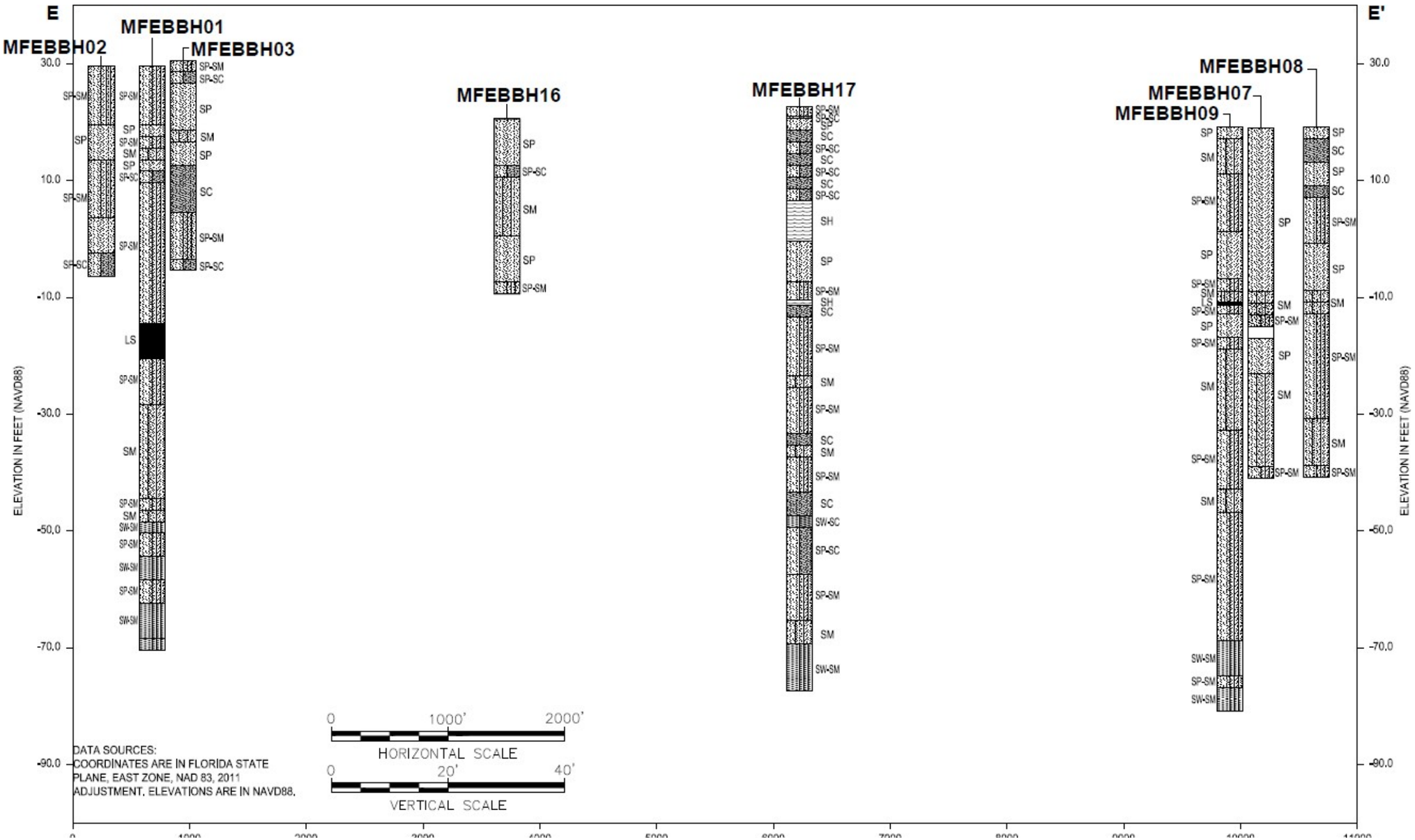

Figure G-1.2. North-South transect across the proposed C-18W reservoir site. Figure from Arcadis (2016).

