

DECISION PAPER



Date: February 23, 2019

Agenda Topic:

The General Plan Committee (GPC) recommends snowmaking improvements to be installed at Alder Creek Adventure Center, along nearby cross-country ski trails during the Summer of 2019.

Background:

In recent years, The Tahoe region has experienced drier than average winters, forcing late opening, and/or mid-season closures. Five of the last seven seasons have been affected by low and/or no snow in areas, depriving members and guests of the opportunity to enjoy their winter amenities, resulting in a significant loss of revenue. Many Snowplay areas, Downhill Ski, and Cross-Country Ski Areas are investing in snowmaking infrastructure to ensure they can provide a quality and safe skiing surface for their customers, while also retaining skilled employees and capturing peak holiday revenue.

With the overwhelming success of Tahoe Donner's 2015 snowmaking installations along Snowbird Chairlift, the General Plan Committee voted in August of 2018, to allocate \$100,000 to install necessary utilities to provide the first phase of snowmaking infrastructure along nearby terrain and Cross-Country ski trails during the Summer of 2019, see attachments.

Within the approved 2019 Annual Budget and Capital Funds Projection, Tahoe Donner has earmarked \$800,000 for snowmaking infrastructure and equipment at Snowplay (\$100K), Downhill Ski Area (\$600K), and on select Cross-Country ski trails (\$100K). To obtain final construction costs and receive agency approvals by this summer, engineering drawings should commence in late February of 2019.

Recommendation:

Using allocated Development Funds for snowmaking improvements in 2019, Staff requests Board approval to proceed with Pure Flow Mechanics (PFM Snowmaking), for engineering of necessary snowmaking plans and documents. With this, Staff shall proceed with Permitting efforts to obtain updated total project cost estimates for fixed equipment and portable snowmaking infrastructure along Cross-Country ski trails; for further Board consideration and approval prior to construction efforts this summer. Engineering and Permitting efforts should not exceed \$35K from the allocated \$100,000 Development Fund budget.

Prepared By: Forrest Huisman

Reviewed By: Michael Salmon

Board Meeting Date: February 23, 2019

General Manager Approval to place on agenda: _____ **Date:** _____

Reasons for SNOWMAKING

- To control and minimize the financial risk of our winter operations
- To ensure reliable conditions for our members at our popular winter amenities.



Association Needs (Fix what we've got)

- A. Correct Safety and Health hazards
- A. Insure compliance with regulatory codes:
ADA, Title 24, etc.
- B. Prevent our assets from deterioration
- C. Preserve our financial condition

The uncertainty of natural snowfall

Cross Country Season length:

- 2012-13 113 days open
- 2013-14 80 days open
- 2014-15 **31 days open**
- 2015-16 108 days open
- 2016-17 **136 days open**
- 2017-18 **65 days open**
- 2018-19 **61 days open to date (Jan 31 2019)**



*6 year average – open only 65% of potential days

WHAT HAVE WE LEARNED?

