September 7, 2019

Note to Steve Miller re: Snowmaking at TDA's Nordic Center from Steve Mahoney and Cathy Ravano

The purpose of this note is to give you a brief update on work undertaken to date by TDA Finance Committee members Cathy Ravano and Steve Mahoney regarding the opportunity to install snowmaking at Tahoe Donner's Cross Country Ski Center.

Cathy and I met separately with you and Sally Jones, Manager of TDA's Cross Country Ski Area, to obtain background information on the proposed project. We reviewed the July 4 presentation to the General Plan Committee and selected financial and operating information prepared by Sally and Mike Salmon, TDA's Finance Director.

We understand that the following objectives will be achieved given successful execution of the snowmaking program:

- Enhance Tahoe Donner's reputation as a leader in Nordic skiing within the region (and the overall TDA member experience) by consistently having skiable terrain during the early season especially during the Christmas-New Year and MLK holiday weekend periods;
- Preserve and/or protect season pass revenue during times of weak early-season snow fall;
- Minimize the adverse impact on gross revenue and net operating results ("NOR") from poor snow fall events;
- Improve management's ability to attract full and part-time staff by ensuring employment opportunities; and
- Protect and or enhance Food & Beverage revenue at the Alder Creek Adventure Center ("ACAC"). (Note: We understand that the food and beverage operation at ACAC is managed separately from the Cross Country Ski Area and that the ACAC financial results appear in a different business unit.)

The proposed project has been organized into four phases. You have provided cost estimates for the four phases as follows:

- Phase 1 - $237,000
- Phase 2 - $246,000
- Phase 3 - $228,688
- Phase 4 - $153,360

Thus, the total estimated investment for snow making is approximately $865,048. We understand that the cost estimates shown above, and the additional operating costs to run snowmaking (labor, equipment rental, water, power, etc.) described in the materials you provided us are preliminary and subject to further analysis by your team.

Cathy and I are still trying to develop the best analytical framework in which to evaluate the merits of the proposed snow making investment. Our initial thinking is that we should consider the investment in snowmaking to be a type of insurance policy to protect volume-related Cross Country Ski Area NOR during a poor snow season. As such, the financial evaluation of the snow making investment doesn't lend itself to traditional internal rate of return ("IRR") vs. cost of capital analysis where capital is invested and incremental revenue and cash flow is generated by the subject investment. Rather, the investment in snow making could be considered an insurance premium that provides financial protection (preserving NOR) if an adverse event occurs, in this case, poor early season snowfall.

Let me illustrate this insurance policy approach further with an example. With Sally's help, we analyzed Cross Country Ski Area NOR by month for the past five years. To be conservative we looked particularly at the best and worst NOR months for the November through January time frame. (As it turns out the outcome of the analysis would not change materially if we looked at the full six month cross country season.) The aggregate NOR difference between the best and worst months during the November through January period over the past 5 years is approximately $286,665. This is the amount of NOR we are trying to protect by investing in an insurance product called snow making.

Sally has estimated the useful life of the snowmaking equipment to be 15-20 years based upon discussions with your consultant. We further assumed, based upon recent experience, that we would have a "low snowfall, low NOR" ("LSLN") event once every three years. Given this assumption, if we use the shorter 15 year equipment life, then we could expect to have five LSLN events over the useful life of the equipment with an estimated aggregate financial impact of $1.433 million (5 events x $286,665 per event in current dollar terms). It would take only three so called LSLN events to recover the cost of the investment (total snowmaking investment divided by NOR protected, or $865,048/$286,665 per event = 3.01 events). Given our one year in three LSLN frequency assumption, the payback period could be as short as 7 years and as long as 9 years. (Please note that we have not adjusted historical NOR to reflect the additional operating costs to be incurred from snowmaking or depreciation expense on the equipment. We can look to do this later as we refine our analysis.)

As a reality check on our approach and our effort to determine the soundness of the investment, we think it entirely reasonable to expect that TDA's Cross Country Ski Area will experience at least three LSLN events in the next 15 years. Based upon the work done to date, our preliminary determination is that investing in snowmaking at the Cross Country Ski Area is a sound investment.

Further, we recommend that Phases I and 2 be executed simultaneously to get the greatest NOR protection from the investment as soon as possible.

Please let us know if you have any comments or questions. We would be happy to sit down with you and Sally, and other members of the GPC should you wish, to discuss next steps.

Cathy Ravano & Steve Mahoney