EAGLE RIVER VALLEY, CO SDAT: MOVING TOWARDS A MODEL SUSTAINABLE RESORT COMMUNITY

A SUSTAINABLE DESIGN ASSESSMENT TEAM FINAL REPORT

Eagle River Valley, CO
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SDAT TEAM MEMBERS
Bob Yakas, AIA- Team Leader
Peter Black- Water Resources
Coleen Clementson- Land Use
Nicole Isle- Sustainability & Energy
Jim McAteer- Transportation
Judie Scalise- Economic Development
Bill Schechter- Governance
Joel Mills- AIA Center for Communities by Design
Erin Simmons- AIA Center for Communities by Design

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INTRODUCTION & BACKGROUND
AND
EXECUTIVE SUMMARY
In 2009, Eagle River Valley, CO submitted a proposal to the American Institute of Architects (AIA) for a Sustainable Design Assessment Team (SDAT) to assist the town and its citizens in addressing key issues facing the community. The AIA accepted the proposal and, after a preliminary visit by a small group in June, the SDAT members arrived in Colorado in September. For three days, the team members, working closely with local officials, community leaders, technical experts, and citizens, studied the community and its concerns. During those three days, the team came to understand the issues and used their expertise to frame a wide range of recommendations, which were presented to the community in a public meeting on the evening of the third day.

This report is a more detailed version of the findings and recommendations that were presented to the community in September. After a brief overview of the SDAT program and process, and a short discussion of the Eagle River Valley and the issues it is facing, the report covers:

- Sustainability and Energy
- Water Resources
- Land Use
- Transportation
- Economic Development
- Governance

A closing section offers some thoughts on how the community can best move forward to address the range of issues and recommendations covered in the report.

**WHAT IS THE SDAT PROGRAM?**

The SDAT program is an interdisciplinary community assistance program that focuses on principles of sustainability. Launched in 2005, the program represents an exciting new chapter in the AIA’s history of supporting communities with volunteer design expertise.

The SDAT program is modeled on the AIA’s R/UDAT (Regional and Urban Design Assistance Team) program. While the R/UDAT program provides communities with specific design solutions, the SDAT program provides broad assessments to help frame future policies or design solutions in the context of sustainability and helps communities plan the first steps of implementation. The SDAT program is based on an understanding of design as a process that

- Is integrative, holistic, and visual
- Is central to achieving a sustainable relationship between humans, the natural environment, and the place
- Gives three-dimensional form to a culture and a place
- Achieves balance between culture, environment, and economic systems.

The SDAT program is grounded in the AIA design assistance team values, which call for a multidisciplinary approach, objectivity of the participating team members, and broad public participation.

The key to SDAT success is diversity and participation; the process involves multiple disciplines and multiple stakeholders. The SDAT process includes not only the expert team but also government agencies and
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officials, private businesses, schools and students, community members, and other parties as appropriate.

On behalf of the Eagle River Valley SDAT Team and the American Institute of Architects, it is hoped this report will be a useful guide to the Eagle River Valley community as it charts its future for the coming years and for coming generations.
In early 2009, the host committee of Eagle River Valley of the Colorado West Chapter of the Colorado American Institute of Architects applied for and was awarded a Sustainable Design Assessment Team grant from the American Institute of Architects Center for Communities by Design to explore the creation of a model for Sustainable Resort Communities. The expressed purpose of the grant was to address questions of sustainability in the Eagle River Valley such as:

- What do we do to maintain and/or create economic sustainability in the years ahead?
- How do we create a sustainable vision for the valley?
- How do we integrate the sustainable visions and work done to date into a comprehensive valley-wide set of guidelines and goals that the decision makers and leaders of the valley will endorse and support?
- What is our responsibility toward energy and water conservation leaders?
- How do we motivate our full and part-time residents to turn their business acumen, knowledge and passions toward creating and developing a significant leadership profile for a sustainable future?
- How do we balance responsible and equitable growth and development in a land locked valley and increasing land costs with the need to create an attractive land use and economic structure for young families – e.g.: locals?
- How do we address population increases and demographic changes while creating a dynamic and vibrant sustainable valley community?

Once the grant was awarded to the host committee, the Center for Communities by Design (CxD) met with the committee and a group of stakeholders in June of 2009 to discuss the details of the project. 45 community members and stakeholders were interviewed by the CxD staff and the appointed SDAT team leader in an attempt to ascertain the detailed goals and objectives for the project. These meetings uncovered some critical issues that were determined to be over-arching concerns for the Eagle River Valley reaching beyond the stated purpose of the application - a model for sustainable resort communities. The comments and concerns of the stakeholders indicated that larger issues of inter-governmental coordination and the lack of regional cooperation were at the heart of some of the problems facing the Eagle River Valley. In order to address issues of sustainability, the SDAT was going to have to first tackle governance and regional cooperation as the keystone of any actions to address sustainability in the Valley.

REGIONAL/COMMUNITY DESIGN
Community design is often a risky, subjective topic to address. The communities of the Eagle River Valley have made efforts to retain their individual identities through design guidelines and planning policies that are directed at the location and placement of built elements in the landscape.
EXECUTIVE SUMMARY

Planning policies directed at land use, transportation, public facilities, parks, and open space all play a critical role in the shape and character of the built environment. In spite of the best efforts at planning for attractive development, the pluralistic nature of physical development rarely acknowledges a collective sense of design and aesthetics most often bowing to expedient “acceptable” standards of design and the financial bottom line.

Such is the condition up and down the Eagle River Valley. Set in an astonishingly beautiful natural setting, the physical imposition on the valley floor has been done without a comprehensive acknowledgement of the setting, or a collaborative view of what the overall character of the built environment might convey.

What has resulted in the public realm, with certain limited exceptions, is a haphazard placement of building groupings, undifferentiated roadways and lanes without a clear pattern of connectivity or direction; a disjointed use of architectural styles that, while preserving individuality, have diminished any sense of continuity within or between communities.

While not advocating for a theme or a stifling uniformity, there are principles that could be applied that would improve the overall character of places and assure a better sense of place than what exists in most of the valley communities and, in particular, in the unincorporated areas of the county. Clearly, one of most striking design issues is the emphasis on the automobile and accommodating this form of transportation throughout the Valley. Discontinuous roadways and sidewalks, the lack of a circulation “grid”, massive parking lots with little or no pedestrian routes through them, pedestrian “un” friendly streets and roads all add up to an environment that discourages the walking experience.

The town of Avon would have to vie for the poster child of disjointed community design. Both east and west Avon have a character of ad hoc development absent a clear notion of what they should be.

East Avon, the administrative center of the City is difficult to “read” on the ground. As was said of Oakland, California years ago, “...there is no THERE there”. The lake front certainly acts as a focal point of the place, but is not celebrated, nor is it easy to find without prior knowledge. There is no definable street pattern, but rather a system of inter-locking parking lots. It has the feeling of a commercial office park without a heart.

West Avon isn’t much better, with “Mainstreet” being not much more than a suburban retail parking lot flanked by ersatz western “themed” buildings - neither of which truly acknowledges the existence of the other creating a disjointed suburban “strip mall” feel. Of course, the “design” of each of these locations deny themselves any sense of image or memorability.

Because of its size, Eagle stands the best chance of retaining a place with character, but the plan to build Eagle Station may adversely impact that character if not carefully scrutinized. The quality of design should be regulated to assure that it’s character enhances and supports that of historic Eagle.

Vail, by its resort nature enjoys a sense of continuity both in design and character. The imposed controls by Vail Resorts has resulted in a pleasant vacation experience while creating a Disneyland-like environment. Directed at its market sector, the design direction Vail has taken does nothing to create a true town, but rather an up-market consumer experience. Still, there have been memorable and imageable places.
Our time was limited to spending most of it in either Avon or Vail, but our brief visits to other Valley communities made apparent the disparity existing in the quality of community design throughout the Valley.

Resulting from the disparity in the availability of financial resources in the Valley, as well as choice and circumstance, residential enclaves span the gamut from extravagant (Beaver Creek) to subsistence (Redcliff). In between is undifferentiated sprawl prowling across the hills like an unrestrained, invasive creature.

The unsustainability of this pattern of development needs little elaboration beyond saying it is the least sustainable pattern for settlements that exist today. This suburban sprawl is the epitome of unsustainability and is THE culprit in the dire financial situations found in most communities because of the costs incurred to support these rambling, disconnected subdivisions. The costs to build and maintain infrastructure, the energy expended in average daily trips (ADT) to and from these dwellings, the costs to the individuals to maintain the lifestyle attributable to this sort of development are all part of the equation of unsustainability.

So, in summary of the community design findings for our report, we find the apparent lack of carefully considered, comprehensive physical design and planning (at the community and regional levels) with the attendant policies and regulations, to be a serious detriment to the continued quality of life and sustainability in the Valley.

Undifferentiated residential sprawl, strip commercial development, disconnected circulation grids and under-regulated architectural design all contribute to the Eagle River Valley becoming just another transportation corridor with similarly uncharacteristic places... in a breath-taking setting.

OVERARCHING RECOMMENDATIONS

All of the findings outlined in the previous section informed a decision by the team that there were two significant overarching recommendations to be made. These two broadly stated recommendations are the basis and point of departure for the other more detailed recommendations by topic area. If none of the other recommendations are taken and amplified by the community (which is not advised) these two could stand on their own and lead to some positive changes in the valley and in its communities. They are:

1. Create a non-profit, non-governmental organization which should:
   • Be made up of representatives from the Public/private/non profits sectors.
   • Work to build trust across the valley.
   • Ensure that these endeavors are on-going efforts.
   • Provide a professional staff.
   • Promote events to publicize the organization.

2. Conduct a regional summit to lay out a vision framework for the valley that would:
   • Coordinate a regional “Visioning” effort.
   • Focus on strategies for region-wide sustainability issues (transit, water, etc).
   • Create metrics and benchmarks to measure success.
   • Stage a publicity campaign to highlight the success.

Taken by themselves, the recommendations suggest that the valley and its communities take a necessary step towards regional organization & a heightened cooperation among jurisdictions, districts, & communities to create a vision for the valley, a road map to take you where you collectively want to go.
SUSTAINABILITY KEY FINDINGS
Sustainability is nothing new to the Eagle River Valley. Eagle County, its municipalities, and Vail Ski Resort have crafted, at various levels, vision statements to showcase their commitment to parameters such as quality of life, environmental stewardship, and/or economic prosperity. The language is more similar than different and mirrors community desires across the U.S to become more livable and to harmonize economic, environmental, and social needs. The following graphic highlights sustainability language found in jurisdictional plans, policies, and similar documents across the valley.