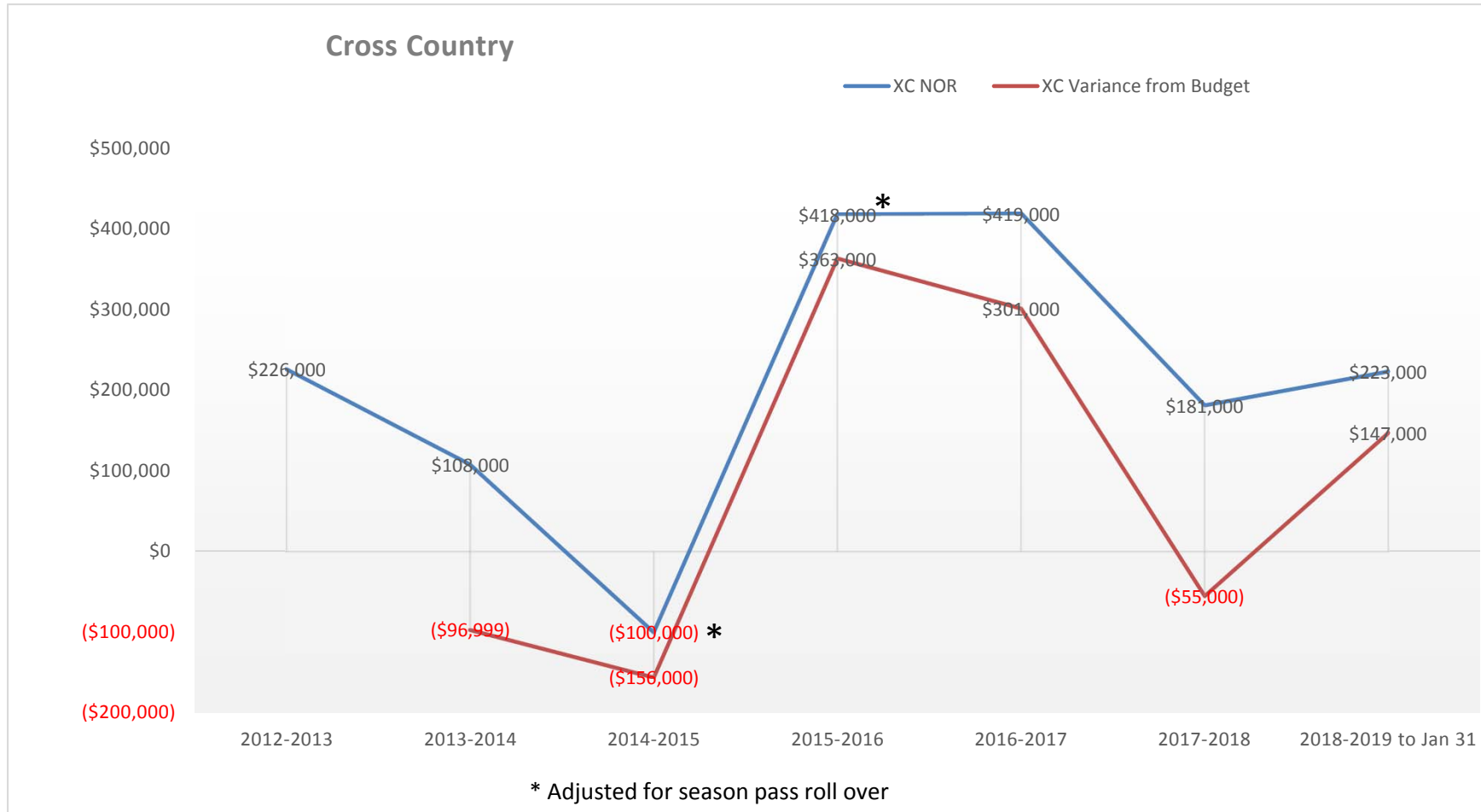
\$640,000 IN FAVORABLE NET OPERATING RESULTS AT DOWNHILL SKI DUE TO SNOWMAKING

December 2017–February 2018 (snowmaking only) compared to December 2013–February 2014 (no snow)



7 year XC financials

Budget and NOR variance



**Tahoe Donner Association
Statement of Financial Position
Operating Fund (901+)**

Audit in
Progress

(Audited)

