

Resilience Integration for Madison County 2020 Comprehensive Plan Update



Prepared by:

Model Forest Policy Program (MFPP)

Submitted to:

Madison County ID

Bradley Petersen, Administrator



March 2020

ABOUT THIS REPORT

The “Resilience Integration for Madison County 2020 Comprehensive Plan Update” report was prepared by the Model Forest Policy Program (MFPP) in collaboration with Madison County, Idaho. It provides an analysis of the 2008 Madison Comprehensive Plan to identify gaps and offer recommendations for integration of resilience provisions into the 2020 comprehensive plan update process. This report was prepared to accompany the related report “Resilient Madison County: A 2020 Report for Planning, Preparedness, Education, and Action,” which reviews the resilience risk assessment and planning process facilitated by MFPP with Madison County leaders. The project was guided and informed by the members of the Resilient Madison project advisory team, including representatives from the school districts, Idaho Agricultural Extension Service, Idaho Public Health Service, Fremont-Madison Irrigation District, Madison Emergency Management Department, Brigham Young University-Idaho (BYU-I) and other leading Madison citizens. The project was made possible through funding to MFPP from the Federal Emergency Management Agency (FEMA) Region 10 Cooperating Technical Partners (CTP) grant program (FEMA Grant # EMS-2018-CA-00002).

The Model Forest Policy Program (MFPP) is a national nonprofit organization that builds the capacity of communities to be resilient to extreme weather and other rapidly changing conditions with strategies that sustain healthy natural resources, citizen well-being, and thriving economies. The MFPP team facilitated a process to engage local stakeholders, assess risks and potential solutions, identify resilience goals, and outline action strategies to protect people, infrastructure, and natural resources. These findings were applied to the comprehensive plan analysis and update recommendations provided in this report.

The MFPP Team gratefully acknowledges the leadership and support of Madison County through the multi-faceted planning initiatives, with special thanks to Bradley Petersen, Madison County Administrator and Annalisa Wiggins, volunteer project co-leader.

MFPP REPORT TEAM

Report Manager, Authors, and Editors: Model Forest Policy Program (MFPP)

Gwen Griffith, DMV, MS, Program Director
Margaret Hall, MPA, CSBA, LEED NC, Associate Director
Nancy Gilliam, PhD, Executive Director

Contributing Authors: MFPP Team Consultants

Deb Kleinman, MPH, Facilitation and Public Health Consultant; Lupine Collaborative, LLC
Alyx Perry, Agriculture, Forestry and Natural Resources Consultant
Barbara Cozzens, MEM, Environmental Economics; Whistling Thorn Strategies, LLC
Barrett Ristroph, JD, PhD, Ristroph Law, Planning, and Research

Cover: Photos by Gwen Griffith taken in Rexburg, Madison County, ID
Left: Madison County Administration Building Right: Irrigation Canal

Suggested citation: **Resilience Integration for Madison County 2020 Comprehensive Plan Update; March 2020. Model Forest Policy Program, www.mfpp.org.**

Copyright © 2020 Model Forest Policy Program

TABLE OF CONTENTS

ABOUT THIS REPORT	1
TABLE OF CONTENTS.....	2
INTRODUCTION	3
ANALYSIS OF CHAPTERS (ELEMENTS) FOR RESILIENCE GAPS AND OPPORTUNITIES	9
FROM THE 2008 MADISON COUNTY COMPREHENSIVE PLAN.....	9
CHAPTER 1: Introduction and Community Vision Statement.....	9
CHAPTER 2: History and Population	10
CHAPTER 3: Private Property Rights	11
CHAPTER 4: Schools and Transport.....	13
CHAPTER 5: Economic Development.....	15
CHAPTER 6: Land Use and Agricultural Land Conservation	19
CHAPTER 7: Natural Resources and Hazardous Areas	22
CHAPTER 8: Transportation	26
CHAPTER 9: Public Services, Facilities, and Utilities.....	29
CHAPTER 10: Parks, Recreation, and Open Space	32
CHAPTER 11: Housing	33
CHAPTER 12: Special Areas or Sites	34
CHAPTER 13: Community Design.....	35
CHAPTER 14: Impact Areas	35
CHAPTER 15: Implementation	36
ANALYSIS OF APPENDICES (TOPICS/TOOLS) FOR RESILIENCE GAPS AND OPPORTUNITIES.....	38
Comments and Recommendations for Comp Plan Appendices.....	38
APPENDIX A: Planning Terms and Concept Glossary.....	38
APPENDIX B: Open Space Zoning.....	38
APPENDIX C: Transferable Development Rights (TDRs)	39
APPENDIX D: Employment Projections.....	41
APPENDIX E: Retail Sales Leakage.....	41
APPENDIX F: Vocational Training Opportunities.....	42
ADDITIONAL RECOMMENDATIONS FOR 2020 COMPREHENSIVE PLAN UPDATE.....	43
MAINSTREAMING AND IMPLEMENTATION	44
CONCLUSION	46

INTRODUCTION

Madison County is a thriving county of more than 40,000 people in southeastern Idaho. It is a prime example of hard working, faith-based, rural culture historically based on an agricultural economy and largely made up of members of the Church of Jesus Christ and Latter Day Saints (LDS). In recent years the county is undergoing rapid growth and a steady transition toward a services economy anchored in Brigham Young University of Idaho (BYU-I) with an average of 27,000 students located in the county seat of Rexburg. The farmers, ranchers, business owners, educators, and local government officials and staff collectively manage vast landscapes and watersheds of the region that help feed America and provide water to the important Snake River watershed and aquifer downstream. Madison County and the two municipalities of Rexburg and Sugar City are jointly responsible for managing community assets and serving the needs of the local residents.

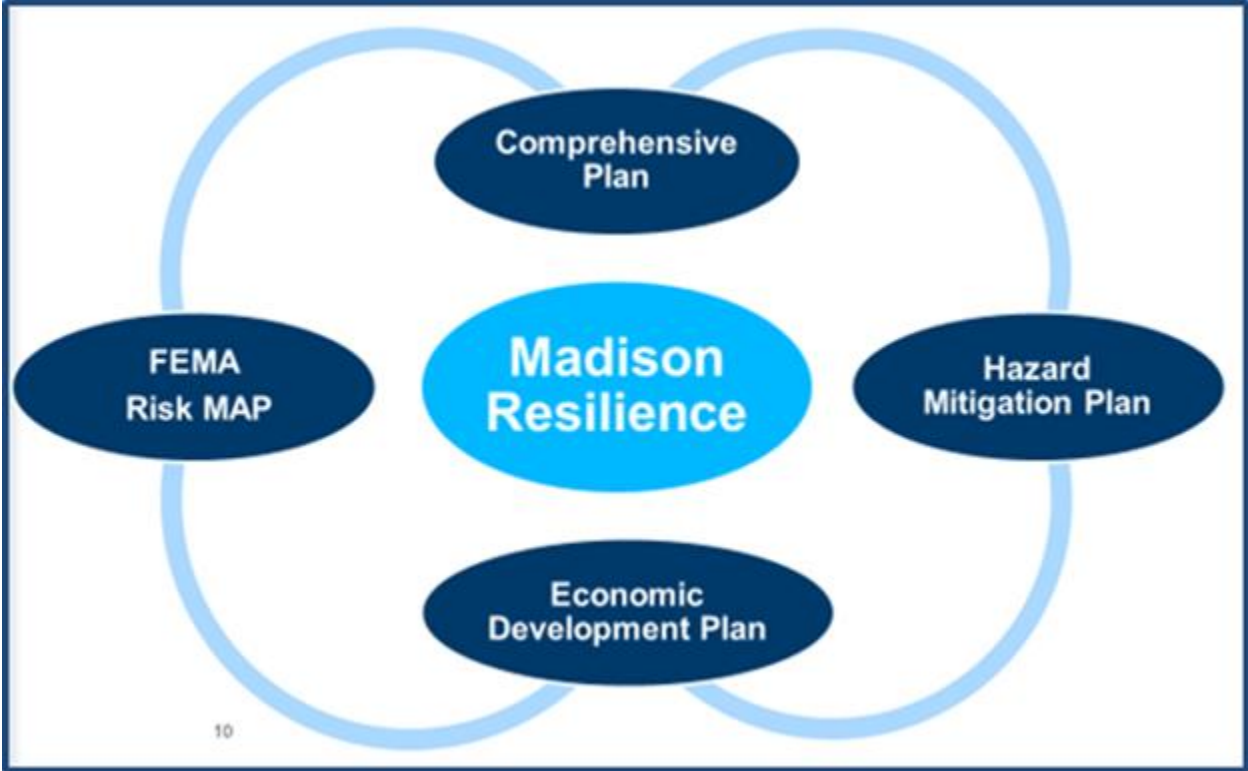
RESILIENT MADISON PROJECT

The analysis in this report is a component of the larger Resilient Madison Project. The overall goal of the project is to increase Madison County resilience to extreme weather; raise the level of awareness, health, and safety of Madison County residents; and build local support for taking action on hazard mitigation and resilience policies and practices. The term “resilience” means the ability of the County governance, businesses, and residents to continue to live healthy, productive lives in the face of challenges ranging from adverse weather to health pandemics. The project and this report focus specifically on building resilience to the impacts and risks of extreme weather events, including heat waves, storms, floods, drought, and related wildfires. Resilience can be incorporated into planning by foreseeing and avoiding possible adverse impacts or disasters, discouraging settlement in dangerous locations, ensuring that infrastructure and homes can manage projected weather conditions, and having strong communications systems to inform, warn, and protect residents, especially those who are most vulnerable to hazards.

In 2019, the leadership of Madison County undertook a series of four multi-jurisdictional planning initiatives for the future with an economic development plan, a hazard mitigation plan update, a comprehensive plan update, and engagement with FEMA in the Risk MAP process to update the local floodplain maps for the Teton River, Snake River, and Henry’s Fork. Recognizing the increasingly frequent extreme weather events and other rapidly changing conditions in the region, the leaders also wished to integrate resilience strategies into the other planning processes.

With funding support from FEMA Region 10, the Model Forest Policy Program (www.mfpp.org), a national nonprofit organization, collaborated with Madison County to facilitate a risk assessment and resilience planning process for the purpose of bringing resilience strategies to the other planning processes. The findings and recommendations of the resilience plan are helping to guide and inform the updates and implementation of the four planning processes, with an emphasis on the comprehensive plan being updated in 2020. Madison County formed a local resilience advisory team to guide and provide input into the resilience planning process. Over a 10 month period MFPP facilitated a series of webinars and virtual working sessions to complete a risk assessment and planning process. A one-day planning workshop was held in Rexburg in September 2019 to review the project findings and identify

the priority resilience strategies for the Madison County. Based on the findings of the planning process, the priority risks were identified and four resilience opportunities were selected for further research and consideration. The following summarizes the extreme weather hazards and the resilience strategies selected for integration into the other planning processes.



Source: Madison County Presentation, MFPP 2019.

EMERGING CHALLENGES AND FUTURE RISKS

In recent years, a trend of increasing extreme weather events has been experienced by Madison County farmers, ranchers, and municipal residents. The changing weather patterns include more severe wind and hail storms, more intense rainfall events, hotter and drier summers, warmer winters, and more frequent and prolonged drought conditions. These weather changes also exacerbate other problems arising from rapid growth and development within Rexburg and Sugar City and stretching out into prime farmland areas. The increasing population and sprawling development patterns increased the impervious cover and the burdens on aging infrastructure for water, wastewater, and stormwater management. Early spring warming is causing more spring river floods from melting snowpack. Localized street flooding is more frequent and severe, especially on the BYU-I campus. There is increasing concern over the availability of residential water supply, coming mainly from the East Snake River Plain underground aquifer. Warmer weather, more frequent and prolonged drought, and increased risk of wildfire further stresses the issue of water supply, public health, and safety for both residential and farming uses. Recognizing these and other stressors and the opportunity to address them through

collaborative planning, Madison County took advantage of the opportunity to work with the Model Forest Policy Program (MFPP) and participate in the risk assessment and resilience planning process.

Land Use Change and Aging Infrastructure: Rapid population growth and development in Madison County has led to a significant shift in land use patterns. Residential land use increased by 44% between 2000 and 2010, with most of that spreading outside the municipal boundaries of Rexburg and Sugar City. The increase since 2010 is likely even larger than that. This low density pattern of growth is a strain on aging infrastructure, raises government costs for services, and impacts the natural resources of available farmland and residential water supply from the Snake River Plain aquifer. The sprawling nature of the growth also significantly increases the amount of impervious cover from roofs, roads, and parking lots leading to increasing impacts from stormwater runoff and secondary municipal flooding, such as the unprecedented rain, hail, and flood event of 2014 on the BYU-Idaho campus in Rexburg.

