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FINAL REPORT

**Tools and Techniques for Teaching Collaborative
Regional Planning and Enhancing Livability and
Sustainable Transportation in Gateway and
Natural Amenity Regions**

NITC-ED-1074 ■ March 2018

*NITC is a U.S. Department of Transportation
national university transportation center.*



**TOOLS AND TECHNIQUES FOR TEACHING
COLLABORATIVE REGIONAL PLANNING AND
ENHANCING LIVABILITY AND SUSTAINABLE
TRANSPORTATION IN GATEWAY AND NATURAL
AMENITY REGIONS**

FINAL REPORT

NITC-ED-1074

by

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EXECUTIVE SUMMARY

Communities throughout the nation face a variety of interconnected transportation, livability and sustainability challenges that can only be effectively addressed through regional planning collaboration. These challenges are particularly pressing in gateway and natural amenity region (GNAR) communities throughout the western United States. This project engaged graduate students in developing curricular materials to teach planning students, professional planners and community members (1) the core concepts and skills of regional collaborative transportation and land use planning and (2) about the unique transportation and planning-related challenges and opportunities in GNAR communities.

It did so through an applied graduate-level studio course taught in fall 2016 and fall 2017, as well as through leveraging the ongoing Zion Regional Collaborative (ZRC). The ZRC is a regional planning effort aimed at enhancing livability and promoting more sustainable transportation and land use decision making along Utah State Route 9, the main transportation corridor leading to Zion National Park in southern Utah. Through using this effort as a laboratory, faculty and graduate students learned about and studied real-world efforts to support collaborative regional transportation and land use planning. Engaging students in the ZRC also provided them an opportunity to gain experience with facilitation, collaborative processes, and key planning and transportation challenges in gateway and natural amenity communities.

Building on what they learned from the ZRC, as well as literature reviews, background readings and insights from experts, graduate students in the studio course developed two parallel toolkits. The first toolkit is designed to teach graduate and undergraduate students the theory and practice of collaborative regional transportation and land use planning, particularly in gateway and natural amenity communities, via a set of role-play simulations, scenarios and teaching guidelines. The second toolkit is aimed at community members and professionals, providing a set of tools and resources to assist GNAR communities in addressing their key transportation, land use, and planning-related challenges and opportunities. All tools developed via this project are free and will be made available online.

This project also resulted in a number of additional impacts and activities, ranging from providing valuable professional opportunities for graduate students to catalyzing collaborative regional planning efforts elsewhere; these additional impacts and activities are detailed in this report.

1.0 PROJECT BACKGROUND AND OBJECTIVES

Transportation and livability issues are often complex and interconnected. Additionally, they frequently cross jurisdictional boundaries. Therefore, effectively addressing these issues commonly requires collaboration and coordination among diverse stakeholders and planning activities at a regional scale. This is particularly the case in gateway and natural amenity regions (GNAR) throughout the western United States, which are facing considerable growth and visitation-related pressures that must be addressed across municipal, county and public land boundaries.

Problematically, the skills and knowledge needed to identify opportunities for and to catalyze and support regional collaborative planning are rarely taught to planning students and professionals, not to mention stakeholders and community members who might need to participate in such efforts. Similarly, the unique planning and transportation-related challenges facing GNAR communities, and the importance of addressing these challenges at a regional scale, has not been well studied or addressed.

This project's overarching objective was to address these needs while simultaneously engaging and training graduate students. More specifically, this project aimed to engage graduate students in developing tools and approaches that can be used to build the capacity of students, professional planners and community members to:

- Identify opportunities for, initiate and engage in collaborative regional transportation and land use planning; and
- Address the unique planning challenges in GNAR communities.

It did so through engaging students in an applied graduate-level studio course in the fall of 2016 and fall 2017, as well as through leveraging the ZRC. The ZRC is an ongoing regional planning effort aimed at enhancing livability and promoting more sustainable transportation and land use decision making along Utah State Route 9, the main transportation corridor leading to Zion National Park in southern Utah. The studio course, the ZRC and how students were engaged in the collaborative, and the toolkits developed are explained further below, as are the additional impacts resulting from the project.

2.0 GRADUATE-LEVEL APPLIED STUDIO COURSE

During the fall 2016 and fall 2017 academic semesters, Dr. Danya Rumore taught an applied studio course for a select group of graduate students from the City and Metropolitan Planning Department, the Environmental Humanities Program, the Parks, Recreation, and Tourism Department, and the College of Law at the University of Utah. The fall 2016 course engaged five graduate students in learning about collaborative regional planning and developing related tools. The fall 2017 course engaged four graduate students in learning about collaborative regional planning, as well as in learning about and developing tools to address the unique planning and transportation-related challenges and opportunities in GNAR communities. Dr. Hinners and Dr. Chandrasekhar contributed to the courses, where appropriate.

During both semesters, students conducted literature reviews, read key academic and popular media articles, and learned from experts in the field to inform their understanding of issues and to assist them in developing tools and resources. They periodically wrote personal reflection memos to help them clarify their learning and tie together ideas and concepts.

As a key part of the courses, students traveled to the Zion region to participate in, observe and help facilitate ZRC workshops. At the workshops, students were tasked with taking detailed observation notes, as well as with facilitating small group discussions during the workshop, as further explained below. During both semesters, graduate students were asked to write memos reflecting on what they learned from observing and participating in the ZRC, and to translate these lessons learned into their tool and resource development. Their participation in the ZRC workshops allowed them to gain on-the-ground experience with regional collaboration around planning and transportation concerns, as well as to develop valuable facilitation and collaboration skills.