SUSTAINABILITY PROBLEM
Although there appears some collective agreement that sustainability is important to the Valley, there is a general sense that awareness, collaboration, and a sense of “we’re all in this together” is lacking. There also appears some disparity in the way employees interpret their entity’s definition of sustainability versus its interpretation in formal documents. This could be a problem of “vision versus action,” general awareness, or perhaps strategic plans have not been adequately put into practice.

Most residents will agree they value their quality of life in the Eagle River Valley, but interests become fragmented when defining what “quality” actually means to them. Due to numerous jurisdictions and taxing authorities across the Valley, there doesn’t seem to be a commonly shared definition of sustainability to substantiate what the Valley collectively desires for the environment and for their collective future.

ECO Transit describes the difficulties in planning for sustainability in its 2030 Vision Plan by stating, “This transit vision is a long-term effort. How do we maintain a long-term outlook in a population that is generally short-term in its thinking?” To help educate its citizens and the sizeable visitor population that contributes a large part to this dilemma, the Valley supports a few non-profits; namely The Gore Range Natural Science School (GRNSS) and the Eagle Valley Alliance for Sustainability. GRNSS strives to raise environmental awareness and inspire stewardship of the Eagle River watershed and the Alliance cultivates awareness about a wide range of sustainability issues in the valley through community gatherings, workshops, and educational programs. These programs are instrumental in generating community awareness and interest in sustainability.

It’s clear that Eagle County, Vail Resort, and the various municipalities and non-profits have accomplished a significant amount of planning and have instituted numerous programs to advance sustainability. Serving as the area authority, Eagle County has instituted green commercial and residential building codes, a development review tool, and has undergone strategic planning to advance sustainability. However, these plans and tools are not mandated across the County and so there lies the “How do we get everyone onboard to collectively work toward sustainability?” There also appears to be a lack of awareness around resource availability and abundance. Eagle County’s Sustainable Communities 2010 initiative
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SAMPLE SUSTAINABILITY LANGUAGE

“Eagle will be the most livable community in Eagle County by enhancing the Town’s unique identity, its economic vitality, and its sense of community.” – Eagle Area Community Plan, November 2008

“...sustainability – a healthy balance between economic success, quality of life and the preservation of the environment.” – Growth Policy, Eagle County Comprehensive Plan, January 2006

“Sustainable community shall be defined as: a community which fosters economic opportunity and social capital while protecting and restoring the natural environment upon which people and economies depend.” – Eagle County Sustainable Community Index, 09/08

“...were adopted to promote energy and material efficient building design and construction practices.” – Eagle County, ECO Build, May 2008

“We can be visionary and create walkable, transit-oriented communities, or we can be status quo.” – ECO Transit 2030 Vision, 04/06

“...to provide a high quality of life, today and in the future, for a diversity of people and interests; and to promote their ability to live, work, visit, and recreate in the community.” – Town of Avon Comp Plan 02/06

“We are the “Premier Mountain Resort Community” by providing high quality of life and experiences for both residents and visitors. This is achieved through environmental stewardship, world-class recreational, cultural and educational opportunities, a strong year-round economy, diversity of housing, and superior infrastructure. The town actively seeks input and cooperation from the community and its neighbors to ensure fulfillment of its vision.” – Town of Vail 20/20 Focus on the Future Strategic Action Plan, November 2007

establishes general baseline conditions for environmental sustainability, transportation, housing, and social capital parameters to begin the process of establishing a framework to measure quality of life in the Valley. However, it’s uncertain whether this initiative has fostered efforts across the Valley to proactively “close the gap” on sustainability between baseline conditions and future goals.

SUSTAINABILITY RECOMMENDATIONS

Eagle River Valley needs a single sustainability policy that all municipalities and taxing authorities ratify. It would serve as a collective agreement establishing trust across parties to commit to sustainability. Perhaps this resembles Eagle County’s Sustainable Communities 2010 Plan, and to build trust is administered by a non-governmental entity like the Eagle Valley Alliance for Sustainability, possibly in partnership with The Colorado Municipal League (CML). The policy would serve to consolidate existing sustainability planning efforts across the entire valley, with a single agreed upon vision and definition for sustainability. At the same time, the policy would serve to validate planning efforts across the entire Valley by providing a single framework to establish the necessary steps to carry these efforts forward.

Where to Start?

In the Eagle Area Community Plan, Eagle County and the Town of Eagle offer a globally recognized and credible definition of sustainability. As established in the 1987 Bruntland Report, Our Common Future, sustainable development is generally defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This definition is important because it’s been formally adopted by over 100 nations and treaties at Rio and Maastricht and is the official definition of sustainability for the United Nations Environment Program (UNEP). The Plan also identifies a com-
mon method of measuring sustainability based on social, environmental and economic parameters as established in the Triple Bottom Line. The recognition of a formally adopted and widely recognized definition of sustainability is an important first step to reaching common ground across jurisdictions and agreement on what sustainability means to the Valley. However, with a common definition, the next step is the formulation of a strategic framework to establish what a sustainable future looks like for the Eagle River Valley and how its population will get there...and how fast they will want to go.

A Common Framework for Sustainability

Reaching common ground among all citizens may prove to be the largest barrier to jumpstarting a Valley-wide sustainability effort. To help overcome this challenge, a Valley-wide sustainability workshop should occur first to help citizens understand what sustainability means, why it’s important to all, and that everyone plays a role in the Valley’s future. The workshop could be combined with the Regional Summit and involve at least one full day of sustainability training. Extensive community outreach should occur, so that a comprehensive mix of people representing the various community groups within the Valley would be present. The Summit would also be a good place to introduce a common framework for carrying-out sustainability goals at the Valley and individual municipal and other jurisdictional scales. There are a variety of ways Sustainability Plans are crafted and numerous community examples exist across the U.S. The International Council for Local Environmental Initiatives (ICLEI) is a great resource for understanding the different methods that exist and how they cross-compare. One method that has been tested in Eagle Valley is The Natural Step. Vail Resorts joined The Natural Step program in 2000. With this institutional knowledge in place, this strategic framework for sustainability may be an excellent option for the Valley. Whistler Ski Resort has executed one of the most comprehensive and successful Natural Step programs on the planet and it’s planning processes and planning framework is fully transparent on its website.

The framework uses nature’s operating conditions as a decision-making lens and provides a methodology called Backcasting for the community to understand where they are now, where they want to be in the future, how they are going to get there, and what tools, resources, and metrics are required to measure progress. The framework is especially helpful in resource mapping, so that communities have a firm grasp as to their historic, current, and projected demands for life-sustaining systems such as energy, water and habitat and how these systems interface with transportation, development, waste, recreation, openspace and governance systems. Supporting community planning resources can be found at The Natural Step Network website. The Valley’s geography is unique in that the watershed boundary closely follows the County boundary. This provides an easy scale to measure resource use, availability, and limits based on future projected demands. The Valley might find that collectively, opportunity lies in resource and infrastructure sharing. When everyone is aware of actual resource consumption, degradation, protection, etc, more robust planning can occur and the Valley, as a whole, can guard against resource depletion and be better prepared for future environmental and climate legislation. A common sustainability framework will act as the Valley-wide definitive policy on sustainability. In addition to establishing a common definition of sustainability and vision for the
Valley, the Policy should summarize the sustainability efforts of the Valley and layout the people’s agreed upon framework and roadmap toward a sustainable future. The Policy also unifies fragmented interests across the Valley by establishing leadership at the regional level, requiring collaboration at the jurisdictional level, and providing a means for comprehensive and regular community participation. Eagle County’s 2008 “Getting to Great” report offers a first step toward culling all the interests across the Valley, so that a common dialogue around sustainability can begin. The Colorado Municipal League is another good resource to help support the sustainability planning effort.

**Energy Key Findings**

Progress in energy efficiency differs across the Valley. Eagle County’s ECO Build program, the Sustainable Communities 2010 gap analysis, and the Sustainable Community Index documents are relatively new and progress toward their established goals has just begun. Energy incentives and grants are available at the State level, but the research and paperwork involved is complex. Local utilities, Xcel and Holy Cross Energy, offer grant and rebate programs for energy efficiency and solar installations. There appears to be a general lack of understanding regarding best energy resources in the Valley regarding solar, wind, geothermal, biofuel, biomass, municipal solid waste and waste water. From the established plans, it seems there’s a disconnect between how the development community and transportation authorities are collaborating to curb greenhouse gas emissions.

As a resort community, energy over consumption is the norm. Outdoor hot tubs, swimming pools, heated sidewalks, and gas and electric fire places consume an enormous amount of energy and given the cold climate, the number of building heating days is significantly higher than most regions. It seems there’s a general gap in understanding and awareness as to the percentage of the Valley energy demand the various luxury and necessary end uses consume. There also appears to be a disconnect between energy use and land use development. Local codes do not take into account municipal energy consumption, for example, to pump potable and waste water.

**Energy Recommendations**

The future fate of the ski industry is dependent on the rate and acceleration of climate change. To preserve the high quality of life Eagle River Valley residents and visitors enjoy, seriously addressing global warming impacts on seasonal snowpack and glaciers may be the Valley’s most critical planning challenge. Slow implementation and fragmentation of energy efficiency goals across jurisdictions and disciplines will continue if energy efficiency programs are not enforced Valley-wide and an
energy policy is not created. Existing energy programs and projects should be reviewed and extensive resource mapping should take place Valley-wide. Consumers should understand the percentage of energy used for necessary and luxury end uses and an extensive education effort that reaches out to residents and visitors should be implemented. The existing efforts of stakeholder groups should be leveraged to continue these efforts. The findings that result from these assessments could be announced at the Regional Summit and the data incorporated into the sustainability framework. Building relationships with other resort communities could yield shared lessons learned, common challenges, possible opportunities and potential funding mechanisms. Lastly, use the sustainability framework as the foundation to crafting a Valley-wide Climate Action Plan. The City of Portland, OR’s Climate Action Plan provides one case study on how governments are tackling this effort. The plan should be flexible and evolve over time as technology advances and reflect, if not exceed, the Colorado Governor’s Climate Action Plan.

