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Sustainable Mountain Communities:  
Environmental Sustainability in Communities Impacted  
by Tourism and Amenity Migration  
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## WEEK 1: DISCUSSION SUMMARY

Topics: Reducing Resource Consumption and Waste  
Developing and Maintaining Sustainable Transportation

Thank you to everyone who contributed to this week's discussion. It was engaging and successful. The first week's topics received a final tally of 31 postings from 26 contributors representing communities in California, Colorado, Alberta, British Columbia, Oregon, North Carolina, Kentucky and West Virginia. Thank you, all!

The following discussion summary is categorized by topic and discussion thread, with common conclusions listed at the end of each topic section. Read on, for the discussion summary from week one!

## DEVELOPING AND MAINTAINING SUSTAINABLE TRANSPORTATION

Discussion Threads:

- \*\*\* Local Transit
- \*\*\* Minimizing In-Town Vehicle Traffic
- \*\*\* Regional Transit
- \*\*\* Education
- \*\*\* Delivery of Commercial Goods
- \*\*\* Common Conclusions

\*\*\* Local Transit

Bruce Bedwell of Banff, Alberta, started this discussion by talking about local transit in his mountain community.

Local transit provides solid revenues in Banff, allowing for year-round service. Bruce points out, however, that transit is currently geared toward visitors and will be expensive to extend into residential areas. To address this, Banff is exploring routes that will improve service to residential areas, but include tourist destinations. Because the town is compact, visitor use may subsidize the addition of some local routes.

Peter Grosshuersch of Breckenridge, Colorado, pointed out that while the town's compact size can be an advantage when providing local transit, it is a disadvantage when the community relies on "rubber-tire" tourism. Peter notes that these communities rely on large numbers of visitors to turn a profit, but do not have the infrastructure to support them. Peter explains that Breckenridge is dealing with this problem by trying to eliminate the need for vehicles within the town centre.

\*\*\* Minimizing In-Town Vehicle Traffic

Banff is also trying to minimize vehicle traffic in the town centre. As Bruce Bedwell explains, the town is pursuing park-n-ride lots at both entrances to the town, an overnight lot for tour buses just outside of the town centre and a two-hour parking lot for buses downtown. Bruce notes that the downtown lot serves the town by addressing excessive circulating and idling, but also serves tour directors by providing a single drop-off and pick-up point for tours and access to meals and washrooms for drivers.

One highly innovative strategy for reducing vehicle use was described by Jim Pettegrew of Telluride, Colorado. In the early 1990's an on-mountain resort (now an incorporated town) was built above the historic town of Telluride. The town feared being overrun by traffic destined for the resort. In an effort to address these concerns, San Miguel County required the developers of "Mountain Village" to construct an alternative, non-rubber-tire transportation link between the resort and the town of Telluride in the valley below. Jim explained that, after pre-determined population and/or real estate sales triggers were reached, village developers built a detachable-car gondola that now runs 14-18 hours per day, year-round. The gondola now functions as a unique transit link, carrying more than 2 million passengers per year, and eliminates thousands of private-vehicle roundtrips. Telluride now deals with less parking congestion and has higher air quality, due to minimized vehicle emissions and lower levels of sand and gravel induced air particulates.

### \*\*\* Regional Transit

While a gondola may address local transit issues, regional transit remains a very challenging sustainability issue. Bruce Bedwell explained that in his community, regional transit is a must given the large number of workers commuting from neighbouring communities and a growing number of visitor accommodations being built in these communities. Angeles Mendoza, of Canmore, Alberta, agrees. According to Bruce, coordinating efforts and obtaining financing are the region's greatest challenges. Banff has attempted to mitigate the initial problem by instituting a carpooling program for commuters using the carpool.ca web site.

Aspen, Colorado, has collaborated with local ski areas, in addition to local communities, to operate free skier shuttles, employee bus passes subsidized at a discount rate of 75%, long-term paid parking at some hills, and free and/or priority parking for car-poolers. The town also has plans for a light rail system. Lisa Isaacs, of Mammoth Mountain Ski Area in California, praised this idea for addressing long employee commutes and highway congestion.

Geraldine Link, of Oregon, noted that Hood Mountain Ski Resort transports over 25% of its guests by bus on peak days. The hill also offers subsidized package prices to encourage bus use, and free bus transportation for employees.