3.0 ZION REGIONAL COLLABORATIVE: A REAL-WORLD LABORATORY

Prior to the start of this project, the project team conducted a Situation Assessment of the Zion region in the spring of 2016; the assessment was funded by a seed grant from the University of Utah College of Architecture and Planning. The assessment process consisted of in-depth interviews with a wide range of Zion region stakeholders and detailed background research on past, ongoing and anticipated planning activities and studies in the region. The assessment resulted in a written report that identified a critical need and opportunity for regional collaboration on transportation, land use, livability and other planning-related concerns in the Zion region.¹

Building on this study, the project team worked with local partners to convene a group consisting of representatives of all key regional stakeholders in July 2016. During this initial workshop, the project team shared the findings of our Situation Assessment. We also engaged the working group in laying out broad objectives for the collaborative regional planning effort and identifying next steps. Dr. Rumore facilitated the workshop with help from graduate students and Dr. Hinnners.

During the remainder of the grant period, we worked with local partners to organize and facilitate five additional ZRC workshops. These workshops have brought together high-level representatives from key regional stakeholder groups to collaboratively identify key regional challenges and potential ways of addressing those challenges, as well as to reach agreement on coordinated regional transportation and land use strategies. Stakeholder groups involved in the ZRC include the towns of Springdale, Rockville, Virgin, La Verkin and Hurricane; Zion National Park; the Bureau of Land Management; Washington, Kane and Iron counties; Utah Department of Transportation; Utah Office of Tourism; Utah Office of Outdoor Recreation; local businesses; and conservation advocacy groups. The ZRC group has successfully worked together to develop a purpose and set of operating protocols to guide its work. It has also formed subcommittees to study and generate proposals on how to address key transportation, camping and recreation, messaging, and livability concerns. The group is now making headway on developing regional strategies for pressing planning, land use and transportation concerns.

Dr. Rumore has played a lead role in organizing and facilitating workshops, in collaboration with local partners. During fall 2016 and fall 2017, students taking the studio course participated in at least one ZRC workshop. Additionally, multiple graduate assistants working with Dr. Rumore assisted with workshops during the spring and summer of 2017. Graduate students aided in the development of workshop agendas and exercises, assisted with workshop organization and logistics, and attended and assisted with the workshops. During the actual workshops, graduate students co-facilitated and facilitated small group discussions, aided with exercises and logistics,

¹ The “Situation Assessment: Zion Regional Planning” report is online at: <https://drive.google.com/file/d/0BzZs3yZGP2C5U2Rvb3FJY2RIMk0/view?usp=sharing>

and generally observed and took reflection notes. Students also helped with drafting and formatting workshop summary reports.²

Through their experience assisting with, observing and participating in the ZRC workshops, students gained valuable familiarity with facilitated collaborative processes. They also gained experience facilitating complex planning and transportation-related conversations, and exposure to real-world planning and transportation challenges in gateway regions, such as that around Zion National Park. Further, they developed valuable professional connections.

² Summary reports from all ZRC workshops are public documents and can be made available on request.

4.0 TOOLKITS

In addition to attending and assisting with the ZRC workshops, a key focus of the graduate-level studio course was to develop a variety of tools and resources for the academic toolkit and the community toolkit. As noted above, students in the fall 2016 course focused largely on tools related to regional collaborative transportation and land use planning, whereas students in the fall 2017 course put more focus on developing tools and resources specifically related to planning challenges and opportunities in GNAR communities. These toolkits, and the resources that have been developed as part of them, are explained below.

4.1 ACADEMIC TOOLKIT

Working collaboratively with each other and faculty, students in the fall 2016 studio course produced a number of tools aimed at introducing the fundamental concepts and skills of regional collaborative transportation and land use planning to graduate and undergraduate students.

The team first summarized information gathered from background research and the ZRC experience to generate a list of key intended learning objectives for students interested in collaborative regional planning and GNAR communities (see Appendix A).

Graduate students in the studio course then developed four different scenarios, each of which is designed to teach specific concepts related to regional collaborative planning. Each scenario is an one- to two-page written explanation of a realistic regional planning challenge; they are all fabricated from real-world GNAR cases and were informed by background research conducted by the students. The scenarios are designed to be used as conversation starters for small group problem-solving in classrooms and other educational settings. The scenarios have already successfully been used in multiple University of Utah graduate-level classes, including Dr. Rumore's *Negotiation and Dispute Resolution in the Public Sector* course and Dr. Chandrasekhar's *Reason, Power, and Values* course. The scenarios developed through this project are included in Appendix B and freely available.

Students in the fall 2016 studio course also developed the concept and basic outline for a role-play simulation, which is broadly based on the ZRC real-world example. The simulation is designed to teach core concepts and skills related to collaborative regional planning. The simulation is currently undergoing major revisions and will require additional testing. We anticipate it will be complete, with teaching notes, and ready for dissemination in spring 2018.

4.2 COMMUNITY TOOLKIT

Another key goal of this project was to develop tools for professional planners, key stakeholders and other community members. Initially, we planned to develop guidelines and resources to assist planning practitioners and other stakeholders in initiating and supporting regional collaborative planning. However, through the course of this project, we identified an equally or more urgent need to develop tools and resources aimed at helping GNAR communities address the key transportation, land use and other planning-related challenges they are facing (such as extreme growth pressures, severe congestion issues, and related impacts on transportation and livability). We also recognized a need to gain additional experience with our collaborative

regional planning pilot (the ZRC) and an opportunity to further study the collaborative regional planning approach through a new case study (the Bonner Community Collaborative; see more information about this in Additional Impacts and Activities below) prior to developing tools focused on supporting collaborative regional planning.

In light of all of this, students in the fall 2016 and fall 2017 studio courses focused on developing a set of tools and resources to assist GNAR communities in addressing their key transportation, land use, and planning-related challenges and opportunities. Key challenges the students focused on include:

- Growth management: Broadly, how do these communities manage the considerable growth and visitation pressures they are facing?
- Transportation: What are the kinds of transportation pressures these communities face and what are strategies for dealing with them?
- Short-term rentals: What are the potential implications of short-term rentals (such as AirBnB and VRBO) on transportation, land use and livability in GNAR communities, and what are strategies for preventing or mitigating negative impacts?
- Housing affordability: How can GNAR communities address the extreme housing affordability issues they are facing, which have direct ties to land use, urban form and transportation systems?
- Dark skies: What is the value of protecting dark skies, what can GNAR communities do to protect their dark skies, and what does this mean for transportation and other infrastructure, as well as for ordinances, in these communities?

