



**BOARD OF COUNTY
COMMISSIONERS**



TOWN COUNCIL

JOINT INFORMATION MEETING AGENDA DOCUMENTATION

PREPARATION DATE: October 28, 2009

MEETING DATE: November 2, 2009

SUBMITTING DEPARTMENT: Town and County Planning

DEPARTMENT DIRECTOR: Tyler Sinclair and Jeff Daugherty

PRESENTER: Tyler Sinclair and Jeff Daugherty

SUBJECT: Proposed Jackson/Teton County Environment Commission

STATEMENT/PURPOSE

The purpose of this item on your agenda is to present the responsibilities and contribution of the proposed Jackson/Teton County Environment Commission.

BACKGROUND

The proposed Environment Commission originated with Sustaining Jackson Hole (SJH) Environment Group. The members of that group introduced the concept to the Town and County officials in November 2008 (Attachment III). The SJH Environment Group has been meeting since 2004. In 2008 planners from the Town and County were invited to participate in a mini-summit to discuss issues of policy/planning and science. The mini-summit group concluded that in order to meet the goals of the community and the draft Comprehensive Plan, the community's planning efforts need to formally incorporate the use of science into planning.

As a result of SJH Environment Group's efforts, Theme 1 of the draft Comprehensive Plan proposes the establishment of the Environment Commission. During the Town and County Planning Commissions' review of the draft Comprehensive Plan, they requested that the concept of the Environment Commission be brought forward at this time and that it be implemented prior to the adoption of the revised Comprehensive Plan. The Planning Commissions are in favor of the Environment Commission but recommended some changes. Their recommended changes have been incorporated into the attached *Responsibilities of the Jackson/Teton County Environment Commission* document (Attachment I).

Staff presents the framework of the Environment Commission for your review and consideration. The framework consists of two documents: Attachment I: *Responsibilities of the Jackson/Teton County Environment Commission* and Attachment II: *Qualifications/Expertise of the Jackson/Teton County Environment Commission*.

Once established, the Environment Commission would be responsible for establishing their operating plan and task prioritization.

ATTACHMENTS

Attachment I: *Responsibilities of the Jackson/Teton County Environment Commission*

Attachment II: *Qualifications/Expertise of the Jackson/Teton County Environment Commission*

Attachment III: Sustaining Jackson Hole – Environment Group’s November 2008 letter to Town and County officials “Applying Science to land Use Planning in the Jackson Hole region: Fundamental Principles, Considerations, and Recommendations”

NOT ATTACHED BUT AVAILBLE UPON REQUEST: *Integrating Science into Policy: A Case Study of Mule Deer in Jackson Hole*

This report represents recent efforts undertaken by the Northern Rockies Conservation Cooperative. It is an example of work inspired by Sustaining Jackson Hole – Environment Group’s mini-summit. The report strives to connect scientific data with planning and policy and would be one example of the type of work product produced by the Environment Commission.

FISCAL IMPACT

Funding of the Environment Commission will be a co-operative approach. Funding will be set annually based upon the work program established by the Commission and its applicability to each jurisdiction, i.e. one year studies may be mostly County focused and in other years Town focused. However, it is likely that most research will have a County focus. It is anticipated that the shared cost between the Town and County would be between \$5,000 and \$10,000 per year. Additional funding is expected through non-profits and grants. The County has currently allocated funds for the search and initial funding for Environment Commission this fiscal year.

STAFF IMPACT

Although the proposed Environment Commission would be a joint Town and County Commission, it should be noted that the majority of the environmental issues are within the County. It is estimated that adoption of the Environment Commission would result in 10 to 20% of one full time County employee’s time. Town of Jackson staff time would be committed as required.

LEGAL REVIEW

NA

RECOMMENDATION

The Jackson and Teton County Planning Commissions and Town and County Staff recommend that the Environment Commission be established immediately. Upon approval, Staff recommends that a search for qualified applicants begin immediately.

SUGGESTED MOTION

Jackson Town Council

I move to approve:

1. the immediate establishment of the Jackson/Teton County Environment Commission based upon the *Jackson/Teton County Environment Commission Responsibilities and Qualifications/Expertise* documents.
2. the search for qualified applicants for the Jackson/Teton County Environment Commission.

