



**GREAT BASIN**  
**ENGINEERING**

**THE SUMMIT AT SKI LAKE #11  
VIA MONOCO AND VIA CORTINA  
UNINCORPORATED WEBER COUNTY, UTAH  
CONCERN FROM DAM PERMIT APPROVAL LETTER**

Project No. 96N120

4-20-2012

**General Information:**

The proposed detention pond which serves The Summit at Ski Lake #11 is located just northeast of Phase 11. It became necessary to submit an application for a dam. An application was sent to the State of Utah and an approval letter was issued.

**Concerns regarding letter:**

A comment in the letter (comment #2 under the heading "Discussion") says:

"The proposed downstream slope of 1.5 horizontal to 1 vertical is quite steep and the proposed crest width of 5 feet is quite narrow. These design features should be evaluated and modified as needed for stability purposes".

**Recommendations**

While we feel that a 1.5 : 1 slope is adequate in this situation, we have also considered the 5' width of top of the dike with stability in mind. At the top of the dike the elevation is 5154.33. The water surface for the design storm is 5153.33, a foot lower. There is a 3:1 slope on the inside of the pond. This calculates as  $3 + 5 + 1.5 = 9.5$  foot width for the dike at an elevation of 5153.33 at the high stage of the water for the design storm.

The given design is adequate; however, if additional concern arises regarding this issue, material from the uphill side of the pond could be brought to the dike in order to widen the dike even more. This could be done without decreasing the capacity of the pond as it would only be shifted to the southwest slightly to accomplish this.

Great Basin Engineering, Inc.

Prepared by Ryan Bingham, P.E.

Reviewed by Mark Babbitt, P.E., P.L.S.