Federal stimulus dollars through the American Recovery and Reinvestment Act (ARRA) 2009 provides opportunities over the next two years for governments to garner funding for energy efficiency and climate-based solutions projects. The Colorado State Energy Program has produced a plan for distributing funds though a series of energy efficiency and renewable energy programs. Funding is being made available to local governments through Energy Efficiency and Conservation Block Grant Programs. One creative method communities are using to maximize funding opportunities is to create a Pilot Neighborhood Sustainability Program. The program targets a single neighborhood to undergo energy efficiency upgrades and weatherization. The purpose of the Pilot is to demonstrate to the community what can be done to reduce energy demand and promote renewable generation in our existing building stock.

References
**Issue No. 1: Sustainability & Energy**

**Earth as a System**

**Open System with respect to energy**

“Photosynthesis pays the bills”

Slow geological cycles - materials from the Earth's crust

**Closed System with respect to matter**

1) Nothing disappears
2) Everything disperses

Sustainability is about the ability of these cycles to run forever.
How we influence cycles

1. Relatively large flows of materials from the Earth’s crust
2. Introduce persistent compounds foreign to nature
3. Physically inhibit ability of nature to run cycles
4. Barriers to people meeting their basic needs worldwide
ISSUE NO. 2: WATER RESOURCES
Water Resources Overview & Observations

This report is based on review of the Eagle River Watershed Plan and accompanying documents provided by Eagle River Valley prior to the SDAT team’s arrival in the Valley. It is based on discussion with steering committee members, designated stakeholders, and participating citizens coupled with the review of several pertinent documents, some of which are cited at the conclusion of this section.

The Goals and Objectives of the 1979 Open Space Plan seek “to present a plan that provides a variety of open space and recreation options while preserving the rural atmosphere of the county for present and future generations.” The limited size of the Valley and the exploding development and population that drives it make this an unrealistic objective. The stresses for (and by) development in the Eagle River Valley constitute a serious potential threat to the Valley’s future; development without paying attention to these and other issues impacting the hydrological environment have the potential to cause considerable stress, physical damage, loss of life, economic and environmental loss, and threaten its overall sustainability. However, careful development could not only be accomplished without damaging the built and natural environments, but with foresight respecting and exercising ecologically sound control over the human footprint, the valley has the potential for becoming a showcase of how to build, control, develop, and enjoy the resources of the valley.

Development in this approximately 30 by 20 mile mountain valley must be carefully managed so as to preclude personal, financial, and ecological (primarily water) damage and aesthetic loss to the splendor of the valley. From the standpoint of the water resource and its hydrology, this may best be achieved by paying attention to well-known but often forgotten basics concerning water behavior, watershed function, and distribution of water storage, particularly on steep mountain valleys. Watersheds may be naturally stressed hydrologically owing to elevation, topography, and vegetative change that affect water-holding characteristics of soils. This is exacerbated by several types of land use, and may be particularly vulnerable to magnification of impacts resulting in predictable drought (for example on thin-soils of upper slopes and ridges), or flood conditions especially along the lower elevations, notably in flood plains, and at stream confluences. Often these impacts may be felt on a wider scale than might be expected, thus adversely affecting transportation, lowland commercial development, and other infrastructure.

Despite that negative observation, both the vastness and the natural beauty of the valley are extremely impressive. It might well accommodate the anticipated – but definitely not unlimited – growth with limited stress. High mountain country is subject to considerable vagaries of weather, including ever shorter and more intense rainfall events, deeper snowpack, rain-on-snow events, and the inevitable unusual event – or sequence of events – that result in excess stormwater runoff and severe and widespread flooding. It is probable that the Valley can absorb considerably more population and associated residence building than it now displays. It may be possible to achieve/allow some desired level of population without adversely impacting the water-holding capacity of the watershed. Nevertheless, some day, that capacity will be exceeded...
on the entire Valley or more likely a particularly vulnerable and sensitive part of it, resulting in extensive flooding and serious loss of property and life. Planning must weigh the likelihood of such occurrences against the economic community and personal gains of development. If the principal source of such disaster is flooding, then it is inexcusable at this time to not anticipate and provide for such potential occurrences.

Given some foresight and in appropriate situations innovative approaches to planning and distribution of sprawl and accompanying infrastructure, there is no reason a reasonably high degree of community sustainability cannot be realized. To achieve that, a valley-wide advisory committee should be assembled with members interested in keeping up with ("riding herd on") areas of interest and understanding. One of those would focus on natural resources conservation, especially water resources. This group would meet regularly, for example monthly, to talk with one another (and whoever from the communities is interested in attending). From its community-supplied budget, the advisory committee could retain services of a qualified professional consultant in water and related land resources from outside the valley to conduct a study aimed at estimating the natural and built environment capacity to store water on the Eagle River watershed. This might be accomplished under three scenarios: existing, medium, and maximum buildup, including determination of peak runoff for 12-, 24-, and 48-hour rain-on-snow and thunderstorm events for 1-, 10-, 25-, 50- and 100-year frequencies of occurrence. The national data for the rainfall events is available from the U.S. Geological Survey as Technical Paper No. 40 (1961). It would be important to valley planners – as well as to the future of the Valley and its natural, built, and cultural future– to know what the storage capacity of watersheds might be in light of the foregoing concerns and following details. The interactions between hydrologic events and the sustainability of the watershed and its residential, commercial, and recreational opportunities are potentially too serious to leave to chance and without preparation. Such an advisory committee is an essential process to get a handle on and to provide some degree of control on Valley sustainability.

**Water Resources in the Valley**

Water (the resource) and hydrology (the behavior of water in the natural and built environments) are both of considerable importance in this mountain setting. The communities are dependent on the water supply for sustenance, support of agriculture and other industries, recreation, and preservation of the varied ecology of the area. Water quantity, rate of availability, and quality are all important. The community of interest is defined pretty well by the Eagle River watershed, which comprises most of Eagle County. The characteristics of the County’s water are well described in the Eagle River Watershed Plan Goals.

An anticipated doubling of population by 2025 may be expected to put the valley’s water resource under considerable stress in terms of deliverable quantity, instream quality, encroachment on the natural water ways (soil storage and stream and river channels), and reactions thereto, primarily flooding. Maintenance of (1) infiltration rates in built up areas, and (2) integrity of floodplain lands are of paramount importance. Smaller upland and mid-slope wetlands are also important as part of the overall watershed storage capacity, along with the occasional mainstream wetlands that exist within the floodplain.

The generalized recommendations for maintenance of the water resource contained in the Eagle River Watershed Plan Goals (p. 26-27) are sound and are not repeated herein unless it is appropriate for emphasis or modification.
Past and Future History of Development
The development of the valley from mining communities to highly valued living and recreational functions and services is typical of mountain resorts especially for golf, fishing, and skiing. The development of Valley services must be sufficient for both year-round residents and the seasonal population. This is of particular importance in considering the water resource because of its existence being essential features of foundation of all three activities. Foul the water resource and the interim population – and their financial investment in the Valley – is lost. Thus, the Valley development, the water resource and hydrological behavior are closely linked in a variety of ways. Those connections need careful and constant attention in the form of policy, preparation, infrastructure, and reaction (both physical and organizational), especially by stress caused by deficient water quantity, quality, and rate of delivery. Since these depend primarily on the weather, which is normally quite variable, foresight in the form of preparedness is essential. This will be even more important under anticipated climate change impacts on both weather and climate, and, since water infrastructure often takes long periods to create we may expect to have continued pressure on both water and hydrology: Early exploring settlers located in the flood plain because they needed power, commerce and transportation, defense, water for drinking, fighting fire, and for farming and industrial uses. They still do, but modern residential developments – especially sprawling suburbs – seek the ridges for view, clean air, and away from the commercial centers for open space, peace, and quiet. Sprawl puts excessive demands on the land and its water holding capacity owing to high percentages of such areas that are impervious as do costs of construction, water and power supply, snow removal, and other regular maintenance. This consideration of where the current development is at along with predictions of where it may go provides some insight into the need for sustainability and the need to achieve it.

Geology/Topography Observations & Recommendations
• Consult with professional geologist familiar with the region regarding specifically vulnerable sites that are likely to be sought by developers and that ought to be maintained as much as possible undisturbed. Perhaps the same individual suggested in the last paragraph of the Overview, above.
• Peaks and ridges are often highly erodible, dry, with exposure to erosion by rain and snowmelt, and minimum soil water capacity, especially following development (e.g., homes and accompanying patios, driveways, streets, and play areas). Stormwater is delivered more rapidly to adjacent natural and post-development storage areas in soils, the total amount of storage in which may also be compromised.
• Midslope erosion and potential loss of best water-holding capacity soils is manageable and preventable with care. Ensure on-site storage of runoff waters (as with peaks and ridges).
• While the SDAT team was unable to analyze soil maps, it would be ideal to have someone well acquainted with Rocky Mountain soil to contribute to planning effort, preferable a consultant in water storage in soil. Generally, Sands can take in large amounts of water, but have little retention of water. Clays have highest retention, but it may be held too tightly. Loams are well balanced with good water holding capacity and water yield. Clays are typical in flood plains, sands more likely on ridges and peaks (with
ISSUE NO. 2: WATER RESOURCES

Water & Hydrology Recommendations
Water and hydrology must of course be addressed together. “Water” represents the resource. “Hydrology” represents the areal and temporal behavior of water under natural and managed (or mismanaged) conditions. They are also linked by the issue of sustainability – civilization on the land resource, profoundly impacted by and affecting both water and hydrology. Thus, soil, topography, geology, growth, and landscape density distribution of sprawl all intimately interact with the water resource. Flood plains are the low-lying, often flat land along the lower reaches of a river, and are part of the watershed. These features are created by the regular-interval high flows of the river, riverine hydrology. To invade the floodplain is to invite flooding because it limits its capacity to store inevitable flood waters and thereby places valuable developments in harm’s way.

- Stay out of the floodplain.
- Compensate loss of storage on and manage ridge tops to retain water where possible.
- Take extra care on ridges and peaks to control erosion and loss of storage capacity of soil, especially to control runoff.
- Provide for on-site storage of water during runoff events, especially at mid-slope sites.
- Maintain natural limits, location, and function of flood plain lands with high storage capacity.

