# **Greening Base Village**

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If you walk up the Smuggler Mountain road to Warren Lakes, you'll find a local treasure that has, over the years, been destroyed and reborn. Warren "Lakes" was once a peat bog, a rare and delicate ecosystem. But mining and damming severely damaged the area. Now, after years of rehabilitative work by the Aspen Center for Environmental Studies in partnership with the U.S. Forest Service, the area has been restored to something close to its natural state: a broad meadow where Cottongrass and native sedges have replaced noxious thistle and open ditches. Warren Lakes is an example of a human skill: restoration. And it is an inspiration and a model for those of us working on the proposed base village development in Snowmass.

Over the past several months, Aspen Skiing Company management—in particular Environmental Affairs Director Auden Schendler—and Intrawest have been refining a strategy for green design at base village. We have both made strong commitments to the concept, but nothing has yet been put on the table. While it is still early in the process, we believe we can now provide the community with a sense of what green development will mean.

"Green" or environmentally responsible development is an approach to planning, construction and management that aims to reduce the impact of buildings on the environment. The process typically addresses many broad issues, the most important of which are energy efficiency, transportation, site selection and associated impacts, water use, indoor air quality, and solid waste.

However, when you look at these issues in the context of Base Village, they do not all balance equally. For example, a pedestrian-friendly village built around a mass transit system is a given, since it is vital to the success of this project. Site selection is less of an issue than if we were developing a greenfield because this is an "infill" project (meaning it is within the urban core) on a previously developed site. Water efficiency is also guaranteed by the 1992 Energy Policy Act, which mandates the use of low-flow fixtures. We will try to push the envelope even further, but frankly, it's difficult to improve on a 1.6 gpf toilet and a 1.0 gpf urinal. Still, we are currently testing and researching waterless urinals and 1.5 gpm showerheads.

Some issues require action but are not difficult to address. At the Sundeck and Snowmass Club, ASC has found that good indoor air quality can be assured at no cost, through contractor specifications and carpet selection as well as careful sealing of the heating system to prevent contamination during construction. With regard to solid waste, ASC has an improving track record during construction and in its operations, and we will continue to improve at base village. (At the Snowmass Club phase II, for example, ASC's goal is to recycle 75% of construction waste, and we believe this can be done at base

village.) We are requiring that architects plan recycling areas at loading docks, including room for cardboard compactors. Recycling containers will be uniform and easily identifiable throughout the village.

Given the above, what are we doing that goes beyond "business as usual?"

### **Energy Efficiency**

We have decided to put our strongest emphasis on building energy use, which is by far the largest environmental impact of any development. Environmental damage results from energy generation, which causes air pollution, acid rain, human health problems like asthma, species extinction, habitat destruction, aesthetic impacts, and climate change, itself the most pressing environmental issue of our time.

When you design a truly efficient building, a host of environmental measures fall into place. You must consider daylighting, ventilation (and by default air quality protection), lighting, heating and cooling, building shell performance (roof, wall, foundation and window insulation), and building orientation.

Within the energy framework, the design of the mechanical system—which includes heating and cooling, plumbing, and lighting—is the single biggest component of energy efficiency. To ensure our mechanical system is optimal, we are adding Peter Rumsey to our design team. Peter is an expert in efficient engineering. His credentials speak for themselves at <a href="https://www.rumseyengineers.com">www.rumseyengineers.com</a>. Peter will participate in design decisions and will "commission" the mechanical system, meaning he will inspect and test it after it's built to ensure that it runs at maximum efficiency. Our goal is to exceed local energy codes by a minimum of 30%, and hopefully more.

Our focus on energy use is a comprehensive design commitment that affects the entire village. It is a radical departure from business as usual in ski resort development.

#### **Impact to Riparian Zones**

If ASC's expertise is in building efficiency, Intrawest brings substantial knowledge and experience in addressing water quality, stormwater runoff, and stream corridor improvements. Intrawest's most recent project is the rehabilitation of West Ten-Mile Creek at Copper Mountain. For similar work at Snowmass, we have contracted with Ecological Resources, Inc., which has coordinated improvement projects on the San Miguel River in Telluride and Copper Mountain. The goal of stream restoration is to reduce siltation from runoff; to filter pollutants before they enter the Creek; to rebuild the streambed to improve fish and wildlife habitat; and to increase recreational opportunities, but not at the expense of wildlife.

Energy use and stream health are critical issues, but there are two others we should discuss as well: open space and environmental education.

## **Open Space**

Eldon Beck, lead designer for the new base village, envisions large open spaces integrating the mountains into the village. We are also committed to incorporating open space within the watershed as a whole. As a starting place, we have offered 177 acres to the town under an agreement that would preserve the parcels in perpetuity. These areas include the Wildcat slope (145 acres) and "creekside" along Brush Creek (32 acres.) Discussions are continuing as to how we might maximize the benefits and preservation of other open land.

#### **A Nature Center**

Ideally, we would like to help create a nature center at the base of Snowmass for use by visitors, schools, environmental groups, and businesses. While we presently don't know what this will look like, we are seriously considering using the ski school area at the current mall. This central location will allow us to expand environmental education opportunities beyond what currently exists at Elk Camp; it would also capture skiers on the hill, and add vitality to the mall. We are currently coordinating discussions with stakeholders. If you'd like to see an early version of what this nature center might look like, please stop by our mall location adjacent to Mountain Photo. We have educational information and pictures on display.

### **Density**

Density is an environmental issue, but not in the way most people think. The base village project has been criticized by some for its proposed mass and density. From an environmental perspective, this criticism is hard to understand. The conservation biologist David Tilman has shown that increases in the natural equivalent of mixed-use density—biodiversity, or complexity—improves the health and stability of natural systems. Just as Tilman would predict, the sprawling low-density development that has occurred in Snowmass is damaging to the community and the environment.

How so? Recently, an ASC employee was walking from the Snowmass Center to the base of Fanny Hill, when a family asked, "How do we get to the mall?" The response was to try to flag down a bus. But the family said: "We want to walk." The answer could easily have been something you hear in L.A.: "You can't walk." Instead, the family was instructed to walk up the shoulder of the highway, avoiding buses and dump trucks. Their alternative was equally bad: they could also have walked up a staircase, past ASC's vehicle maintenance shop, and then up Fanny Hill to the Cirque café on a dirt path.

This family was facing sprawl head-on. To counter the sorts of problems they faced, the best "new urbanist" designers—Peter Calthorpe, Andres Duany and Elizabeth Plater-Zybeck, to name a few—recognize that high-density mixed-use development within towns offers a host of benefits. Higher densities focus development where impact should occur, within the urban core. Density can offset land and infrastructure cost, creating more affordable spaces for retailers and homeowners. It increases the effectiveness of mass transit, and makes for human-scale communities, particularly when commercial and

residential uses are combined in the same area. Density will also enable the critical mass of people needed to enhance the Snowmass economy.

We submit that the stability of our community, its vibrancy and vigor and particularly its environmental and economic health, will improve if base village is *restorative*, representing the future of green design, not yesterday's mistakes; if it is smart growth in the sense of development and complexity, not blind expansion; and if it incorporates open space and educational opportunity into the fabric of the town. These components form the underlying philosophy behind the development of base village. This is our commitment to building a new village that will be worthy of its setting.