Chapter 5. From Vision to Reality

The purpose of this chapter is to describe how the Stakeholders transformed their vision into achievable goals by breaking down the various vision elements. In Chapter 4, the Stakeholders developed their vision for what the watershed should look like in the year 2030. In order to reach the vision, the Stakeholders transformed its elements into achievable goals. They completed this transformation by working through the vision elements.

The first step of the transformation involved placing the vision elements into complementary and conflicting groupings. Some elements of the vision are highly compatible and even reinforce one another, creating synergy in their implementation. These are termed *complementary vision elements*. Other elements of the vision are in direct conflict with one another in the context of the current social, economic and environmental setting. These conflicts therefore need to be resolved. These are referred to as *conflicting vision elements*. The achievable goals were created by reformulating each listing within the groupings into a policy statement.

Next, the Stakeholders completed an exercise to make the achievable goals more usable. The Stakeholders brainstormed potential obstacles to achieving the goals. These obstacles help to understand how difficult each goal will be to achieve. In addition, identifying the obstacles helps to achieve the goals by indicating what needs to be addressed when making recommendations (see Chapter 6) for reaching each goal. Finally, to clarify the connection between the goals and obstacles, the Stakeholders completed a matrix rating the strength of each obstacle for each goal.

5.a Transforming Vision Elements into Achievable Goals

Stakeholders formed two groups to outline which vision elements they thought were complementary and which were conflicting. The raw lists of the complementary and conflicting vision elements are included in Chapter 4 to help the reader understand the basis for the following narrative.

Complementary Vision Elements

Two vision elements are considered complementary if, in the process of achieving one vision element, it would be easy or helpful to achieve its complementary vision element. This narrative clarifies how the vision elements are complementary. In addition, it consolidates the two groups' lists to enhance their comprehensibility, and paves the way for stating achievable goals. These goals are included in the following narrative.

1. Undeveloped land and viable agriculture are considered complementary. Any goals that encourage agriculture would necessarily encourage undeveloped land, since agriculture needs

the undeveloped land in order to farm, and any goals that encourage undeveloped land could encourage agriculture thereby garner greater support.

Achievable Goal: Encourage undeveloped land and viable agriculture as complementary goals.

2. A strong local economy is complementary with the vision elements of jobs, retail business and tax base. Having a good supply of well-paying jobs helps to boost the local economy, since the employees will spend money within the community. In addition, having a healthy retail sector provides jobs and boosts the economy, especially since that sector brings dollars into the community (Columbia being is a regional center for commerce). Plentiful jobs, a healthy economy, and a strong retail sector all support the tax base at the local, state and federal levels.

Achievable Goal: Have policies which boost jobs, retail business, tax base, and local economics.

3. The vision element "quality of life" was listed as complementary with numerous vision elements: parks, healthy streams, *low-impact development (LID)*, and municipal services. Quality of life, or what makes people's lives enjoyable, is very subjective and community-specific. Many people in Boone County find that the parks (both city and state) in the area add enjoyment to their lives, and make this a more attractive place to live. Many people also appreciate the streams in the Bonne Femme Watershed, whether for fishing, wading, paddling, or simply for their aesthetics. LID enhances the quality of life by giving people a greater connection to the environment, by helping to protect it, and by providing greater opportunity for interactions among neighbors. People appreciate all the benefits they derive from municipal services (e.g. police and fire protection, garbage collection, etc.).

Achievable Goal: In order to maintain quality of life, encourage parks, healthy streams, LID, and municipal services.

4. Good roads, municipal services, and retail business are complementary vision elements. A well-designed road network helps people get to and from retail locations safely and efficiently. The roads also convey the delivery of municipal services, such as fire and police protection, and ambulance service. Retail business helps to sustain the tax base that supports the municipal services and good roads.

Achievable Goal: Encourage good roads, municipal services, and retail business as complementary goals.

5. *Low-impact development (LID)* and healthy streams are complementary vision elements. LID manages the quality and quantity of urban stormwater runoff so that stream health is maintained. This is accomplished by treating runoff as close to its source as possible through the use of BMPs such as rain gardens, *bioretention*, etc.

Achievable Goal: Encourage LID as a way to maintain or improve water quality.

6. Special protection for certain areas is complementary with recharge areas (areas where water flows from the surface to cave systems), parks, karst, undeveloped areas and clean water (healthy streams). The purpose of special protections for certain areas is to protect the streams, karst and recharge areas. One way of providing special protections would be to encourage undeveloped areas. Another way of providing these protections would be through acquiring park land, either for existing or new parks.

Achievable Goal: Conserve recharge areas and karst, parks, undeveloped areas, and clean water through special protections for certain areas.