Keep the Basics in Mind:
- Water: the mist, snow, rain, clouds, ice, rivers, lakes, and glaciers that provide and support life.
- Water formed (forms) our landscapes.
- Water is invariably impacted by our actions.
- Water quality is diminished by land use runoff, discharge of waste management systems, etc.
- Water movement is severely altered by absence of or clogged culverts
- Water balances and enhances our views of the solid Earth and living portions of our environment.
- It is essential to evaluate and control our impacts on water to assure any chance at sustainability.

How to Address the Basics:
- Plan ahead.
- Maintain flood plains as a natural storage place for excess runoff: the flood plain is created by and is part of the riverine environment: STAY OUT OF THE FLOOD PLAINS!
- Maintain the infiltration (movement of water from atmosphere into soil) capacity of the site. Minimize impervious surfaces of the land: homestead, commercial, Recreational, and urban.)
- Create rain gardens and, where possible, porous pavements.
- Use roof drainage in rain barrels for gardens and lawns, thus cutting down on community water supply demand
- Manage stormwater and groundwater flows separately.
Summary Recommendation
Create a water resource advisory committee (or subcommittee) representing the valley-wide organization that provides the communication and coordination within the Eagle River Watershed that meets regularly to review current conditions, likely modifications, and issues involving both infrastructure and management of the Valley’s primary resource, water and its watershed so that communication linkages are in place when emergency conditions arise. They will.

References
2. Eagle River SDAT Application, p.6. Report made available to the SDAT, 2009
ISSUE NO. 3: LAND USE
Traversed by the Eagle River and surrounded by the Colorado Rocky Mountains, the Eagle River Valley region maintains a stunning natural landscape. While the primary development in the valley has been resort-based exemplified by the world-renowned Vail mountain ski area, the valley has also developed with homes, shopping areas, schools, businesses and other uses characteristic of an area with a just over 40,000 residents. Similar to other resort-oriented communities, there are a number of golf courses and resort hotels. A few ranching and farming activities remain on the edges of the region. The valley is also home to a 620-acre single runway public airport, the Eagle County Regional Airport.

Findings & Observations
Un fortunately, much of the recent building and development in the valley has not always respected the natural landscape and topography of the region. Predominantly characterized by a large single-family home development along mountain ridgelines, this new development is dispersed and removed from community and town centers, requiring extensive infrastructure investments to allow residents to acquire needed goods and services. Given that the region’s population is projected to grow, stakeholders have raised concerns that this pattern of development is not sustainable in the long term.

While there are a number of long range planning documents and studies that have been prepared in the valley region, stakeholders have raised concerns that there is not a shared regional vision or regional comprehensive plan in place to guide future growth and development. Stakeholders have also raised concerns that land use decisions are often made based upon potential local sales tax revenue at the expense of sustainable land use practices. Another concern raised by stakeholders is that information regarding planning and development is not shared among and between jurisdictions. There are also valid concerns regarding the loss of open space, lack of workforce housing and diversity in employment opportunities, the impact new development is having on natural resources and the on-going costs of providing public services.

Recommendations
In the short term, it is recommended that a summary of all existing planning documents be compiled. The compilation should include any vision statements or guiding principles that could serve as a basis for discussion of a collective regional vision. The summary document should be shared among jurisdictions and the region’s residents.

In the longer term, it is recommended that the valley region engage in a scenario planning process- a key element and starting point for a regional planning effort. This approach involves bringing together the public, business community and elected officials to consider future land use scenarios and test how each may impact sustainability and quality of life factors. One scenario may be to project the current growth pattern another may be to project more compact development in existing town centers. (Note: Consider adding the two scenario graphics that Bob prepared for the presentation here). Each scenario can then be tested against measures such as economic development/ and employment opportunity, housing affordability, open space preservation, mobility, community character and other factors that are identified as significant issues to the region when it comes to future growth and development. This approach can help participants understand and discuss the impacts and trade offs associated with growth and land use choices.
EAGLE RIVER VALLEY
Compact Towns vs. Sprawl Valley

Sustainable Mountain Communities
AIA Sustainable Design Assessment Team (S/DAT)
Avon Colorado
September 21-23, 2009
EAGLE RIVER VALLEY
Urbanized Corridor

Sustainable Mountain Communities
AIA Sustainable Design Assessment Team (S/DAT)
Avon Colorado
September 21-23, 2009
Brief Review of Existing Transportation Networks

Eagle River Valley (ERV) has three major ground transportation networks that serve the community and are the focus of this review and recommendations:

- I-70 – Serves local, tourist and pass-thru traffic
- Rt 6 – Primarily serves local trips
- Public Transportation
  - ECO Transit (“Regional Service”)
  - Avon Bus Service
  - Vail/Beaver Creek Bus Service

The construction of I-70 has no doubt brought significant access and prosperity to the Valley while at the same time bringing with it some of the consequences which result from that access and growth. These include:

- Environmental issues such as reduced air quality and the impact of snow and ice control measures on the river and eco-system.
- The impacts of noise.
- The physical barrier that I-70 presents as it splits the valley and divides town.
- The economic impacts of weekend congestion on both residents and visitors.
- The impacts of disruptions that affect access to ERV as well as within the valley.

These issues will need to be addressed in any future regional transportation efforts. With the construction of I-70, Route 6 has become more of a local circulation road as opposed to a primary connection between communities. This is both a problem and an opportunity that will be discussed further in the Recommendations section.

Public Transportation in the ERV is very well utilized by locals and the route structures are well designed. One of the challenges that will need to be addressed in a regional approach will be to look for a dedicated source of revenue for transit. Currently, transit receives a portion of funding through a sales tax as well as the general fund. Fluctuations in budgets and changes in political leadership can impact the availability of funding for transit, particularly, longer-term projects and services which are necessary to effectively tie land-use and transportation together as well as grow ridership.

In addition to the major transportation elements discussed above, there are several minor networks consisting of local streets and sidewalks, a bike and pedestrian trail corridor (in development) as well as gondolas and an airport. These all play an important role in the future of the valley and must be part of the solution to the transportation question, however, the critical elements for significant intravalley transportation are I-70 and Rt 6. Each of these roadways have had an impact on the growth and development patterns of the valley over time and will continue to do so into the future. The key is to effectively plan their role in the transportation network to maximize their utility while minimizing the negative impacts. Achieving a successful transportation network is a balance between the role
in the transportation network to maximize their utility while minimizing the negative impacts. Achieving a successful transportation network is a balance between the role of transportation as a conduit of people, goods, and services with its role as a critical building block that defines a community.

Transportation Recommendations

1. Geography
   The geography of the Eagle River Valley is great for designing walkable communities that are served well by public transportation. Two of the essential elements to public transit success are the concentration of potential riders in relatively high density locations, as well as the placement of trip origins and destinations along a single corridor. The existing layout of the valley with its communities spread out in a linear corridor supports the development of “Transit Oriented Development (TOD) nodes” along the corridor. These are communities that are designed to provide commercial, retail, and dense residential services within a reasonable walkable distance of one another. Focusing this development along these nodes has many sustainable and environmental benefits that are more appropriately discussed in other sections of this report, however, for transit, this means that buses or rail can effectively and easily access the high-density population and commercial areas. The result is that transit service can be faster by having fewer stops, yet still provide service to large populations as well as major destinations, including employment. In contrast, communities that develop in a more radial pattern and thus have development spread in many directions are very difficult to serve efficiently with transit. This is because the commercial, residential and retail locations are not centralized in a node but sprawled among the vicinity, causing transit routes to be circuitous, lengthy, and usually slow.

   Recommendation: Any future regional planning related to land-use and transportation will need to focus on improving the corridor and node concepts to ensure that walkable/TOD developments are established as part of the regional vision.

2. Scenario and Transportation Planning (and Vision)
   All city and transportation planners will relay the importance of the symbiotic relationship between land-use and transportation, however, although this relationship exists, it is often difficult for urban and transportation planners to develop meaningful coordination unless scenario and transportation planning are undertaken together, and more importantly, that the recommendations are followed. In larger communities, the Federal government institutionalizes this process through the requirement that communities which receive federal funding for transportation projects, must have a long-range plan in place from which the transportation projects are derived. This is a continuing, cooperative, and comprehensive process involving communities, elected officials, and the public to establish a growth vision for the locale. For more information on this process see The Transportation Planning Process Key Issues, A Briefing Book for Transportation Decisionmakers, Officials, and Staff which is pro-
duced by the Federal Highway Administration and Federal Transit Administration.

Recommendation: For ERV to effectively manage the many transportation issues that will arise, a regional approach is needed to perform scenario planning that includes:
• A Status Quo Analysis – What growth pattern will result if we continue our current development patterns?
• Compact Development Analysis – What growth pattern will result if we put some restrictions on development to create more compact, walkable, denser communities?
• Corridors and Nodes Analysis - What growth pattern will result if we limit our growth to certain nodes along our roadway (and/or rail) corridors?

Based on the results from the above analysis, ERV can establish a vision and map a path that is based on input from the community and includes a realistic expectation of communities policies on development. In general, more compact development means more efficient services and improved sustainability.

3. Valley Vision and Transportation Funding
As one of the overarching recommendations of the SDAT review, developing a regional council of governments and a process by which to convene regularly is recommended.

Recommendation: The Scenario and Transportation Planning Vision can be the first common issue around which ERV communities focus. Transportation is such an elemental part of being a successful community that those parts of the country that “get transportation right” have a significant lead in competing globally for their “customers”. Additionally, any major transportation investments are likely to have substantial capital, maintenance, and operating costs.

As mentioned earlier, a balanced transportation network is needed to be successful. Therefore public transportation needs increased funding to be a truly viable alternative to the single occupant vehicle. After the results of the Vision are established, the ERV council of governments will likely need to address a regional transit funding mechanism that will allow for expansion of services and infrastructure.

4. The Little Things
When developing long-term transportation and land-use plans and projects, often communities dream big and then give up altogether upon determining the project price-tag and the required local legislative changes to implement the plan. Rather than going for a project all at once, a recommended approach would be to look at a community that is today what you want...
the ERV to be like in 20 years. Then, find out from that community what did they do, what steps did they take, how did they achieve the success they now have? Generally speaking, you will find that it is the little things that moved the plan and project forward over time.