as of end of month:	2014 February	2014 January	2013 December	2013 February
Assets				
Cash and Investments, Restricted	248,517	242,637	245,556	90,633
Cash and Investments, non-Restricted	7,225,901	4,325,772	3,146,349	6,015,786
Member's Dues & Receivables, Net	1,872,390	5,108,952	254,279	1,288,458
Other Receivables	85,561	139,761	217,169	90,464
Due From (To) Other Funds	(2,989,997)	(3,067,921)	(69,916)	236,998
Inventory	288,486	296,773	304,436	217,413
Prepaid Expenses & Other Assets	557,964	646,004	608,508	450,074
	7,288,822	7,691,977	4,706,381	8,389,827
	7,288,822	7,691,977	4,706,381	8,389,827
 Liabilities and Members' Equity				
Liabilities				
Accounts Payable	163,902	271,742	341,738	646,862
Accrued Liabilities	727,861	678,585	784,054	794,894
Deferred Revenue, Annual Assessment	5,290,217	5,233,298	1,749,430	4,967,483
Deferred Revenue, Recreation Fee	649,059	540,859	441,569	612,321
Deferred Revenue, All Other	233,637	299,939	380,841	248,846
Deposits	219,084	228,837	232,352	123,349
	7,283,761	7,253,261	3,929,983	7,393,755
	7,283,761	7,253,261	3,929,983	7,393,755
Members' Equity	5,061	438,716	776,398	996,071
	7,288,822	7,691,977	4,706,381	8,389,827
	7,288,822	7,691,977	4,706,381	8,389,827



Monthly XC NOR comparison 2017-18 to 2018-19

		2018	2019			2018	2019			2018	2019
1-Dec				1-Jan		1-Feb		1-Mar			
2-Dec				2-Jan		2-Feb		2-Mar			
3-Dec				3-Jan		3-Feb		3-Mar			
4-Dec				4-Jan		4-Feb		4-Mar			
5-Dec				5-Jan		5-Feb		5-Mar			
6-Dec				6-Jan		6-Feb		6-Mar			
7-Dec				7-Jan		7-Feb		7-Mar			
8-Dec				8-Jan		8-Feb		8-Mar			
9-Dec				9-Jan		9-Feb		9-Mar			
10-Dec	Dec 2018	Dec 2019		10-Jan	Jan 2018	Jan 2019		10-Mar	Mar 2018	Mar 2019	
11-Dec	\$ (2,782)	\$ 131,587		11-Jan	\$ 71,184	\$ 141,300		11-Feb	\$ 45,426	\$ 110,475	
12-Dec				12-Jan				12-Feb			
13-Dec				13-Jan				13-Feb			
14-Dec				14-Jan				14-Feb			
15-Dec				15-Jan				15-Feb			
16-Dec				16-Jan				16-Feb			
17-Dec				17-Jan				17-Feb			
18-Dec				18-Jan				18-Feb			
19-Dec				19-Jan				19-Feb			
20-Dec				20-Jan				20-Feb			
21-Dec				21-Jan				21-Feb			
22-Dec				22-Jan				22-Feb			
23-Dec				23-Jan				23-Feb			
24-Dec				24-Jan				24-Feb			
25-Dec				25-Jan				25-Feb			
26-Dec				26-Jan				26-Feb			
27-Dec				27-Jan				27-Feb			
28-Dec				28-Jan				28-Feb			
29-Dec				29-Jan							
30-Dec				30-Jan							
31-Dec				31-Jan							