For each of these topics, students have developed and collated a variety of tools and resources. These include:

- Written explanation of the challenges and opportunities related to each issue;
- A list of existing resources and tools for addressing the issue, including links to existing toolkits, links to technical experts and organizations with expertise related to this topic, and funding resources that might be helpful;
- Links to model ordinances, codes and other approaches for addressing this issue; and
- Relevant case studies, with lessons learned.

Since the fall 2017 studio course is not yet complete, students are still finalizing these materials. Some draft examples of these tools are included in Appendix C. As explained further below, we will make the final tools and resources available via an online platform, which we plan to launch in spring 2018 along with the launch of our broader University of Utah GNAR Initiative.

Students in the 2016 and 2017 studio courses also compiled a database of planning and zoning tools and resources that may be helpful for GNAR communities and planning and transportation professionals working with these communities. We will also make this database of resources available via the online platform.

Our team still anticipates producing the following down the line, once we gain more experience and evidence from our two, collaborative regional planning pilot case studies (the ZRC and the Bonner Community Collaborative):

- Resources for planning practitioners and other stakeholders who want to initiate and/or support regional collaborative planning. This will include easy-to-understand information about relevant tools and approaches, such as scenario planning and joint fact finding; potential funding sources; and other resources identified as helpful through the ZRC.
- Guidelines for initiating and implementing collaborative regional transportation and land use planning, with a particular focus on GNAR communities. This includes guidance for how to identify when and where collaborative regional planning is appropriate; how to initiate and catalyze a collaborative regional planning process; how to structure the process and figure out who needs to be involved; and how to effectively support such a process. These guidelines will build on existing best practices for collaboration, stakeholder engagement and regional planning, and will also be informed by lessons learned from the ZRC and Bonner Community Collaborative.

These resources, when finalized, will also be shared via the online platform.

4.3 ONLINE TOOLKIT PLATFORM

As noted above, we are currently in the process of developing an online platform to make these tools and resources freely available. The online toolkit will be made freely available via a website hosted by the University of Utah, in partnership with the Utah Rural Planning Group. We anticipate launching this online platform in tandem with publicly announcing our GNAR Initiative (the vision for this initiative is explained in Additional Impacts and Activities below) in summer 2018. Prior to launching the website, we will work with diverse stakeholders to vet it and the tools contained on it for accuracy, usefulness and ease of access.

When the online toolkit goes live, we will publicize the availability of these tools via blogs, social media, appropriate news sites and newsletters, and other electronic and print media, as appropriate. The toolkit and related resources will all acknowledge they were produced with funding from NITC.

5.0 STUDENTS INVOLVED IN THE PROJECT

The following University of Utah students have been directly involved in this project through the fall graduate-level workshop courses held in fall 2016 and fall 2017, directed studies, and/or graduate assistantships:

- Dylan Corbin, Master of City and Metropolitan Planning, 2017 (graduated)
- Katherine Daly, Master of City and Metropolitan Planning, 2017 (graduated)
- Kailey Kornhauser, Master of Environmental Humanities, 2017 (graduated)
- Richard Decker, Master of City and Metropolitan Planning, 2016 (graduated)
- Megan Mustoe, Juris Doctor, 2017 (graduated)
- Cody Lutz, Master of City and Metropolitan Planning, 2018
- Adam Dalton, Master of City and Metropolitan Planning, 2018
- Nathan Jellen, Master of City and Metropolitan Planning, 2018
- Alec Barton, Master of City and Metropolitan Planning, 2018
- Leanne Bernstein, Master of City and Metropolitan Planning, 2019
- Zacharia Levine, Ph.D. Candidate in Metropolitan Planning, Policy, and Design (anticipated 2019)
- Chris Zajchowski, Ph.D. Candidate in Parks, Recreation, and Tourism (anticipated 2018)

We also had the good fortune of hosting Griffin Smith, a Master of City Planning student at MIT, as a fellow in summer 2017. Griffin assisted with the ZRC and contributed to this project.

6.0 ADDITIONAL IMPACTS AND ACTIVITIES

This project has resulted in a variety of additional valuable impacts and activities, including:

- Team members, including graduate students, have given and continue to give talks and presentations on aspects of this project in a variety of academic and professional venues. These include:
 - “Collaborative Regional Planning: A Tool for Helping Gateway Communities Thrive,” Association of Collegiate Schools of Planning, Houston, TX, 2016.
 - “Collaborative Regional Planning: A Tool for Helping Gateway Communities Thrive,” Utah Outdoor Recreation Summit, Cedar City, UT, 2016
 - “Zion Regional Collaborative: Addressing Transportation Issues at a Regional Scale,” Women in Transportation Seminar, Springdale, UT, 2016
 - “Zion Regional Collaborative,” Utah Bar Association, St. George, UT, 2017
 - “Collaborative Regional Planning: A Tool for Helping Gateway Communities Thrive,” Rocky Mountain Land Use Institute, Denver, CO, 2017
 - “The Zion Regional Collaborative,” George Wright Society Conference, Norfolk, VA, 2017
 - “Tools and Techniques for Teaching Collaborative Regional Planning and Enhancing Livability and Sustainable Transportation in Gateway and Natural Amenity Regions,” NITC webinar, scheduled for April 2018
- The project has resulted in numerous professional opportunities and benefits for involved graduate students, including among others:
 - Katherine Daly, who worked on the project from fall 2016 to spring 2017, received a Women in Transportation Seminar scholarship for her work on the project;
 - Dylan Corbin, who worked on the project from fall 2016 to spring 2017, was hired as a transportation planner for the City of Bend, OR in part as a result of his work on the project;
 - Richard Decker, who worked on the project in fall 2016, is now a transportation planner at the firm Parametrix, and attributes part of his success in his new role to his work on this project;
 - Kailey Kornhauser, who worked on the project from fall 2016 to spring 2017, is now in a Ph.D. program at Oregon State University and she believes that her work on this project was instrumental for her success in her current program; and
 - Cody Lutz (who continues to work on the project) and Dylan Corbin were both able to attend the Mountain and Resort Town Planning Conference in spring 2017, with support from this project.
- Our work on this project led to the initiation of a regional collaborative planning effort in Bonner County, a natural amenity region in north Idaho that, like the Zion region, is facing considerable transportation, land use and planning-related challenges. This effort, the Bonner Community Collaborative, is now underway and is modeling off of the ZRC and lessons learned from that effort.
- This project has resulted in progress toward more sustainable transportation and planning outcomes in the Zion National Park region, our case study site. This includes, for example, the collaborative development of a regional transportation vision, which is now