Teton County Board of County Commissioners

I move to approve:

1. the immediate establishment of the Jackson/Teton County Environment Commission based upon the *Jackson/Teton County Environment Commission Responsibilities and Qualifications/Expertise* documents.
2. the search for qualified applicants for the Jackson/Teton County Environment Commission.

Attachment I

Responsibilities of the Jackson/Teton County Environment Commission

Jackson/Teton County Environment Commission
Responsibilities
October 22, 2009

The Mission of the Jackson/Teton County Environment Commission is to develop and provide the public and local decision-makers with a comprehensive, science-based understanding of the health of the Teton region's ecosystems. The primary purpose of this work is to inform Town and County policy decisions about these ecosystems.

Recognizing that local government already devotes significant resources to planning for the development of individual parcels and smaller areas of the community, the Environment Commission will focus its efforts on developing the knowledge needed to understand environmental health and functions at the ecosystem level. Based on this information, the Environment Commission will make recommendations to government officials about policies addressing the region's ecosystems.

In pursuit of its mission, the Environmental Commission will:

1. Oversee the development of a comprehensive and on-going inventory of the Teton region's ecosystems, and the health of each of their components;
2. Identify what is known and not known about the region's ecosystems, prioritize what needs to be learned, and help effect the research needed to obtain that information;
3. Evaluate Town and County policies relating to the region's ecosystems, identify areas where those policies need improvement, and make recommendations about how they can be improved;
4. Work with scientists and planners to identify ways in which government officials can best incorporate sound ecological science into land use and other policy- and planning-related decisions; and,
5. Work with government officials to assess the effectiveness of policies affecting the Teton region's ecosystems.

To bring the necessary scientific rigor to its work, the Environment Commission will be a voluntary board comprised primarily of scientists with significant knowledge of the Teton region's ecosystems, complemented by at least one member with policy expertise. Whenever practicable, the Environment Commission will seek input and assistance from individuals and institutions conducting scientific research in the Tetons region, including the Teton Conservation District, Wyoming Game and Fish Department, US Fish and Wildlife Service, National Park Service, US Forest Service and other public, private, and non-profit sector organizations.

Attachment II

Qualifications/Expertise of the Jackson/Teton County Environment Commission

Jackson/Teton County Environment Commission
Qualifications/Expertise

October 22, 2009

The Mission of the Jackson/Teton County Environment Commission is to develop and provide the public and local decision-makers with a comprehensive, science-based understanding of the health of the Teton region's ecosystems. The primary purpose of this work is to inform Town and County policy decisions about these ecosystems.

To best effect this Mission, the Town of Jackson and Teton County governments believe that members of the Environment Commission must possess the basic personal and professional qualifications described below. In addition to these threshold qualifications, the Town and County will consider the totality of the candidate's credentials, experience and expertise, the composition of the Commission at the time, and other factors that will affect the contributions a candidate can be expected to make to the Commission.

Qualifications – General

As befits its role as a recommending board, Environment Commission members will possess and offer to the elected officials a combination of scientific and policy expertise.

1. Absence of Conflicts of Interest – Candidates should not have any interests that would materially impair their ability to exercise independent judgment.
2. Achievement – Candidates must have demonstrated professionalism and expertise in their field, and achievement in one or more scientific, governmental, community, or educational endeavors.
3. Process – Candidates are expected to have sound judgment, derived from scientific or policy-making experience, which demonstrates an ability to function effectively in an advisory role.
4. Local Knowledge – Candidates shall be familiar with environmental, scientific and land use issues in Teton County. Residency within Teton County is helpful, but not required.
5. Work Style – Candidates must possess mature and objective judgment and expertise, and have demonstrated a history of successful teamwork.

Qualifications – Experience and Scientific/Policy Expertise

Individual members of the Environment Commission will have extensive knowledge of, and experience in, at least one of the following fields:

- Ecology of human-dominated landscapes;
- Effects of infrastructure and development on specific aspects of ecosystems;
- Ecosystem processes, functions and/or services;
- Interpretation of scientific principles and literature to non-technical audiences;
- Effective communication skills;
- Knowledge of the realities of political, policy and governmental processes; and,
- Familiarity with environmental and land use issues in Teton County.

