
on the

HOMEFRONT

FEBRUARY 2007

Welcome to the second in a series of informational newsletters from *Homewood Mountain Resort*. The goal of these reports is to keep all interested parties updated on the exciting changes underway at Homewood as it moves forward under new ownership.



HOMWOOD MOUNTAIN RESORT: A NEW APPROACH

Ski areas are notorious polluters. Everybody knows that, right? If you cut a ski run, you ruin (or seriously threaten) the watershed. At least that's what many people believe. And I'd actually go a step further and say that many folks feel they "know" that as sure as they know the sun rises in the east. But I've spent the last several years of my career asking simple questions such as "How do we 'know'?" and, just as importantly, "What do we really know about ski area erosion?"

It turns out that the research data shows us that we don't know as much as we thought we did. And sometimes the data challenges the core of our beliefs. For instance, simulated rainfall (and seasons of direct field observations) showed us that plants don't always minimize or even slow erosion significantly. We've also recently seen that some ski run construction practices can have negligible impacts on erosion. We've also seen that some restoration and erosion control practices can reduce

erosion below native or background rates. How is that possible?

I think a couple of more important questions are: Why have we been using essentially the same practices for erosion control for so long without asking the hard questions, such as do they work? And that question leads to: How do we start to ask the tough questions in every erosion control project we do so that we can learn and understand how things are working? As humbling as it is, the so-called "experts"

don't have all the answers. Nor do the agencies tasked with regulating erosion, construction, etc. I don't see this as a problem. It's more like a great starting point.

Where does Homewood fit into this picture?

Homewood has long been the epitome of small, family-run ski resorts – old infrastructure, runs and roads built the “old way.” The downside to older resorts is that there is seldom an excess of capital

improvement – and still make money? It's a good question.

One of the issues of ski area operations is whether ski runs and environmental protection can go side by side. Even in the short period of time that JMA Ventures has owned Homewood, they have already engaged in putting environmental protection projects on the ground and putting in place a process to monitor and quantify the benefits of those projects. We (Integrated Environmental

ing in areas where plants are growing but soil is compacted and prone to rapid runoff. Homewood has over 1.5 million square feet of roads that may eventually be removed and our task is to determine the most cost and environmentally effective restoration methods that can be used on those roads. And since we don't know all of the possible treatment types, we're testing some new ones on the mountain. We are basing our approach on the fact that if water can infiltrate the



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to fix, repair or replace aging infrastructure, including the environmental infrastructure.

The new owners have a different vision of what Homewood should be. They are posing the question: Can we still be a small, local, family-oriented resort, run for the love of skiing, and still set a new, higher standard across the board for community involvement, community improvement, environmental protection AND environmental

Restoration Services) have been contracted to install three moderate-sized restoration demonstration projects in order to determine the types of materials and processes that will give us the greatest benefit going into the future.

These projects are designed to test and measure treatment outcome on three very different types of sites. Treatments range from complete road removal and recontouring to simple soil loosen-

soil, it can't run off (until soils become saturated). Thus, we are tilling soils, adding organic matter, seeding (using native grass and shrub seed) and using a variety of mulches to test concepts, determine effectiveness and assign a cost to various methods. We have seen, even after two small rainstorms, that this approach has resulted in zero runoff from treatment plots while areas all around the plots are showing signs of runoff. Thus, our way is

fairly clear and the results are visibly obvious.

But that's not enough. We have also begun research-level monitoring of treatment areas using simulated rainfall to directly measure the benefits of treatment as compared to background and to other types of treated and untreated areas. In this way, when we continue to restore additional roads and runs next summer, we'll know how much benefit we get from each type of treatment.

We expect that Homewood will help lead the way in implementing

state-of-the-art restoration and erosion control techniques and that the resort will do so in a manner that makes economic as well as environmental sense. Skiing is directly based on the environment. It seems strange that ski resorts are so often viewed as being at odds with the environment and that ski area operators see themselves at odds with the environmental community. Ski areas offer so many people the opportunity to engage with nature.