Extreme Weather Patterns: Extreme weather patterns of the region have become a threat multiplier to the region with shifts to more extreme conditions of all kinds. Seasonal temperatures are shifting to hotter, drier summers with increased heat stress on people, farms, and natural resources, especially in the last 50 years. 2015 was the second hottest year on record since 1895 and resulted in early spring runoff, followed by severe summer drought conditions. This led to a record breaking severe and prolonged wildfire season with significant public health impacts from prolonged air quality problems. The warmer temperatures also cause more rain, less snow, more rapid spring runoff and flooding, followed by drier summer conditions. Temperatures have also shifted to warmer nights year round and warmer winters, raising issues with heat stress to crops and more problems with insect pests and invasive species. The combination of warmer temperatures and less precipitation creates “flash drought” conditions, where severe drought damage happens in a shorter period of time. These conditions impact crops and livestock, degrade cold water streams and recreational fishing, and put strain on utility costs, water supply, and health effects for local residents.

Economic Impacts: The combination of meeting the demands of rapid growth, maintaining and upgrading aging infrastructure, and adapting to the increasingly severe weather puts significant strain on already limited county and city budgets. Low density development has higher economic costs, with less revenue and fewer benefits than more compact growth patterns. Local governments, businesses, and residents are asked to absorb more impacts and costs. Farms and ranches can see losses from floods, drought, insects, and health effects. The \$30-50 million recreational fishing economy is at risk as world class fisheries decline. Storm and flood damage can severely impact home and business owners. The county residents look to local planning and agency services to assist with reducing these risks and costs, and adapting to changing conditions for people, farms, ranches, businesses, and the natural resources of landscapes and watersheds.

RESILIENCE STRATEGIES AND GOALS

The following briefly summarize the four resilience strategies and related goals identified by the Resilient Madison Team. A more in-depth review of the resilience strategies, goals, and detailed objectives are available the first Resilient Madison Report.

STRATEGY 1: RESPONSIBLE DEVELOPMENT

Goal 1: County-Wide Land Use. Coordinate land use planning across all jurisdictions to preserve quality of life, existing rural character, food and water security, and resilience to extreme weather impacts.

Goal 2: Low Impact Development. Manage growth and development to maximize natural solutions that address adverse impacts and minimize the need for new infrastructure.

Goal 3: Resilient Infrastructure. Manage infrastructure placement, design, construction, and maintenance to conserve water, energy, and resource materials and maximize resilience to impacts of extreme weather conditions.

Strategy 1: Responsible Development is the first resilience strategy, as a necessary step to address the impacts of rapid growth and sprawl, reduce strain on aging infrastructure, and mitigate the risks of extreme weather patterns. Three major goals are needed: 1) Enhanced county-wide land use management is a key factor in resilience, sustainability, and protection of people, infrastructure, and natural resources. 2) Consistent use of low impact development and green building practices are vital to mitigate the risks of development, reduce maintenance costs, and increase property values; and 3) Building with resilient infrastructure that is designed and constructed for current and future extreme weather conditions is vital to building for safety, sustainability, and resilience to future impacts. Together these three factors can provide long term resilience with healthy populations and a thriving economy. These goals can be achieved through a variety of policies and practices, including zoning choices, farmland conservation, low impact development and green building codes, ordinances, and incentives, use of green infrastructure, enhanced stormwater management, hazard mitigation practices, resilient infrastructure design specifications, and use of strong energy and water conservation practices.

STRATEGY 2: WATER MANAGEMENT AND GREEN INFRASTRUCTURE

Goal 4: Water Management. Optimize water resource management to meet current and future needs of municipal water supply, agricultural irrigation, and aquatic and terrestrial wildlife habitat.

Goal 5: Green Infrastructure. Develop a county-wide nature-based green infrastructure plan to mitigate flood damage, maximize groundwater recharge, enhance stormwater control measures that protect water quality, and increase benefits of natural landscaping.

Strategy 2: Water Management and Green Infrastructure go hand-in-hand when it comes to wise use of water resources. The high, desert climate of Madison County makes water management a top priority. Five resilience objectives for Water Management are identified to protect and optimize water

supply for human uses and water availability for healthy natural systems. The first three water management objectives involve finding a sustainable balance between the available water supply (surface streams and aquifer) and meeting the water demands for municipal, agricultural, and natural system needs. To meet those demands without depleting water supplies, two additional water objectives call for maximizing water conservation through education and technology (residential and agricultural) and having an adequate response to mitigate drought conditions when needed.

The use of nature-based Green Infrastructure practices are a vital and highly cost-effective method to help protect water resources and achieve the water management objectives described above. First, a county-wide green infrastructure plan will enable use of natural features across the watershed to manage stormwater runoff, protect water quality, prevent flooding, maximize groundwater recharge, and help maintain stream baseflow during drought. Second, installing urban green infrastructure practices in Rexburg and Sugar City will help manage stormwater and reduce flooding. It also brings a range of co-benefits, including cooling effects, cleaner air, green amenities that draw development and raise property values, and increase natural habitat for pollinators and wildlife. Third, subdivision regulations can be used to bring green infrastructure practices to new development that will save developers money while increasing the low impact nature of future development footprints, thereby reducing the cost of maintenance for local jurisdictions and landowners.

STRATEGY 3: SUSTAINABLE AGRICULTURE

Goal 6: Sustaining Agriculture with Planning and Policy. Maintain and support the agricultural industry as a key component of Madison County’s economy, quality of life, rural character, and food & water security.

Goal 7: Sustainable Agriculture with Resilient Farming Practices. Increase the use of sustainable agricultural practices to preserve the health and integrity of agroecosystems, optimize production, and increase resilience to extreme weather conditions.

Strategy 3: Sustainable Agriculture is a high priority resilience strategy for Madison County, where the farming and ranching economy and the rural quality of life are a vital part of the local culture. Achieving agricultural systems that are sustainable over the long term in the face of extreme weather impacts calls for both supportive planning and policy along with on-the-ground farming practices. The first set of resilience objectives for sustaining the agricultural economy focus on planning and policies in collaboration with the Fremont-Madison Irrigation District and other agricultural agencies and partners. The plans and policies needed include land use zoning and policies that conserve high value farmland for agricultural uses, management of irrigation resources for maximum efficiency, preparation for drought response management, and collaborations for fundraising to enable project development. The second set of objectives focus on practical, on-the-ground farming and ranching practices that sustain a healthy agroecosystem, reduce inputs, and raise profits for the farmers and landowners. These include several high priority practices, such as cutting edge soil conservation and soil health practices; water efficiency systems, exploring adaptive alternative crops; use of integrated pest, weed, and disease management; and other mitigation measures for heat, flood, hail and other extreme weather impacts.

STRATEGY 4: EMERGENCY PREPAREDNESS AND COMMUNITY ENGAGEMENT

Goal 8: Emergency Preparedness. Develop a multi-jurisdictional coordinated emergency preparedness and response program for extreme weather events, including heat waves, storms, floods, wildfire, and power outages.

Goal 9: Community Engagement and Resilience. Develop a collaborative, multi-jurisdiction educational campaign on sustainability and resilience to extreme weather and secondary impacts to public health and safety.

Strategy 4: Emergency Preparedness and Community Engagement are vital aspects of all resilience planning and implementation. All the objectives from the first three resilience strategies have a role in community preparedness, response, and post-incident resilience. The first set of Emergency Preparedness resilience objectives focus on multi-jurisdictional coordination for preparedness and emergency response systems and resources. The objectives include mapping flood and other risk zones, collaborating emergency responses with first responders, agricultural agents, and public health officers; and integrating extreme weather responses into the hazard mitigation plan, comprehensive plan, Risk MAP, and other related planning processes. The second set of Community Engagement objectives focus on coordination and synergy with education and outreach activities, including shared resources for presentations, public forums, PSAs, social media, and targeted outreach campaigns for specific audiences, such as business owners, homeowners, developers, landscape designers and builders, medical professionals, farmers, etc. Educational efforts should also be integrated into the implementation activities of all existing planning processes.

Based on the findings of the resilience planning process, MFPP produced two reports to inform and guide the integration of resilience into Madison County comprehensive planning and implementation steps.

- **Resilient Madison County: A 2020 Report for Planning, Preparedness, Education, and Action**
The first report provides a detailed review of the findings of the risk assessment and resilience planning process, including discussion of specific goals and objectives to achieve four major resilience strategies. (see separate report)
- **Resilience Integration for Madison County 2020 Comprehensive Plan Update**
This second report focuses specifically on applying the findings of the Resilient Madison plan to the comprehensive plan update process, with chapter-by-chapter analysis and recommendations for integration of resilience policies and practices.

ANALYSIS OF CHAPTERS (ELEMENTS) FOR RESILIENCE GAPS AND OPPORTUNITIES

FROM THE 2008 MADISON COUNTY COMPREHENSIVE PLAN

This section of the report provides a detailed analysis of each chapter and appendix of the 2008 Comprehensive Plan in order to fully inform the comp plan update process.

Each chapter and appendix in this section is reviewed and summarized for the following information:

- 1) Resilience strengths found in the chapter or appendix
- 2) Resilience gaps and missing elements that should be included in the chapter or appendix
- 3) Recommendations for policies and goals to add or expand upon in that chapter or appendix
- 4) Model policies and / or case studies that can be used for drafting related policy language
- 5) References and resources especially helpful for that policy or topic

CHAPTER 1: Introduction and Community Vision Statement

This section analyses the introduction of the comprehensive plan, which establishes the intention, context, and scope for the comprehensive plan. For resilience integration, it is important to establish adaptation to extreme weather events and resilience as a core principle for community planning going forward. This is consistent with Idaho Code 67-6508, which states that, "...The [comprehensive] plan shall consider **previous and existing conditions, trends, compatibility of land uses, desirable goals and objectives, or desirable future situations** for each planning component....(emphasis added)." The introduction can highlight resilience as a principle that is integrated throughout each of the plan's chapters and elements and is an important factor in implementation of plan guidance and policy provisions.

Introduction and Community Vision Statement Strengths

- Clearly describes Madison County and outlines the vision and values of the community.
- Sets the overall stage of the Comprehensive Plan for the unincorporated areas of the County.
- Sets the statutory framework/authority of the Plan and how the document is organized around the various components.
- Identifies what a good plan should include and describes the planning process and what that encompasses.
- Recognizes that the Plan is a "living" document to be updated.

Introduction and Community Vision Statement Gaps

- Does not include resilience in the overall framework of the Plan.

Introduction and Community Vision Statement Recommendations

- Draw upon the guidance in the Sustainable Places Initiative by the American Planning Association, including the six principles of livable built environment, harmony with nature, resilient economy.
- Integrate a core principle of resilience into all planning elements.

Introduction and Community Vision Statement Model Policies / Case Studies

- Comprehensive Plan 101: City of Bainbridge Island. Resources from the update process of Bainbridge Island, WA Comprehensive Plan in 2016: <https://www.bainbridgewa.gov/619/Comprehensive-Plan-101>.
- Draft Elements of the Bainbridge Island Comprehensive Plan Update: includes Red-Lined (tracked changes) versions of updated chapters for Introduction, Land Use, Environmental, Economic, Housing, Transportation, and Water Resources: <https://www.bainbridgewa.gov/745/Draft-Revised-Plan-Elements>.
- Climate Change Adaptation through Local Comprehensive Planning: Guidance for Puget Sound Communities, Lara Hansen, Stacey Justus Nordgren, Eric Mielbrecht; 2017; In-Depth Case Study of the update process for the Bainbridge Island Comprehensive Plan completed in 2016: <https://www.cakex.org/sites/default/files/documents/Adaptation%20through%20Comprehensive%20Planning%20Guidance%2015Feb2017.pdf>.

CHAPTER 2: History and Population

This section of the report analyzes Chapter 2 of the Comprehensive Plan, which provides information on the County's history as well as recent trends in population growth, demographics, and economic development.

History and Population Strengths

- Includes local origin story of Madison County's LDS population and early settlement
- Solid population figures include both past trends and future projections
- Includes additional important demographic data covering all of the bases fundamentally
- Good data from interviews with larger area employers

History and Population Gaps

- No history on the establishment of farms and ranches in area
- History discussion stops at 1913.