Specific Areas of Scientific/Policy Expertise

The Commission will be comprised of seven members. Of these, five members will be well-qualified in one or more aspects of ecosystem science, one will be well-qualified in one or more aspects of public policy, and one will be at large.

In order for the Commission to achieve maximum effectiveness, candidates will be evaluated based on the qualifications listed above, as well as their technical expertise in one or more of the specific disciplines listed below. These requirements are based on community interest and areas focused on in the current comprehensive plan, and are subject to change as circumstances change in the future.

Wildlife Ecology – 2 seats

Given wildlife's importance to both local land use planning and the community's overall character and economy, two seats will be filled by people with an expertise in wildlife ecology. Members holding these seats will, in aggregate, be knowledgeable about as many of the following ecological disciplines as possible:

- Habitat use/ecology;
- Ungulates (especially elk, deer, moose);
- Predators/higher trophic level species (especially bears, wolves, mountain lions);
- Waterfowl (especially swans);
- Raptors (especially eagles);
- Threatened and endangered species; and,
- Human wildlife interaction.

Aquatic Ecology & Hydrology – 2 seats

Given the key role the region's water systems play in maintaining overall environmental quality, and given the increasing importance water quality issues are playing in land-use issues, two seats will be filled by people with an expertise in water-related environmental science. These disciplines include:

- Native fish, habitat, and habitat restoration;
- Riverine systems;
- Fisheries management;
- Wetland identification;
- Wetland mitigation;
- Wetland restoration/human constructed wetlands;
- Surface and subsurface hydrology including irrigation;
- Riparian ecology (especially as related to human impacts); and,
- Water quality.

Landscape & Vegetation Ecology – 1 seat

- Environmental effects of development at landscape level
- Ecosystem processes/services
- Land use planning
- Disturbance regimes (e.g. fire ecology)
- Restoration of vegetation communities
- Geographic Information System (GIS) familiarity

Policy – 1 seat

- Expertise and experience in collaborative private and/or public policy development
- Interest in and knowledge of environmental/science issues and related topics
- Experience in a similar position on a public or private board charged with setting or recommending policy decisions
- Land use planning

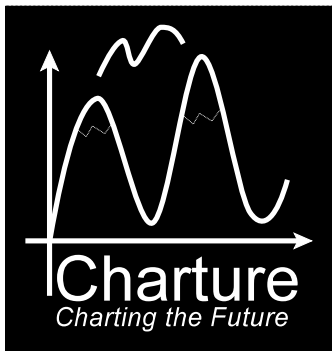
At Large – 1 seat

- Expertise in contemporary issues of concern
- Examples may include: GIS/database specialist, geologist, seismic expert, water quality expert, air quality expert, etc.

In the event that a particular expertise is needed that the Commission does not possess, the Commission will be encouraged to seek outside consultation.

Attachment III

Sustaining Jackson Hole – Environment Group’s November 2008 letter to Town and County officials “Applying Science to land Use Planning in the Jackson Hole region: Fundamental Principles, Considerations, and Recommendations”



November 5, 2008

EXPLORING ISSUES OF GROWTH, CHANGE, AND SUSTAINABILITY IN PLACES OF ECOLOGICAL AND AESTHETIC SIGNIFICANCE

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Jonathan Schechter
Executive Director

The Teton County, Wyoming Board of County Commissioners and Planning Director
The Jackson, Wyoming Mayor, Town Council and Planning Director

Dear Commissioners, Mr. Mayor, Councilors, and Planning Directors,

On behalf of the Sustaining Jackson Hole Environment Working Group, please find attached a document outlining the group's suggestions for helping better integrate environmental science into the land use planning and policy making process.

The group's hope is that this paper will help the entire community move closer to the proposed Comprehensive Plan's stated ideal of: "Maintain viable populations of all native species, preserve scenic vistas, and use resources in the most efficient way possible."

Thank you for consideration of the group's views.