**Recommendation:** Begin to build on the regional plan immediately. This could include:

- Boosting current transit ridership through partnerships with employers
- Creating an ERV Transit alliance to engage the business community with the local governments, districts, and NGO’s as well as transit providers
- Consider incremental improvements like Bus Rapid Transit improvements along I-70, Route 6 or the Union Pacific rail line
- Expand and improve the sidewalk and bikeway network

**Summary**

Eagle River Valley needs to actively plan for a transportation network that includes all modes of transportation roads, transit, and bicycle and pedestrian networks. Past plans have put an emphasis on roadway improvements, although there are substantial and well used transit systems in place within the valley. For further improvements to the overall transportation network, ERV needs to develop a region-wide approach to solving their transportation issues. To a large extent, the natural and built environment support the development of a corridor and node system which would provide a sustainable approach beyond just transportation to include energy, water, and land-use and conservation. The recommendations outlined in this transportation portion are broad and can be seen as seeds for developing a region-wide community vision that includes all elements of sustainability, of which transportation is central.
ISSUE NO. 5: ECONOMIC DEVELOPMENT
Overview
Today, employment within Eagle County is heavily concentrated in accommodations, food service, construction and retail trade. The primary economic drivers of the Eagle River Valley are tourism and construction, both of which have been severely impacted by the national recession. Tourism, which has two high seasons, winter and summer, does not provide the area with a year-round economy and jobs. With the Vail name as a highly recognized “brand” both nationally and internationally, the area has become the playground for affluent individuals who not only want to ski the world class slopes, but also desire second homes in the area. The demand for high end housing, combined with an abundance of low paying hospitality and retail jobs has resulted in an economy where housing affordability is out of reach for the majority of area residents.

The issue of economic sustainability not only applies to communities and their ability to achieve long term fiscal health, but to the residents living in the Valley and their ability to earn a livable wage. With the advent of the national recession, the dependence upon these two sectors has magnified the need to diversify the economy. The question of how to maintain and/or create economic sustainability in the years ahead is both complex in its nature, as well as in its solutions.

Key Issues
Successful economic development is dependent upon many things, including an area’s ability to supply a trained workforce, affordable sites, adequate infrastructure (water, sewer, roads, telecom) a stable business and political environment and affordable housing for the workforce. Many of these issues were discussed with area stakeholders and residents during the SDAT team visit and have been summarized in a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, which is presented at the end of this section.

“Employers in our annual workforce surveys tell us that housing negatively impacts their ability to recruit hire and retain staff.”
-- Economic Council of Eagle County

“Find common ground and when you do, treat it as sacred ground.”
-- Sandra Day O’Connor

Area leaders have attempted to address affordable housing, but the gap between the median price of a home far outstrips that of the area median income in the Valley. Prior to the downturn in the economy, housing prices rose faster than incomes. The lack of developable land has also contributed to an affordable housing shortage. It has been documented by Eagle County that over 18 percent of Eagle County employees commute into Eagle County for employment, and this trend is on the rise.

The County’s population doubled from 1990 to 2000 (21,928 to 42,986), but in recent years has settle into an annualized growth rate of 3 percent. Most of this recent population growth has taken place in Avon, Eagle and Gypsum, with Vail, Minturn, Redcliff and Basalt maintaining a steady population. With the influx of new people to the Valley there is greater pressure on the utilization of natural and human made resources. The need for collaboration is greater than ever in order to protect and preserve the environment that brought
people to the Valley in the first place.

The communities in Eagle River Valley rely heavily on sales tax revenue to fund local government services and operations. Generating a steady stream of sales tax revenue to fund government operations and capital projects is always a challenge in areas that undergo rapid growth. Also contributing to the problem is the Valley's reliance on Tourism, which provides seasonal low paying jobs, which does not generate a steady stream of sales tax revenue. With the downturn in the economy construction has slowed dramatically, unemployment is on the rise and the issue of maintaining fiscal health has been magnified.

Because the resorts are the economic engine that drives the economy and generates the jobs for the entire Valley, they have a large influence on the region. Balancing the need for environmental sustainability with social and economic sustainability must be addressed regionally. Given the tremendous brand recognition of “Vail,” it is imperative for other Valley communities to bear in mind that if Vail sneezes, the other valley communities will catch a cold. While there is some collaboration taking place, much more needs to be done. Working together to agree upon a unified vision for the future and identifying common ground issues to address will be imperative in order to diversify the economy and create livable wage jobs. The ability to create non-basic jobs and foster entrepreneurship is limited due to very few industrial zoned sites and existing business parks within the Valley. The Eagle County Airport area has the best opportunity with an existing adjacent business park, which currently houses several warehousing and distribution operations geared towards the construction and homebuilding industry. This area is also home to big box destination retail which serves the entire Valley. However, transportation access is incredible poor to this location, and is a limiting factor from a site location standpoint. These types of uses generate traffic that impact community surface streets and neighborhoods. Providing access off of I-70 with an interchange to the Eagle County Airport and industrial park would foster economic activity and job creation by making this area more readily accessible to companies and their employees, shoppers and the traveling public.

Recommendations
In addressing economic sustainability for the future, the Valley must begin efforts to eliminate the peaks and valleys within the tourism sector and focus on ways to diversify the economy. In this regard there are several key recommendations that should be considered.

1. **Strengthen and grow tourism to achieve year-round activity.**

There are two distinct tourism seasons in the Valley today: winter and summer. Expanding economic opportunities within the shoulder seasons will foster year round visitors and employ
ment, thereby enhancing the multiplier effect of spending on the local economy. Additionally, by identifying the industry network or business clusters that supports the tourism sector, economic development leaders can leverage tourism into a self sustaining industry. The cluster concept is similar to vertical integration, which is defined as the number of activities along the value chain that are performed within a single company. By adopting this approach for tourism, you can identify the number of activities along the value chain that support the industry, such as culinary and hospitality education, agriculture production, and transportation.

A. Develop a world class culinary program/institute.
- Expand the program offerings at Colorado Mountain College (CMC)
- Recruit notable culinary instructors to teach or conduct seminars and market the program nationally and internationally.

B. Foster a sustainable agricultural program which integrates three main goals—environmental health, economic profitability, and social and economic equity.
- Review codes to ensure that local agriculture is not being stifled
- Organize a Farmer-Chef networking event to bring farmers and chefs together
- Consider the creation of an agricultural kitchen/incubator that can be utilized by locals for a fee for the manufacturing of value added products such as jams, salsa, cheese, etc.

C. Promote the Valley for convention and meeting business geared towards small regional meetings.

D. Expand the hospitality and tourism education program at CMC to include sports and fitness administration, restaurant /catering management and marketing.

2. Create an Eagle River Valley Housing Coalition

There is a growing gap between what residents can afford in the way of housing and what the market place provides. The Colorado Housing Trust Fund Coalition reported in their 2002 report that public and non-profit resources alone could not curtail the widening gap. The Urban Land Institute advisory team studied the Valley and provided several recommendations relating to the development of affordable housing.

Attracting and retaining a workforce is paramount to diversifying the economic base. Employers evaluate an area based on several factors, including housing affordability. The lack of diversity in the existing housing stock and the high cost of housing is a real deterrent in achieving economic development traction.
A. Review the findings of the ULI Advisory Services Reports for both Eagle-Vail (2008) and Eagle County (2006) and begin implementation of those recommendations.

B. Consider creating an Eagle Valley Housing Coalition or Housing Authority to help implement ULI findings.

C. Create a housing fund to write down impact fees to support affordable housing.

D. Consider the use of inclusionary zoning.

3. Build a strong medical services industry (health and wellness) (destination medicine)
Jobs in the health care industry are among the faster growing in the nation. With the aging of the boomer generation, the demand for specialized medical services will continue to increase. Eagle River Valley has the opportunity to create a health care cluster that includes a network of hospitals, training centers, clinics and other health-related services, with the ultimate goal of improving health care and the competitiveness of the region.

A. Inventory the existing medical services provided locally, and identify any gaps in health care that should be targeted.

B. Identify the medical training programs currently offered at CMC.

C. Work with local hospitals to find out their need for medical personnel and training.

D. Conduct research on medical services industry cluster and best practices of other communities in Colorado and elsewhere.

E. Begin tracking the workforce employed within the medical services sector and benchmark Eagle River Valley’s share against the national share.

4. Support the development of a commuter rail line to Denver
The Union Pacific rail line could be a real catalyst to foster year-round tourism and facilitate the movement/attraction of a workforce. Many communities and regions across the country are rediscovering their rail networks and are incorporating rail into their overall transportation planning. At the national level there is a $6 billion high speed intercity passenger rail initiative, in which the Denver-transportation planning. At the national level there is a $6 billion high speed intercity passenger rail initiative, in which the Denver-Colorado Springs corridor was identified as a potential network of cities to connect with high speed rail. Community and state leaders should consider a commuter rail corridor from Denver through Eagle County to Grand Junction as a potential east-west corridor which would link a network of those cities along the commuter rail line.

During the 2010 Sustainable Communities project, a Transportation Collaborative of Eagle County (made up of valley wide representatives from the County, the Town and special interest groups) worked together to identify issues and propose transportation solutions.
Given this group's involvement in the Sustainable Communities 2010 project, they seem like a logical group to launch the discussion for commuter rail.

**A. Engage the Transportation Collaborative in the discussion of commuter rail.**

**B. Work with the Colorado Department of Transportation and other organizations to research the feasibility of commuter rail line.**

**C. Conduct a preliminary market analysis by evaluating market conditions and development patterns to see if commuter rail could be supported within the Denver-Eagle County-Grand Junction corridor.**

**D. Based on the outcome of the market analysis, work with state transportation officials and identify potential local/state/federal funding.**

**5. Create better access to the Eagle County Airport and the industrial area to facilitate economic development.**

Achieving a goal of an integrated transportation system for the region that facilitates the movement of goods and people can’t be achieved without better access to the airport and the industrial park area. Without immediate access off of the freeway, Eagle Valley will have a difficult time being competitive with other regions in the state, and growth within the higher wage industrial and research and development jobs will be stymied. Direct and better access to the airport could also foster year-round air service at Eagle County.

