

# People, Partnerships and Communities

*The purpose of the People, Partnerships, and Communities series is to assist The Conservation Partnership to build capacity by transferring information about social science related topics*

USDA Natural

Resources  
Conservation  
Service

Social  
Sciences  
Team

## Prioritizing Issues or Concerns Using the Paired Comparison Technique

### Why prioritize issues or concerns?

Prioritizing items discussed at a meeting with a group of people can often be difficult and time consuming. A technique called *paired comparison* can be useful for ranking items related to a particular issue that are too numerous or too similar to mentally rank order. This technique also ensures that every participant has a vote in what gets prioritized.

The use of paired comparisons can be found in situations as common as getting your eyes examined for glasses. The doctor has you look at an eye chart through a number of different lenses. The goal is to find “Which of these lenses enables you to see the eye chart better? This first one or this second one?” They switch the lenses back and forth until you tell them which one makes your vision better. Then the doctor goes on to another set of lenses and repeats the process until the best lenses are identified to correct your vision. The exam is a systematic process of presenting pairs of different lenses and eliminating lens options until the best lens is found.

### Who can use this technique?

Anyone may use this technique and apply it to a collection of items addressing a particular topic or issue. This can be an especially useful technique in the Conservation Partnership when prioritizing issues such as conservation practices, resource problem areas or watershed issues.

### When can this technique be used?

After brainstorming with the community



members about priority concerns in their community, you usually end up with a long list of issues. It is not always easy to prioritize that list after issues have been raised.

*(continued on reverse side)*

Depending on the number of items needing to be prioritized, paired comparison may be done manually or with computer software. With fewer than ten items, prioritizing the list by hand using a matrix is recommended. For longer lists of items, you might want to use a paired comparison software program.

### How do you use this technique?

The following example shows you how prioritization can be done manually using a flip chart. You meet with conservation partners in a small community in your district and work with them to try to identify significant resource concerns. Through brainstorming and discussion, the community comes up with the following concerns: animal waste, cropland erosion, ground water quality, urban encroachment on farmland, biological diversity and wetlands (See Figure 1).

All of these issues are important to the community, but community members need to prioritize them to determine which item to address first. To use this technique, your first step would be to draw a matrix similar to the one shown in Figure 2.

The purpose of using the matrix is to identify all possible pairs of resource issues. Each cell in the matrix represents a pair of resource issues that will be compared to one another. For example, moving down the “Animal Waste” column, “wst/ero” represents the comparison of animal waste and erosion; “wst/urb” further down the column represents the comparison of animal waste and urban encroachment on farmland.

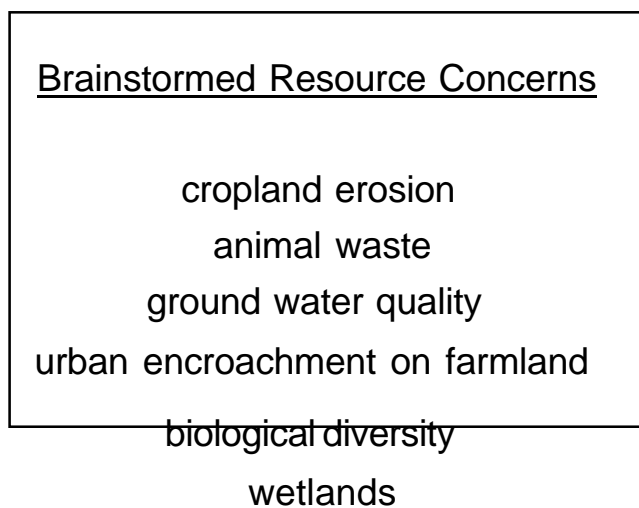


Figure 1

### Paired Comparison Matrix First Iteration

	A n i m a l W a s t e	C r o p l a n d E r o s i o n	G r o u n d W a t e r Q u a l i t y	U r b a n E n c r o a c h m e n t	B i o D i v e r s i t y	W e t l a n d s
A n i m a l W a s t e						
C r o p l a n d E r o s i o n			o			
W	t	w	t			
U r b a n E n c r o a c h m e n t			u		b	
B i o D i v e r s i t y						v
W e t l a n d s						

Figure 2



### Paired Comparison Matrix Second Iteration

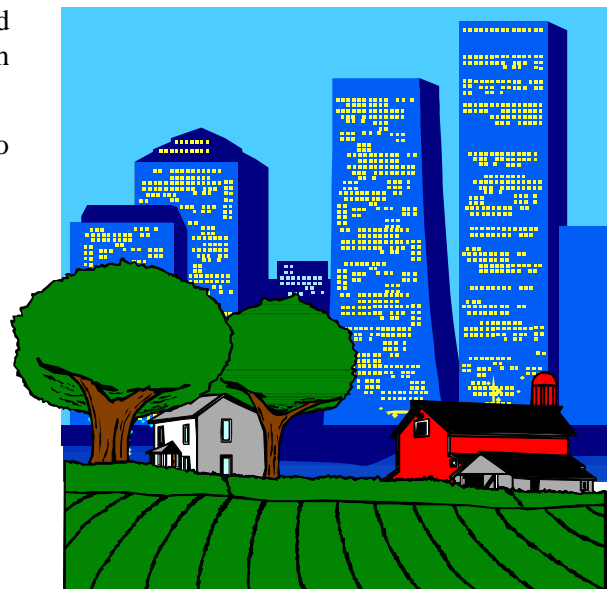
	A i m l W ste	Ground W ter Qual i y	B ò D ì ers i y	W t h nds
A i n h W a e				
o u d W a e Q u a l i t y		t		
W e t l a n d s	W	v	W	
A n i m a l W a s t e	W	W		t

Figure 5

Again we would go through the paired comparison and selection. The process would need to be repeated with a flip chart and marker to tabulate choices once again across these remaining issues. All “ties” would need to be eliminated to obtain a final prioritization.

The final prioritization for this example, after all the “ties” were voted on again, was as follows:

1. Urban encroachment on farmland
2. Cropland erosion
3. Water Quality
4. Animal Waste
5. Wetlands
6. Biological diversity



With this list of prioritized natural resource issues, the community now has a place to start. Each participant in the process has had a vote in this prioritization.

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#### For More Information:

David, H.A. (1988). The method of paired comparisons, Alan Stuart, (Ed.). London, Great Britain: Charles Giffin and Company Limited.

Thurstone, L.L. (1927). A law of comparative judgment. *Psychological Review*, 34, 273-286.