Very truly yours,

Jonathan Schechter
Executive Director

**Applying Science to Land Use Planning in the Jackson Hole region:
Fundamental Principles, Considerations, and Recommendations
Sustaining Jackson Hole Environment Working Group
November, 2008**

Introduction

The Sustaining Jackson Hole Environment Working Group (SJH-E) is composed of environmental scientists, advocates, activists, and others interested in sustaining the environmental quality of the Tetons region. It has been meeting intermittently since 2004 to discuss issues of mutual concern.

In 2008 the group invited local planning officials to participate in a SJH-E mini-Summit. The goal of the session was to give both sides a better sense of each other's views, work, focus, and the like. This paper builds on that and subsequent discussions.

During the course of several meetings, SJH-E group members and policy makers consistently and frequently expressed concern that, when it comes to environmental policy making in the Jackson Hole area, there has been a gulf between science and policy. Grossly oversimplified, the concern is that scientists believe policy makers do not incorporate good science into their decisions, and that policy makers believe scientists do not conduct studies relevant to the issues policy makers face. This perceived gulf was viewed as especially problematic in light of the current effort to update the Town-County Comprehensive Land Use Plan (Comprehensive Plan).

Further informing the mini-Summit and subsequent discussions was the fact that there is broad agreement in the greater Jackson Hole community that the number one priority of the updated Comprehensive Plan should be maintaining wildlife and their habitat. To help address this priority, this document outlines an approach for applying science to land use planning in the Jackson Hole region.

This joint science-planning approach will focus on the first theme of the Comprehensive Plan: "Promote Stewardship of Wildlife Habitat and other Environmentally Sensitive Areas and Resources." In particular, it will focus on helping the community work toward that theme's Statement of Ideal: "Maintain viable populations of all native species, preserve scenic vistas, and use resources in the most efficient way possible." This same approach can also help effect the other Statements of Ideal specified elsewhere in the Comprehensive Plan.

**The Comprehensive Plan and the Sustaining Jackson Hole Environment Working Group:
Working Toward Ideal**

When Sustaining Jackson Hole began in 2004, it divided life in Teton County into 12 "Areas of Interest," and formed a "Working Group" for each. In turn, for its respective Area of Interest, each Working Group was asked to create a "Statement of Ideal," a statement which uses specific, unambiguous, and measurable language to describe an ideal future. The Environment Working Group's Statement of Ideal was: "Human activities in Teton County will allow for viable populations of all native species, and unimpeded natural scenic vistas." This language has become the cornerstone of the first theme (the "Stewardship" theme) of the updated Comprehensive Plan.

Since crafting this statement, the SJH-E Working Group has gone on to consider how Teton County might achieve its Ideal of sustaining "...viable populations of all native species." The group has done so recognizing that, rather than a goal to be reached, a Statement of Ideal is better viewed as a pole star to be continuously pursued. The group also recognizes that even attempting to

maintain viable populations of all local native species will be a Herculean task, one which will involve harnessing the resources and skills of individuals and organizations in the public, private, and non-profit sectors.

As the community embarks on its pursuit of this Ideal, the SJH-E group hopes to aid the process by offering the perspectives of scientists actively involved in studying and working with Teton County's ecosystems. In particular, this paper offers three ways scientists can help Teton County begin its process of maintaining viable populations of all native species:

1. Suggest what policy-makers can – and, critically, cannot – expect science and scientists to tell them about land use decisions.
2. Describe a process for more thoughtfully incorporating current and future scientific information into local land use decisions.
3. Within that process, begin to identify and prioritize the research necessary for policy makers to make better science-based land use decisions.

Background – The Fundamental Dilemma

In the past, there have been misunderstandings between policy makers and scientists regarding science and land use decisions. However, with the formation of SJH-E, policy makers and scientists have begun the process of coming together to work on joint solutions.

At the core of many of the past misunderstandings has been a fundamental difference between policy making and science. Simply put, policy decisions are the end result of a finite process: After a period of deliberation, a definitive vote is taken, and a proposal is either approved or denied. In contrast, good science is an on-going process, with additional information always being added and conclusions often being re-examined.

By extension, what policy makers need from science is not only answers that lend themselves to a definitive “yea-or-nay” vote, but answers provided in a time frame in sync with the “time-is-money” nature of development proposals. In contrast, what scientists need from policy makers is an appreciation of both the uncertainties inherent in studying nature, and the multi-seasonal time frames needed to do good nature-related science.

