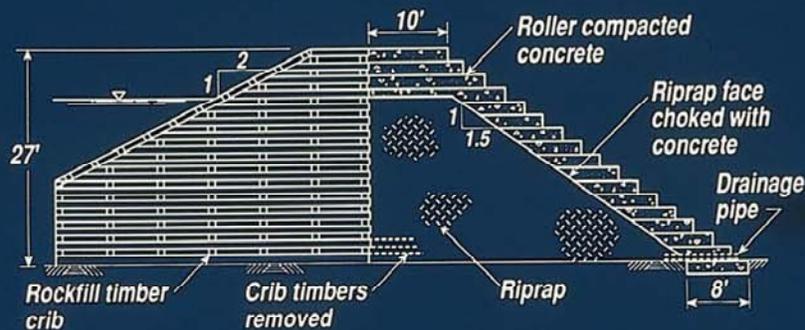


**Presentation 8:
Roller Compacted Concrete Overtopping
Protection for Increasing Spillway Capacity**

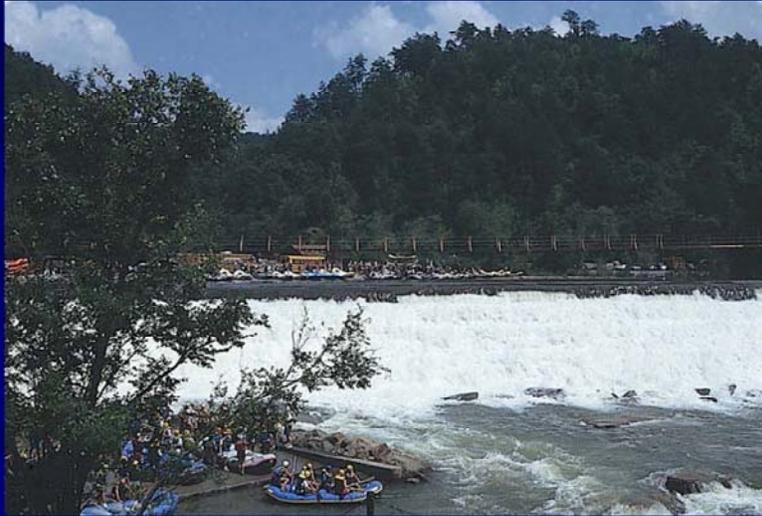
Roller Compacted Concrete Technology

Ken Hansen
Schnabel Engineering
Associates, Inc.