Low snow conditions at Moondance Hut 2017-18 season



Same day in the shade



Make and move

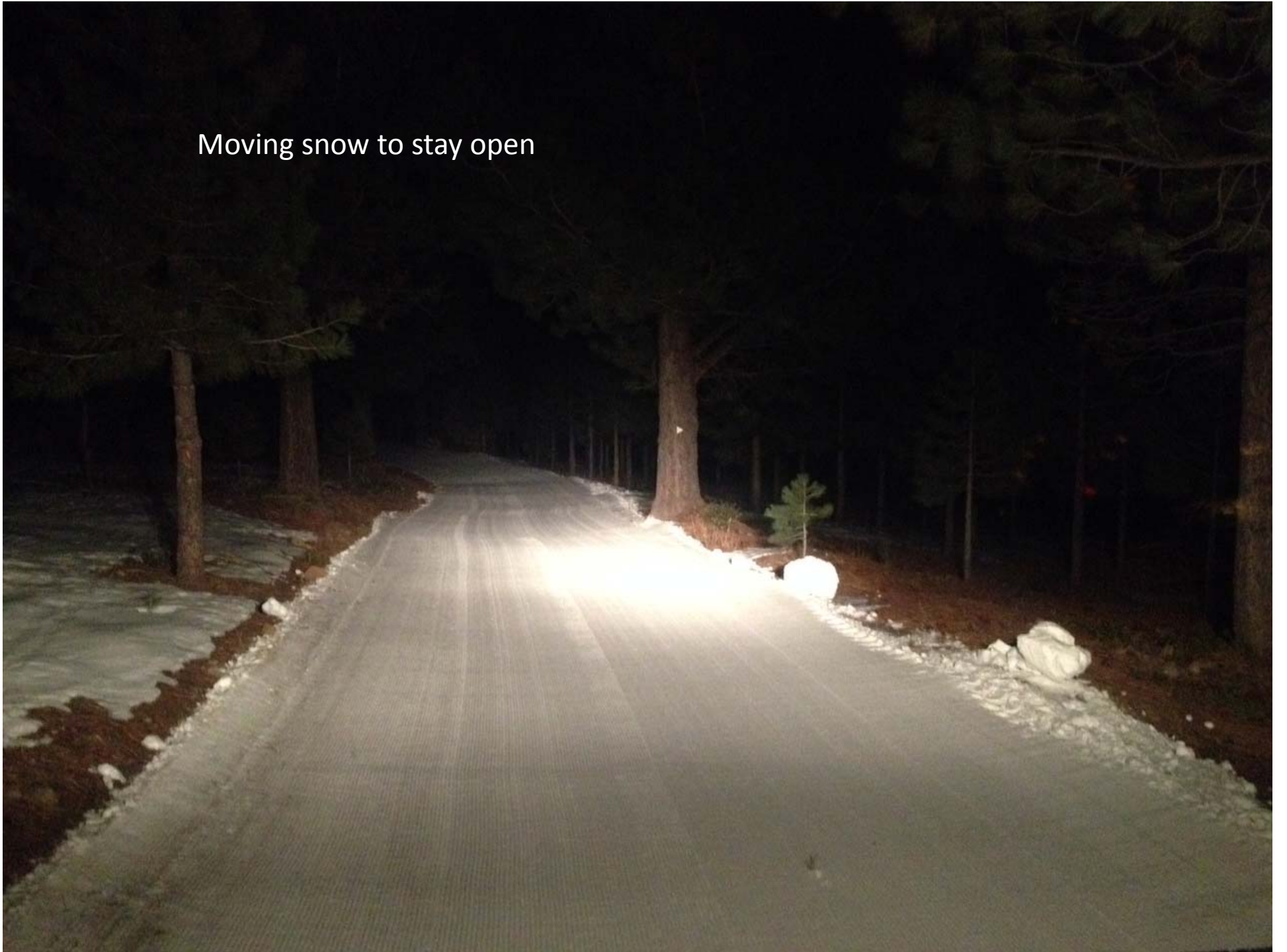


Make and move





Moving snow to stay open



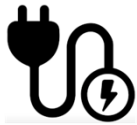
Many Nordic Ski Areas have invested in snowmaking.

- American Birkebeiner - Hayward, WI
- Theodore Wirth - Minneapolis, MN
- Vasaloppet Trails - Mora, MN
- Lapham Peak - Delafield, WI
- Elver Park - Madison, WI
- Standing Rocks Park - Amherst, WI
- Grand Avenue - Duluth, MN
- Gamehaven - Rochester, MN
- Battle Creek - St. Paul, MN
- Pinehurst Park, WI
- Lake Elmo Park Reserve, MN
- Mount Van Hoevenberg, NY
- Rikert Nordic Center, VT
- Craftsbury Outdoor Center, VT
- Sleepy Hollow Inn, VT
- Mountain Top Resort, VT
- Adventure Center at Waterville Valley, NH
- Bretton Woods Nordic Center, NH
- Great Glen Trails, NH
- Gunstock NH,
- Pineland Farms, ME
- Weston Ski Track, MA
- Olympic Sports Complex, Lake Placid, NY
- Cross Country Ski Headquarters, MI
- Kincaid Park, AK
- Breckenridge Nordic Center, CO
- Bretton Woods, CO
- Frisco Nordic Center, CO
- Soldier Hollow, UT
- Whitehorse, Yukon
- Whistler, BC
- Canmore, Alberta
- Edmonton, Alberta
- Calgary, Alberta
- Duntroon, Ontario
- Hardwood Hills, Ontario
- Thunder Bay, Ontario
- Cantley, Quebec
- Nakkertok Nordic Ski Club
- Quebec City, Quebec
- Forest Montmorency, Quebec