What Science Is, Isn't, and Could Be

At the SJH-E mini-Summit in February, 2008, Doug Wachob, a Ph.D ecologist and then-director of the Conservation Research Center of the Teton Science Schools, gave an address describing what science isn't, is, and could be. The purpose of his talk was to begin closing the gulf between science and planning in the Tetons region. This section is drawn from his talk.

What Science Is Not

- Science has been taught not just as a collection of facts, but as a collection of facts without uncertainty. It is neither.
- Even the best science is filled with uncertainty. Further, even the best science often cannot provide an extremely precise answer to a particular question.
- Science is not an encyclopedia you can take off the shelf, dust off, and use to find answers to your questions. Nor is it a collection of reports in a planner's office with a tidy table of contents that allows the planner to have every question answered.

What Science Is

- Science is a verb.
- Science is something you do; a way of knowing, an endeavor, a process.
- Science is basic to our human nature and our ultimate means of understanding the world around us.
- Science is simple; a process of six basic sequential steps:
 1. Ask a question and form a hypothesis
 2. Design an investigation
 3. Collect data
 4. Analyze data
 5. Draw conclusions
 6. Share results (which usually results in more questions)

The Planning/Science Partnership

Science can clearly make significant contributions to the land use planning process. However, when making land use policy-related requests of scientists, it is important for policy makers to keep in mind the following.

- *Questions science can effectively answer depend in many ways on how the questions are posed and how the resulting study is designed.*

Research takes time – how much time depends on the processes being studied, the questions being asked, and how much light already-published research can shed on the questions being considered.

In asking questions of science and scientists, policy makers must also keep in mind a very important reality: Science does not “prove” something to be true. Instead, research results support or refute a particular hypothesis, and do so with a particular level of confidence.

There is a practical consequence of this reality for policy making. While existing literature may allow scientists to formulate hypotheses regarding questions on subjects such as development locations, densities, cumulative impacts, and the like, these will be only hypothetical answers; i.e. answers not confirmed by hypothesis-specific research. As a result, while existing research can shed general light on a specific question, achieving a particular level of precision regarding that question requires hypothesis-testing through the six-step process outlined above.

- *Science has a hard time answering questions which require a relatively immediate response, and those which are posed piece-meal.*

Traditionally, these two realities have been a sticking point for using science in the planning process.

For instance, while the Natural Resource Overlay may suggest that a particular development proposal needs additional natural resource review, there is rarely sufficient time or resources available for scientists to answer specific questions about

specific proposals. Similarly, a particular development proposal may have environmental implications for an area larger than the parcel in question.

In such cases and many others, rendering a policy decision in a time frame which treats a property owner fairly may make it difficult, if not impossible, to do good parcel-specific science. When such conflicts occur, planners are often left with little solid information, and in turn must inform their decisions with less scientifically-valid information (such as personal opinions from state and local agency staff members).

- *Scientists can be asked to develop hypotheses and research programs for both current and future land-use scenarios*

Such scenarios can be developed by both planners (“growth is likely to occur in these places”) and scientists (“current research suggests there may be problems with species found in these locations”), whether working alone or together. Over time, developing a program of formulating and testing such scenarios can make the planning process easier for policy makers, and help better integrate applicable science into that process.

A Proposed Solution: Prioritized Next Steps

The challenges outlined above are real and significant, but can be successfully addressed. To do so, however, will require both policy makers and scientists to understand and respect each others’ needs; by extension, it will require both parties to modify their current approaches to one another. However, both parties have significant incentives for making this effort: To address the community’s desire to have viable populations of all native species, policy makers want to make their land use decisions based on the best-possible science; to ensure their research affects land use decisions, scientists want to make sure their work is understood by, and of importance to, policy makers.

Step 1 – Create a joint County/Town Environment Board

The Environment Board would be similar to other bodies which make recommendations to the electeds (e.g. the planning, energy efficiency, pathways, and recycling boards). Like those bodies, the Environment Board will be an appointed, volunteer committee of people interested in the field; in this case, the Environment Board would be comprised of scientists and others knowledgeable about the area’s environment. The Sustaining Jackson Hole Environment Working Group has laid a relevant foundation for this effort, and could facilitate its establishment.