7. Parks and healthy streams are complementary elements. Parks generally have less stormwater runoff than urban areas, since they tend to have lower amounts of impervious surface. In addition, aquatic pollutants such as excess pesticides and nutrients usually are not a problem originating from parks. Both of these characteristics help to maintain stream health. Healthy streams are a popular component of parks that enhance their enjoyment. They are also essential to natural parks' ecological functioning and educational value.

Achievable Goal: Enhance healthy streams via parks.

Conflicting Vision Elements

Two vision elements are considered conflicting if, using current practices and policies, they would be detrimental to each other. The following narrative adds clarification about how the vision elements are conflicting. In addition, it consolidates the two subgroups' lists to enhance their understanding and help the Stakeholders formulate achievable goals. These goals were derived from restating the conflicting vision elements so that a policy statement is created that resolves their current conflict. The following narrative includes these goals, which were developed from the list of resolved conflicting vision elements.

8. The vision elements characteristic of urbanization (roads, retail business, and conventional development) and healthy streams are conflicting. The stormwater that runs off of unmitigated urbanized areas is usually of poor quality and large in volume. Both of these characteristics degrade stream health. Polluted water kills or decreases the vitality of stream organisms. The increase in runoff erodes channels, thereby degrading habitat of aquatic organisms.

Achievable Goal: Maintain the economic viability of the community while protecting clean streams.

9. Urbanization can also conflict with preventing flooding of structures. Unmitigated urbanization increases the volume of runoff for a given storm, thereby increasing the height of floodwaters. Thus, structures that have rarely or never flooded are more likely to experience future

flooding or increased frequency of flooding. Furthermore, urbanization often increases the desire to locate structures in or near the floodplain, thereby potentially increasing the number of structures prone to flooding.

Achievable Goal: Ensure that structures are not built in places that will flood.

Achievable Goal: Ensure that changes in land use do not: increase downstream flooding, decrease water quality, or increase channel instability.

10. The cost of implementing stream-protecting *best management practices (BMPs)* and of properly treating sewage conflicts with adequate funding sources. Many new or improved BMPs might cost more than BMPs that are currently required. Likewise, many older sewer systems (both individual and community systems) do not adequately treat their effluent and therefore need to be updated or replaced. A conflict arises when there is a lack of external funds from local, state, or federal governments to pay for the BMPs and sewers. Thus, the costs are usually more directly covered by property owners.

Achievable goal: Ensure that BMPs do not unreasonably affect housing affordability.

11. Urbanization and viable agriculture are two conflicting vision elements. An area that urbanizes inherently cannot be farmed. This is because the land where the agricultural activities would have taken place is physically not available. In addition, zoning usually restricts significant agricultural activities in urban settings. Furthermore, there are often cultural conflicts between farmers and suburban residents.

Achievable goal: Regulations should be proportional to water quality impact of land use

Achievable goal: The impacts of upstream urbanization should be mitigated to prevent increased costs to agriculture and other downstream property owners.

12. Property rights and clean water conflict. People who want to have the right to use their land as they see fit can find their projects slowed down or impeded by restrictions that protect streams.

Achievable goal: Maintain clean water without unreasonably restricting property rights.

13. Urbanization and special protection for certain areas are conflicting elements. Special protections can hamper development by restricting where it can occur or adding regulations that curtail how it happens. As an area develops, there are fewer locations that can have special protections since they may already have structures in place. This is further complicated by the fact that retroactive restrictions that could protect developed, special areas are very difficult to enact.

Achievable goal: Ensure that certain areas receive special protections while maintaining the economics of urbanization.

5.b Obstacles to Achieving Goals

Stakeholders brainstormed a list of obstacles to achieving each of the goals. The process of listing the obstacles, then indicating which ones apply to which goals, has several purposes. These obstacles help to refine the process of addressing the achievable goals by indicating which ones may have too many and/or insurmountable obstacles to be worth trying to achieve. The obstacles are also useful in developing the recommendations in Chapter 6 by indicating the barriers that need to be overcome in order to reach a goal.

Obstacle Clarification

Each obstacle in the matrix represents something that can stand in the way of achieving a goal. The obstacles are clarified below so that everyone understands what they mean.

Social Acceptability: How well the greater community will accept or support a particular regulation. **Professional Acceptability** is similar but more focused, referring to those segments of the community whose livelihood could be impacted.

Affordability/cost: Many of the strategies to reach the goals could include options that have a cost associated with them, which could affect the affordability of new developments, or the cost of maintaining present development.

Lack of local technical experts: As many of the techniques for designing and evaluating stormwater BMPs that protect stream health are new, it will take time for local engineers (both private and public sector) to become well-versed in the techniques.

Resistance to change: Often, many people do not want to change their habits and customs.

Politics: Politicians in local governments may not want to change their ordinances for a variety of reasons (fiscal, pressure from special-interest groups, etc.).

Inadequate Monitoring: There has been insufficient monitoring (biological, chemical, and physical) of streams to characterize their current state. Thus, the success of any measures that are taken to protect water quality could not be properly assessed.