being used by the Utah Department of Transportation to help inform transportation investments in the Zion region. Similarly, as a result of catalyzing the Bonner Community Collaborative, it is likely that this initial grant will help catalyze more sustainable transportation and planning outcomes in the Bonner County region.

- The lessons learned through this project and experience working with GNAR communities has led to the initiation of a major research, education and capacity-building agenda focused on transportation, mobility and livability concerns in GNAR communities. As part of this, we were successful in securing a NITC research grant in summer 2017; the work done for and lessons learned from this Education Grant has directly fed into that new research agenda.
- As noted above, we are also in the process of launching a University of Utah GNAR Initiative. This initiative will convene academics and professionals interested in GNAR communities from across this University of Utah and other academic and non-academic institutions to work together to assist GNAR communities throughout the western United States in effectively addressing the transportation, land use and planning-related pressures they are facing. We anticipate establishing the University of Utah as a leader in this field of research and work.
- According to our “back of the envelop” estimates, this Education Grant funding from NITC has helped us leverage over \$250,000 in funding for the ZRC, the Bonner Community Collaborative, and our research on GNAR community transportation, land use and planning challenges. We anticipate this funding amount will continue to grow.

APPENDIX A: KEY LEARNING OBJECTIVES FOR ACADEMIC TOOLKIT

Graduate students in the fall 2016 applied studio course worked with faculty to summarize information gathered from background research and their experience with the Zion Regional Collaborative to generate the following list of key intended learning objectives for the academic toolkit.

Academic toolkit problem statement:

Communities throughout the nation face a variety of interconnected transportation, livability and sustainability challenges that can only be effectively addressed through regional planning collaboration. These challenges are particularly acute in many gateway and natural amenity regions throughout the western United States, which are facing considerable growth and visitation-related pressures on their transportation and land use planning. In light of the rapid change facing these communities, the cross-jurisdiction nature of many of their planning challenges and their often highly vulnerable economies, helping these communities address their transportation and planning challenges will not only require collaboration across different stakeholder groups and jurisdictions; it will also require planning amid uncertainty and complexity.

Toolkit intended learning objectives:

The tools in this toolkit are designed to help students learn about collaborative regional planning and planning amid uncertainty. These tools particularly focus on gateway and natural amenity communities. More specifically, these tools are designed to help students grapple with:

- When and why collaborative planning is or is not appropriate, necessary and/or likely to be helpful;
- How to initiate and build collaborative regional planning efforts, including when to get the aid of a professional neutral facilitator;
- How to participate in collaborative regional planning efforts, including an understanding of the different roles and responsibilities involved stakeholders may need to assume;
- How to help groups productively grapple with and effectively plan amid complexity, including the need to account for ways to address uncertainty, cross-scale dynamics and the interconnectedness of socio-ecological systems; and
- The particular transportation, land use and planning challenges facing gateway and natural amenity communities in the western United States.

APPENDIX B: SCENARIOS

Sandstone National Park Scenario #1: Initiating Regional Planning Collaboration

Sandstone National Park preserves nearly one million acres of the Great Sandstone Desert, encompassing one of the nation's most unique and beautiful landscapes. When it was established in 1920, the park's map was drawn so that it shares a border with the town of Monroe. Today, tourists using the western entrance into Sandstone National Park must pass through Monroe, which serves as the primary gateway community for the park.

Monroe has about 500 people who now serve millions of Sandstone National Park visitors every year. The town's economy is dominated by restaurants, hotels and shops serving tourists headed for Jefferson Canyon. Aside from Monroe, there are two other very small towns along the corridor leading into Sandstone National Park: Goodwater and Quincy. All three towns attract retirees and others looking to enjoy the area's scenic beauty, warm weather and good access to recreation opportunities. Unlike Monroe, Goodwater and Quincy have little commercial development; instead, they have a more rural development pattern. About half of Goodwater's land is dedicated to agriculture, with many decades-old farmsteads. Quincy is made up of newer subdivisions. Outside of the towns and Sandstone National Park, most of the Great Sandstone Desert is managed by two agencies: the Federal Bureau of Desert Lands and the State Desert Land Administration.

In the last five years, annual visitation to Sandstone National Park has nearly doubled, putting great strain on the park and the communities and public lands along the corridor leading into it. An advertising campaign for Sandstone National Park was launched by the State Desert Land Administration six years ago, and it has proved to be wildly successful, increasing the exposure of the park internationally. Local officials from the towns outside the park criticized the State Desert Land Administration for failing to inform them about the campaign and its expected impacts. The park's trails, roads and visitor centers (which were designed to accommodate 1.5 million annual visitors) are now serving more than 3 million people a year. This huge increase in visitation has become a crisis, and many in the region are calling for immediate action to address it. Traffic congestion both inside the park and in the towns has resulted in hour-long waits to enter the park and has harmed the mobility of local residents. Because the park's campgrounds are 100% occupied for most of the year, many visitors are forced into dispersed camping on Federal Bureau of Desert Lands land, leading to negative environmental impacts such as trash and off-road travel in the fragile desert environment. The greater exposure of the area has resulted in a sharp increase in housing costs, with many employees, particularly seasonal and low-wage employees, forced to commute from Slickrock City, a metropolitan area of about 250,000 people that is an hour away. Additionally, and not surprisingly, the neighboring communities are increasingly concerned about impacts on livability and small-town community character.