**A. Work with the Colorado Department of Transportation to have them include an I-70 Eagle County Airport interchange in their statewide capital improvement plan.**

**B. To accelerate the project, consider passage of a temporary County sales tax within Eagle Valley of ¼ to ½ of a percent to help fund the infrastructure project.**

**6. Create an Economic Gardening Program to foster entrepreneurship**

Growing jobs through entrepreneurial activities, as opposed to recruitment, has become an important focus for economic development organizations throughout the country. In addition to fostering the growth of existing micro and small businesses, there are many retired high level executives, medical professionals, engineers, etc. that have moved to the Eagle River Valley who may be interested in another career or starting up a company.

Littleton, Colorado pioneered “economic gardening” and is a recognized leader in the U.S. for their program. Littleton’s Economic Development Department provides market research, competitor intelligence, industry trends, marketing lists, strategy development, web optimization and customized research for any business inside the city limits at no charge to help foster job creation. Eagle County could learn a great deal from Littleton on their approach to job creation through entrepreneurship. To build an environment conducive to entrepreneurial activity, it will be necessary to help foster intellectual stimulation and encourage receptivity to new ideas.

**A. Working with the Economic Council of Eagle County, create a task force to conduct research on entrepreneurial best practices.**
**B. Meet with representatives of Littleton to gain first hand understanding of their program and identify aspects that could be replicated in Eagle River Valley.**

**C. Establish a Small Business Development Center (SBDC) location within Eagle River Valley to help small business and entrepreneurs with counseling and training.**

**D. Harness intellectual capacity of retirees by conducting a series of networking events, and begin cataloging their expertise.**

**7. Integrate culture and arts into a strong economic development program**

Communities who have integrated the arts and cultural resources into their economic development programs have experienced a wide range of direct and indirect economic goals. According to the National Governor’s Association (NGA) the non-profit arts industry contributes $36.8 billion in annual revenue nationwide. They noted that cultural activities attract tourists and spur the creation of ancillary facilities such as restaurants, hotels, and the services needed to support them. Cultural facilities and events enhance property values, tax resources and overall profitability for communities. In doing so, the arts become a direct contributor to urban and rural revitalization. In a recent study conducted by the American for the Arts, a nonprofit organization, their research findings concluded that for every $100,000 of spending by nonprofit arts organizations, 2.94 direct and indirect jobs are created, $66,944 in resident household income is earned through the arts, and $3,589 in local government revenue is generated. According to the NGA, arts programs have served as components of high-impact economic development programs by assisting state and local government in:

- Leveraging human capital and cultural resources to generate economic vitality in under-performing regions through tourism, crafts, and cultural attractions;
- Restoring and revitalizing communities by serving as a centerpiece for downtown redevelopment and cultural renewal;
- Creating vibrant public spaces integrated with natural amenities, resulting in improved urban quality of life, expanded business and tax revenue base, and positive regional and community image; and
- Contributing to a region’s “innovation habitat” by simultaneously improving regional quality of life -- making communities more attractive to highly desirable, knowledge-based employees -- and permitting new forms of knowledge-intensive production to flourish.

**A. Encourage collaboration among the business community, local arts agencies, and economic development, tourism and education departments to create a more integrated approach to public investments.**

**B. Inventory and map the various arts and cultural programs and activities in the Valley.**
C. Harness the power of the arts and culture, by identifying and creating an “Avenue” or “Corridor of the Arts.”

D. Utilize a portion of the collected bed tax to create a pool of funding for local non-profit arts organizations, to be matched by the private sector, to nurture art organizations and/or stage events and programs.

8. Create a regional strategic economic development plan and work collaboratively to attract and create base jobs.

Leveraging economic assets amongst communities within a region has proven to be the most successful approach to economic development. Regional branding of an area is a strong asset and a regional context is more important than an individual town when it comes to economic development. The Economic Council of Eagle County (ECEC) is the recognized regional economic development organization whose role is to recruit business and retain the workforce in Eagle County. Given the organization’s mission and the geographic region that it serves, the ECEC is tremendously underfunded and under staffed to successfully implement an economic development program that would help the county and towns diversify their economic base and achieve economic sustainability.

A. Engage communities in support of a common economic and community development agenda.

B. Agree upon a vision of the future as it relates to economic development.

C. Create a region wide economic development strategy plan that identifies goals and objectives to achieve the vision.

D. Evaluate other economic development business models and benchmark their staffing and funding levels per 1,000 population that are served. Based on these findings, enhance the funding of ECEC to implement the strategies of a countywide economic development plan.

E. On an annual basis, monitor and benchmark the results of the planning effort.
SWOT ANALYSIS

Strengths
• World class brand that can be leveraged
• Spectacular landscape
• Hunting, fishing, biking and hiking
• Nursing program at Colorado Mountain College
• Existing Union Pacific Rail line
• Educated population
• Low crime and sense of personal safety
• Part time population with their expertise and wealth
• Senior population
• Accessibility to Eagle River Airport and Denver

Weaknesses
• Cyclical nature of tourism
• Reliance on sales tax revenue to pay for government services. Because it cycles with the economy it makes it difficult for municipal budgeting (sales tax driven municipal budgets)
• Lack of collaboration amongst cities and the unincorporated areas
• Housing affordability
• Lack of a diversified economy
• Too many layers of government
• No vision/lack of a consistent vision
• Transportation congestion
• Transient population
• Not well positioned to deal with an aging population
• Poor access to the airport and the industrial park

Opportunities
• Strengthen and grow tourism
• Build a strong medical services industry (health and wellness) (destination medicine)
• Create a world class culinary institute
• Recruit convention business
• Reuse of old high school/middle school
• Harness intellectual capacity of retirees (entrepreneurship)
• Create a commuter rail line to Denver
• Offer more Hospitality/Tourism education curriculum and programs
• Develop an environmental campus and training facility
• Foster the creation of green collar jobs
• Embrace and support sustainable agricultural integrating three main goals of sustainability
• Identify biotechnology opportunities
• Expand the cultural and arts programs
• Identify infill and redevelopment projects

Threats
• Water quality and supply
• Fragmented growth
• Degradation of the environment and landscape
• Global climate changes
• Disinvestment in infrastructure (harder to pay for road/sewers)
• Skiing is a non-growth industry
• I-70 and congestion region wide
ISSUE NO. 6: GOVERNANCE
What do we mean by “governance”? Governance, as we use the term, means more than the operation of traditional governmental structures and decision-making processes. It encompasses how an entire community acts to make joint decisions and achieve its mutually shared vision. This means that all sectors of a community must be involved – its private sector (business and industry), its non-profit sector (agencies and institutions), its public sector (governmental officials, agencies, and decision-making bodies), and its civic sector (residents, interest groups, and associations). So we are concerned with much more than merely the number of governmental entities and how they individually and jointly act (or fail to act.)

What is the inter-governmental landscape of the Eagle River Valley? Although the geography and population of the Eagle River Valley is relatively small and topographically constrained, the numbers of governmental entities and the issues with which they deal are most definitely quite the opposite. Some of this has to do with growth, some with the nature of its principal industries (tourism, real estate development, and construction), and some with the nature of Colorado’s intergovernmental structure (federal, state, and local). This is further complicated by the incredible number of special districts and quasi-governmental entities that have emerged over the last several decades.

Regional collaboration is critically necessary Although perhaps not as large, populated, or complex as the multi-county or even multi-state regions that we might be more accustomed to, the Eagle River Valley of Colorado, with its multiple and diverse communities and interests is in fact a region. And as such, regional collaboration (working together across the region) will be critically necessary in the solution of its cross-cutting issues, especially those as complex and inter-related as ‘sustainable development’. This chapter on governance will therefore proceed as the graphic below indicates: Findings (‘diagnose’); Recommendations (‘design’); Suggested next steps (‘take action’), and Periodic review and adjustment (‘evaluate’).

Governance Key Findings Based on a number personal interviews, focus groups, and community forums, we have a number of observations about governance in the Eagle River Valley and their implications for community problem solving and regional collaboration, especially around vexing issues such as those related to sustainable development. These observations have arranged these into several categories: demography and social issues, government and institutional issues, civic resource and infrastructure issues, and finally, issues related to shared vision and decision making.
1. Demographic and Social Issues

These factors relate to the nature of the population in the Eagle River Valley, its history and recent development, and the influence of the Valley’s dominant industries. These all combine to make joint action on the basis of shared values and a common vision very difficult, given the diverse interests.

A. Differences in the Valley complicate cooperation and collaboration. These geographic, social, cultural, and historic factors are quite apparent when you compare the 'up-valley' communities (ski resorts and second home subdivisions) and the 'down-valley' communities (more traditional, worker housing, more diverse economic bases).

B. Two populations (year-round and seasonal) results in a lack of continuity and an anemic civic infrastructure. Year-round residents and seasonal residents and visitors have widely divergent interests, skill sets, and participation levels in local affairs. This deprives the Valley of broad expertise, year-round continuity, and makes representative involvement difficult.

C. Immigrant issues, across the Valley, do not get the attention they need and deserve. With a Hispanic population of nearly 40% and large numbers of foreign-born seasonal workers, their interests are not being adequately represented, nor are their specific issues addressed.

Given these differences, the resulting disparities play out in the shortages of social capital that are the hallmark of a community or regional without a robust civic infrastructure.

2. Government and Institutional Issues

A complex inter-governmental structure and fragmented institutional layers of public sector accountability result in divided and overlapping responsibility for dealing with difficult issues like sustainable development or common standards and operational procedures.

A. Governmental fragmentation, overlap, and gaps end up wasting scarce funds and other resources. Especially in economic hard times, simplicity and frugality are watchwords that concern not only elected officials and agency managers, but the tax-paying public as well. Many of those we heard from commented on these themes.

B. Felt differences among the multiple and diverse governments (the county, towns, and districts) prevail. This is not to minimize the importance of these factors, but to suggest how difficult they make shared vision and joint action on common concerns.

C. Not all of the affected governmental entities have played an active role in development decisions. Among those singled out for their ‘reactive’ role are the school district, water authorities, and the water and sanitation districts. These are (or should be) key players in planning and zoning issues, especially affecting sustainable development.

D. For leaders and staff, time and energy are scarce, thus it’s hard to focus on broader, but common issues. Elected officials, in particular, also feel that their loyalties should be to the jurisdiction that elected them, not to some indefinite sense of the ‘greater good.’ This also plays out among public agency staff as well, consciously or not.

The problem is not that there aren’t capable and committed public officials and staff in the Eagle River Valley, but rather that their official settings discourage effective joint action.