History and Population Recommendations

- Add a brief history about agriculture in the county since it continues to be such an important part of local identity.
- Include more detail about the age profile in Madison County. Community resiliency is affected by the age profile of a community. For example snapshot in time, trends and projections in school-age children, etc.
- Given the significance of BYU-Idaho in shaping population trends, provide more details on the rapid growth among that subset. For example, overall student population growth trends and projects by year, household size, on and off-campus, etc.
- It may be informative to include population projections for the Greater Yellowstone region - which are impressive.

CHAPTER 3: Private Property Rights

This section analyses Chapter 3 of the Plan. The idea is to ensure that the County respects private property rights and Idaho laws regarding private property, while still exercising tools available to the Country to increase resilience.

Private Property Strengths

- The County clearly demonstrates its regard for private property rights and familiarity with questions that must be considered under Idaho law (Idaho Statute 67-8003) when developing policies that may affect private property rights (see Comprehensive Plan 2008 p. 21).
- The Comprehensive Plan 2008 (p. 22) contemplates the potential for “takings” claims (lawsuits by private property owners for violation of the Fifth Amendment of the U.S. Constitution prohibiting the government from taking private property without compensation) and provides recommendations for avoiding claims.

Private Property Gaps

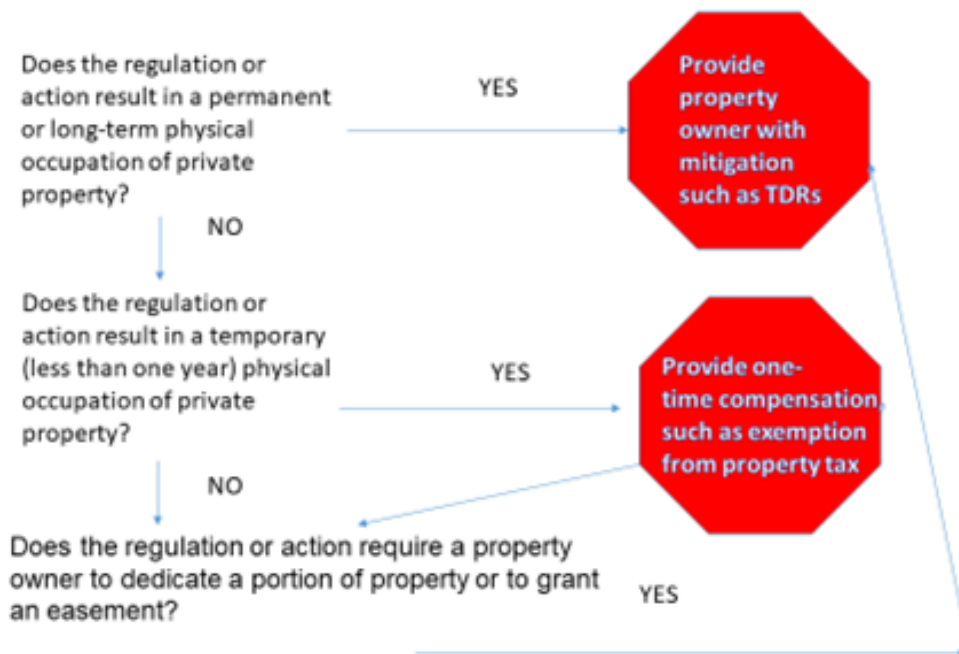
- There appears to be an error on Comprehensive Plan 2008 p. 21, which states that nothing in Idaho Statute 67-8001 grants a person the right to seek judicial relief requiring compliance with the provisions of the chapter. Actually, Idaho Statute 67-8003(3) allows for a lawsuit by an affective property owner: “A governmental action is voidable if a written taking analysis is not prepared after a request has been made pursuant to this chapter. A private property owner, whose property is the subject of governmental action, affected by a governmental action without the preparation of a requested taking analysis as required by this section may seek judicial determination of the validity of the governmental action by initiating a declaratory judgment action or other appropriate legal procedure.”
- While the recommendations about how a community might handle takings in the Comprehensive Plan 2008 (p. 22) is a start, there is a need for more direction on which

approaches Madison County wants to take and what circumstance would justify such approaches.

- There is a potential that new hazard-control measures imposed under the zoning code or the expansion of the hazard or flood overlay (Sec. 117-61. - Sensitive Lands Overlay (SLO) Zone and Sec. 117-63. - Floodplain Overlay (FPO) Zone) could be perceived as infringing on private property if they limit building near water, for example. This was an issue in Bonner County, where an effort to pass a Watershed Overlay District did not succeed due to concerns about property rights.

Private Property Recommendations

- When a new ordinance that could potentially restrict property rights is passed, make sure that the enabling resolution and/or a separate memo prepared by the Planning and Zoning Commission addresses the questions in Idaho Statute 67-8003/ Comprehensive Plan 2008 p. 21.
- There should be a County policy document providing the Planning and Zoning Commission with more guidance on what to do if the answer to the private property questions on p. 21 of the 2008 Comprehensive Plan is “yes,” particularly in the context of regulations designed to mitigate hazards. For example, consider designing a flowchart that would clarify what action the County could take to avoid a “takings” problem. An example of the beginnings of a flowchart (which only addresses the first two questions) is below. The example flowchart just considers a couple of remedies—more will need to be considered.



- The next comprehensive plan or a County policy document should more clearly provide for remedies to avoid and address takings. For example, the comprehensive plan could call for the zoning code to do the following:

- Include an ordinance for the Planning and Zoning Commission to establish administrative procedures for handling "takings" claims and other landowner concerns before they go to a state court.
- Clarify what remedies the County may offer if it is determined that there has been a taking. For example, there could be one-time monetary compensation to private property holders under certain situations, or the County could provide non-competitive grants to enable compliance with new regulations. If the County anticipates providing any sort of monetary compensation or grant, it will need to consider how to finance this (i.e., through permit/rezoning fees or property taxes).
- For the land use table in the Madison County Zoning Code (Sec. 117-51), consider whether the table could be more permissive to better support private property freedoms. For example, could accessory buildings be permitted in commercial and heavy industry zones to maximize the use of these developed areas?

Private Property Model Policies / Case Studies

The above recommendations are specifically tailored to Madison County's comprehensive plan and ordinance in order to ensure consistency with Idaho State Law. In developing a flowchart (perhaps building on the one above), the County could consult sources that discuss recent Idaho case law that shows how courts interpret municipal decisions affecting property rights. For example, see Bonner County Comprehensive Plan, Bonner County, Idaho (Mar. 13, 2013), [Chapter 1: Property Rights](#); Gary G. Allen, Christopher H. Meyer, Deborah E. Nelson, and Franklin G. Lee, [Idaho Land Use Handbook: The Law of Planning, Zoning, and Property Rights in Idaho](#) (February 3, 2020).

CHAPTER 4: Schools and Transport

This section analyzes how the comprehensive plan treats schools and transportation, which are related in that public transportation is often an important part of getting students to school.

Schools and Transport: Strengths

- Identifies partnerships between schools, BYU, cities and county as an opportunity to be expanded upon
- Identifies shared facilities as a means to expand coordination between educational organizations and community
- Includes a policy goal around distance learning and IT infrastructure
- Includes a policy focused on collaboration between county and school districts on new school facilities

Schools and Transport: Resilience Gaps

- There is no mention or discussion of resilience in terms of education, job training, school-community partnerships and shared facilities, or in coordination of new school/land use planning.
- The plan suggests that new facilities may be responsive to rapid population growth, but does not discuss the possibility that the siting of new schools is contributing to uncontrolled growth.
- There is no discussion of how to make facilities more resilient in any number of ways (e.g. siting decisions, energy and water efficiency standards for schools, on-site renewable energy, site-based green infrastructure, etc.).
- There is no discussion of school transport, and the vulnerabilities to flooding and roads washing out.
- There is no discussion of school transport in terms of the fleet - mitigation opportunity to partially or entirely switch to natural gas or electric hybrid fleet.
- There is no discussion of opportunity to integrate various dimensions of vulnerability and resilience into school curriculums.

Schools and Transport: Recommendations

- School districts and BYU Idaho should establish a standalone goal in this chapter around resilience, with relevant objectives and policies flushed out.
- Establish an objective under that resilience goal focused on facilities, both new construction, major renovations, and operations and maintenance. Specific policies could include:
 - The integration of long range planning for schools and the county
 - Minimum standards for energy and water efficiency in new facilities and major renovations
 - Green infrastructure policies and procedures for new construction and major renovations
 - Establishment of incentives for on-site renewable energy
 - Establishment of policy/incentives around transitioning school district fleet to more resilient fuel sources
- Establish an objective focused on school facilities as community resources in emergency response situations, including during extreme heat and poor air quality events. Specific policies can/should include:
 - Participation of school district and BYU staff/officials on county-wide emergency response planning committees.
 - Policies and procedures for using school facilities for public during extreme heat events, poor air quality days, and as shelter during post-flood evacuations.

- Collaboration between schools, students, and county/city emergency response staff on outreach and education efforts.
- An objective focused on the educational opportunities in resiliency and sustainability
 - Encourage K-12 schools to become Green Schools (see Center for Green Schools)
 - Work with school district to identify places in curriculum to integrate/align resiliency with existing curricula

CHAPTER 5: Economic Development

This section analyses how the comprehensive plan considers economic development, which cannot be overlooked in efforts to build resilience.

Economic Development Strengths

- The 2008 Comprehensive Plan acknowledges the importance of “family-wage jobs.” High-paying, high-skilled jobs help ensure a stronger, healthier, more equitable, and more resilient and sustainable future. See recommendations and model policies below for methods to tie tax credits and/or enact policies to enforce family-supporting wages and benefits, including wage floors, jobs and workforce development, and priority placement for local, underemployed and/or disadvantaged workers.
- To maintain and support the agricultural industry, the Comprehensive Plan suggests exploring conservation easements (CE). CEs are an excellent tool for advancing working lands conservation. See recommendations section below for additional tools.
- A regional tourism strategy (as outlined on p. 38) is an excellent approach to promoting – and capturing value from – the Upper Snake region’s recreational amenities. On its own, Madison County likely does not have the resources to attract tourists or compete with larger communities (Jackson, West Yellowstone, etc.). Cooperation ensures mutual benefit, as competition should be directed at other regions, not with neighboring communities. See later sections for recommendations and model policies.
- With its goal of increasing its visitor base, the County will benefit greatly from the collection and dissemination of tourism-related research data. Tourism economics recommendations are captured below.

Economic Development Gaps

- Based on the excerpted vision statement, the County is focused on economic growth, rather than economic resilience or sustainability.
- “Values of the community” are mentioned twice, but they are never explicitly defined or described, either broadly or in the context of economic development.
- The Regional Development Alliance promotes business growth through investment funding to every industry sector, “with the exception of retail operations, training/schools, or primarily

tourism-dependent operations.” This appears counter to many of the objectives and policies contained in the plan (notably tourism, education). Additionally, small, locally owned businesses – many retail operations – in particular keep dollars recirculating in the community. Small business owners have a personal stake in the social and economic well-being of their community.

Economic Development Recommendations

- Consider renaming the chapter “Sustainable Economic Development.” “Sustainability” suggests the County is committed to meeting the needs of the present without compromising the ability of future generations to also meet their own needs. It also promotes economic activity that imports financial capital into a community while sustaining natural, historic and cultural assets. It’s a prosperous economy that can persist over the long term. Consider an overarching goal along the lines of “Madison County will promote development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend.” Potentially reference the triple bottom line.
- **Objective: Market and develop Madison County as a tourism and recreation destination**
 - In jointly promoting the Upper Snake region, consider thematic experiential travel itineraries or thematic trails that are inclusive of natural and cultural assets. Thematic tourism options allow neighboring communities to attract a cross-section of audiences to multiple sites and events, and transcend community boundaries. A thematic trail links similar assets and values under a common theme, initiated with one or more of the following objectives: to diffuse visitors and disperse income from tourism; to bring lesser known attractions and features into the tourism business/product; to increase the overall appeal of a destination; to increase the stay and spending by tourists; to attract new tourists and repeat visitors; and to increase the sustainability of the tourist product (Meyer, 2003). Examples: birding trails, music trails, rail trails, dinosaur trail, etc. See case studies below.
 - Employees and visitors to an area typically do not travel far from their destination for retail and dining. Ensure that commercial development opportunities are maximized near daytime activities. In order to maximize potential, promote Madison County’s daytime demographic to prospective retailers, employers and developers.
 - Commission a tourism economic impact study for Madison County that combines direct-intercept visitor surveys and industry data. Ensure no component is overlooked. Such a study will uncover critical secondary benefits to the tourism supply chain and the economic gains through the local spending of tourism wages. Proactively share results and incorporate into processes and marketing efforts. Repeat study every 1 to 2 years to measure return on marketing investments.
 - Promote green tourism resources to tourism and hospitality businesses in the County. Examples: EV charging stations, water-saving equipment, recycling, etc. (see Green Hotels; <http://greenhotels.com/index.php>). Promote businesses with green-tourism

certifications on the chamber web page. Document economic and environmental benefits of these tourism efforts on the County tourism websites.