You are a professional neutral facilitator with Great Desert University. Your office has been approached by the mayors of the three towns to organize a working group to address the issues facing the region. A preliminary situation assessment completed by your office revealed that there were many possible issues and geographic scales for the working group to focus on. There

was broad agreement that transportation was the most pressing issue among the stakeholders who were interviewed, and everyone agreed that the national park, the towns and the State Transportation Office should be involved in the working group. Other potential stakeholders include the Federal Bureau of Desert Lands, the State Desert Lands Administration, officials from the four counties within which the national park sits, the State Tourism Office and Slickrock City. Two non-profits have also expressed interest in participating: The Friends of the Presidential River, a local environmental advocacy group, and Protect Our Parks, a national organization focused on preserving national parks and the areas around them.

In light of the current situation, regional stakeholders increasingly recognize they need to work together—at least on some things. However, this is complicated by the fact that there has historically been an adversarial relationship between the federal land management agencies and local governments. Additionally, all of the regional jurisdictions have their own distinct mandates and missions. This is true even of the federal land management agencies, with the Department of National Parks being focused mainly on environmental preservation and tourism within the national parks and the Bureau of Desert Lands being focused mainly on economic use of its land, including grazing and mining in addition to recreation.

You have the chance to speak with stakeholders in the region and seek out more information prior to the first working group meeting, but you have limited time to do so due to your busy schedule.

Consider the following questions as you prepare to facilitate the first meeting of the working group:

1. Who will you interview before the first working group meeting, and what information do you want to get?
 - What questions might you ask to get the information you need?
2. Which stakeholders should be invited to this first meeting? Why?
 - How can you ensure that all the “right people” are brought to the table now and as the working group moves forward?
3. How should the group decide what issues are most important to address?
 - Who gets to decide?
 - What should you do if you think there are important issues that regional stakeholders are not actively considering, such as climate change and water availability?
4. How should the group be organized?
 - What should influence how the group is structured and what it focuses on?
5. What kinds of power dynamics and knowledge imbalances might be at play?
 - How might you design a process and engage folks to address these concerns?
6. What are some key challenges that might emerge?
 - How might you anticipate and prepare for these challenges?
 - How might the group address these challenges?

*This scenario was written by Dylan Corbin and Danya Rumore
with funding from National Institute for Transportation and Communities (NITC grant number 1074)*

Sandstone National Park Scenario #2: Collaboration in Complex Systems

You serve as the Western Region Director of Protect Our Parks, a national non-profit organization focused on preserving national parks and the areas around them. A few months ago, you were invited to participate in a professionally facilitated meeting that brought together key stakeholders from the region around Sandstone National Park. Sandstone has experienced exponential increases in park visitation in recent years, putting significant strain on the park and the communities in the main transportation corridor leading into it (Monroe, Goodwater and Quincy). The region desperately needs to adapt to the rapid increase in tourism and related traffic and impacts on infrastructure and services, while also figuring out how to maintain the economic gains they have seen from additional visitation. You were happy to be included in this regional conversation since you are very concerned that increasing visitation will impact the environment in and around the park, as well as the community character and recreation opportunities that make Sandstone National Park so special.

The group has met twice. During the first meeting, the State Transportation Department representative and the mayor of Monroe expressed their concerns about traffic and crowding, noting that the roads are often gridlocked. Public officials from Monroe said that the town's citizens are very concerned about decreased quality of life. The head of the local Chamber of Commerce reported that the economy is steadily growing, but a couple stakeholders expressed some concern that tourism could drop in the future, which could make the region economically vulnerable. At that first meeting, there wasn't time for you or the director of Sandstone National Park to talk about the conservation concerns in the region, but you were certain they would come up in the future.

Unfortunately, in the second meeting, the group focused almost entirely on dealing with traffic and crowding issues in and around the park. While you recognize congestion is an important and urgent issue for the region, you are very worried that focusing on this single problem overlooks the interrelatedness of regional concerns. As you see it, regional concerns include the need to address transportation and crowding issues, to preserve and enhance community character in the small towns leading into the park, to protect and conserve the natural beauty and recreational opportunities of the area, and to develop in a sustainable way that accounts for possible economic and environmental shifts (such as climate change). You are worried that a failure to think about these interconnected issues together could lead to the region making poor decisions that result in more problems and increased vulnerabilities, rather than truly addressing problems.

As you go into the third meeting, you want to ensure that the group takes a more holistic approach to regional planning and addressing regional challenges. Consider the following questions as you prepare for the next meeting.

1. What are some key considerations the group should be thinking about as it tries to effectively and sustainably address regional challenges?
 - For example, what are sources of uncertainty or complexity that might need to be considered?
2. How might you help the group think more holistically about regional challenges (including about sources of complexity and uncertainty) and how to address them?

- How might you personally act to shift the group’s thinking?
 - What strategies and resources (such as the facilitator) can you use to reframe the conversation? How might you leverage these resources?
3. What tools and approaches might help the group take a systems approach and effectively plan amid complexity?

*This scenario was written by Kailey Kornhauser and Danya Rumore
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Stone County Scenario: Initiating a Situation Assessment in a Challenging Context

You are a professional facilitator who specializes in collaborative planning and natural resources management. The Stone County Tourism Director contacted your firm a couple months ago to ask if you could help the county with economic development and tourism-related concerns. Stone County is a very rural county located three hours south. Over 90% of the land in the county is owned by the Forest Service, Bureau of Land Management, State School Trust Lands Agency and Pueblo National Park. Stone County's population is sparse, totaling 3,000 residents with a density of one person per square mile. The county's geography varies from ponderosa forests to high-steppe desert.

