

Dag Blasted Goats – The Summerland Story -

GOABC Wildlife Stewardship Series III *Mountain Goats*

December 8-9, 2008

Thompson Rivers University



Brian Churchill – Chillborne Environmental

The Project



Environmental Management Plan Recommendations Mountain Goats Highway 97 - Bentley to Okanagan Park

Commissioned by:

Ministry of Transportation,
Rampaul Dulay, Manager

Environmental Coordinators:

Summit Environmental Consultants

Construction Contractor:

Arthon Contractors Inc.
General Contracting &
Aggregate Production



The Beginning:



- We are reporting at this time in mid project as we think that the circumstances and observations may be pertinent to understanding the limits of our “understanding” or preconceptions about goats.
- the Project started with the June 2007 Environmental Assessment having minimal documentation or recommendations regarding mountain goats in project area.
- Brian Churchill, R.P. Bio. and Steven F. Wilson, Ph.D., R.P. Bio. were retained approximately two weeks after construction was initiated (the beginning of March 2008) to provide a plan for goat issues. Note: Steven left the project after the initial report.



Summerland, A New Paradigm:



- What I am not going to talk about is a whole bunch of interesting things about seasonal use, birthing dates, group size and changes, reproductive rates etc. We did not set out to deal scientifically with these topics and although we have some interesting observations, there just isn't enough time.
- What I am going to focus on is one topic Habituation, what we encountered, how we think we rationalized it (without empirical data) and how we adapted to it.



Summerland, A New Paradigm: It's Not an Alpine Environment.



**Goats at low
(342 m) to
mid (800m)
elevations
in the semi-
desert of
the central
Okanagan**



Summerland, A New Paradigm: It's Not Remote And Undisturbed



- An geographically isolated mountain
- Limited available typical escape habitat
- High levels of human use, residences, activities and a busy highway.

Brent Phillips photo



The Summerland Story

The goat bluff, Wildhorse and Rattlesnake
Mountains February 25, 2008



Summerland, A New Paradigm:



- Neither literature or experience provided information on goat use or habitat models for this ecosystem.



Summerland, A New Paradigm: Policy (LRMP) Applicable?



LRMP zones in the project area:

Blue winter range

Green –goat habitat

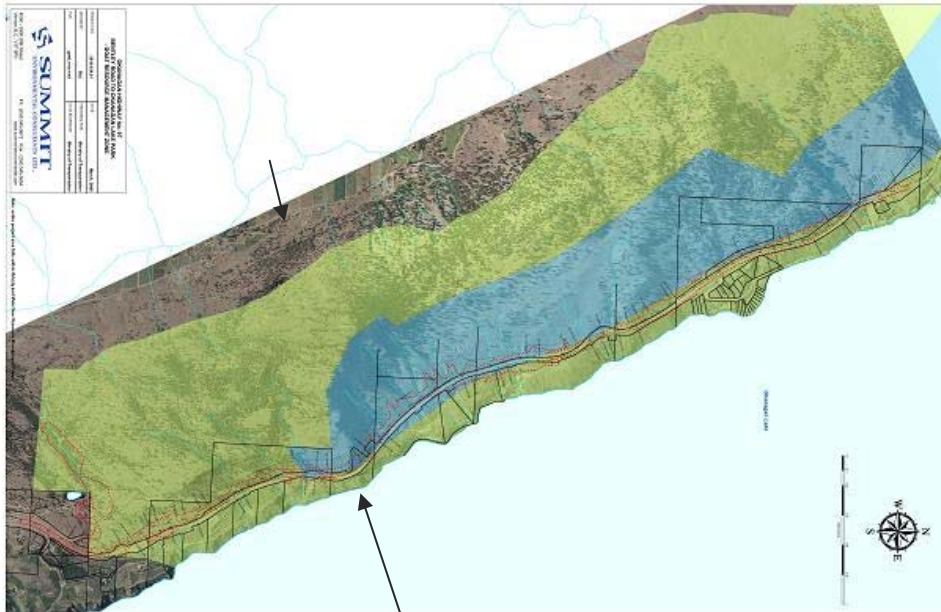
Okanagan LRMP Intent: Avoid Blasting within 2 km Mountain goats.

i) During kidding - avoid May/June.

ii) During early rearing - avoid June/July.

iii) During winter - avoid December to April.

iv) The two-kilometre line of sight distance guideline is based on the best available information.