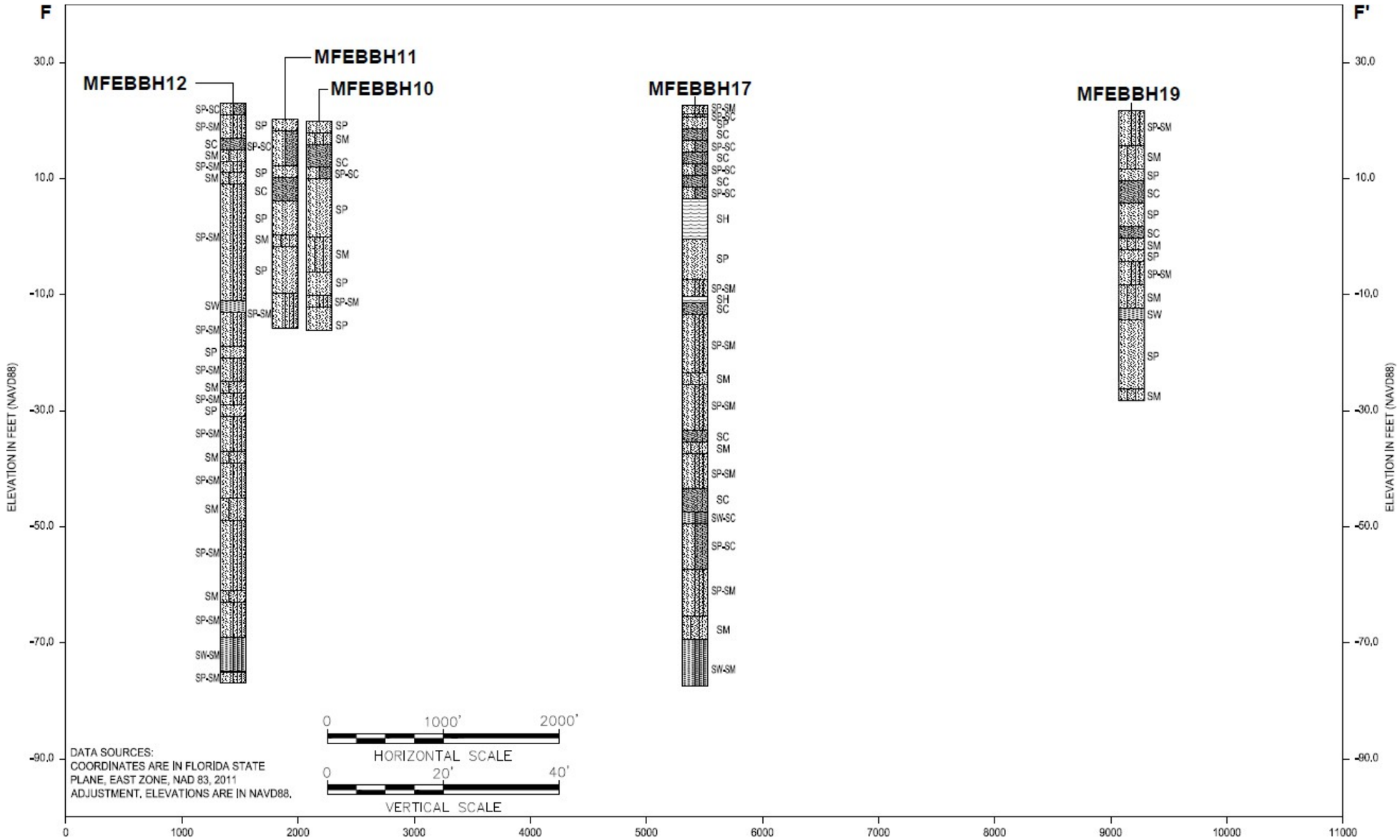

Figure G-1.3. West-East transect across the proposed C-18W reservoir site. Figure from Arcadis (2016).