Stone County is experiencing increased visitation and pressure from regional and international tourists visiting Pueblo National Park and the region's many other national parks and recreation opportunities. Additionally, people are increasingly moving to Stone County—or at least buying second homes there—to enjoy the area's numerous recreational opportunities and beautiful vistas. It has become clear that the county and its municipalities are not well set up to handle the pressures resulting from increasing visitation and growth. For example, they are having trouble keeping up with garbage disposal and emergency management services needs. Incomers and visitors are starting to complain about the lack of amenities. There are also more and more issues with vandalism and illegal camping on federal and state lands in the area.

The Tourism Director, whose position is only half time, thought you might be able to help regional stakeholders identify ways of managing tourism-related impacts and capitalizing on some of the benefits increased tourism could bring to the region. The region has struggled economically in recent years due to the drying up of the mining, timber and grazing industries. The Tourism Director is hoping you can help the county generate some good ideas on what can be done to manage tourism and improve Stone County's long-term economic prospects.

Stone County prides itself on its grit and cowboy history. You have heard from a variety of knowledgeable sources that many people in the county are wary of "outsiders," such as the federal government, urban folks and, in some cases, state officials. People say there is serious tension between Stone County "old timers" (who, they say, generally would like to see land used for mining, timber and ungulate grazing) and "incomers" (who, they say, tend to be environmentalists who want to see the county's land protected from resource extraction and grazing). You get the sense that some if not all of the county commissioners and many county residents are wary of the federal government and its land management techniques, which increasingly focus on enhancing ecosystem services and landscape management and addressing climate change.

You know from your work throughout the state that, while there tends to be significant tension between local government and federal land management agencies, it is increasingly important to get these entities planning and working together. Their decisions have the potential to greatly impact one another, and managing tourism and related impacts often requires that land management agencies and local governments coordinate their strategies and actions. In the months since the Tourism Director asked you for your help, a new county commissioner was elected and the national political climate is shifting toward values more similar to those

supposedly held by Stone County “old timers.” Your contact, the Tourism Director, reassures you that the county government is still on board but is becoming hesitant and won’t always respond to your emails or phone calls, even though you are ready to start a Situation Assessment to better understand the region. Your gut tells you that something is awry.

What should you do? More specifically:

- Should you be concerned about the impact of political shifts on the Situation Assessment process? If so, what might you do to address any concerns you have?
- Trust is clearly an issue in this county—both trust among people in the county and trust in you (or lack thereof) since you are an “outsider.” What might you do to build trust so that you can proceed with the assessment? And how might you address trust issues more broadly in the county?
- Are there any other red flags, pitfalls or concerns you might want to keep in mind? What might you do about these things to set the assessment process up for success?

*This scenario was written by Megan Mustoe, Cody Lutz, and Danya Rumore,
with funding from National Institute for Transportation and Communities (NITC grant number 1074)*

Grand Lac County Scenario: Exercising Leadership in a Rural County

Grand Lac County, Idaho, is about 30 miles south of the Canadian border. Dense fir and pine forests hug the county's mountains and bend over rivers that pour into the county's natural centerpiece: the large, clear Lake Opal. A handful of towns have sprung up on Lake Opal's scenic shoreline, including the county seat of River Rock. River Rock is the largest town in Grand Lac County, with 8,000 residents.

More than half of all land in the county is public, and its varied vegetation and topography continue to offer diverse habitat for wildlife, plentiful hunting, recreation opportunities, and a spectacular backdrop for a new crop of "white collar" businesses as well as supporting the traditional timber industry. These amenities have attracted waves of tourists and new residents, resulting in a dramatic increase in the county's population and home prices over the last five years. Many towns in the county have experienced growth, but River Rock—which has popped up on numerous "Top 10 Small Mountain Town" lists in recent years—has enjoyed the bulk of the growth.

Locals are increasingly concerned about how to maintain community character, quality of life and a relatively low cost of living amid these changes. Perspectives on how to do this vary widely. Some argue for the need to increase government oversight, while others see government oversight as a constraint to be done away with. This ideological split has existed in the county for decades but has recently taken center stage at the county level. County commissioners have clashed with county planners over this issue, resulting in public controversy and acrimonious firings.

The county commissioners fear that, with real estate and land values rising, their children and grandchildren will not be able to afford the secluded, 20-acre parcels that currently characterize development in the county. To offer families greater opportunity to buy rural land, they changed county code to allow for more subdivisions. After all, landowners have the right to subdivide and develop their land as they wish, especially if it means that the increase in available housing will lower housing costs. The commissioners also removed oversight of septic system permitting by the region's health district, saying the permitting process was overkill and, because everyone in the county cherishes Lake Opal and wants to keep its water clean, people will do the right thing when it comes to septic system installation and maintenance.

Planners in the county, however, see government regulation as a necessary check on property rights and a means of protecting the clean water and open space that Grand Lac County has become known for. They worry that making it easier to subdivide county land will create sprawl and lead to the degradation of the area's rural feel—a process they witnessed unfold in a neighboring county. Many planners and health district employees believe that, even with the permitting process, it was a challenge to ensure that septic systems were working properly; they believe that decreasing permitting oversight could lead to contamination of the lake. Many county citizens, particularly those in River Rock, fear all of the county's changes signal an attack on planning more broadly and could undermine the economy by impacting the desire of tourists, new residents, and new businesses to visit or move to the county.