INGREDIENTS FOR SNOWMAKING



WATER: 3" meter and pipe. Temporary meter on fire hydrant + surface hoses, or upgrade facility infrastructure and bury pipe .



POWER: 480 volt 3 phase power. Generator or mains



WATER PRESSURE: Pumps on Fan Guns or Centralized Pump House better for larger scale snowmaking.



HYDRANTS (close to guns best) and HOSE (buried pipe removes issues with frozen hoses)



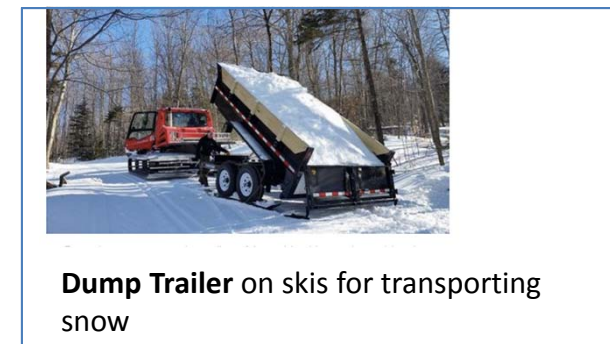
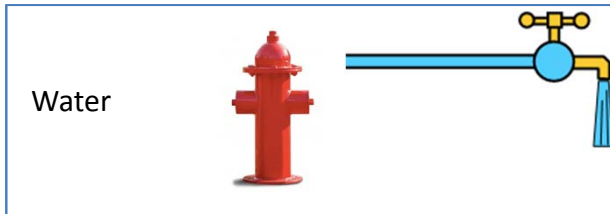
GUNS: Fan Guns great for large areas, Stick Guns better on trails. Stick guns require a compressor but less power



SNOWMAKING

for a snow guarantee teaching area at XC and snow to patch other trails .