Distance between arrows 2 km



Summerland, A New Paradigm: Adjusting mitigation recommendations



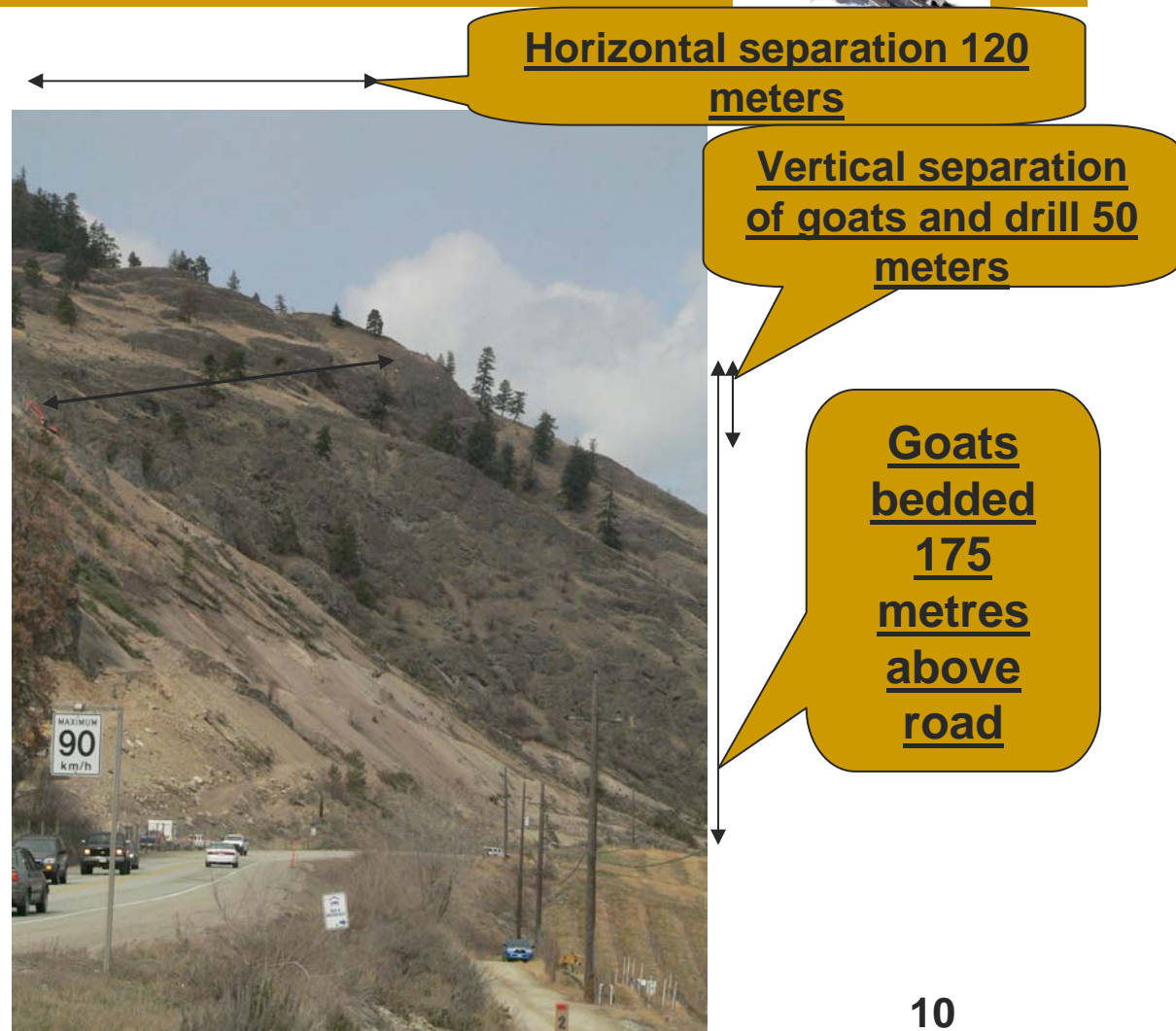
- Ministry of Environment and Ministry of Transportation agreement.
- Start with set of guidelines, observe goats, adjust guidelines as deemed appropriate by biologist



Summerland, A New Paradigm: Reactions to disturbance.