You are the mayor of River Rock. You are very concerned that county-level changes are going to affect the rural character and feel of Grand Lac County. You also do not entirely understand the septic permitting changes but fear they could lead to water quality problems down the line. Adding to all of this, you have heard concerns from your planning department that your town may need to annex county land in the future if it continues to grow. They say that if county land outside of River Rock is not developed in a compact, orderly way, it could substantially raise the costs to provide water, trash and sewer services when this land is eventually annexed. You're not sure this problem is of immediate importance to your constituents, but you also appreciate the potential long-term ramifications it could have. Perhaps most importantly, you are increasingly convinced that the municipalities, county government and other key regional stakeholders (such as the major realtors associations and chamber of commerce) should work together to support sound land use planning, economic development and growth management throughout Grand Lac County. Things are heading in the opposite direction, however, with frustration and distrust growing as the disagreement between county commissioners and planners continues to escalate.

What can you do? More specifically:

- Who might you want to talk to, and what kinds of conversations might you want to have?
- What appear to be some “issues of mutual concern” that could unite, rather than divide, people?
 - How might you mobilize people to work on these issues together?
 - Who needs to be involved and how?
- What are some potential tools, resources and approaches that might be helpful for moving the region in a more productive direction?
- Any other thoughts about how you might exercise leadership to move the region in a more productive direction?

*This scenario was written by Katherine Daly and Danya Rumore
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APPENDIX C: EXAMPLE TOOLS FOR COMMUNITY TOOLKIT

Please note that the following materials are draft text for webpages. They are included here to give a sense of the kinds of resources that will be available via the online community toolkit.

TRANSPORTATION RESOURCES

Home

Unlike many small towns within the United States, GNAR communities often face big-city challenges when it comes to transportation: traffic congestion, lack of parking, and increased public transit needs are just a few obstacles GNAR communities encounter on a daily basis. Due to natural resource tourism needs and impacts, GNAR communities must often balance the needs of their residents, tourists and the environment when developing transportation projects. In addition to the above issues, GNAR communities may lack funding required to undertake large-scale transportation projects due to their small populations and lack of governmental financial support. Thereby, transportation is a pressing issue for residents, leaders and visitors to GNAR communities. Without proper action, transportation-related issues can undermine a GNAR community's basic ability to move visitors and residents from point A to point B, a scenario which could negatively impact the reputation, visitation, and resident and visitor experiences within the community.

Resources

Transportation is an overarching focus within the planning profession. In this section, information can be found relating to the unique transportation issues and needs of GNAR communities including links to resources regarding transportation financing, legal information, regional transportation planning, and more.

Resource compilations:

Rural Transportation Planning Resources Guide

An arm of the National Association of Development Organizations, the Rural Transport Planning Organization's site is dedicated to any and all issues facing rural transportation planners.

<http://ruraltransportation.org/>

U.S. DOT's Federal Highway Administration Roadway Funding Resources

The U.S. DOT's Federal Highway Administration manages a comprehensive list of federal roadway funding sources and opportunities. This site allows users to explore assorted options regarding funding and, in some instances, offers case studies of completed projects.

<https://www.fhwa.dot.gov/resources/topics/funding.cfm>

Federal Transit Administration Transit Grant Programs Finder

The Federal Transit Administration has created a searchable grant database regarding transit funding which includes funding for new competitive grant programs for buses and bus facilities, innovative transportation coordination, workforce training, and public transportation research activities. You may search the list of transit grant programs by keyword or type

<https://www.transit.dot.gov/grants>

Individual resources:

Smart Transportation Guidebook from NJ and PA Departments of Transportation

The U.S. DOT's Federal Highway Administration highlights the NJ/PA Departments' Smart Transportation Guidebook regarding creation of "Context Sensitive Solutions" in transportation planning, which include striving towards a shared stakeholder vision to provide a basis for decisions and fostering continuing communication and collaboration to achieve consensus, among others. While the guide is not specifically tailored to gateway and amenity communities, it highlights the importance of participatory and context-sensitive transportation planning practices.

<http://www.state.nj.us/transportation/community/mobility/pdf/smarttransportationguidebook2008.pdf>

Texas A&M: Rural Transportation Planning Guidebook

Rural communities face unique challenges when it comes to planning, funding and coordinating transportation projects. The Texas A&M Rural Transportation Planning Guidebook aims to serve as a resource for rural planners completing comprehensive transportation planning. While the guide is specifically tailored to Texas, the concepts and lessons learned are applicable to many jurisdictions.

<https://static.tti.tamu.edu/tti.tamu.edu/documents/0-4230-P1.pdf>

Case Studies

No two GNAR communities are identical; consequently, each have unique needs regarding transportation systems and facilities. Within this section case studies of the Bonner County Area Transportation Team (BCATT) and the Zion Region Transportation Vision (Utah) are presented to illuminate issues related to and present model examples of GNAR transportation planning.

- BCATT case study (to be added)
- Zion Region Transportation Vision case study (to be added)

GROWTH MANAGEMENT AND LAND USE PLANNING RESOURCES

Home

The desirability of gateway and natural amenity regions (GNAR) can drive intense development pressures for housing, lodging and services. Population growth and construction in many GNARs have outpaced the national average for the past 50 years, a trend that is likely to continue. New development can encroach on farmland, open space, and wildlife habitat and migration corridors, threatening quality of life and visitor experiences. Impacts on social well-being and human health also vary between development patterns.

The installation and maintenance of infrastructure for new development is a substantial expense to cities and counties. Additionally, market fluctuations can make it difficult to anticipate future demand for new development. While private property rights limit what local governments and institutions can do to manage growth, strategies exist that cities, towns and counties can use to limit the negative impacts of development.

Resources

Growth management and land use planning are a common focus of the planning profession, and several organizations nationally and in the West provide resources and tools designed to aid communities in managing new development and redevelopment. Resources that are particularly applicable to GNARs are listed below.

[A primer on the history of Western development](#)

A Brief History of Your Neighborhood from Community Builders

These illustrated essays describe the key forces that have encouraged sprawling development in the West. Bonus: Most of the essays have suggestions of how a community might respond.