CAPITAL



OPERATIONS

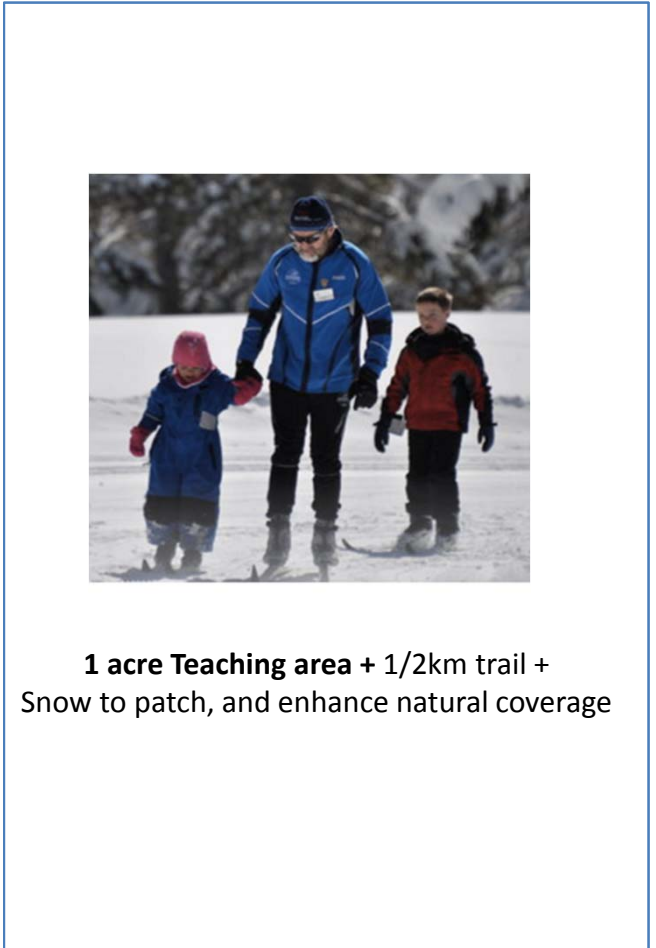
Water and diesel costs



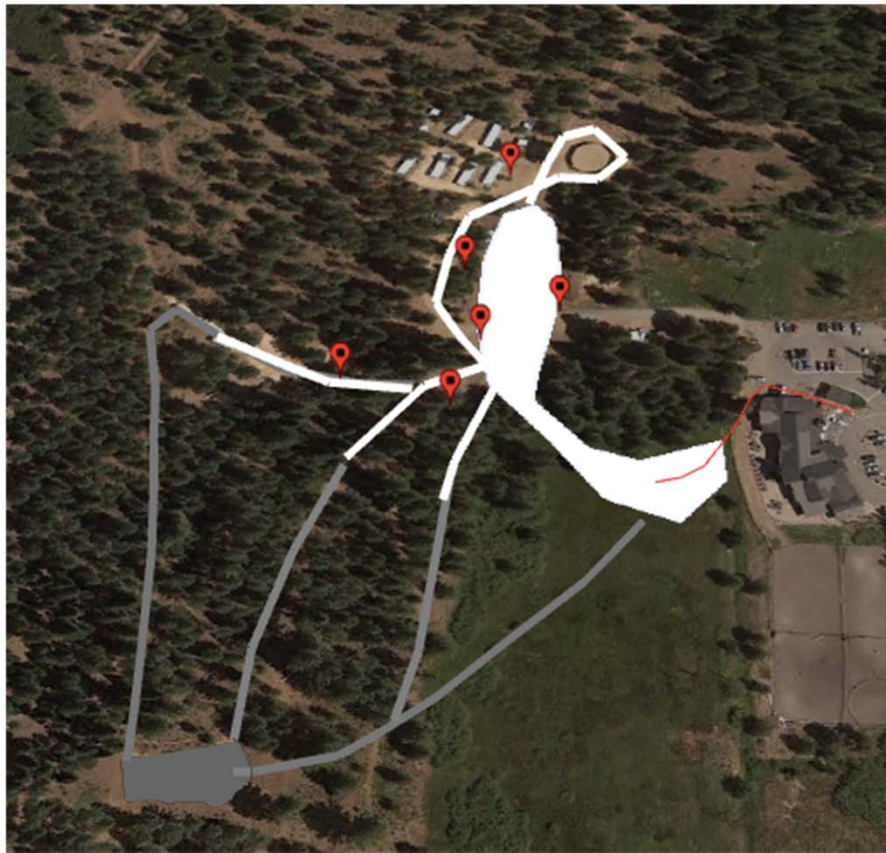
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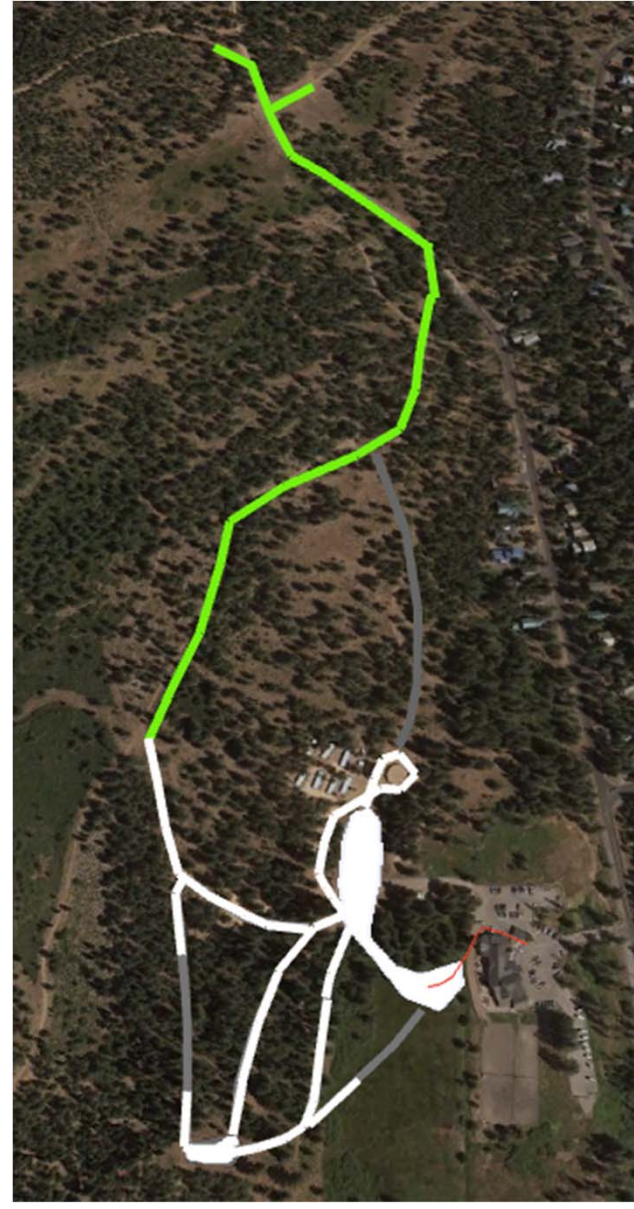
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1 acre + .25km trails at XC