3. Civic Resource and Infrastructure Issues

Looked at through the frame of a notion of governance as broader
than what governments do, the Eagle River Valley does not yet have
the kind of robust civic infrastructure that would encourage (or even
allow) constructively dealing with its vexing common problems.

A. There is no “Aspen Institute” here, i.e. no intellectual center to
raise and discuss common issues. Thus there is not sufficient local in-
tellectual capital available to build the resource base of knowledge,
experience, and ideas necessary for innovation.
B. Not all the key stakeholders have been at the table (e.g. For-
est Service & BLM, business and developers, schools and Colorado
Mountain College, the special districts). Without all the critical play-
ers involved, the issues identified and solutions considered risk be-
ing incomplete and too narrow to deal with the diversity of interests
and concerns.
C. The Valley does not have a common, shared vision of the future
(what it should be and look like). Without this consensus, the interests
of the most powerful or influential stakeholders will usually
dominate the debate and resulting decisions.
D. There is not a neutral forum/arena in which to raise, understand,
and resolve contentious issues. When disputes arise and conflicts
emerge, as they always do in development decisions, residents,
agency staff, and elected officials in particular, are left without the
institutional means or established procedures to deal with them.

While a lot of attention has been focused on the Valley’s physical
infrastructure (like roads or water systems), not nearly enough at-
tention has been paid to the ‘connective tissue’ and civic culture that
allows leaders, communities, and institutions to productively work
together to mutually understand and jointly solve common prob-
lems.

4. Shared Vision and Decision-Making Issues
The fourth major area of concerns that emerged from our interviews,
focus groups, and community meetings centered on questions
about where the Valley is headed and the decision processes that
are driving that direction and alternative routes for getting there.

A. Decision making on common issues is fragmented, scattered,
and seldom. Despite the presence of similar issues up and down the
Valley, development decisions are usually made by one or another
of the multiple governmental entities, and seldom in concert with
neighboring jurisdictions or based on shared principles or protocols.
B. Strong interpersonal relationships don’t translate into joint gov-
ernmental action. While joint meetings of officials and staff from
various jurisdictions have occurred and the Valley is small enough
that these individuals know each other, the intergovernmental and
inter-sectoral relationships have remained fairly rudimentary and
informal.
C. Competition on economic development and tax base issues ends
up primarily benefiting developers, rather than individual communi-
ties or the Valley as a whole. Developers and other major economic
interests have played communities against each other to obtain the
best deal for themselves, not for their neighboring communities.
D. There is a distinct lack of consensus-building on contentious is-
sues. Because there is neither a culture of inter-community coop-
eration, nor protocols for resolving issues in common, conflict and
competition are too often the resulting interactions.

All of these issues continue to occur -- despite the best intentions of
leaders across the Valley & large areas of shared concerns and agree-
ment on possible solutions. They also foreshadow possible ways of
addressing them and working together across boundaries.
Governance Recommendations

1. Reframing the Issues and Learning from Experience
   The first step that leaders in the Eagle River Valley should take is to think differently and more expansively about what their interests are, who should be involved, and how they should work together.
   A. Conceive governance more broadly than what governments do. This means leaders from the public, private, non-profit, and resident sectors coming together to make decisions on common issues facing the Valley. Involving the Valley’s diversity of people, institutions, jurisdictions, and communities assures that key interests will be represented in critical decisions.
   B. Learn from previous “One Valley” efforts and build on the experience working together on housing and transportation issues. Consciously paying attention to lessons that have already been learned, as well as sharing them with those who may not have been involved in previous efforts are important, as long as they are not seen simply as barriers to future joint action.

Reframing issues and involvement, assessing what’s been accomplished, and learning from experience are key principles that should underlie this and the other recommendations that follow.

2. Designing a Process for Broader Involvement and Mutual Sharing
   The process aspects of governance are crucial in determining the ultimate success of any joint action on mutually recognizing and collaboratively solving difficult common issues like those that arise in sustainable development that respects the environment and meets the needs of all residents.
   A. To be effective over the long term, a phased process will need to be designed. This should start with a representative steering committee that develops a common basis of knowledge and results in stakeholders from each of the sectors working together on issues in common.
   B. Select a limited number of salient issues that could bring multiple stakeholders together in common action. Prudence and experience elsewhere suggest that starting simple and building toward the more complex and difficult turns out to be an effective evolution of joint action.
   C. For collaboration on the contentious issues to occur, trust among the multiple parties must be built. This is more likely to happen as the result of cooperating on issues where there consensus is easier, shared action is possible, and positive outcomes are less difficult to achieve.

In the early stages of successful regional collaboration, the process is often just as important as the product. Practitioners elsewhere have suggested that building relationships ultimately turns out to be an indispensable element of effectively working together across the boundaries that are always present.
3. Building an Infrastructure to Convene and Support the Efforts
For effective regional collaboration to occur over the long term, something more than voluntary efforts by individuals on an ad hoc basis will be necessary. And that means moving from informal structures to more formal organizations, and ultimately to institutions that last longer than the energy of initiators.

A. **Overall, create and support a neutral convener organization to bring together the key stakeholders in each sector.** This should be a non-profit, non-governmental organization whose purpose would be mutual education, agreeing on a Valley Vision, setting priorities and strategies to achieve that Vision, and overseeing their subsequent implementation.

B. **In the public sector, establish an Eagle River Valley Council of Governments.** This would build on the existing mayor/manager meetings, and gradually evolve into a forum for policy development, a vehicle for Valley-wide planning, agreement on protocols and codes, and locus for identifying common problems and resolving inter-jurisdictional disputes.

C. **In the private sector, build a joint council of chambers of commerce, developers, and small businesses.** This recognizes that this sector is not a monolith, that there is often a divergence of interest, and therefore a need for a common forum and mechanism for building consensus.

D. **In the non-profit sector, pull together a council of organizations to share their interests and needs.** Since there is no equivalent to a ‘chamber of commerce’, non-profit agencies and institutions are usually on their own when it comes to active participation in governance.

E. **For the resident or civic sector, build a federation of associations to work on Valley-wide concerns.** While there are a number of interest groups (like sportsmen or environmentalists) or civic associations in a given community, their Valley-wide voice has been limited, especially on cross-cutting issues like growth management or sustainable development.

Each of these recommendations is designed to develop the kind of relationships and civic infrastructure that are the hallmark of successful communities and regions. When considered together there is a synergy that provides a strong voice and potential for joint action on shared problems.

4. Periodically Revisiting the Issues and Adjusting Course
These recommendations are designed to be iterative. We don’t suggest that this be a one-time effort. What we envision is much more evolutionary, in the non-sectarian sense of that term.

A. **Before tackling more difficult issues (like regional planning, revenue sharing, or governmental fragmentation), select easier issues to resolve and build trust.** Taking the long-term view, effective collaborative efforts depend on building trust and relationships by working together first on problems that can be resolved more easily before moving to more problematic issues.

B. **Schedule periodic reviews of progress, sharing of lessons learned, and reconsideration of strategies and goals.** This also provides the opportunity to cel-
brate successes, build support, and provide for the sustainability of the efforts themselves. (Thus not just development needs to be sustainable.)

All of these depend on expanding the table, involving all the key stakeholders, and bringing the entire Valley into the process through education, decision, and action.

**Overarching Recommendations and Next Steps**

1. **Create a non-profit organization to convene and support the efforts.**

   There are several key criteria that are critical for this entity to be effective and successful:
   
   A. **All sectors (public, private, non profit, and citizen/resident) need to be represented on the board, in the membership, and among the donors and other supporters of the organization.**
   
   B. **This needs to be seen as an on-going effort that evolves over time, developing a reputation for neutrality, competence, information, and as a vital resource for the entire Eagle River Valley.**
   
   C. **For the organization ultimately to be effective, dedicated staff will be necessary.** In the meantime, a part-time coordinator should be sufficient in the early months, moving within several months to a full-time position. Additional staff may be necessary after the initial year as the implementation phase gets underway, but should be limited so as not to compete for resources with other non-profits.
   
   D. **In order to build visibility and influence, the organization should promote events to publicize its efforts.** This should start with an informal ‘speakers bureau’ and continue with the events outlined below. The focus in the initial years should be ‘sustainable development and its ramifications.’

2. **Conduct a year-long mutual information and education process**

   In its first phase of operation (i.e. 2010), the organization should design, organize, host, and publicize a year-long process that with three major purposes:
   
   A. **Learning the Issues.** We recommend that the topics for the year include each of the seven ‘sustainable development’ issue areas covered in this report, supplemented by sessions on who the key stakeholders are in each of the four sectors and what their principle concerns are.
   
   B. **Creating the framework to understand and discuss differing perspectives on issues, as well as possible solutions and approaches that comparable regions elsewhere have used.**
   
   C. **Building trust and relationships among the Valley’s leaders, communities, and institutions.** This would enhance its capacity to decide on priorities, agree on approaches, and act in unison.

3. **Convene a regional summit to lay out a vision framework**

   This year-long education process builds toward a summary event involving a broad cross-section of the Eagle River Valley’s key stakeholders from all four sectors designed with three ends in mind:

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*“If you don’t know where you are going, any road will get you there.”* - Lewis Carroll in *Alice in Wonderland*
A. A Valley-wide “visioning” effort that lays out a consensus vision of where the region prefers to be in ten years. This may involve consideration of several alternative scenarios, choosing one.

B. Strategies for attaining sustainability on regional issues and concerns, i.e. how should the Valley achieve that vision over time, including assigning responsibilities.

C. Metrics to measure success in achieving the vision, the effectiveness of the selected strategies, and the performance of those assigned responsibilities for action.

4. Over two years, work on implementing strategies to achieve that vision.

Given this design, the implementation phase would center on the years 2011-2012 and would feature several key elements and require the collaboration of the Valley's key stakeholders:

A. Feed-back loops that inform the operational decisions of those who have taken on responsibility for action, as well as for those who have oversight roles for the effort.

B. Publicity will be crucial in building support for the effort, as well as reporting on progress and lessons learned. An active online presence will be critical and increase transparency.

