



Designing a Management Plan

Students role-play stakeholder groups in a roundtable decision-making process.

SECTION 5 Finding Solutions

Subjects:

*biology, sociology,
government,
economics,
geography,
public speaking*



Approximate lesson time:

2 hours



Materials:

map of Colorado

STUDENT OBJECTIVES:

At the end of this lesson, students will be able to

1. Define the goals of a stakeholder group.
2. Develop a management plan for their “interest group” of stakeholders.
3. Negotiate terms of their plan with other interest groups through compromise.
4. Articulate some difficulties associated with compromise.

VOCABULARY:

compromise • management
• stakeholder • roundtable
• livestock • depredation

TEACHER BACKGROUND:

Once students are familiar with the issues surrounding wolf management, this lesson will be their chance to put all of that information together to develop a management plan from the perspective of a stakeholder group. Students will take on wolf management in the state of Colorado. At the time of publication, wolves had not returned to Colorado, either by reintroduction or natural recolonization. However, because wolf populations exist in states both

north and south of Colorado, wolves may soon establish a population there.

In Part One of this activity, students will research the position of an assigned stakeholder group and then propose a wolf management plan for the state of Colorado from the point of view of that stakeholder group. In Part Two, the groups will shuffle, and the new groups will have at least one representative of each stakeholder group, simulating a roundtable meeting. During the roundtable meeting stakeholder representatives will submit their wolf management proposals to each other, and each group must develop a solution agreeable to all stakeholders.

To be more effective problem solvers for wolf management, we need to analyze both the natural and social systems in which we live. We need to look very carefully to identify all of the parts and relationships within these systems and between these systems. Many times, our solutions do not account for all of these interrelationships, and as a result, the solutions may not work very well. The more parts and relationships we can identify and account for, the better chance we will have for a more successful solution.

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**National
Science
Education
Standards**

**Unifying Concepts
and Processes**

*Systems, order, and
organization*

*Evidence, models,
and explanation*

*Change, constancy,
and measurement*

Life Science (5–8)

*Structure and function
in living systems*

*Reproduction and
heredity*

Regulation and behavior

*Population and
ecosystems*

Life Science (9–12)

*Interdependence of
organisms*

Behavior of organisms

**Science in
Personal and
Social Perspectives
(5–8)**

*Populations, resources,
and environments*

Risks and benefits

*For more
correlations,
please see
Appendix IV.*

When first analyzing a situation that needs to be resolved, all parties must agree on the basic facts. What has happened in the past? What is currently happening? In the case of wolf management, some stakeholder groups disagree on an estimate of the number of wolves in the population, so it is difficult to formulate a plan for their management when the foundation is disputed.

It is also important to identify all parts of the natural and social systems involved in the issue. Who/what will be affected by the decisions made? These will include human groups and non-humans such as plants and animals. The humans who are affected by an issue are called stakeholders. They have a stake in what happens. To understand the issue, you must find out what the needs and/or desires of all the stakeholder groups are. At this point, it may become apparent that appeasing one kind of stakeholder may lead to the detriment of another stakeholder.

Once all the stakeholders are known, you can begin to identify possible solutions. By considering many alternatives, you can anticipate outcomes that may be satisfactory. Involving stakeholders in the identification and selection of solutions helps all parties to become invested in the result. Because they had a hand in choosing the solution, they will want to see it succeed.

If the issue is contentious, it may seem that there is no solution that will satisfy everyone. This is the point where many issues become mired in controversy. Finding a compromise can be difficult, even

painful at times, but skills such as negotiation, leadership, cooperation and listening can smooth the road.

Once a solution is defined, it must be refined and then communicated. Predicting the long-term impacts of the solution on both the social and natural systems involved helps to anticipate any domino effects that may occur with implementation of the solution.

ACTIVITIES:

PART ONE:

1. Divide the class into six groups.
2. Assign each group one stakeholder group to represent. The position each group is assigned to is the position that all the group members will espouse for the remainder of this lesson.
3. Instruct each group that they are to create a wolf management plan for the state of Colorado from the perspective of their stakeholder group. Students may research the activities and perspectives of their assigned group using the Web links provided below.