Future expansion potentials



Reasons for Snowmaking

- To provide these popular activities for our Membership and community
- To reduce budget uncertainty and create more reliable positive NOR, thus reducing Operating Fund Assessment \$s
- To ensure high quality and safe user conditions
- To satisfy and retain xc season pass holders
- To provide continuity for season long xc programs and clinics
- To retain skilled employees

TD Kids afterschool program – less than ideal conditions!



PROJECT INFORMATION PAPER



February 1, 2018

Issue:

In recent years, we have experienced drier than average winters, forcing late opening, and/or mid-season closures at the cross-country ski center. Five of the last seven seasons have been affected by low, or no snow, depriving members and guests of the opportunity to enjoy their amenity, resulting in a significant loss of revenue. A Feasibility Study and detailed analysis is recommended to provide options for fixed, and/or portable snowmaking infrastructure and equipment.

Background:

Many cross-country ski areas in North America have been successfully investing in snowmaking to ensure they are able to provide a quality and safe skiing surface for their customers, which retains skilled employees and captures peak holiday revenue.

The investment in a snowmaking system could provide a solution to low-snow management at our cross-country ski facility as early as the 2018-2019 season. The goal would be to install a snowmaking system to maintain good skiable conditions close to the Adventure Center, and on key trails allowing access to more reliable natural snow pack on higher and more shaded terrain.

Project Scope Detail:

- Analyze the financial impact and the benefits that snowmaking would provide for our membership.
- Analyze the available systems that would be most efficient and least disruptive to people living near.

Evaluation Criteria:

1. Objective or reason for the project (need or opportunity for improvement)
2. Scope of the project and how it meets the need or opportunity
3. Financial impact as an Stage-1 estimate +/-100%
4. Customer service impact
5. Risks such as environmental, ADA, code compliance, health & safety
6. Opportunities such as energy impact, operational improvement
7. Alternatives available and evaluation of their impacts

Prepared by: Director of Capital Projects, Forrest Huisman

Approved by: Board of Directors, Jeff Connors _____ Date: _____

Approved by: General Plan Committee, Michael Sullivan _____ Date: _____

Approved by: General Manager, Robb Etnyre _____ Date: _____

From 2019 Budget - updated DRAFT with past year actuals, DRAFT - Development Fund - Capital Funds Projection