G-1.2. Saturated Hydraulic Conductivity of Surface Soils

Saturated hydraulic conductivity values were estimated for the upper 5 cm of soil in support of seepage analysis at the proposed C-18W reservoir **(Figure G-1.4)** site and the Gulfstream West flow-through marsh site **Figure G-1.5)**.

G-1.2.1. C-18W Reservoir and Adjacent Areas

Surface soils at and near the reservoir footprint are mapped primarily as saturated and unsaturated Riviera fine sand (SP and SP-SM). Estimated saturated hydraulic conductivity for all surface soils (0 to 5 cm depth) at and near the reservoir footprint is 91 X 10^{-6} m/sec (25.8 ft/day).

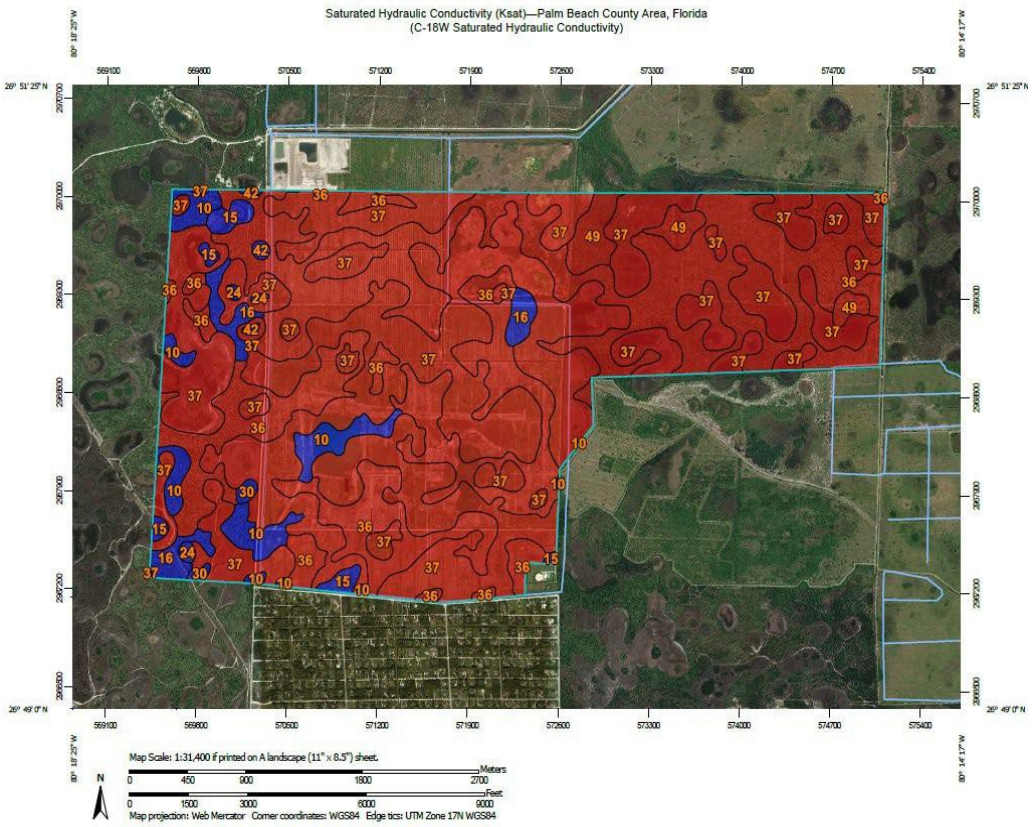

Figure G-1.4. Image showing saturated hydraulic conductivity values of surface soils at the proposed site of the C-18W reservoir.

G-1.1.2 Gulfstream West Flow-Through Marsh

Surface soils at the Gulfstream West flow-through marsh are mapped primarily of Wabasso sand, and Piñeda and Riviera fine sands, which are classified as SP-SM and SP, respectively. Estimated saturated hydraulic conductivity for all surface soils (0 to 5 cm depth) at and near the reservoir footprint is 92 X 10^{-6} m/sec (26 ft/day).