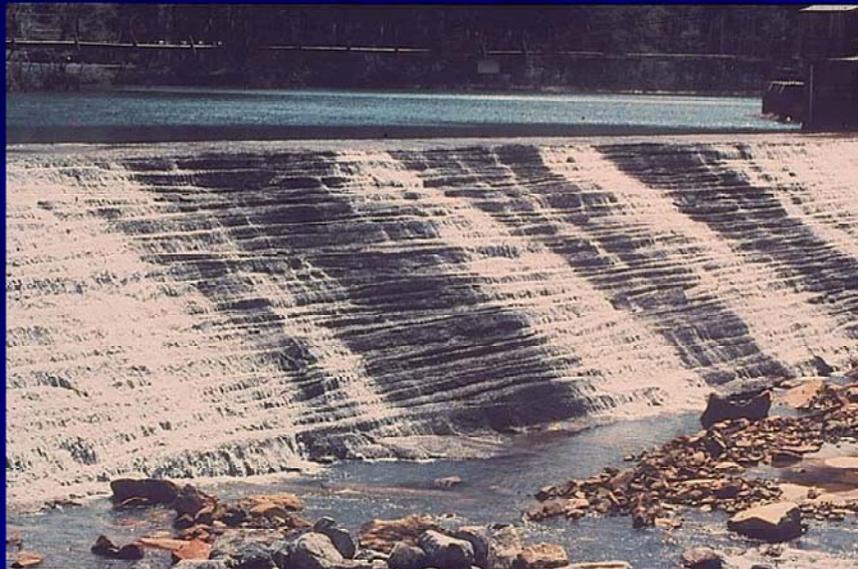
OCOEE NO. 2 DAM - TENNESSEE



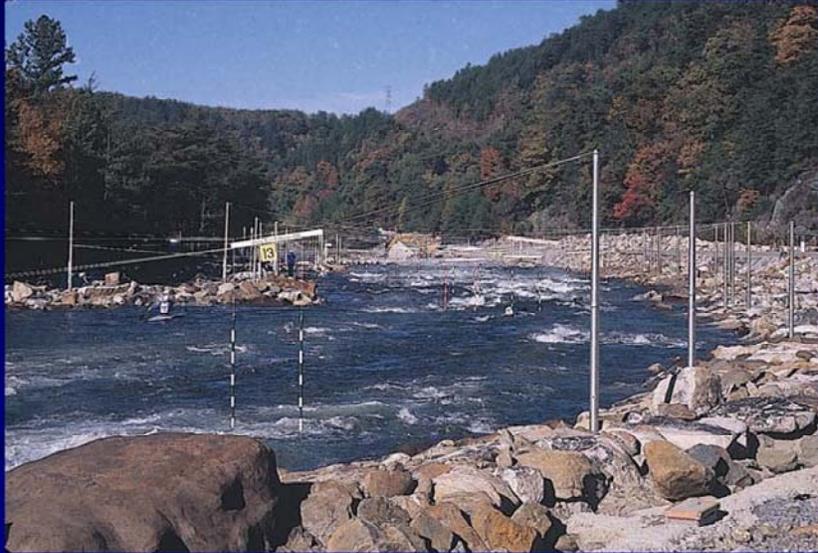
Ocoee #2 dam



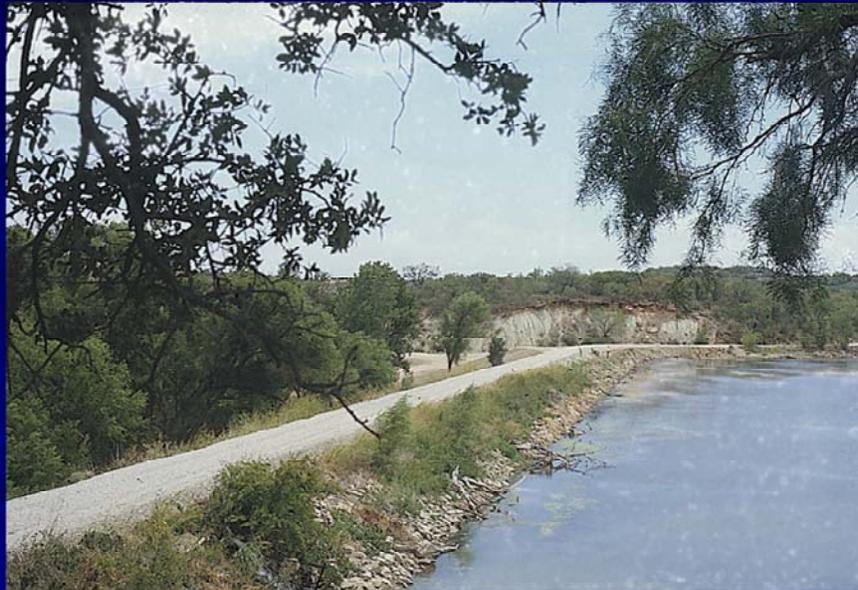
Ocoee #2 dam



Ocoee River 1996 Olympic Kayak Course



Brownwood Country Club Dam

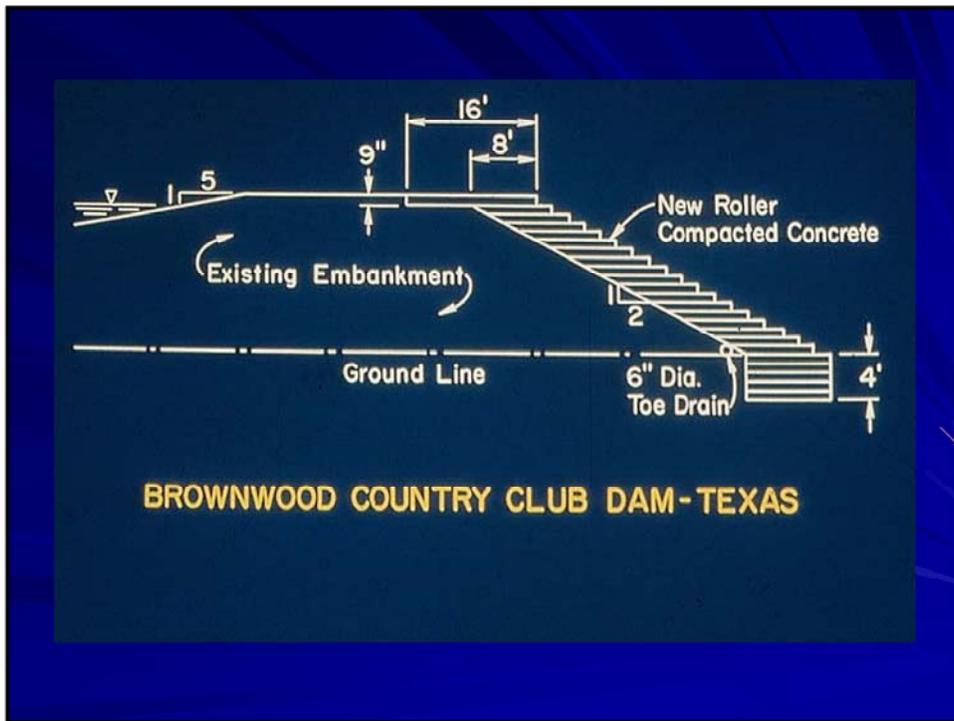


Brownwood Country Club Dam



TO REMEDY A HYDRAULIC DEFICIENCY

**Breach The Dam
Increase Storage
Increase Spillway Capacity
Overtopping Protection
Combination**



Brownwood Country Club Dam