### \*\*\* Education

Many contributors felt that education is essential if any transportation service is to be utilized to its full potential.

### \*\*\* Delivery of Commercial Goods

One problem for which no solutions were suggested was the issue of how to move goods in small mountain communities. Bruce Bedwell explained that when goods are delivered from larger centers, deliveries arrive in highway size tractor-trailers that have difficulty negotiating narrow streets and alleys and cause congestion. The problem is difficult to solve because restricting delivery vehicle size can only be accomplished by running a transfer facility that would add cost to providing goods and increase the potential for damage.

### \*\*\* Common Conclusions

Individual vehicle traffic needs to be minimized, particularly within town centres. Education is essential if any of transportation service is to be utilized to its full potential.

## REDUCING RESOURCE CONSUMPTION AND WASTE

### Discussion Threads:

- \*\*\* Recycling
- \*\*\* Environmental Costs of Recycling
- \*\*\* Reducing Packaging
- \*\*\* Reducing Consumption at Ski Resorts
- \*\*\* Deconstruction vs. Demolition
- \*\*\* Corporate Responsibility and Cultural Norms
- \*\*\* Purchasing Policies
- \*\*\* Waste as a Commodity
- \*\*\* Common Conclusions

### \*\*\* Recycling

Leslie Taylor, of Banff, Alberta, suggested several inherent challenges in mounting cost-effective recycling programs in mountain communities. She noted that in tourism-based mountain communities, the transient workforce requires continual education about how and where to recycle. Secondly, convenient curbside bluebox programs can attract wildlife and alter their natural feeding habits, making these programs impractical. Thirdly, recycling programs are very expensive in small communities who cannot attain economies of scale. Lastly, the distance to markets can make the environmental and financial costs of transportation prohibitive.

Leslie's concerns were addressed by several contributions over the course of the week.

Transient populations, argued Jim Pettegrew, can be an asset to recycling programs as these populations are often young and more environmentally aware than older, long-time residents.

Bruce Gleig, from the Biosphere Institute of the Bow Valley (Alberta), described how his organization is addressing the need for public education by producing and distributing a series of Eco-Fact Sheets. Eco-Fact Sheets contain practical tips for residents and

businesses, and are available throughout Canmore, Alberta at local businesses or for download from a website at [www.biosphereinstitute.org/documents.htm](http://www.biosphereinstitute.org/documents.htm).

Kyle White suggested that distances to markets can be mitigated by tapping into existing trucking routes. He notes that Banff has used its location along the Trans Canada Highway to minimize the shipping costs for transporting materials to recycling facilities. He agreed with Leslie that wildlife proof bins are necessary (1 bin per 7 residential units in Banff, Alberta) and backyard composting impractical, but suggested that the hydraulic collection bins strategically placed throughout the community do attempt to make the collection of organics and key recyclables more convenient.

James Jamieson of British Columbia disagreed with both Leslie and Kyle about the overall feasibility of backyard composting in mountain communities. James noted that vermiculture (worm composting) is a viable alternative to traditional composting that does not attract wildlife. More information about vermiculture was provided by Blair Orr of Michigan at: <http://peacecorps.mtu.edu/TreesPrj.htm>.

No participants disagreed with Leslie's assessment that recycling programs cost more per capita in small mountain communities than larger centres. However, other participants recommended ways that recycling participation could be increased.

Kyle White suggested that recycling and composting programs need to be made more convenient than refuse disposal. Failing this, he noted that financial incentives work also, describing how contractors and waste haulers in Banff chose to recycle more when the regional waste commission / landfill began penalizing operators by over \$20 / tonne for loads of debris containing unsorted recyclable materials. Similarly, Greg Newbry suggested raising deposit fees to provide more incentive for businesses, and additional small funding sources for girl/boy scouts, service clubs, churches etc.

### \*\*\* Environmental Costs of Recycling

Greg Newbry also noted that while recycling is a laudable community goal, it does have costs. He explains that in Europe a program called "Life Cycle Assessment" or LCA has been developed to ascertain a product's total environmental impact; taking into account everything from the extraction of raw materials to possible recycling or eventual disposal. Daniel Wilson, Michael Hogan, Leslie Taylor and Greg Newbry all felt it was important to take "big picture" into account, noting that the environmental costs of recycling may – in some cases - make recycling itself unsustainable.