- **Objective: Maintain and Support the Agricultural Industry**
 - Consider market-based instruments for farmland conservation, including carbon and greenhouse gas markets, water quality markets and consumer demand for agriculture (certification and eco-labeling such as Food Alliance certification).
 - Provide technical assistance for producers to diversify income with ranch-based or farm-based nature tourism. See case studies below.

- **Objective: Retain and expand the availability of local jobs and commercial opportunities within the County**
 - Conduct a retail market area & gap analysis to assess the potential for retail development in Rexburg and Sugar City. This analysis will compare household spending (demand) to the amount of sales (supply). The result provides an indication of surplus or leakage for each retail category. Conduct market analyses annually to gauge market potential and identify opportunities. Consider tax incentives to attract retail categories where dollars are leaking out of the community.
 - Encourage workforce development training and school curricula that supports the emerging **green jobs sector**. The U.S. Conference of Mayors projects 4.2 million green jobs in the U.S. by 2038. The American Solar Energy Society anticipates jobs in energy efficiency and renewables will grow to 38 million by 2030. See U.S. Bureau of Labor and Statistics “Green Growth: Employment Projections in Environmentally Focused Occupations;” https://www.bls.gov/careeroutlook/2018/data-on-display/green-growth.htm?view_full.
 - Businesses that adopt more sustainable practices and produce more sustainable products and services report cost savings, lowered compliance costs, improved risk management, new/more loyal customers, and motivated employees. Promote green businesses, and grow new and emerging green businesses and green jobs through targeted assistance (e.g., technical assistance, tax incentives, etc.).
 - Launch a buy local/buy green campaign for County residents and businesses. Adopt a green procurement program that emphasizes local sourcing for local government operations or locally-funded programs and projects.
 - Utilize Community- or Public-Benefit Agreements to ensure development projects create opportunities for local workers and communities.

- **Objective: Expand the property tax base**
 - Redevelop brownfield or blighted parcels. Consider strategies that place green jobs and renewable energy generation on brownfields (see Case Studies below).

- **Objective: Support entrepreneurial development**
 - Encourage growth and local placement of spin-off companies resulting from university research and development. Encourage BYU Idaho and investors to create a joint venture capital fund and incubator for faculty and students to grow new tech companies.
 - Incentivize development of value-added business that reuse, remanufacture, recycle and compost local material and arbitrage surplus capacity of existing service/product businesses, examples: reuse of deconstruction and landscaping materials, manufacturing using recycled-content material as a feedstock, companies that sell shredded wood for compost, use recycled or composted materials for roadways and right-of-ways, Procure green goods and services for local government operations (see below for Case Study examples).

Economic Development Model Policies/Case Studies

- **Imagine Flint - Master Plan for a Sustainable Flint:** A superb master plan that incorporates a wide-range of sustainable economic development topics and approaches. Won the APA Excellence Award for resilient economy.
<http://www.imagineflint.com/Resources/Documents.aspx>
- **Thematic Trails - The Blues Highway (Mississippi & Tennessee):**
<https://www.memphistravel.com/trip-ideas/explore-birth-blues-tour-memphis-clarksdale>;
<https://www.nationalgeographic.com/travel/road-trips/blues-highway-road-trip/>
- **Thematic Trails - Land Flowing with Milk & Honey:** The Land Flowing with Milk and Honey trail is a thematic trail in Lower Silesia, in southwestern Poland. It focuses on economic activities related to dairying and beekeeping. Its creators emphasize their commitment to the ideal of sustainable development. <https://www.mdpi.com/2071-1050/11/14/3841/htm>
- **Farm-Based Nature Tourism - The Yellow Rails & Rice Festival:** An 11-year old festival in Thornwell, Louisiana that combines birding and the rice harvest. It attracts hundreds of birdwatchers from the U.S. and abroad. <https://www.yellowrailsandrice.com/>
- **Clean Power Rising: Manufacturing Powers Clean Energy in Ohio:** Ohio is a national leader in wind-related manufacturing, with more facilities producing products for the wind industry than any other state. [https://www.pewtrusts.org/~media/assets/2015/01/oh_brief_final.pdf](https://www.pewtrusts.org/~/media/assets/2015/01/oh_brief_final.pdf)
- **Community Benefits Agreements & Policies in Effect:**
<https://www.forworkingfamilies.org/page/policy-tools-community-benefits-agreements-and-policies-effect>
- **Ann Arbor SPARK:** SPARK promotes economic development for high-tech and innovation-based companies in Ann Arbor, Michigan. This non-profit group provides programs, resources, and support for business investment and expansion through collaborating with government, university, entrepreneurial, and community leaders. SPARK's 'Shifting Gears Program; assists skilled professionals obtain opportunities with entrepreneurial and emerging businesses. By attracting and strengthening industries in Ann Arbor, SPARK is contributing to the region's economic prosperity. SPARK also offers a compelling framework for creating a business incubator in Flint that links cutting edge university research to small business start-ups. This

strategy requires local universities and investors to establish a capital fund for student and faculty research that would help commercialize innovations into marketable technologies.

<https://annarborusa.org/>

- **Vibrant Rural Communities - Case Study Series:** NADO Research Foundation highlights how rural regions and small towns are growing local and regional economies.
<https://www.nado.org/wp-content/uploads/2013/04/Case-Study-Series-Handout-Final.pdf>
- **Community Benefits Agreements 101:** <http://greenhotels.com/index.php>

CHAPTER 6: Land Use and Agricultural Land Conservation

This section focuses on how the Comprehensive Plan allocates land and the consistency of this allocation with Comprehensive Plan and resilience goals, as well as residents' traditions and values. In particular, this section focuses on measures to preserve agricultural lands and areas of open space while providing for needed development in concentrated areas.

Land Use and Agricultural Land Conservation Strengths

- The 2008 Comprehensive Plan fully embraces the values of Madison County in terms of their LDS heritage, traditional planning principles of Joseph Smith, and regard for preserving agrarian and open spaces.
- Both the plan and the zoning ordinance (Chapter 117) identify the land use types that are considered inappropriate, including high impact mining or extractive industries, noxious or heavy industrial manufacturing and residential subdivision development on agricultural lands.
- Pages 57-63 of the 2008 Comprehensive Plan clearly set forth nodes where development should be concentrated outside of Sugar City and Rexburg.

Land Use and Agricultural Land Conservation Gaps

- The current rezoning process is not clear, and it is not protective of open space. The process is not clearly codified in an ordinance in Chapter 117. It requires the proponent to complete an application to change the comprehensive plan and land use map, which is accomplished through a public hearing. But there is no clear guidance for decision-makers or criteria for determining whether the rezoning should be allowed and what kinds of mitigation measures might be required to preserve open space and fulfill other long-term goals of the comprehensive plan.
- The 2008 Comprehensive Plan does not specifically address threats to agriculture and food security such as drought.
- The Comprehensive Plan does not have suggestions for making agriculture more efficient or fostering resilient farming practices.
- There is no consideration of food security or a regional food policy.

Land Use and Agricultural Land Conservation Recommendations

- Page 51 of the 2008 Comprehensive Plan calls for the adoption of a future land use map that reflects the needs and values of the community and guides future growth and a neighborhood center zoning ordinance to encourage clustering in unincorporated areas of the County. If this has not been done, consider adopting these ordinances and/or carrying this recommendation forward to the next comprehensive plan. The map and ordinance should specify where new development (especially industrial and commercial development) will go in relation to existing development. There should be a clear determination in the comprehensive plan and land use map as to where industrial activity should be and what, if any, growth is contemplated around townsites.
- Page 52 of the 2008 Comprehensive Plan calls for a Planned Unit Development (PUD) ordinance, but this term is not found in the code, unless it is the same as Master Planned Community (MPC) Zone under Sec. 117-57. Consider clarifying in the zoning code definitions if PUDs and MPCs are the same thing or if there is a need for a separate PUD ordinance.
- Add an Additional Goal : Sustain Agriculture with Planning and Policy, Objective: Maintain and support the agricultural industry as a key component of Madison County’s economy, quality of life, rural character, and food & water security.
 - Policy: Identify key agricultural areas for protection in Future Land Use Plans and Policies with farmland preservation zoning and other supportive tools.
 - Policy: Collaborate with Fremont-Madison Irrigation District to understand current and future water needs, and to maximize water resource efficiency for resilience to changing extreme weather conditions.
 - Policy: Contribute to collaborative development of a drought management plan to include water efficiency and drought contingency response measures for severe or prolonged drought conditions.
 - Policy: Support agricultural support agencies, nonprofits, and landowners in seeking funding (grants, cost-share, etc.) to evaluate, demonstrate, or adopt sustainable and resilient farming practices.
 - Policy: Integrate local and/or regional food policy into the Comp Plan or a standalone food policy.
 - Policy: Create a strategic plan for agriculture.
- Add an additional Goal: Facilitate Sustainable Agriculture with Resilient Farming Practices, Objective: Increase the use of sustainable agricultural practices to preserve the health and integrity of agroecosystems, optimize production, and increase resilience to extreme weather conditions.
 - Policy: Form a collaborative working group to explore and demonstrate advances and applications of on-the-ground sustainable agricultural practices to maximize soil health, protect watersheds, and optimize crop, livestock, and forest production in the face of more extreme weather conditions.

- Policy: Promote soil conservation and soil health practices, such as no-till, cover crops, rotational grazing, composting, and perennial crops.
- Policy: Explore alternative crops and livestock more adaptive to changing weather conditions.
- Policy: Collaborate with agricultural support agencies and local farmers to develop resilience measures that address extreme weather impacts to local crops and livestock, including heat stress, invasive species, disease, parasites, storms, floods, and wildfire.
- Policy: Promote and support the use of Integrated Pest, Weed, and Disease Management for current and future pest and health challenges.
- Policy: Promote and support the use of best practices for efficient on-farm water management.

Land Use and Agricultural Land Conservation Model Policies and Case Studies

- The Resilient Madison 2020 report contains many resources for conserving open space available from the Farmland Information Center (<https://fic.briteweb.com>), including TDR sample ordinances, sample agricultural land mitigation ordinances, sample agricultural conservation easement ordinances, sample Urban Growth Boundary ordinances, and sample cluster zoning ordinances.
- Strategic planning for agriculture should include creating “farm-friendly” policies, appropriate infrastructure development, support for agricultural economic development, and the sustainable use of agricultural resources (soil, water, etc.).
The Resilient Madison 2020 report contains information on:
Planning for Agriculture (<https://farmlandinfo.org/about-planning-for-agriculture/>) and links to State-level Plans (https://farmlandinfo.org/collections/?special_collections=202) Local and Regional Plans, (https://farmlandinfo.org/collections/?special_collections=194) and Comprehensive and Master Plans (https://farmlandinfo.org/sample-documents/?document_type=386).
- It is possible to get assistance developing easements from the US Department of Agriculture’s Natural Resource Conservation Service, which has an Agricultural Conservation Easement Program (<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/easements/acep/>).
- “Preserving large farming landscapes: The case of Lancaster County, Pennsylvania” (<https://www.foodsystemsjournal.org/index.php/fsj/article/view/481/pdf>) stresses the importance of preserving large farming landscapes, highlighting three measures that best reflect the spatial effectiveness of farmland preservation efforts: the acreage and percentage of preserved farm parcels located in agricultural zones, the number and acreage of preserved farm parcels in large contiguous blocks, and the number and acreage of preserved farm parcels along growth boundaries. The article uses GIS analysis to examine farmland protection efforts in Lancaster County, Pennsylvania, one of the nation’s leading farmland preservation programs. The results demonstrate that three techniques—effective agricultural zoning, growth

boundaries, and the acquisition of conservation easements—can work together in a farmland preservation package of approaches.