<https://www.communitybuilders.org/history>

[Resource compilations](#)

Smart Growth in Small Towns and Rural Communities from the U.S. EPA

The U.S. EPA has created several resources to help small towns and rural communities assess and improve their growth management policies. Note: the term “Smart Growth” may face political opposition in some communities. It may be helpful to reframe Smart Growth principles in a way that focuses on community values.

<https://www.epa.gov/smartgrowth/smart-growth-small-towns-and-rural-communities>

[Resources Search Function from the Citizens’ Institute on Rural Design](#)

The Citizens’ Institute on Rural Design manages a searchable list of resources from various sources. This search feature can also be used to find resources on other topics such as transportation and design issues.

<https://www.rural-design.org/resources/search?keys=&design=151&type=All&scale=All&community=All&for=All®ion=All>

Rural development resources from Smart Growth America

Smart Growth America has created resources on Complete Streets, facilities placement, affordable housing placement, and fiscal impact analysis policies in rural communities.

https://smartgrowthamerica.org/resources?resource_type=&authors=&category_name=rural-development&s=

Individual resources

Arrested Developments: Combating Zombie Subdivisions and other Excess Entitlements, from the Lincoln Institute of Land Policy

The real estate boom and bust in the 2000s left many “zombie subdivisions” in its wake. A zombie subdivision is a platted or partially constructed subdivision that remains unfinished. The Lincoln Institute of Land Policy created this Policy Focus Report to provide information and tools to help cities and counties address problems associated with arrested developments.

<http://www.lincolninst.edu/publications/policy-focus-reports/arrested-developments>

Visualizing Density Toolkit from the Lincoln Institute of Land Policy

The Visualizing Density Toolkit provides an overview of density and tools to help visualize density. This can help community members better understand the visual impacts of changes in density.

<http://datatoolkits.lincolninst.edu/subcenters/visualizing-density/>

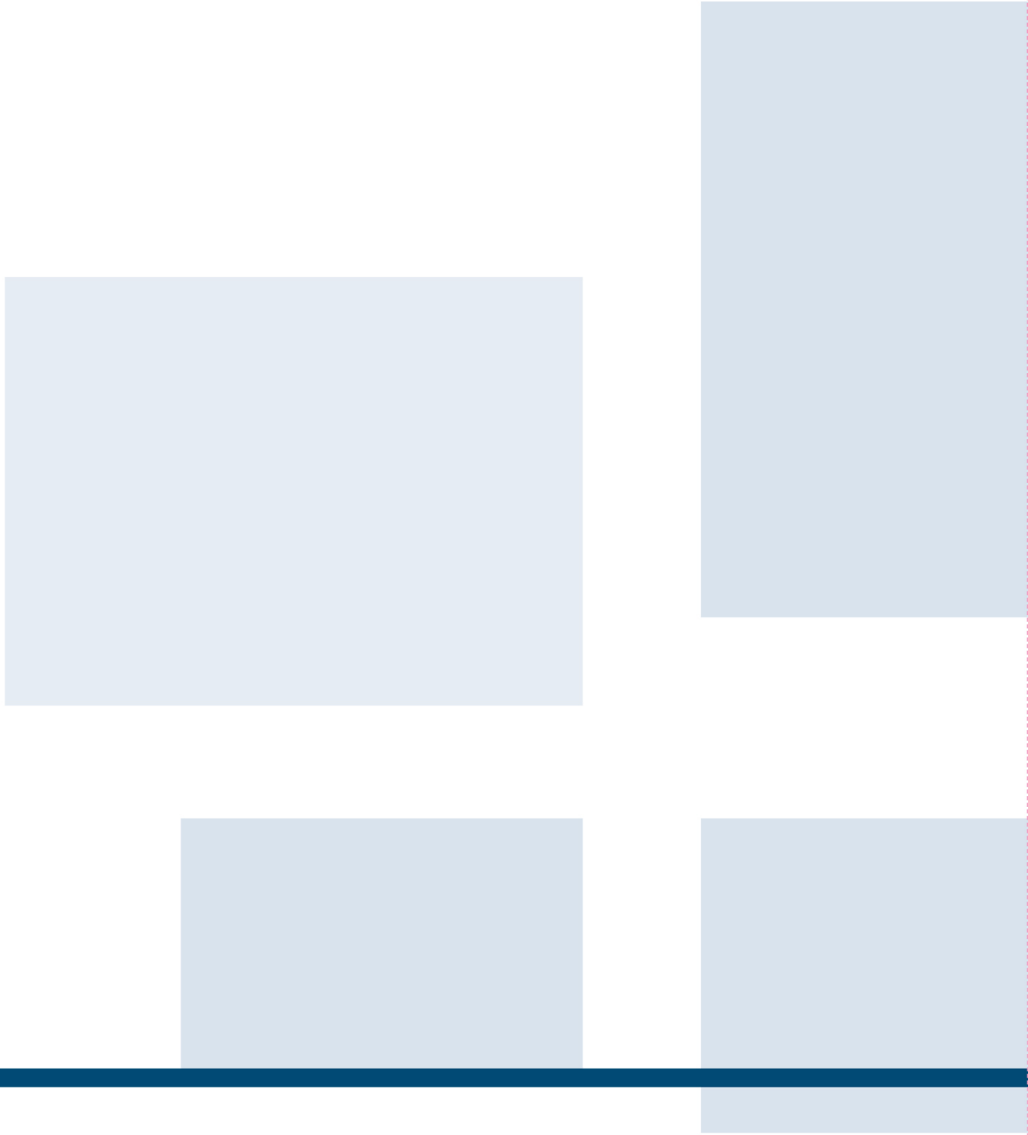
PDF of additional resources and tools

Looking for information on planning for hazards? See Planning for Hazards: Land Use Solutions for Colorado. <https://www.planningforhazards.com/home>

Case Studies

The following case studies describe how select GNARs are approaching growth management.

- Park City (to be added)
- TDRs and Conservation Subdivisions (to be added)
- Bear Lake Scenario Planning (to be added)



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