C. At the end of this two year implementation phase, another regional summit should be convened to assess results, revise strategies, and celebrate successes in achieving the Valley’s Vision.
MOVING FORWARD
Next Steps
A first step in implementing a sensible approach to regional/community design is to implement across the valley Sustainable Design Practices and Smart Growth Principles. These principles and practices need to be applied valley-wide on a hierarchy basis working from the largest area to the smallest:

- Regional Connectors (Freeways and Arterials)
- Corridors (Streets, Roads, Pedestrian trails)
- Town and Village Centers
- Districts
- Neighborhoods
- Individual sites.
- Buildings

Some Sustainable Design Practices that apply across this hierarchy in the public realm are strategies that address:

- Street width and character
- Storm water management
- Public transportation
- Public lighting programs
- Connectivity of circulation elements
- Building orientation
- Protection of solar access
- Building materials
- Construction practices

A few of the Smart Growth Principles that apply across this hierarchy would address such issues as:

- Directing growth to existing communities;
- Assuring a mix of uses both horizontally and vertically where appropriate;
- Providing for a range of housing opportunities;
- Creating walkable neighborhoods;
- Assuring a variety of transportation choices;
- Designing so as to create a strong sense of place;
- Building compact town centers.

In conclusion, design issues, while seemingly insignificant in a landscape as breathtaking as the Eagle River Valley, need to be carefully addressed at all scales and in all situations where the built environment is concerned. Good design isn’t a mere luxury, but rather should be considered the starting point for interventions.

Coupling good design with sustainability practices leads to an environment that is valued, appreciated, cared-for, efficient, sustainable and a model for subsequent developments.

In summary and conclusion, it was the intent of the Sustainable Design Assessment Team to leave you with an action plan. We promised that this would not be just another academic exercise, a nicely bound and presented report to gather coffee-cup rings or dust on the waiting room table. True to our promise, we now put the responsibility squarely on the shoulders of you the residents and officials of the Eagle River Valley with a plan for the immediate future as well as your long-term sustainability.

These are your “marching orders”, your challenge to take our recommendations and make something of them. Implementation is always the key ingredient in planning for change. So, here are your challenges:

- Expand the steering committee.
- Assign and appoint roles.
• Produce action items and assign tasks.
• Create a calendar with milestones.
• Organize to create a non-profit organization dedicated to sustainable valley communities.
• Apply for a Sustainability Coordinator Grant.
• Get Speakers Road Show Going
• Promotion and Publicity (when ready)
• Convene to Build Work Plan for CU
• enver Architecture and Planning Project
Sustainable Design Assessment Team Roster

Bob Yakas, AIA, AICP- Team Leader
With over 30 years in urban design, architecture, planning and transportation planning, in both the public and private sectors, Mr. Yakas has led teams in all scales of community design projects. From individual site design to master planned residential communities utilizing Transit Oriented and Traditional Neighborhood Development strategies. He has worked successfully in the public and private sectors in short and long range planning, and on projects from concept through implementation. His international experience includes work in Mexico, Canada, Turkey, France, Japan and most recently in Johannesburg, South Africa.

As a leader of and key member of design teams Mr. Yakas has been involved in major development projects for towns and cities from Alaska to Florida; transportation projects in Washington, Oregon, California, Colorado and Utah, and has lectured and presented at forums for the American Planning Association and the National Light Rail Transit Conference. He was an adjunct professor in the department of Urban and Regional Planning at Portland State University for 12 years teaching all the core urban design and site design courses offered in the graduate curriculum.

Nicole Isle, LEED-AP- Sustainability & Energy
Nicole specializes in integrated design strategies for single and multiple building projects as well as for master planning and infrastructure-scale programs. With a strong background in aquatic science and wetland ecology, a Masters of Urban Planning, and professional training in sustainability tools and metrics, Nicole brings a wealth of experience and enthusiasm to every project. Her approach to help realize a more comprehensive level of sustainability on her projects is to engage teams early and effectively in the design and development process, leveraging opportunities for creativity, innovation and collaboration.

Nicole has worked on a variety of development projects ranging from multi-family residential, hospitality, and retirement communities to higher education, public works, office and condominium buildings. She has worked on projects throughout the U.S. and internationally, including the recently-completed conceptual master plan for a 7,000-acre, near-zero carbon community in South Korea. Nicole regularly facilitates eco-charrettes and continues to teach workshops and engage in professional speaking events on the west coast and in Hawaii.

James McAteer - Transportation
James McAteer is the Director of Planning for the Nashville Metropolitan Transit Authority (MTA) and the Regional Transportation Authority (RTA). He is responsible for all transit planning processes, including system analysis, service development, scheduling, and data collection. As of December 2008, Jim’s responsibilities broadened to include transit planning for the Nashville Region through the RTA. Recent projects include the completion of a $53.6m downtown transit station called Music City Central, the development of a Strategic Transit Master Plan, and the implementation of a 12 mile Bus Rapid Transit corridor.

Prior to joining the MTA in 2006, McAteer spent four years at the Nashville Area Metropolitan Planning Organization as a project manager on a wide range of transportation projects from Transit Alternatives Analyses to Pedestrian and Bicycling plans. He has also worked for the City of Nashville Planning Department in the Geographic Information Systems
McAteer received both his undergraduate and graduate degrees from Towson University in Baltimore, Maryland, and attained a Masters of Arts in Geography and Environmental Planning with a specialization on Transportation Planning in 2002. He is a member of the American Institute of Certified Planners.

Peter E. Black, Ph.D- Water Resources

Peter E. Black is Distinguished Teaching Professor of Water and Related Land Resources, Emeritus, at the SUNY College of Environmental Science and Forestry in Syracuse, NY. He has taught and conducted research at SUNY since 1965. He was awarded the BSF and MF degree in Forestry from The University of Michigan in 1956 and 1958, and the PhD in Watershed Management from Colorado State University in 1961 where he received the first PhD in Watershed Management from the newly-formed Cooperative Watershed Management. He has taught forest management, surveying, and forest hydrology, and has offered on-campus courses and short courses in watershed hydrology, watershed management, conservation policy, environmental impact analysis, and seminars to a variety of technical and lay audiences in the United States and internationally in China, Chile, Spain, New Zealand, Australia, Nepal, South Africa, and South Korea.

In 1974, he co-founded IMPACT CONSULTANTS, a private firm in Syracuse, for which he served as EIS project manager for twelve years. He is the author of several professional organizations, served as President (and held many other offices) in and is a Fellow of the American Water Resources Association. Black has been active in the Renewable Natural Resources Foundation as a representative from the AWRA, and he has served on its Education Committee. He holds Professional Hydrologist certification by the American Institute of Hydrology, Environmental Assessment Certification by the National Association of Environmental Professionals, and Certified Environmental Professional by The Academy of Board Certified Environmental Professionals. Black was appointed SUNY Distinguished Teaching Professor in 1997. In January, 2006, Black commenced a series of weekly two-minute facts and/or musings about water culture, history, law, organizations, policy, hydrology, weather, and science on NPR affiliate WRVO FM in Oswego, NY.

Coleen Clementson- Land Use

Coleen Clementson is Principal Regional Planner with the San Diego Association of Governments (SANDAG) heading up the Land Use Coordination section which focuses on better connecting local land use plans with regional transportation investments. She oversees the implementation of the Regional Comprehensive Plan (RCP) in collaboration with 19 local jurisdictions in the 4,200 square mile single county region. The RCP was adopted by the SANDAG Board of Directors in June 2004 and is based upon on sustainable development and smart growth planning principles.

Coleen is also heading up efforts for SANDAG to implement new state climate change legislation, Senate Bill 375, which calls for regions to significantly reduce Greenhouse Gas Emissions through coordinated land use and transportation planning efforts. Coleen has 20 years of professional public sector land use planning experience. Before her work at SANDAG, she oversaw the update to the City of San Diego’s 1979 General Plan—which included the City of Villages—a smart growth planning strategy for the City’s future growth and development.
Judie A. Scalise, CEcD - Economic Development

Judie is Founder and Principal of ESI Corporation in Phoenix, AZ. She specializes in economic development and pre-development planning services to a clientele consisting of government agencies, corporations, private developers, school districts and utility companies. Prior to forming ESI Corp in 1991, she held the management positions of Executive Director of the Phoenix Economic Growth Corporation, Vice President and Manager of the Industrial and Economic Development Department of Security Pacific Bank and Director of Business and International Trade for the Arizona Department of Commerce.

Ms. Scalise has nearly 30 years of professional experience in the areas of land economics, strategic planning, and economic development. As a Principal of ESI Corp, Ms. Scalise has directed numerous consulting assignments consisting of market and trade area identification, market and financial feasibility analysis, economic/fiscal impact studies, strategic planning, labor market analysis, and industry cluster analysis.

Her professional affiliations include International Economic Development Council (IEDC) and Urban Land Institute (ULI).

Bill Schechter - Governance

Bill Schechter is a consultant to non-profit organizations, foundations, and government agencies. His portfolio of work and expertise includes school reform, local governance and citizen participation; collaboration, consensus and community building; visioning and strategic planning; community planning, development, and environmental protection. He provides technical assistance and coaching, training and presentations, process and meeting design and facilitation, research on promising practices, and policy development.

Schechter is the coordinator of Collaboration DC, a network of practitioners working to build civic capacity and solve community problems in the Nation’s Capital. Other recent projects include staffing the workgroups on facilities and after-school programs for the DC Education Compact; assisting DC Public Schools in the preparation and community reviews of the Master Education Plan, and facilitating community forums on the Master Facility Plan. Recently he has managed the facilitation of education town halls in each DC ward for the Mayor and Chancellor, as well as nine community forums on closing 23 DC public schools. Schechter’s more than three decade career has spanned the public, private and non-profit sectors, and has included positions at the national, state, and local levels. He started working in anti-poverty programs as a fieldman for the Appalachian Volunteers in Mingo County, West Virginia. He then served as issues coordinator for a state elected official, Jay Rockefeller, in Charleston, the state capital. After directing the Urban Affairs Center at West Virginia State College, he was the national director of state legislative affairs for the United Mine Workers of America, moving then to Washington, DC.

Schechter earned a BA in sociology and anthropology at Carleton College in Northfield, Minnesota after studying abroad for a year at Osmania University in Hyderabad, India. He then did graduate work in sociology at the Universities of Pennsylvania and Chicago. More recently he earned a MPA at the University of Colorado at Denver and worked on a Ph.D. in public administration, focused on governance and public involvement issues.
“We are all faced with a series of historic opportunities, brilliantly disguised as insoluble problems”
- John W. Gardner
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