- The American Planning Association Farmland Knowledgebase Collection provides background, policy guidance, and examples of local plan recommendations and regulatory standards for farmland protection from across the country. And you can filter these search results by various geographic and demographic characteristics.
(<https://www.planning.org/knowledgebase/farmlandprotection/>)
- Minnesota Institute for Sustainable Agriculture has a Farm Transitions Toolkit with resources, advice and help to plan for transitioning farmland to the next generation. Links to farmer success stories, farmer transitions programs, government programs, fact sheets, courses, planning tools, legal resources, and more. It also details ten common sustainable agriculture and conservation practices for farming.
(<https://landstewardshipproject.org/morefarmers/farmtransitiontools/farmtransitionstoolkit>)
- Blaine County, ID Comprehensive Plan – Agriculture
<https://www.co.blaine.id.us/DocumentCenter/View/3513/Chp-4-Agriculturepdf>
- Integrating Food Policy in Comprehensive Planning: Strategies and Resources for the City of Seattle
https://www.seattle.gov/Documents/Departments/OSE/Seattle_food_comp_plan_FINAL_0820_12.pdf
- Regional Food Policy <https://www.psrc.org/regional-food-policy>: The Regional Food Policy Council has developed a number of planning guides to assist communities interested in incorporating food policy in their comprehensive plans including Comprehensive Plan Policies- Planning for food <https://www.psrc.org/sites/default/files/blueprints-compplan.pdf>

CHAPTER 7: Natural Resources and Hazardous Areas

The integration of the Comprehensive Plan and Hazard Management Plan should be a priority in order to ensure complete identification of assets and hazardous areas and ensure that land use planning is in sync with hazard mitigation goals. Both plans should integrate current and projected climate impacts into the identification and management of sensitive and hazardous areas. Enforceable land use regulations will be critical to ensuring that sensitive and hazardous areas are not developed.

Natural Resources and Hazardous Areas Strengths

- Identification of important natural resources and sensitive areas.
- Many hazard areas have been identified.
- There is a Hazard Management Plan in place.

Natural Resources and Hazardous Areas Gaps

- Integration of Comprehensive and Hazard Management Plans; a thorough assessment of gaps and opportunities will require a review of the new Hazard Management Plan.

- Integration of current and projected climate impacts into the identification and management of sensitive and hazard areas.
- Land use policies that carefully manage development in or around sensitive and hazardous areas, including those identified elsewhere such as the Hazard Management Plan.
- Monitoring of sensitive and hazardous areas, as well as ongoing evaluations to identify new sensitive areas.

Natural Resources and Hazardous Areas Recommendations

The Madison County HMP was updated in 2019, but the final version was not publicly available at the time of this report. However, the authors have not yet seen the approved updated HMP. In the absence of that review, it would be prudent to align and integrate the updated HMP with the Comprehensive Plan. The finalized HMP should be reviewed in the context of the comprehensive planning process. Comp plan relevant goals, objectives, and policies that support the HMP should be included throughout the Comp plan document. Additional recommendations for hazard mitigation follow:

- The Plan says on p. 70, “If another large earthquake occurred on this fault, essentially all the buildings in Rexburg would collapse.” The next page seems to conflict: “Construction within Madison County must meet the requirements of the Uniform Building Code Zone 2B due to seismic hazards.” Consider clarifying the earthquake risk in the next plan.
- As of 2008, “The FEMA FIRM for Madison County is somewhat inaccurate and is in need of updating.” If it has not been updated, consider how to get it updated.
- Add a Goal: Increase resiliency to hazards through outreach and education and Objective: Ensure that residents have the information, resources, and tools they need to survive and thrive in the face of natural hazard events such as flooding and fire.
 - Policy: Collaborate with existing LDS organizations to disseminate information on minimizing risk from natural hazard events through for example emergency preparedness fairs, classes and seminars on emergency preparedness.
 - Policy: Collaborate with the Eastern Idaho Public Health District to disseminate information about resilience and emergency preparedness, tailoring outreach campaigns to the local community.
- Add an additional Objective under the proposed goal: Ensure that all county and sub-county plans are aligned and integrated, and that implementation is coordinated, tracked, and assessed on an ongoing basis.
 - Policy: Review the Hazard Mitigation Plan Update (2020) as soon as it is approved by FEMA, and identify all resilience-related strategies, projects, policies and plans that have ramifications for the Comprehensive Plan Update, zoning, codes, ordinances, etc.
- Add to existing Objective: Protect property and residents from natural hazards including: flooding and other flood events, seismic events,

landslides, rock fall, or subsidence.

- Policy: Integration of current and projected climate impacts into the identification and management of sensitive and hazardous areas.
- Policy: Establish specific policies and criteria for the identification and management of sensitive and hazardous areas.
- Add to existing Objective: Protect sensitive lands (wetlands, riparian corridors, wildlife habitat, water bodies and rivers, and other unique natural features) from the impacts of development.
 - Policy: Establish enforceable regulations, policies, and ordinances that require avoidance, minimizing damage, and mitigation of sensitive and hazardous.
- When the County updates the zoning ordinance, it will be important to integrate hazard mitigation considerations, including the following:
 - Sec. 117-63. - Floodplain Overlay (FPO) Zone and Sec. 117-61. - Sensitive Lands Overlay (SLO) Zone are important in hazard mitigation. Consider expanding SLO to the entire county (or at least all developed, non-agricultural areas) rather than having the county partially covered through overlay zones, since this existing language could be helpful in mitigating hazards without the need for imposing a brand new ordinance.
 - Consider adding “prohibited uses” to Sec. 117-63 so it is consistent with p. 71 from the Comprehensive Plan: “Businesses within flood-prone areas should not be allowed to store large quantities of hazardous chemicals, or be able to show that any such chemicals are stored in a manner that ensures they will not pose a contamination risk in the event of a flood.
 - Consider revising part 117-63(m) to be consistent with the “no net rise” or “no adverse effects: standards described in the Plan at p. 71. County would have to develop a model to perform this analysis or have contract with someone to do this analysis each time there is an application for development in the floodway.
 - Consider having an erosion overlay zone at Rexburg Bench area (see Plan p. 72).
 - Consider making some or all of the wildfire hazard reduction measures in Sec. 117-53. - Agriculture/Recreation (A/R) Zone (h) applicable to all zones. This would be consistent with the Plan at p. 73.
 - The current zoning code does not address standards for earthquakes such as requiring new buildings (or renovation that is 50% or more of previously assessed value) to be earthquake resistant (although this may be covered in building standards).

Natural Resources and Hazardous Areas Model Policies/Case Studies

- Land Use Planning for Hazard Mitigation: Community Report for Jenkins County, Georgia: https://www.dca.ga.gov/sites/default/files/jenkins_0.pdf. In 2008 a presidential disaster declaration included 20 Georgia counties and 93 Georgia cities that were impacted by severe storms, tornadoes and flooding. To assist these counties and cities with their ability to prepare for future hazards and to be more disaster resilient by limiting the interruption of the hazards on

the local community, the Georgia Department of Community Affairs (DCA) conducted a comparative analysis and assessment of the affected communities' 5- year hazard mitigation plans and 20-year local land use plans (comprehensive plans). Applicable regional plans were also evaluated.

- Multi-hazard Planning Framework for Communities in the Wildland-Urban Interface, 2018 American Planning Association: https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/WUI-Hazards-Framework.pdf. This planning framework and the accompanying planning systems audit tool are designed for use by planners working in or with communities located in the wildland-urban interface (WUI). The framework provides a menu of planning tools that communities can use to address the range of natural hazards that communities in the WUI may face. The planning systems audit is designed to help communities assess how their current plans and policies address multi-hazard risk, as well as to evaluate alignment between plans, policies, and public investments.
- Planning for Hazards: Land Use Solutions for Colorado - Models and Commentary: <https://planningforhazards.com/models-and-commentary>. Model policy and regulation for several planning tools. Each model includes key elements of the policies or regulations, drawing on various best practices around Colorado and beyond.
- Sussex County, DE, Comprehensive Plan: <https://sussexcountyde.gov/comprehensive-plan>. Adopted June 2008. The county's comprehensive plan includes a conservation element to protect natural areas, including wetlands, waterways, beaches, upland forests, farmland, and meadows. The element contains examples of major conservation initiatives and conservation strategies, including using a land trust to collect funds for land preservation, adopting buffer requirements and using an Environmentally Sensitive Overlay Zone District that requires environmental assessments in conjunction with development applications.
- Washington Department of Commerce Growth Management Critical Areas Handbook: <https://www.commerce.wa.gov/serving-communities/growth-management/growth-management-topics/critical-areas/>. Commerce has completed updates to our critical areas guidance document. The new 2018 Handbook addresses the following: Wetlands rating system, Voluntary Stewardship Program, agricultural activities, FEMA Biological Opinion, availability of LiDAR, monitoring and adaptive management, a salmon recovery roadmap, and other issues. Also, a new chapter on monitoring and adaptive management has been added, highlighting 13 local government case studies on monitoring and adaptive management. Links to individual chapters are below.
- Small Communities Critical Areas Ordinance Implementation Guidebook, June 2007, Washington State Department of Community, Trade and Economic Development: <http://www.commerce.wa.gov/wp-content/uploads/2016/08/gms-ca-small-comm-CAO-Guidebook.pdf>. This guide focuses on critical area ordinances that small communities in Washington State can use to protect environmentally sensitive areas. It covers information on the permitting process, provides references to further assistance, and includes scenario examples. Additionally, the appendices provide a wide range of supplemental information, including a flowchart for critical area review process, a sample critical area checklist, and fact sheets that introduce different types of environmentally sensitive areas.

- Clark County, WA, County Code: <https://www.codepublishing.com/WA/ClarkCounty/>. The county's unified development code protects environmental features through habitat conservation regulation, wetland protection measures, and a shoreline master program. The habitat conservation regulation contains provisions for non-regulatory alternatives and include density transfers, reconfiguration of nonconforming lots, individual stewardship plans, education and outreach. Incentives include tax benefits, land acquisition programs, and nonmonetary incentives for projects that exceed mitigation requirements (§40.440.020). Additional sections discuss wetlands regulations (§40.450) and shoreline use regulations (§40.460.100). [2017 version last accessed.]
- Lacey, WA, Comprehensive Plan: <http://www.ci.lacey.wa.us/city-government/city-departments/community-and-economic-development/planning-documents/library/comprehensive-plan>. Adopted August 2016. The city's comprehensive plan incorporates Growth Management Act requirements to protect natural resources, critical areas, habitat conservation areas, and shorelines.
- Growing Smart Legislative Guidebook Online: <https://www.planning.org/growingsmart/guidebook/nine01/>. Chapter 9: Special and Environmental Land Development Regulations and Land-Use Incentives. This Chapter contains model statutes that address various special issues in land development regulation, including environmental issues.
- Model Environmental Ordinances: <http://www.macombsheriff.com/sites/default/files/content/government/ped/pdfs/Macomb%20County%20Sample%20Environmental%20Ordinances.pdf>. This collection of model ordinances for Macomb County, Michigan, includes provisions for specific environmental area types and regulatory tools. Environmental areas include wetlands, floodplains, and woodland areas, and regulatory tools include natural setback features and overlay districts. Each section contains an introduction, regulatory considerations, and model ordinance language.

CHAPTER 8: Transportation

This section analyzes Chapter 8 in the Comprehensive Plan on transportation. The analysis draws from [Idaho Code 67-6508](#), Local Land Use Planning, which states that the “plan shall consider previous and existing conditions, trends, compatibility of land uses, desirable goals and objectives, or desirable future situations for each planning component.” Specifically, subchapter (i) Transportation states, “An analysis, prepared in coordination with the local jurisdiction(s) having authority over the public highways and streets, showing the general locations and widths of a system of major traffic thoroughfares and other traffic ways, and of streets and the recommended treatment thereof. This component may also make recommendations on building line setbacks, control of access, street naming and numbering, and a proposed system of public or other transit lines and related facilities including rights-of-way, terminals, future corridors, viaducts and grade separations. The component may also include port, harbor and other related transportation facilities.”

Transportation Strengths

- The Plan’s vision statement recognizes the importance of considering all modes of transportation in the planning process.
- The Plan recognizes the need to communicate and coordinate with the state, and cities within the county.
- There is a good systems overview, though it needs updating.