We now see ski resorts as being a prime opportunity to learn more about environmental restoration

practices as well. And through efforts by groups like the California Alpine Resort Environmental Cooperative (CAREC) and resorts like Homewood, we believe that the gap between environment and business may be narrowed considerably. As Robert Kennedy, Jr. recently said: "The economy is a wholly owned subsidiary of the environment." We hope to show (and measure) that at Homewood Mountain Resort that statement is the gateway to a new standard of operations.

HOMEWOOD: LEADING THE WAY INTO WATERSHEDS

The thing that makes skiing great is the same thing that creates a high potential for runoff and erosion: steep, mountainous slopes. When those slopes are undisturbed, they tend to stay put and the streams that run through them tend to run clear. But when development takes place, disturbance can drastically accelerate erosion. That erosion is the thing that can have such a devastating effect on water quality, fish and all the other water-related benefits that we usually take for granted.

However, development and erosion don't have to go hand in hand. Careful planning and consideration of watershed processes are two critical elements in reducing or eliminating erosion in ski resorts. The third critical element is applying the

right protections against erosion. In other words, once you've thought about where erosion might occur, you need to have the best tools available to do the job.

Homewood is engaged in a process to 1) look at the entire watershed and place the future of the ski resort and its related activities within that context, and 2) not only apply the best tools to protect water quality, but, where those tools don't exist, help develop them. With that in mind, Homewood is teaming with my company, Integrated Environmental, as well as with Jason Drew and Nichols Consulting Engineers to develop a whole watershed plan. This plan will serve as the foundation of all other management and development activities as the resort moves forward.

Many developments consider only the immediate surroundings. Homewood and IERS/Nichols are beginning down the road of looking at the whole watershed, including streams, drainage areas, uplands, forests, meadows, structures and the myriad of other elements that make up the watershed, and beginning to get an idea of how that watershed is functioning, how it can be protected, improved, etc. And as we go forward, we will fit our management into that context rather than try to make the watershed fit into our plan.

Watershed planning can be complex but can also provide us with extremely useful information. For instance, we want to know how much erosion is currently coming from the mountain, and as we move forward, we have a



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plan to remove many of the dirt roads on the mountain in order to restore hydrologic function. By doing this in a whole watershed context, we'll be better able to quantify the improvements in water quality and habitat quality. Homewood has been discussing a range of energy saving and energy production alternatives. Watershed planning will allow us to understand, for instance, how well small hydroelectric plants might work and whether they may have an impact on the overall watershed.

Another approach that Homewood and IERS is taking is to understand where our knowledge of watershed restoration is limited, and, in those cases, tackle that head-on by setting up test or experimental plots that can be measured. These plots can provide us and others with critical information that can be used at Homewood and elsewhere through the Tahoe Basin and beyond. The IERS team has been working on this issue for a number

of years, working with the local Water Quality Control Board, TRPA, UC Davis researchers, the Sierra Business Council and our own team of specialists to develop and apply restoration and water quality protection technologies that mimic nature and ultimately result in a higher level of water quality.

Ski runs, roads and other disturbed areas are ultimately field laboratories where we can continually learn how to develop and apply management practices that can result in high levels of environmental protection. This information, when put into the context of an overall watershed management plan, will give us all something that we can not only live with, but that will ultimately improve the Lake Tahoe environment and help improve Lake clarity. At the same time, it can provide us with a high level of recreational opportunities and be something that we, as residents and visitors to the Tahoe Basin,

can be proud of. We believe that this approach will lead the way into the future of watershed planning, environmental protection and restoration practices. The goal of "raising the bar on every level" starts here.

Article Written by Michael Hogan.

Michael has been involved in erosion control and restoration in the Sierras since 1985, having worked for the Forest Service, Squaw Valley, UC Davis and others before founding Integrated Environmental Restoration Services (IERS) in 1995. IERS is dedicated to developing and implementing science-based restoration practices throughout the Sierra Region. He additionally is a member of the Pathway 2007 Soils and SEZ technical advisory committee as well as heads the Forested Upland Category Group for the Tahoe Basin TMDL.

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TRANSPORTATION ISSUES



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