Symbolically, the Environment Board would provide formal recognition that the “...viable populations of all native species” Statement of Ideal is important to the community and integral to the Comprehensive Plan. It would also provide a formal link between the planning staffs and the community’s existing environmental resources.

As with other such bodies, in order to be effective, the Environment Board would need not only formal recognition by the County and Town governments, but also formal logistical support. This would include dedicated staff contacts (e.g., in the Planning Departments), and a minimal budget to cover the board’s administrative costs (e.g. preparing board packets).

The Board would meet at least monthly, and have a three-part mission:

1. Develop and oversee a strategy and action plan for helping the County and Town move consistently closer to Ideal.
2. Consider how individual projects and policies affect the community's pursuit of Ideal; in particular, how such projects and policies fit into the strategies and action plans developed by the Board.
3. At least annually, report on the community's progress toward Ideal.

Step 2 – Create a county-wide vegetation map

Because the health of the county's wildlife can ultimately be no better than the health of its vegetation, the Board's first goal should be to facilitate the preparation of a vegetation map for the county. This tool will, in turn, serve as the cornerstone of a habitat map.

The county GIS system provides a foundation for this effort, which should also incorporate new (< 5 years old) vegetation maps made on surrounding public lands (e.g., Bridger-Teton National Forest, Grand Teton National Park, and the National Elk Refuge). In addition, the Teton Conservation District has been collaborating with various public and private entities to gather very detailed elevation and vegetation data in portions of the valley.

This effort will cost some undetermined sum, the funds for which the Environment Board should help identify and pursue. Because of the symbolism involved, the Town and County should be willing to partially fund such a mapping effort.

Step 3 – Create one or more Environment positions within local government

A County/Town Environmental Scientist would be a staff position similar to those created for Pathways, Energy Efficiency, etc. As with these other positions, the staff Environment position(s) would provide support for effecting the Ideal-oriented planning and research steps developed by the Environment Board and electeds.

Step 4 – Develop a methodology and tools to evaluate “cumulative impact”

In order for Teton County to move closer to its Ideal of having viable populations of all native species, the SJH-E Working Group believes the community must have a far better understanding of the cumulative impacts of the many piece-meal land use decisions the community has made, and will continue to make every year. In overall importance, understanding cumulative impacts ranks second only to having a base vegetation/habitat map (and these two projects could be pursued simultaneously).

Because of the coordination efforts required, efforts to understand cumulative impacts should be led by the Town/County Environmental Scientist, in collaboration with the Environment Board.

Initial efforts should include identification of existing “cumulative impact” tools used elsewhere (if any such examples can be found), and evaluation of their applicability to Teton County (i.e. do not re-invent the wheel). Based on this evaluation, next steps specific to Teton County's situation could be identified and pursued.

Step 5 – Coordinate with other agencies and organizations

Begin to coordinate, with other agencies and organizations, approaches and uses of the vegetation map and cumulative impact assessment tools.

Having an Environment staff and an Environment Board will allow formalized, efficient communication and coordination between land use policy makers and private developers, state and federal agencies, and others whose individual projects cumulatively affect wildlife and habitat.

For example, over the next decade, WYDoT's planned construction projects in Teton County hold huge potential to significantly affect wildlife and habitat. To ensure that these projects align with Ideal, the County and Town can look to the Environment Board and staff scientist(s) to guide their recommendations to, cooperation with, and oversight of, WYDoT.

Conclusion

Through the updated Comprehensive Plan, Teton County and the Town of Jackson have an opportunity to pursue an Ideal – viable populations of all native species – not only in keeping with the community's desires, but which will benefit the community for generations to come.

In order to successfully pursue this ideal, however, the community's planning effort needs to formally incorporate the use of science into planning. Formation of an Environment Board and hiring a staff Environmental scientist(s) will form this necessary link connecting science and planning, allowing local government to identify, develop, and use the foundational information and tools they need to make planning decisions aligned with Ideal. While these steps alone will not ensure Teton County can maintain viable populations of all native species, they are necessary first steps toward pursuing this Ideal.