Brownwood Country Club Dam



Brownwood Country Club Dam



Spring Creek Dam - CO

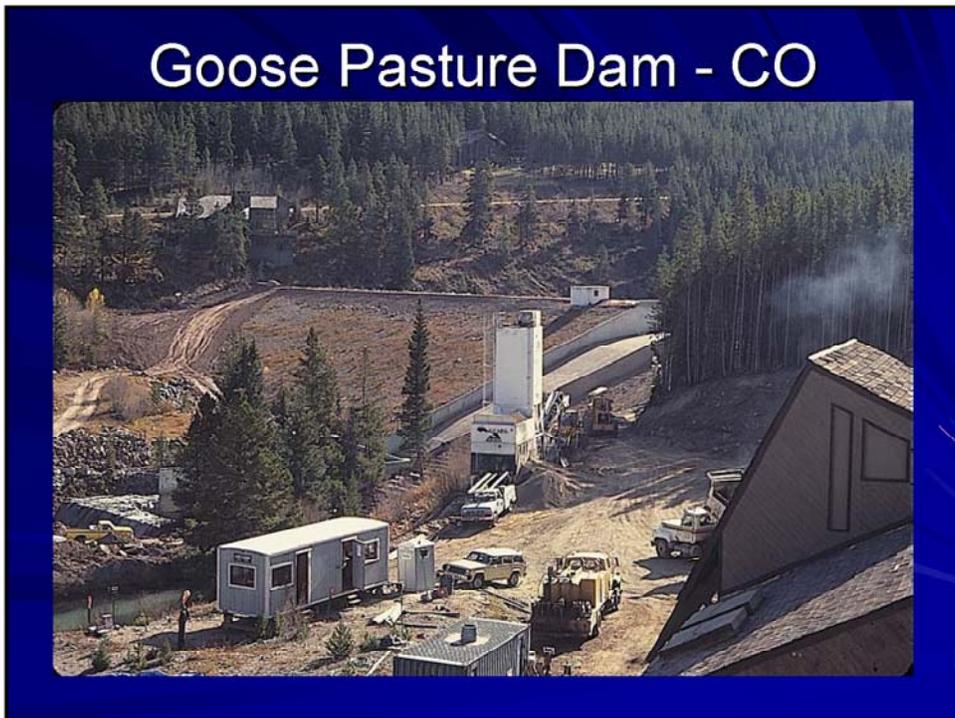


Spring Creek Dam - CO



DESIGN OBJECTIVES

Life: 50 – 100 – 1000 yrs
PMF Interval?
Event Duration
Peak Shifting
Delay Failure
Factor of Safety



Goose Pasture Dam - CO



Goose Pasture Dam - CO



Goose Pasture Dam - CO



Goose Pasture Dam - CO

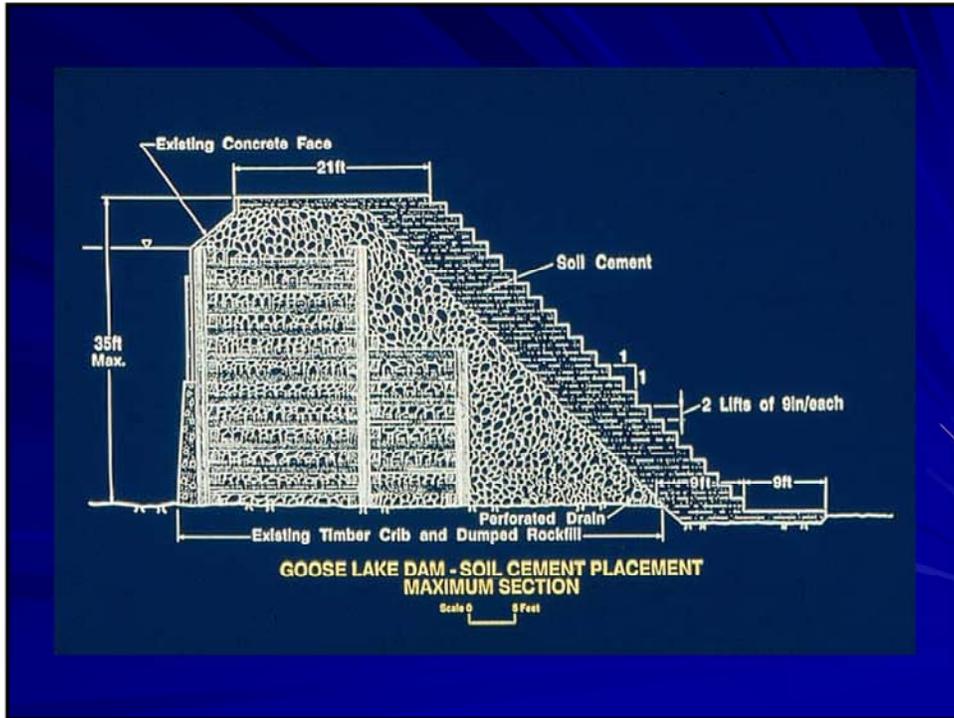


Goose Pasture Dam - CO



Goose Pasture Dam - CO





Goose Lake Dam - CO



Goose Lake Dam - CO



Goose Lake Dam - CO



Standley Lake Mod. - CO



RECOMMENDED RCC DESIGN

Small Volume Projects

Strength:

Little F/T: 2100 psi @ 28 days
min. (i.e., approx. 250 lb/cu yd)

F/T Zone: 3000 psi @ 28 days m
(i.e., approx 325 lb/cu yd)

Leyden Dam Rehab. - CO



Leyden Dam Rehab. - CO



AGGREGATE

Good Quality
Local Availability
Minimum Processing
MSA about 1.5" (38mm)
40 % passing #4
4-8% passing #200
Cement vs Aggregate Cost

Douthat Dam Rehab - VA



Douthat Dam Rehab - VA