Transportation Gaps

- Need to address extreme weather conditions risks and impacts to transportation routes and transportation infrastructure, including rails, bridges, etc.
- Need for a long-term maintenance or construction schedule, if not yet put in place.
- Transportation information regarding road systems, the local and Idaho Falls airports, public transportation, and pedestrian and bicycle facilities is historic and needs to be updated. The cited [Rexburg] City survey regarding bicycle -pedestrian paths was from 1993.
- Need to integrate key information and findings contained in the “Madison County/City of Rexburg/Sugar City Transportation Master Plan Update 2015” (<https://co.madison.id.us/images/madison/road/transplan2015.pdf>) into the Comprehensive Plan.

Transportation Policy Recommendations

- Transportation issues are fundamentally woven into multiple chapters, hence solutions need to be addressed and discussed from varying perspectives. In order to better integrate resilience goals and strategies into the Transportation Chapter, the updated comprehensive plan needs to be sure to address broader issues such as:
 - On-going and/or increased regional coordination of systems.
 - Identification and coordination of emergency/ evacuation routes and needs.
 - Distinction between transportation, mobility and further actions to create a more healthy and safe community for all ages and abilities.
 - Discussion and assessment on how best to integrate transportation, infrastructure and housing needs.
 - Identification and prioritization of maintenance and future construction needs, ways to incorporate green infrastructure, and potential funding.
- Add as a new Goal into the Comprehensive Plan and/or Transportation Master Plan: Assess long-term risks to resilience and related impacts to transportation routes and infrastructure; implement mitigation and/or adaptation measures.
 - Policy: Identify, map, and prioritize transportation infrastructure improvements where necessary due to anticipated extreme weather event impacts and emergency

evacuation scenarios. This would include such items as enlarging road crossings and culverts to prepare for flooding and increased road stabilization based on potential erosion.

- Policy: Consider long-term impacts to resilience when planning new transportation infrastructure assets or rehabilitating existing assets. For example, use asphalt and concrete mixes and/or designs that perform well under higher temperatures.
- Policy: Develop redundant transportation, power, and communications services to accommodate system disruptions due to flooding and more frequent storms, or wildfire events.
- Policy: Consider resilience adaptation benefits when determining the relative priority of proposed projects.
- Policy: Include resilience considerations when proposing and assessing the viability of new ventures.
- Policy: Consider whether the proposed enterprise or infrastructure asset can reasonably be anticipated to be viable and sustainable in the coming decades, and plan for measures to increase its resilience. Factor resilience and extreme weather event considerations into planned operations and management budgets for enterprises and assets that are expected to be vulnerable.
- Policy: Develop a master green infrastructure plan to implement natural solutions to stormwater management over time as roads (and infrastructure) is (are) built, updated, or repaired.
- Policy: Adopt a complete streets / green streets design approach for all new and updated roads, including enhanced stormwater management, groundwater recharge, and flood mitigation plus multi-modal transport options. Encourage use of pervious surfaces wherever possible for parking lots, sidewalks, greenways and trails, etc.
- Policy: Integrate infrastructure to serve electric vehicles and encourage their use, such as free, premium parking spaces.
- Under Goal 1 (Provide a coordinated, connected transportation network ...), for the Objective to create a County-wide transportation master plan, consider adding: “Policy: Work to diversify modes and to improve/integrate internet connectivity, public transit, and current future residential and commercial development patterns to reduce trips.”
- Under Goal 1, for the Objective to coordinate planned development of new transportation infrastructure, consider adding:
 - Policy: Establish strong data partnerships with organizations, including between multijurisdictional agencies and private companies that collect, analyze, and share the air, water, energy, and weather data to assess climate change impacts and multijurisdictional agencies that develop strategies for roadways and other transportation infrastructure.

- Policy: Work with regional partners to increase transportation efficiency for energy savings and reduce carbon emissions/ GHG.
- Policy: Clearly identify evacuation/emergency routes with graphic images so the information is easily understood by all ages and those speaking different languages. Post in critical locations.

Transportation Model Policies and/or Case Study Examples

- APA Surface Transportation Policy Guide, Approved by APA Delegate Assembly, April 14, 2019; Ratified by APA Board of Directors, May 14, 2019: https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/Surface-Transportation-Policy-Guide-rev.pdf.
- Bonner County Comprehensive Plan, Chapter 3: School Facilities & Transportation, Adopted 3/13/2013: <https://evogov.s3.amazonaws.com/media/136/media/61503.pdf>.
- Promoting Green Streets – A Recipe for Integrating Water and Transportation Infrastructure Investment, River Network; Project introduction. See: <https://www.rivernetnetwork.org/resource/promoting-green-streets-recipe/>; and Project report: http://www.rivernetnetwork.org/wp-content/uploads/2016/07/Promoting-Green-Streets_5.1.pdf. (Also cited above under Environment – Water section.)
- Complete Streets: Best Policy and Implementation Practices: <https://planning-org-uploaded-media.s3.amazonaws.com/publication/online/PAS-Report-559.pdf>. (Overlap and coordinate with Environment – Water policies.) (Note overlap of some references with Water resources.)

CHAPTER 9: Public Services, Facilities, and Utilities

This section analyzes Chapter 9 in the Comprehensive Plan on public services, facilities, and utilities. The analysis draws from the **Public Services, Facilities, and Utilities** subchapter (h) under Idaho Code 67-6508, Local Land Use Planning, which states that, “An analysis showing general plans for sewage, drainage, power plant sites, utility transmission corridors, water supply, fire stations and firefighting equipment, health and welfare facilities, libraries, solid waste disposal sites, schools, public safety facilities and related services. The plan may also show locations of civic centers and public buildings.”

Public Services, Facilities, and Utilities Strengths

- Goal 1 recognizes the potential scarcity of water and the need to establish a “...County water conservancy district to manage water distribution, rights and claims.”
- Goal 2 recognizes the need to coordinate “development of wastewater treatment facilities” and “consolidate septic systems in town centers...”
- Goal 3 recognizes the need for “...retention and natural infiltration of stormwater in new and existing development,” as well as implementation of a monetary approach (e.g. utility fee and credits) to incentivize decisions.

- There is a very detailed inventory of public services, facilities, and utilities, though some of the data it relies on may be out of date.

Public Services, Facilities, and Utilities Gaps

- The chapter does not really address extreme weather conditions risks and impacts to public services, facilities, and utilities.
- The Vision Statement Excerpt and Water Systems sections discuss “culinary water,” not “drinking water.”
- Goal 4 indicated the need to develop a “Madison County Facilities Master Plan.” It is not clear whether this was developed.

Public Services, Facilities, and Utilities Policy Recommendations

- In order to integrate resilience goals and strategies into the **Public Services, Facilities, and Utilities** Chapter, during the update process, consider:
 - Examining facilities, where they are located, how they are built, and how they are operated and maintained, in light of overall resilience goals and strategies.
 - Modeling the way for developers, businesses, and residents by implementing net-zero water and/or energy policies for public facilities/ buildings, implementing green purchasing plans, and investing in renewable energy. (In an emergency, it is essential that governmental facilities and services can continue to operate.).
 - Assessing types of services delivered; community members most vulnerable if different types of services fail; identifications of operations (e.g. governmental or business) most greatly affected by disruptions; and physical locations of public services, facilities and utilities, their construction, and operations and maintenance.
 - Prioritizing the most essential utilities and identifying members of the community most vulnerable - is essential to determine where system back-ups are warranted.
- Consider putting detailed data facilities in the Plan Appendix or in the “Madison County Facilities Master Plan,” rather than Chapter 9.
- Develop a “Madison County Facilities Master Plan” if this has not been done already.
- In light of projected more extreme and varied weather event risks, do a thorough assessment of utilities, potential disruptions, and those who would be most vulnerable. Identify solutions that might minimize impacts.
- Develop goals and policies that address extreme weather risks and that minimize impacts to the most vulnerable populations (e.g. children, elders and those with disabilities).
- Ensure that redundant and/or back-up systems are in place to minimize disruption in an emergency evacuation situation. Consider, if not already, running table top or on-the- ground exercises/ scenarios on a semi-regular basis.

- Work to develop ordinances and policies that support innovative service technologies that are in alignment with the comprehensive goals and policies. Specifically, in terms of Comprehensive Goals, Objectives and Policies consider the following:

- Combining (and expanding) Goal 4, “Maintain and increase the quality and level of service of existing County facilities for the community, and work to develop new community services and facilities,” with the following Goals and Policies:

Goal: Create cooperative planning and shared development of facilities for efficient and effective delivery of services.

Policy: Collaborate with local governments and agencies to support public health, safety, and welfare resulting in more effective delivery of services and preparedness for extreme weather conditions.

Goal: Assess extreme weather risks and impacts related to government (public) facilities and services; map and prioritize greatest areas of concern; implement mitigation and/or adaptation measures as feasible.

Policy: Ensure that an emergency plan is in place for government services that includes mechanisms to clearly communicate emergency shelter and services locations, as outlined in the most recent Hazard Mitigation Plan.

Policy: Work with local jurisdictions to coordinate emergency service responses to extreme weather-related events with impacts to public facilities and services, to include fire, flood, storm, medical, search and rescue, and utility providers. Work together to develop and update a regional Communications Plan in order to function during an emergency.

Policy: Evaluate the need to improve buildings based on extreme weather impact data (e.g. ventilation, retrofit of windows, insulation, energy efficiency, heating/cooling systems, water conservation, floodplains, Firewise, etc.)

Policy: Adopt LEED Platinum for New Construction, Existing Buildings, and Operations & Maintenance for all new governmental facilities and major renovations, and incentivize net-zero water, energy, and carbon for all such projects.

Public Services, Facilities, and Utilities Model Policies and/or Case Study Examples

- Plano, TX: Facilities & Infrastructure Policy offers guidance on working with private utility providers to accommodate innovative service technologies: <http://planotomorrow.org/205/Facilities-and-Infrastructure>.
- The International Living Building Challenge addresses regenerative water, energy, materials, and land use strategies. The Living Building Challenge strives to make buildings regenerative, and to maximize their positive impact on their environment. It focuses on the design and performance of commercial and residential buildings in seven major categories: Place, Water, Energy, Health and Happiness, Materials, Equity and Beauty. You can certify an entire building, get certified in at least 3

petals for petal certification, or certify as either a zero-energy or zero-carbon project. For more information: <https://living-future.org>.

- Zero Energy Certified Case Study: King County Parks North Utility Maintenance Facility. [<https://living-future.org/lbc/case-studies/king-county-parks-north-utility-maintenance-facility/>]
- Certified Living Building Case Study, with Net-Positive Water: SEEDS Classroom, Seattle, WA. [<https://living-future.org/lbc/case-studies/perkins-seed-classroom/>]
- Living Certified Building Case Study: Te Kura Whare, New Zealand: <https://living-future.org/lbc/case-studies/te-kura-whare/>.

CHAPTER 10: Parks, Recreation, and Open Space

This section analyzes Chapter 10 in the Comprehensive Plan from the point of view that open space, parks, and recreation facilities should be located, designed and managed with current and future climate impacts in mind. Good planning and project design will maximize climate-adaptive co-benefits.

Parks, Recreation, Open Space Strengths

- There are excellent goals and objectives for providing recreational opportunities and managing recreational resources.

Parks, Recreation, Open Space Gaps

- There is a need to locate and manage open space and recreational areas to provide climate-adaptive co-benefits such as stormwater control, wildlife habitat, etc.
- There is a need for education on economic benefits of open space for land owners, businesses, and for government budgets.
- There is a need for climate resilience criteria / features to identify and prioritize open space areas for protection (The Nature Conservancy Resilience Mapping).

Parks, Recreation, Open Space Policy Recommendations

- As discussed in the section on Chapter 6, Open space requirements should be integrated into subdivision building regulations and requirements for other development projects.
- Add to existing Objective (Maintain and enhance County facilities and parks) the following policies:
 - Policy: Integrate current and projected climate impacts into the location and management of open space, parks, and recreation areas/facilities.
 - Policy: Maximize climate-adaptive co-benefits from open space, parks, and recreation areas/facilities.
 - Policy: Consider climate impacts, as well as climate adaptation and mitigation needs,

during development/revision of open space plans and policies.