GPC Task Force	Project	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Association Wide	Association Master Plan (Dudek)	5,856												
Association Wide	New Accessibility Improvements		50,000	150,000										
Association Wide	Member Surveys		50,000											
Association Wide	Roof Structures over Mailboxes (\$440K RRF)													
Alder Creek Adventure C	Equestrian Relocation (\$500K DF budget) (b.\$100K DF '18)	98,533	25,000											
Alder Creek Adventure C	Snowmaking on select Nordic Trails (Phase 1 of 3)		100,000											
Downhill Ski Resort	Master Plan (ECOsign)	15,897												
Downhill Ski Resort	Downhill Ski Lodge (+\$2MM RRF/2022, \$75K rollover-'19)		2,075,000	2,300,000	2,500,000	2,500,000	1,500,000	1,500,000						
Downhill Ski Resort	Snowbird relocation and Eagle Rock Shrouding (b.\$90K)	62,274												
Downhill Ski Resort	Snowmaking to Eagle Rock (Phase 1 permit credit in '18)	-6,617	600,000											
Downhill Ski Resort	Regrade Mile Run for min. 8% slope (skier experience)		50,000	200,000										
The Lodge	Covered Stairway, connecting parking lot (TOT permitted)		125,000											
Trails and Open Space	Implement trail/trailhead projects on the 5YIP	56,396	100,000	150,000	75,000	75,000								
Trout Creek Recreation C	Trout Creek Expansion (\$200K DF b.2018, rollover-'19)	78,835	396,165	275,000										
Trout Creek Recreation C	Snowmaking at Snowplay		100,000											
Association Wide	Feasibility Studies		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Association Wide	Future Land Acquisiton (No DF spent in 2018, rollover-'19)		120,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Estimated Annual Totals, excld RRF, Inflation Factor, and direct/allocated overhead		311,174	3,841,165	3,185,000	2,685,000	2,685,000	1,610,000	1,610,000	110,000	110,000	110,000	110,000	110,000	110,000
	Direct and Allocated Overhead	191,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000	311,000
	Expenditures Total	502,174	4,152,165	3,496,000	2,996,000	2,996,000	1,921,000	1,921,000	421,000	421,000	421,000	421,000	421,000	421,000
2.0%	Inflation Factor	0	0	70,000	120,000	180,000	154,000	192,000	51,000	59,000	67,000	76,000	84,000	93,000
	Total Including Inflation	502,174	4,152,165	3,566,000	3,116,000	3,176,000	2,075,000	2,113,000	472,000	480,000	488,000	497,000	505,000	514,000
2019	< BASELINE YEAR FOR INFLATION FACTOR													
1.8%	Interest Income	70,000	96,000	61,000	37,000	21,000	3,000	4,000	5,000	36,000	67,000	98,000	129,000	161,000
8.0%	Income Tax Expense	5,600	7,700	4,900	3,000	1,700	200	300	400	2,900	5,400	7,800	10,300	12,900
	Bad Debt Expense	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
	TRANSFERS IN (OUT)													
20	<Years: Normalized Contrib >	310	335	335	335	335	335	335	335	335	335	335	335	335
6473	Annual Contribution	2,007,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000	2,168,000
	Beginning	3,753,013	5,315,240	3,412,375	2,063,475	1,142,475	146,775	235,575	287,275	1,980,875	3,694,975	5,429,575	7,183,775	8,958,475
	Ending	5,315,240	3,412,375	2,063,475	1,142,475	146,775	235,575	287,275	1,980,875	3,694,975	5,429,575	7,183,775	8,958,475	10,753,575

	Yr 2018	Yr 2019	Yr 2020	Yr 2021	Yr 2022	Yr 2023	Yr 2024	Yr 2025	Yr 2026	Yr 2027	Yr 2028	Yr 2029	Yr 2030
Project Stages Color Code	Project Analysis		Conceptual Design		Final Design		Construction		Post-Project Review				
Board Approval required at the following intervals (#)		#		#		#							