Each group should answer the following questions:

- Where will wolves be allowed to live? What if wolves go outside of this area?
- How many wolves will you consider “enough”?
- How will you respond to problems with livestock?
- Will wolves be protected? How?
- Will hunting be allowed?

If there is time, have the students predict the following based on their proposal:

- How might the citizens of rural Colorado view this plan? Livestock owners? Urban residents?
- What are the positive and negative economic impacts of implementing the plan? (Think about big-game hunting, tourism, depredation etc.)
- How would this plan impact the elk population in the state?
- How will this plan affect the biodiversity of the state?
- Which other stakeholder groups will support this plan? Oppose it?

PART TWO:

4. Representatives from each stakeholder group should join new “roundtable” groups, made up of at least one member of each stakeholder group. These new groups should explain their proposed wolf management plan to the others in the group.
5. The roundtable group should discuss all the plans and devise a combined plan that all stakeholders agree to.
6. A spokesperson from each group will present their group’s plan to the class or a “legislature” of parents and other volunteers. The class can ask questions or provide the group with feedback on their plan after the presentation.

Discussion:

- What happened as you tried to come to consensus?
- How would this process be different if real feelings and money were at stake?
- What would it take to come to agreement? Is that possible?
- What problems do we have to solve yet?
- What would you like to see happen?
- What advice do you have for the people in charge of developing wolf management plans?
- How does your learning about this issue help the process?
- How can you be part of the solution?

ASSESSMENT:

1. Instruct each roundtable group to submit a full report of their group’s proposal. Be sure they include answers to the questions in #3 above. Require every group member to sign the proposal, indicating their satisfaction with the plan.
2. Teachers may assess the project using the following characteristics:
 - To what extent did each student sincerely and fairly represent their assigned stakeholder’s interests?
 - To what extent did the groups calmly and fairly negotiate a solution?
 - To what extent does the plan accommodate all stakeholder needs?
 - To what extent will this plan guarantee a long-term, stable wolf population?

STAKEHOLDER GROUPS:

Colorado Division of Wildlife:
<http://wildlife.state.co.us>

Rocky Mountain Elk Foundation:
<http://www.rmef.org>

Colorado Cattlemen's Association:
<http://cca.beef.org/>

Colorado Wool Growers Association:
http://www.wolfforum.org/position_statements/WolfPositionPaperFinal04.13.04.pdf

Sinapu: <http://www.sinapu.org/>

Southern Rockies Wolf Restoration Project: <http://www.rockywolf.org/>

NOTE: Some of these stakeholder groups have official position statements on wolf recovery in Colorado posted on the Web site of the Wolf Forum of the Southern Rockies: www.wolfforum.org.

EXTENSION:

Students may research wolf management plans approved by other states to see how their plans compare. Most states have their plans posted on the Internet. The Web links listed here were correct at the time of publication, but if some links don't work, try the International Wolf Center's Web site at www.wolf.org for updated information.

State wolf management plan information:

Colorado

http://wildlife.state.co.us/species_cons/GrayWolf/

Idaho

http://www.accessidaho.org/species/id_wolf_cons_plan.pdf

Michigan

http://www.dnr.state.mi.us/publications/pdfs/huntingwildlife-habitat/wolf_mgmtplan.pdf

Minnesota

http://files.dnr.state.mn.us/natural_resources/animals/mammals/wolves/wolfplan2000.pdf

Montana

<http://fwp.state.mt.us/wildthings/wolf/default.html>

Oregon

<http://www.dfw.state.or.us/wolves/>

Utah

<http://www.wildlife.utah.gov/wolf/>

Wisconsin

<http://www.dnr.state.wi.us/org/land/er/publications/wolfplan/toc.htm>

Wyoming

<http://gf.state.wy.us/downloads/pdf/WolfPlanFinal8-6-03.pdf>