Parks, Recreation, Open Space Model Policies/Case Studies

- Parks as a Solution to Climate Change, National Recreation and Park Association:
<https://www.nrpa.org/parks-recreation-magazine/2019/april/parks-as-a-solution-to-climate-change>.
- NRPA’s Great Urban Parks Program is helping advance green infrastructure stormwater management projects within parks. Check out its Resource Guide for Planning, Designing and Implementing Green Infrastructure in Parks. [<https://www.nrpa.org/our-work/urban-parks/>]
- Parkology™ is a comprehensive online resource and community of experts dedicated to improving access to close-to-home, quality parks. Check out the knowledge section for tips on how to design climate-smart parks. This site is managed jointly by The Trust for Public Land, City Parks Alliance and NRPA. [<http://www.parkology.org/>]
- The Trust for Public Land’s Climate Smart Cities Program helps cities use people and data-driven decision making to maximize social, health and climate benefits of new and proposed parks. [<https://www.tpl.org/how-we-work/climate-smart-cities>]
- Resilience Roundup: Public Spaces Fighting Climate Change:
<https://www.pps.org/article/resilience-roundup-public-spaces-fighting-climate-change>.
- Adapt or update municipal plans: Open Space Plans:
<https://climateactiontool.org/content/adapt-or-update-municipal-plans-open-space-plans>.
Update municipal plans - revise town level open space plans to address climate change impacts by considering climate change vulnerabilities, management of conservation land, and strategically prioritizing future areas for land protection. The Massachusetts Open Space Plan workbook (<http://www.mass.gov/eea/docs/eea/dcs/osrp-workbook08.pdf>) provides useful guidance on how to work through the open space planning process.

CHAPTER 11: Housing

This section analyzes the treatment of housing within the comprehensive plan.

Housing Strengths

- The chapter includes a discussion of the need for high density, mixed use development, and acknowledges both the economic cost (in services) and the environmental impact of low density sprawl development
- The chapter calls for zoning ordinances that guides higher-density development towards existing areas and in towns.
- The Comprehensive Plan recognizes the need to ensure for a variety of housing types to accommodate different types of families and industrial workers. See p. 100 (“Adopt County policy that allow for a variety of housing types including apartments, town homes, and mother-

in-law apartments in appropriate places to meet affordable and senior housing demands.”); p. 101 (“Update zoning and subdivision ordinances to ensure accommodation for service and worker housings is included in development plans, specifically those located in somewhat isolated areas.”); p. 113 (referring to need for housing for farm laborers).

Housing Gaps

- For something identified as being a crucial topic (especially in terms of affordability and development patterns), there are relatively few actual objectives and policies.
- There is no statement or policy about the siting of new developments in vulnerable places such as flood-prone areas.
- Accessory buildings with living quarters are only permitted as conditional uses in all zones. Accessory buildings are one strategy for encouraging higher density residential areas.
- While not an issue in 2008, FEMA is now updating flood maps for both the Teton and Snake Rivers, which will likely expand the flood zones in Madison County.

Housing Recommendations

- Consider a temporary moratorium or incentivized delay on all new residential developments that are proposed for areas likely to be included in future FEMA flood maps.
- Ensure that zoning code provides for worker housing. Consider defining worker housing in code (if this is something like temporary living or dorms) and include it as a use in the table in Sec 117-51.

CHAPTER 12: Special Areas or Sites

This section considers how the comprehensive plan addresses sites with historical or cultural significance.

Special Areas Strengths

- The chapter does an excellent job at identifying sites throughout the County.
- There are strong goals for management of special sites.

Special Areas Gap

- The chapter does not consider how projected climate trends could affect the management of special sites.

Special Areas Policy Recommendations

- Add to existing Goal 1 (Protect special areas or sites) the following Objective: Integrate current and projected climate impacts into the protection and management of special sites.

Special Areas Resources

- National Trust for Historic Preservation <https://savingplaces.org/climate-and-culture#.Xlax7yhKhPY>. Climate change and resilience represent key issues in modern preservation. New adaptation and mitigation tools and models are needed to support communities as they learn to adapt to a new normal.

CHAPTER 13: Community Design

This section considers how the comprehensive plan strives to maintain Madison County’s “community design” in terms of its culture and identity related to land use patterns.

Community Design Strengths

- The plan values the community’s visual quality and aesthetics and provides detail on these aspects.
- There is a good description of the City of Zion planning concept.
- The chapter includes “Design Recommendations for Specific Development Types/Areas.”

Community Design Gaps

- There are no requirements for open space and green infrastructure.

Community Design Recommendations

- The plan includes “Design Recommendations for Specific Development Types/Areas” which include recommended density for various development types. These should be translated into requirements through tools such as zoning and permitting. There should be very careful consideration of density requirements and residential lot sizes, especially in rural areas.
- Add to existing Goal 1 (Maintain and promote Madison County) the following objective and policies: Objective: Maintain open space and maximize the use of green infrastructure in all development
 - Policy: Establish requirements for open space and green infrastructure.
 - Policy: Establish density requirements for all non-agricultural development.

CHAPTER 14: Impact Areas

This section covers “impact areas” as they are defined by Idaho Statute 67-6526, which authorizes the governing board of each county and each city therein to adopt by ordinance a map identifying an area of city impact within the unincorporated area of the county. The legislation gives cities some authority over impact areas even when they are outside of city or county boundaries.

Impact Area Strength

- The County shows a willingness to collaborate with other jurisdictions on land use planning. The 2008 Comprehensive Plan included cities outside of the County (Teton and Newdale) as areas of influence (see page 123).

Impact Area Gaps

- Impacts zones have not proved to be useful as development has not been concentrated there.
- Page 123 of the 2008 Comprehensive Plan says, “Historically, the lands within areas of city impact in Madison County have been governed by the cities’ land use and development regulations. The actual ordinances authorizing this arrangement were prepared and adopted, but have been misplaced since that time. It is the recommendation of this Comprehensive Plan element that Madison County and the local governments redevelop and execute an ordinance clearly outlining the regulations to be used to govern land use within the areas of city impact, and which local government is responsible for administration of those regulations.” As of 2020, the lost ordinance has not been found and it does not appear that a new one has been implemented.

Impact Area Recommendations

- The comprehensive plan update is a good time to consider if the boundaries of the areas of influence are still applicable (see page 124 of 2008 Comprehensive Plan recommending reconsideration of areas of influence every three years). Verify that Madison County residents from the areas of influence of Teton and Newdale are eligible to serve on city planning commissions of Teton and Newdale (as they should be under Idaho Statute 67-6526(g).)
- Pages 52 and 125 of the 2008 Comprehensive Plan call for establishing joint commission with the Cities and Towns of Rexburg, Sugar City, Teton, and Newdale. Consider whether it would be useful and cost-effective to have a joint board with neighboring counties/cities that are part of areas of influence per Idaho Statute 67-6505. (It may not be worthwhile if there is little to no foreseeable development in the Teton and Newdale areas of influence.)

CHAPTER 15: Implementation

Chapter 15 in the Comprehensive Plan refers to four tools that can implement policies from the comprehensive plan:

- zoning ordinance and map
- subdivision ordinance
- transfer of development rights, and
- conservation easements

None of these tools are discussed in Chapter 15 of the Comprehensive Plan, although this report analyzes them to some degree. It is recommended that these tools be fully discussed in the body of the

next comprehensive plan. A future plan may want to draw on the principles of implementation and mainstreaming discussed at the end of this report.

The need for zoning ordinances to guide development into areas that are less vulnerable to hazards and preserve open space is discussed in the section on Chapter 6 (Land Use and Agriculture) in this report, and also in the Resilient Madison County 2020 Report. Open space is discussed in the current zoning ordinance largely in the context of the agricultural and recreation zones--it is recommended that development criteria for each zone require development to be condensed into townsites rather than sprawling to preserve some open space within each zone. It is also recommended that the Floodplain Overlay Zone may need to be extended, and policies from the Sensitive Lands Overlay Zones may need to be expanded to other zones. As discussed in the Resilient Madison County 2020 Report, the zoning map should be changed only through a rezoning process that takes into consideration criteria for development based on the comprehensive plan.

When a rezoning or a subdivision takes place, this is a good time for the County to ensure that design standards for development meet the resilience goals of the community. The zoning and subdivision ordinance already recognizes this by providing subdivision standards in Sec. 117-63 (h) (4) (Floodplain Overlay (FPO) Zone) to protect from flooding. Such standards may need to be implemented in every zone. As noted in the Resilient Madison County 2020 Report and in the section below on open space, the County may want to revise the standard for subdividing farmland in Sec. 117-52(e) (Agricultural (AG) Zone) to better protect open space. A vision for subdivision procedures may need to be more clearly articulated in the revised comprehensive plan.

Transfer of Development Rights and Conservation Easements are two of many tools that can be used to guide development to the appropriate areas and preserve open space. These tools are discussed in the section on Chapter 6 in this report and also under Strategy 1 (Responsible Development) in the Resilient Madison County 2020 Report.

ANALYSIS OF APPENDICES (TOPICS/TOOLS) FOR RESILIENCE GAPS AND OPPORTUNITIES

FROM THE 2008 MADISON COUNTY COMPREHENSIVE PLAN

Comments and Recommendations for Comp Plan Appendices

APPENDIX A: Planning Terms and Concept Glossary

This section was not analyzed in detail. It is recommended to review the updated comprehensive plan and add to the glossary any new terms not previously defined that may not be familiar to readers.

APPENDIX B: Open Space Zoning

Open space is an important part of land use and agricultural conservation. The next plan may want to integrate open space considerations into the body of the plan rather than leaving as an appendix.

Open Space Zoning Strength

- In addition to the article in Appendix B, page 66 of the 2008 Comprehensive Plan discusses the potential for an Open Space Zone.

Open Space Gaps

- There is currently no Open Space or conservation zone in the zoning code, although the A/R zone has requirements for leaving a certain percentage of open space.
- At the same time that there is a desire for open space, the 2008 Comprehensive Plan (p. 49) expresses a need to zone more land (386 to 772 acres) as industrial to bring more employment/revenue. It is not clear whether more land has been zoned industrial since this recommendation has been made and how the County wants to balance the need for industrial land with open space.
- While the Comprehensive Plan 2008 (p. 63) clarifies that industrial development should be clustered rather than sprawling, it is not clear whether industrial development should be concentrated near townsites and cities (for ease of access) or away from these places (for public health reasons). It appears that there was previously a goal of clustering development around townsites, but this has not taken place, perhaps due to a desire to keep the townsites more rural.

Open Space Recommendations

- Consider revising zoning ordinance Sec. 117-52 (e) (2) (Agricultural (AG) Zone) to be more specific. Currently it allows an owner of a farm to sell off *any* part of the farm over an acre so long as the remaining part gives up development rights. A farmer with a 16-acre farm could sell all 15 acres and restrict only one acre. Consider establishing the maximum extent that can be developed without a rezone (i.e., 50% or 2 acres, whichever is smaller).
- Consider whether there are any areas in county that are critically important to recreation, the visual landscape, or serving as a floodplain such that a new Open Space zoning category should be established to protect these areas. Such a designation may not be necessary if the Agricultural Zone or the Agricultural/Recreation Zone sufficiently protect these values.

Open Space Model Policies/Case Studies

- Strengthening the requirements in the Agricultural and Agriculture/Recreation Zones may accomplish the desired goals of maintaining open space in these areas; but if not, the County might want to consider a specific zone overly for open space (see, e.g., [Airway Heights, WA, Chapter 17.32, Open Space Zone](#)) or the establishment of a conservation zone (see, e.g., the default, undeveloped zone of the North Slope Borough, AK, [Section 19.40.070](#)), or using some of the tools described above in regard to farmland conservation.

APPENDIX C: Transferable Development Rights (TDRs)

As with open space, TDRs can be an important part of land use planning, such that a future plan may integrate TDRs with the land use section of the plan.

TDRs Zoning Strength

- The 2008 Comprehensive Plan considers flexible, market-based devices including Transferable Development Rights (TDRs) to direct development toward development nodes and away from land that the County wants to conserve.

TDR Gaps

- The section on Authority to Enact a TDR Program on 2008 Comprehensive Plan p. 136 applies to Utah rather than Idaho, which has a distinct statute with requirements for TDRs (Idaho Statute 67-6515A).
- The County has not expressly implemented TDRs in its codified ordinances on zoning (Chapter 117), although Sec. 117-52(e) (2) (Agricultural (AG) Zone) serves a similar function for that particular zone. Sec. 117-52(e)(2) states that an “[o]wner of a farm may sell off any parcel of not less than one-acre of land by attaching the deed restriction giving up the developmental rights on the balance of the 16 acres.” This ordinance has not worked well because the minimum amount of land to be preserved is so small and there are no limits on developing the surrounding area. There are not yet clearly designated sending and receiving areas for TDRs.