Similarly, Lynn Martel, Wendy Horan, Janie Lee, Leslie Taylor, Greg Newbry, Sanjay Nepal and Kyle White all suggested that recycling alone is not enough, and that reducing and reusing waste must be seen as equally if not more important.

### \*\*\* Reducing Packaging

Many list participants suggested that waste reductions could be achieved by cutting back on product packaging. Greg Newbry described the European practice of "Advanced Disposal Fees (ADFs)". ADFs are levied upon manufacturers who produce products that are costly to dispose of. According to Greg, when ADFs were implemented in Europe, they diverted 30% of landfill waste at the point of production.

Several list participants felt that consumers and business owners could also do more to reduce packaging on the front line. Lynn Martel and John Lozier suggested carrying a backpack, using reusable bags at the grocery store and reusable mugs at the coffee shop. John noted that some café owners offer discounts to customers who bring their own mugs.

### \*\*\* Reducing Consumption at Ski Resorts

Geraldine Link cited efforts being made by ski resorts to reduce material and energy consumption. She explained that many areas now: provide bulk condiments in cafeterias; install hand dryers, low-flow toilets and auto-shutoff sink faucets in restrooms; use front loading washers to reduce water and energy consumption; reclaim plastic, glass, aluminum, steel, newspaper, cardboard and office paper; purchase wind power to run lifts and facilities; place land under conservation easement; and, request that suppliers reduce the amount of packaging used.

Chris Winter suggested that readers who wish to learn more about the challenges of environmental sustainability on ski hills read Hal Clifford's book *Downhill Slide*.

While praising these activities, Don Weir noted that many of these measures are standard operating procedure in Europe.

### \*\*\* Deconstruction vs. Demolition

Lisa Isaacs and Geraldine Link also described how "deconstructing" buildings, rather than demolishing them, can decrease demolition waste while increasing re-use of construction materials. Deconstruction produces salvaged materials that can be subsequently sold for revenue. This strategy has been used by the Aspen Skiing Company, with some success. Lisa Isaacs, of California, noted that Whistler Ski Area has tried deconstruction also and suggested that Aspen's example has demonstrated to the industry that deconstruction is both possible and profitable.

### \*\*\* Corporate Responsibility and Cultural Norms

Lynn Martel and Jim Pettegrew felt that businesses operating in fragile mountain landscapes, particularly National Parks, have a responsibility to operate in as environmentally sensitive a way as possible. Wendy Horan of British Columbia agreed. However, Sanjay Nepal, Janie Lee, Tracy Grenier, John Lozier, Lynn and Jim all suggested that the underlying problem is one of cultural values or social norms that encourage consumption and discourage re-use. A difficult problem, which John Lozier and Wendy Horan suggested can only be addressed through the persistent and dedicated actions of individuals.

### \*\*\* Purchasing Policies

Purchasing policies, organized by municipalities, were cited as effective ways to facilitate the adoption of environmentally preferable products and bring distributors into the community. Kyle White suggested that purchasing "collectives" can also reduce the cost of alternative products, noting that the price of Environment Canada Eco-logo Certified

copy paper (100% Post Consumer) drops from \$140 to \$60 per case when more than 100 cases are ordered.

### \*\*\* Waste as a Commodity

Michael Hogan and Jane Pratt both cited examples of how waste can be seen as a commodity. Michael described how, in the Lake Tahoe Basin, pine needle refuse from local communities is used in nearby erosion control projects. Jane described how a small-scale methane gas plant, using waste from an old landfill in the Smokey Mountains, now powers studios and a greenhouse for artists and crafters. The crafters get free energy and lodging, and support themselves on revenue from their art and sales from the greenhouse. The community benefits from a strong and solvent cultural community.

### \*\*\* Common Conclusions

- Several common threads came out of this discussion, among them:
- The need to reduce and reuse is even greater than the need to recycle.
- Reducing, and particularly re-using, is less culturally acceptable than buying new, and that this attitude needs to be consistently challenged.
- That the first point of attack when it comes to reducing, is reducing disposable packaging.
- There is a need to take into account the “big picture” or “life cycle costs” of the goods we purchase and recycle.
- Businesses and municipalities can and should play a role in collaborating, leading and facilitating change within the community.
- Recycling is most effective when convenient and financially astute, but that without a market, the environmental and financial costs of recycling become prohibitive.