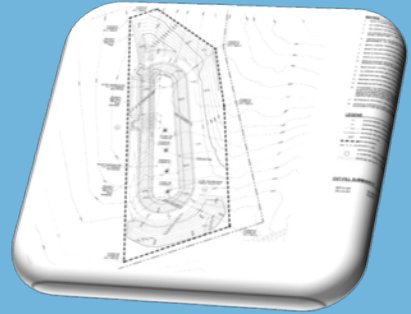


## SVERDRUP ENGINEERING SERVICES PROJECT EXPERIENCE



### Fort Huachuca Phase 1 Erosion Control

#### Fort Huachuca, AZ

This project provided a stormwater analysis and developed a management plan for the current situation where a significant amount of erosion has occurred. This site has two runoff locations where water becomes concentrated flow and lifts the soils and brings them downstream as the water leaves the site. The analysis and management plan is developed for the second runoff location which flows onto eastern local streets.

The stormwater analysis used TR-55 methodology (HydroCAD) to understand the volume of runoff for the known rainfall. The 100-year storm event volume is going to be collected in a pond; the flow will travel through rip rap before reaching the bottom of the pond and start filling up.

The soils at the surface are not conducive to infiltration. An infiltration test was performed at different levels to understand the permeability of the different layers. The soils were highly permeable two to four feet below the designed pond bottom – this is where leaching basin will be utilized to promote true infiltration. The leaching basins will go below the surface four feet.

The long-term plan includes pond excavation. The site is balanced in terms of soils existing on site. The pond excavation is balanced by adding adjacent hills within the existing easement. By keeping the basin area clean the water entering the leaching basin will continue to be without sediment particles allowing infiltration to continue at high rates.

**Owner:** Tucson Electric Power Company

**Design:** May 2020

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