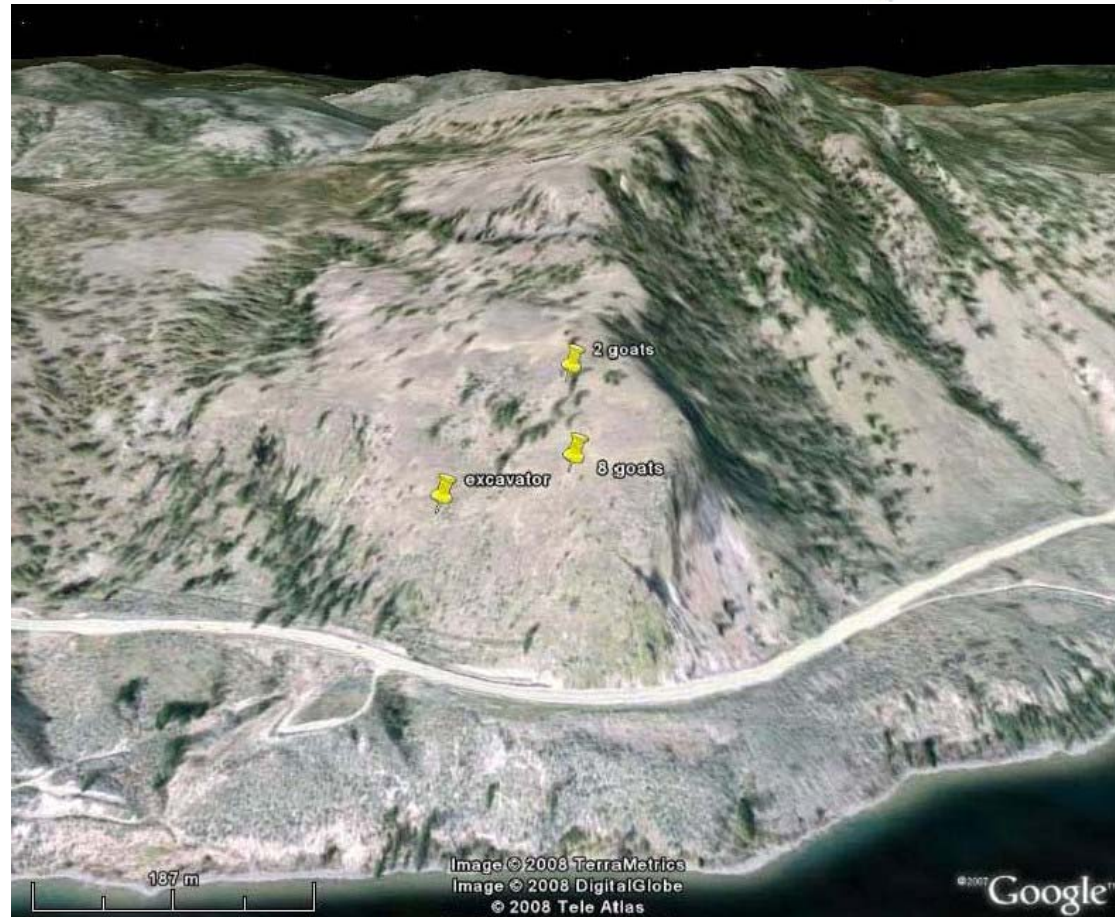
- First observation March 14/08 bedded goats with not only traffic but drill working and blast had just occurred at 1500 meters away with no observable reaction.



Summerland, A New Paradigm: Reactions to disturbance.



- Available habitat with first observation points, snowline above goats (100 m approx.)
- Snow above them shallow (<0.25M)



Summerland, A New Paradigm: Habituated Goats?



- Second experience was Houdini; under the wildlife fence, on the highway, back in his in his day bed (escape terrain?) an scenario which lasted throughout March and April



The Summerland Story



Summerland, A New Paradigm: Reactions to disturbance.



- We (Nelson Phillip Okanagan First Nation) monitored goats throughout project using behavioral categories used by Cote
- Observable reactions to blasting occurred only twice, both at less than 300 meters .
- After an unsuccessful attempt at herding a goat out of a cave, a blast at about 150m caused active displacement behavior moving out of cave for 18 minutes then a return to the cave and resumption of resting(lying down) in the cave.



Summerland, A New Paradigm: Reactions.



- Large amount of construction activity, including trucks, drills, excavators, workers, gravel crushers don't seem to displace or stress goats. Approach on foot to 'herd them out of the 2-300 meter safety zone of blasts has been necessary a number of times. Goats appear to be approaching closer to the construction site as the project goes on (analysis later).
- To illustrate a short movie from December 4, 2008 Blast.



Summerland, A New Paradigm: History = Understanding?



- First goats (2) reported approximately 1985
- Estimated population from ground counts in 20(May 2008) 25(Nov. 2008).
- All living goats in the area have spent their entire? lives within 1500 km of a highway with up to 7000 vehicles per day
- Extra noise from vehicles, especially trucks slowing for the sharp corner at goat bluff



Summerland, A New Paradigm: History = Understanding?



- Key habitat at goat bluff is the only pronounced escape terrain.
- Bicycle and horseback trails, residence on mountain even at higher elevations above the bluff. People, dogs everywhere.
- Regular aircraft traffic within 2-3km above or at elevation.



Summerland, Stories:



- The fence
- Chasing them away
- The announcement
- Closing the gap
- Saturday's blast-scarface.



Summerland, Human Face:



- Those who had no idea: most residents and travelers.
- Those who were concerned: local naturalists and biologists who knew the goats were there.
- Hairy Houdini: The goat that wasn't surefooted? media attention.
- Now we have a notorious local population beside a highway, similar to Jean in the Yukon, how long will notoriety last?



Hairy Houdini



Can you believe a mountain goat “fell” into this crevice overnight and was stuck some 8-10 meters down?

His rescue is definitely media material



Hairy Houdini- Check it out



■ Hairy Houdini ... 4 Legged Mountain explorer Trapped in a Crevice
October 29, 2008

■ "http://www.arthon.com/projects/summerland/blasting_rock_HoudiniOct29.html"



Hwy 97 and Summerland Goats: Future plans.



- First of all keep monitoring and summarize after construction done (Mid 2009).
- Evaluate lessons learned here and on other projects for Review of Future Projects.
- Tell the story at symposia and in popular literature.
- Never stop learning from those Dag-blasted goats.



To Contributors in various ways, Thank You:



- Nelson Phillip, Monitor
- Ministry of Transportation; Rampaul Dulay, Al Jones, Wes Yuckin, Geordie Robertson, Brent Persello.
- Summit Environmental: Brent Phillips, Dave Hayward.
- Steven F. Wilson, Carleen Smithies,