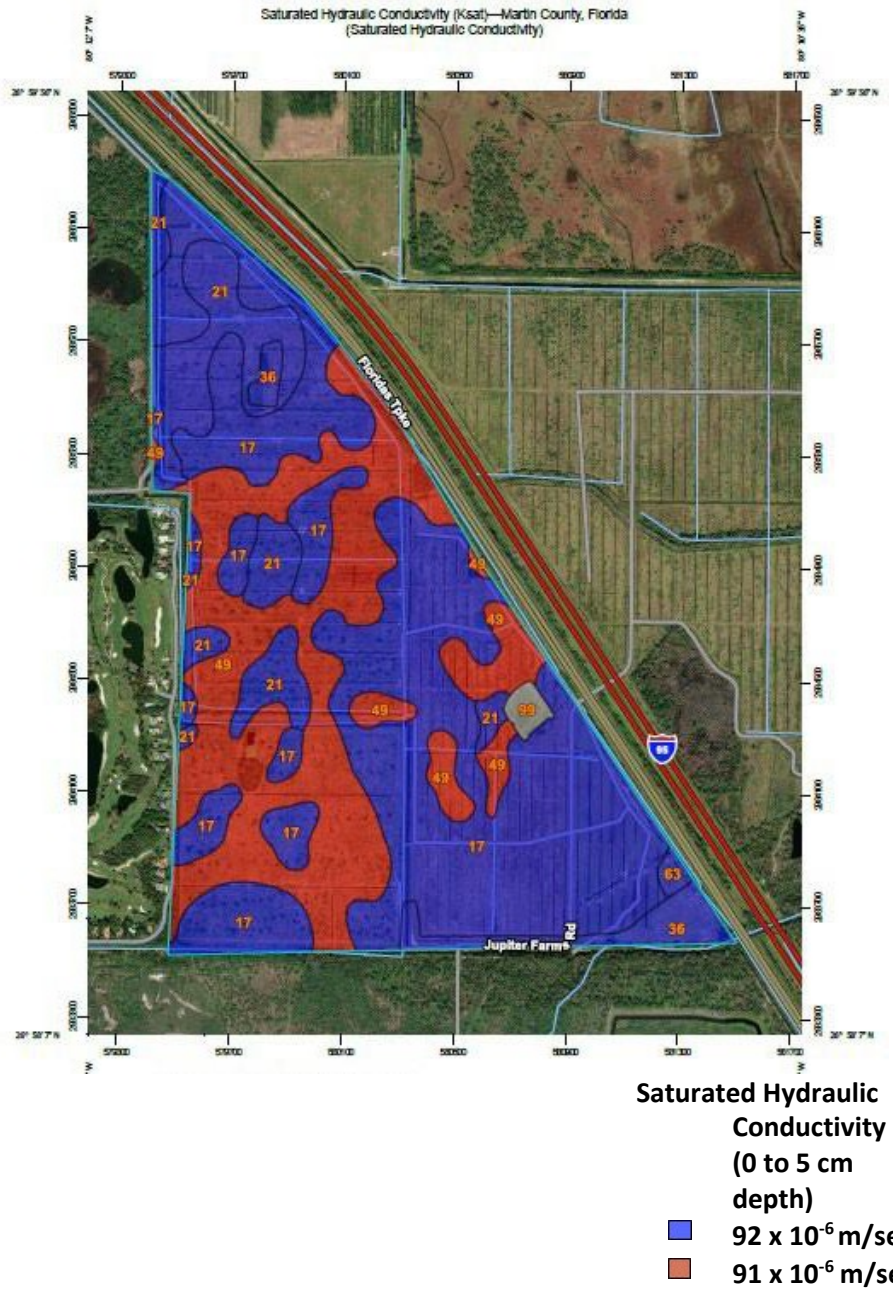

Figure G-1.5. Image showing saturated hydraulic conductivity values of surface soils at the proposed site of the Gulfstream West flow-through marsh.