



Est. 2003

Western Engineering Consultants, Inc.

PROJECT EXPERIENCE

2005-2009

1002.002.11

Highlights

Specialized Regional Storm-water designs were required within FAA Object Free and Safety Areas between existing Runway 10/28 and future Taxiway Delta.

Pond L-1 existed within an existing FEMA floodplain which added further analysis and coordination with the approving entities.

Project Cost

\$750,000

Client

SunBorne Companies

Lonetree Basin—Regional Pond L-1

Centennial Airport, Colorado



Project Description

Regional Storm Water facilities had long been planned on Centennial Airport. However, storm drainage impact fee collection and capital improvements planning by the regional stormwater district had not completed appropriate infrastructure necessary for the entire south side of Centennial Airport to develop. SunBorne Companies utilized Western Engineering Consultants experience at Centennial Airport to facilitate said designs in order for site development to continue to occur.

WECI then prepared the necessary drawings and studies required to attain approvals from Arapahoe County Public Airport Authority (ACPAA), Arapahoe County Engineering, Arapahoe County Water and Wastewater Authority (ACWAA), South East Metro Storm Water Authority (SEMSWA), Urban Drainage Flood Control District (UDFCD), Cherry Creek Basin Water Quality Authority, and InterPort Development Design Review Committee.

Concurrently SEMSWA, ACPAA, and ACWAA had retained independent consultants to perform updates to their Drainage/Stormwater Master Plans which included Pond L-1 tributary and downstream basins. Each independent consultant also performed Master Hydrology review of WECI provided modeling.

Regional Pond L-1 was further complicated based on the Airport Layout Plan (ALP) mandated cascading two cell pond system separated by a future Runway Connector which subsequently required all of the water quality volume to be provided within the downstream cell. Hydrology and routing was provided within updated CUHP/SWMM models originally prepared by the previous governing storm water authority.

Specific engineering services provided included coordination with past and proposed Airport Layout Plan (ALP) layouts, specialized hydraulic structures (forebays, energy dissipation stilling basins, 8 foot wide concrete access & trickle channel, micropool, and multi chamber outlet structure), pond grading, drainage analysis, utilities, erosion control (GESCC), State SWMP, landscaping, Flood Plain Modification Study, County Variance Requests, and FAA 7460 permitting.