TDR Recommendations

- Rather than having recommendations about how a community might handle TDRs on p. 63 of the 2008 Comprehensive Plan, the next comprehensive plan or a policy document should lay out which approaches Madison County wants to take. The policy should clarify the following:
 - Establish and display on the zoning/land use map the current sending and receiving areas. Consider allowing developers to propose a change to the sending and receiving areas using the rezoning process or a similar process. The sending areas should be areas of high conservation value such as farmland or community open space. An alternative to showing the sending areas on the map would be to define a sending area as a land that meets certain characteristics (i.e., 16 acres of undeveloped land owned by a single owner).
 - Clarify the incentive for participating in TDRs (i.e., right to have higher density development, reduction in property taxes; or other incentive that does not threaten public safety). If a developer is able to easily obtain a higher density development in the receiving area through a conditional use permit, they will not use the TDR option. A developer would need to get something beyond what they could already get under existing ordinances, and this would need to benefit the developer. For example, if a developer agrees to only develop one unit per lot in a sending area where 3 units per lot are allowed, then (1) the developer would need to gain the right to develop at a higher density than allowed in the receiving area (say 6 units per lot where only 3 are allowed), AND (2) there must be a market for lots that have 6 units (otherwise no one would want to participate).
 - To make TDRs more attractive, consider reducing allowable densities in all zones for future development. Existing development would be “grandfathered in.” Higher density development would require a TDR and would not be allowed through a conditional use permit.
 - Clarify what triggers a TDR and how they may be exercised. Some communities have banks where TDRs are initially allocated to landowners and then can be freely traded, bought, and sold. Another possibility is that the County issues a TDR based on an application from a landowner (similar to a permitting process) or to avoid a takings claim.
 - If the County wants to set up a bank, you need to figure out the price of one TDR. You might consider the going rate for an agricultural conservation easement if there are any of those in your region. Determine the number of TDRs allocated to each landowner within the sending area. This can be something like one TDR for every x acres.
 - Establish the procedure for severing TDRs. The ordinance should explain that a TDR deed is required and provide a sample deed that must be recorded with the county recorder before the municipality approves development in a receiving area.
 - Establish the procedure for ensuring permanent protection of the land from which the TDRs were severed. There could be an indication on the zoning map (an overlay) that such land is restricted from development, akin to a conservation easement.

- Establish the procedure for exercising the right to develop in the receiving area with the TDR. For example, does it follow the regular permitting process? The right to develop under a TDR can expire after a certain amount of time if you structure the ordinance that way.
- For whichever of these measures the County decides to adopt, prepare a webinar and education materials to help the public and developers understand the process. This could help ensure that tools such as TDRs will become an economic reality.

APPENDIX D: Employment Projections

The Bureau of Labor and Statistics' [Occupational Outlook Handbook](#) projects accelerated job growth between 2018 and 2028 in green energy infrastructure, health services, and computer and information technology fields. Solar photovoltaic installers and wind turbine service technicians top the list for the second year in a row. The occupations with the projected highest number of new jobs include health services (personal care aides, registered nurses, home health aides), as well as food service workers.

These trends largely mirror the [Idaho Department of Labor's projections](#), which predict the highest growth rate in health services and computer and information technology fields, with slight regional variations.

As described in Chapter 5, Economic Development, we recommend workforce development training and school curricula that supports the emerging green jobs sector. The U.S. Conference of Mayors projects 4.2 million green jobs in the U.S. by 2038. The American Solar Energy Society anticipates jobs in energy efficiency and renewables will grow to 38 million by 2030. See U.S. Bureau of Labor and Statistics "[Green Growth: Employment Projections in Environmentally Focused Occupations](#)".

The strong potential for geothermal energy in Madison County may be an opportunity for combining regional geothermal energy production with technical training programs in geothermal technology and construction. The comprehensive plan can include provisions to encourage partnerships that take advantage of renewable energy growth and vocational training programs for their environmental benefits and economic development potential.

APPENDIX E: Retail Sales Leakage

As described in Chapter 5, Economic Development, regularly updating retail market area and gap analyses will allow the County to assess market potential and identify opportunities for retail development, particularly in Rexburg and Sugar City. Tax incentives should be considered to attract retail categories where dollars are leaking out of the community.

Given the interest in regional tourism, the County should ensure that commercial retail development is maximized near daytime activities, as most employees and visitors to an area typically do not travel far from their destination for retail and dining.

Businesses that adopt more sustainable practices and produce more sustainable products and services report new/more loyal customers, as well as cost savings, lowered compliance costs, improved risk management, and motivated employees. The County should promote green businesses, and grow new and emerging green businesses and green jobs through targeted assistance, including but not limited to technical assistance and tax incentives.

The County can also prioritize installation of urban trees and green infrastructure projects for retail sectors of the city where natural green amenities have been shown to attract more visitors, increase sales, and encourage recruitment of new businesses to the area. The Chamber of Commerce might consider supporting a Green Business Council to advance the positive environmental image of businesses in the region. Refer to the case studies in Boise, Idaho demonstrating the significant economic growth spurred by green infrastructure and watershed restoration projects in that city.

APPENDIX F: Vocational Training Opportunities

All ITT Technical campuses were closed in 2016 following federal sanctions, due to failing to meet basic standards and pushing students into risky loans.

The College of Eastern Idaho offers an intermediate technical certificate in Energy System Technology, which can prepare students for jobs in power-generating plants that include wind and solar. We suggest the County, BYU-Idaho researchers, and renewable industry representatives partner with the College of Eastern Idaho to review and enhance this curriculum to meet projected “green job” workforce needs.

In 2017, the College also offered a community education/workforce training course in “Solar Power & Systems.” The County should work with the College to restart this course, and add wind power and possibly geothermal systems.

ADDITIONAL RECOMMENDATIONS FOR 2020 COMPREHENSIVE PLAN UPDATE

The following suggestions for the chapters and organization of the updated comprehensive plan may help facilitate greater clarity and coordination for the various comprehensive planning elements and chapters.

- Consider starting with a chapter focused on County-wide Land Use Planning and Zoning with a comprehensive treatment of all aspects of the desired land use designations, the land use goals and justifications, and a multi-jurisdictional approach to coordination between the county and municipalities. Include in the land use chapter all policy objectives, alignment with codes and ordinances, and reference implementation and enforcement tools that can enable desired outcomes for land use zoning upgrades, such as Wildland Urban Interface (WUI) zones, TDR mechanisms, etc.
- Keep all chapter topics in the main body of the plan as opposed to segregated into Appendix materials. Where possible combine related topics under a common chapter, such as putting TDRs into the Land Use Chapter.
- Continue to provide online access to the comprehensive plan and ordinances, but consider that there may be confusion when draft versions remain online after the plan has been finalized.

MAINSTREAMING AND IMPLEMENTATION

The primary purpose of this report is to spur action that results in increased resilience for Madison County including increased health and safety for the people, infrastructure, and natural resources of the County. In order to achieve those resilience outcomes the objectives need to be consciously mainstreamed into existing programs and activities and translated into actionable aspects of all local plans, policies, practices, and budgets. The following are a few of the many ways to mainstream resilience principles and enable effective action steps:

- 1. Comprehensive Plan Integration:** First, there needs to be true integration of resilience strategies into the policies and practices of core institutional planning documents for Madison County, Rexburg, and Sugar City. That may include the comprehensive plan, future hazard mitigation plans, economic development initiatives, Greenway Plan, Drought Response Plan, and any other planning process. For the comprehensive plan update, it is important to use this report as a key reference for the updating of each chapter of the new plan, and consider the recommendations for reorganizing and adding the priority chapters not currently included.
- 2. Support and Adoption by Leadership:** It is important for elected officials and agency heads to publicly adopt the goals of resilience through formal processes of policy adoption and informal ways of communicating their support to interested parties. Formal adoption of a comprehensive plan that includes resilience components is helpful. Finding ways to adopt resilience principles more directly with a special resolution can raise the profile for others to follow. It's also important that subsequent adoptions of policies, codes, and budget allocations continue to be aligned and consistent with resilience goals.
- 3. Enforceable Zoning, Codes and Ordinances; Standard Operating Procedures; and Behavioral Incentives:** To be effective, the report's resilience recommendations must be taken to the next step of translating planning policies into actionable county and city policies, enforceable codes and ordinances, upgrades to departmental operating procedures; procurement rules; and effective incentives for voluntary resilient on-the-ground practices. A culture of sustainability and resilience needs to be cultivated such that each decision includes consideration of both the short-term and long-term implications of the choice being made. Codes and ordinances need to be updated to meet state requirements while also enabling the resilience objectives in the comprehensive plan goals. Procurement rules can be upgraded to encourage use of renewable and reliable sources for materials and energy with future building projects. Emergency response and business continuity planning and drills can be updated to account for changes in extreme weather events not anticipated in past years, such as high heat days and localized street flooding.
- 4. Contractors, Project Design, and Procurement Specifications:** When developing any type of call for proposals, project bids, or purchase orders, resilience factors can be included in the decision making criteria. That includes a wide range of opportunities to upgrade criteria for contractor

choices; such as calling for project designs that account for unexpected extreme weather in the short term and potential for greater extremes in future years. Engineering specifications should factor in future projections for temperature and precipitation patterns. Design or construction contracts can include requirements for advanced training and certifications in low impact development and green building standards, such as LEED AP and Green Globe. Adopting International Building Codes that go beyond the state minimum has been proven to be a positive return on investment as a hazard mitigation strategy. These requirements can apply to government facilities to lead by example and to private project design specifications submitted for approval too, especially if development is proposed for prime farmland, sensitive or hazardous areas, floodplains, or other special zones.

5. Staff and Contractor Roles and Responsibilities: Resilience can be cultivated by consciously including sustainability and resilience roles in each person's job description or scope of work for both local government staff and in choosing contractors for projects and services. This easy step can have large positive ripple effects in terms of who is hired or contracts with and how that person does their job. It also serves to institutionalize that role so it persists with staff turnover.

6. Budget Allocations: For resilience activities to truly be sustainable, implementation requires that the authority of the policies and practices be supported by budget allocations for the necessary activities. That can include a variety of allocations from hiring a resilience officer to simply allowing a 10% increase in budget amount for sustainable product choices, when available. Be sure project budgets allow for resilience features in time and supplies for contractor work. Also, be sure budgets provide support for outreach and education to all stakeholders to build support and a culture of resilience into agency staff and local residents.

7. Collaboration and Cross Training: A multi-jurisdictional leadership team can incorporate these resilience goals into regular meetings specifically to monitor plan implementation and look for ways to collaborate, economize, and improve on shared results. Regular meetings can facilitate shared resources and coordinated activities. Cross training of first responders and agency staff across multiple jurisdictions, plus harmonization of equipment and communications, may also save on costs and resources while improving performance in times of emergency. This should also facilitate cross integration of the newly updated economics development plan and hazard mitigation plan with the comprehensive plan update process.

8. Create a Short Term Action Work Plan: It is highly recommended to prioritize the desired actions from the updated comprehensive plan and create a short-term (6-12 month) action work plan with specific milestones, dates, and responsible parties to ensure that action is taken from the plan provisions. The work plan can be tracked by the multi-jurisdictional leadership team to ensure the plan is put into action and keep it updated every 6-12 months, with regular progress reports to celebrate achievements.

9. Community Outreach: It will be difficult to make changes in the comprehensive plan, zoning, and subdivision ordinances without buy-in from stakeholders and the public. Any process to change plans and ordinances should involve extensive public outreach and take the time needed to gain

public acceptance. Once new standards are adopted, there may need to be training for developers on how to comply with standards. Enforcement of standards may take the approach of bringing the community into compliance rather than punishing those who do not immediately adopt the correct standards.

This report should be utilized as a companion guide to the Resilient Madison 2020 Report where you can find more detailed treatment of risk assessment, resilience goals, and extensive references and resources, including an Appendix of potential funding resources to support implementation of resilience strategies of all kinds.

CONCLUSION

Comprehensive planning is foundational for increasing resilience at the local and county level. Much has changed since 2008 when the last update took place, and the county has both the opportunity and challenge to revisit and update a new plan that addresses existing and emerging challenges.