Zoning/existing regulations: In some instances, existing zoning or other regulations may encourage or allow development in a way that harms streams. These could be difficult to change for political, societal or economic reasons.

Lack of public understanding: For the general public to support any changes in policies or ordinances, the public must understand why these changes are necessary. If this comprehension is missing, initiating such changes would be more difficult.

Lack of enforcement: For a regulation to be effective, it needs to be properly enforced. To do this, there must be the political will to enforce it, and the necessary funding to make staff available to enforce it.

Lack of design manual: Currently, local governments have no design manual that guides design professionals on how to protect streams and other property.

Preserve property values: Regulations could decrease property values if they restrict too severely what may be done on private property.

Obstacles Matrix

The result of the Stakeholders' work with the obstacles is the matrix below. The left-hand column of the matrix contains the achievable goals the Stakeholders developed. The top row of the matrix lists obstacles to achieving the goals. Each goal has each obstacle scored, indicating the "strength" (2 = high, 1 = medium, or 0 = low) of each obstacle for each goal to which it applies. This "strength" refers to how much of an impediment the obstacle is to the achievement of the stated goal. The sum of the obstacles' strengths for each goal and each obstacle is also included. Columns A and B refer to the assessments by the two groups (A and B) of the Stakeholders as they discussed the obstacle matrix separately.

Table 5.1 Achievable Goals - Obstacles matrix.

ACHIEVABLE GOALS / OBSTACLES	Social acceptability		Professional Acceptability		Affordability/ cost		Local technical expertise		Resistance to change		Politics-multi-jurisdictional		Inadequate monitoring		Zoning/existing regulations		Lack of public understanding		Lack of enforcement		Lack of design manual		Preserve property values		**Totals**	
Resolved Conflicting Elements:	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**
Maintain economic viability of community while protecting clean streams	0	1	0	1	2	0	0	0	1	2	1	2	1	1	2	2	1	2	0	1	1	2	2	2	11	16
Ensure structures are not built in places that will flood	0	0	0	0	2	1	0	0	1	2	0	2	0	1	0	1	0	2	0	1	0	0	1	0	4	10
Ensure that changes in land use do not: increase downstream flooding, decrease water quality, and increase channel instability	0	1	1	1	2	2	1	1	1	2	2	2	1	1	2	2	2	2	1	0	2	2	2	2	17	18
Ensure that BMPs do not unreasonably affect housing affordability	0	0	0	0	2	0	1	1	1	2	0	2	1	1	1	1	2	2	1	0	2	1	2	0	13	10
Government has a responsibility to correct problems from older stormwater systems and the cost of doing this needs to be addressed	0	0	0	0	2	1	1	0	1	2	1	2	0	1	1	0	1	2	1	0	1	0	0	1	9	9
Regulations should be proportional to water quality impact of land use	0	0	1	0	2	1	1	0	1	2	1	2	1	1	2	2	2	2	1	0	2	2	2	1	16	13
Impacts of upstream urbanization should be mitigated to prevent increased costs to agriculture and other downstream property owners	0	1	0	2	2	2	0	1	1	2	2	2	1	1	2	2	1	2	1	0	2	2	2	2	14	19
Maintain clean water without unreasonably restricting property rights	0	2	0	1	2	1	1	0	1	2	1	2	1	1	2	1	1	2	1	0	2	1	2	1	14	14
Ensure that certain areas receive special protections while maintaining the economics of urbanization	2	1	2	2	2	2	1	0	2	2	2	2	1	1	2	1	2	2	1	0	1	0	2	2	20	15
Complementary Vision Elements:																										
Encourage undeveloped land and viable agriculture as complementary goals	0	1	0	1	0	1	0	0	0	2	1	2	0	1	0	1	1	2	0	0	0	0	0	0	2	11
Have policies which boost jobs, retail, tax base, and local economics	1	1	0	0	1	1	0	0	1	2	2	2	0	1	1	0	2	2	0	0	0	0	0	1	8	10
In order to maintain quality of life, encourage parks, healthy streams, LID, and municipal services	2	1	2	2	2	2	0	1	2	2	1	2	0	1	2	1	1	2	0	0	1	1	2	0	15	15
Encourage good roads, municipal services, and retail as complementary goals	0	0	0	0	2	2	0	0	1	2	2	2	0	1	1	0	1	2	0	0	0	0	0	1	7	10
Encourage LID as a way to maintain or improve water quality	2	0	1	2	1	1	1	2	2	2	1	2	1	1	2	1	2	2	0	1	2	2	1	1	16	17
Conserve recharge areas and karst, parks, undeveloped areas, and clean water through special protections for certain areas	2	1	2	2	2	2	1	1	2	2	2	2	1	1	2	2	2	2	0	0	2	1	2	1	20	17
Enhance healthy streams via parks																										
Totals	9	10	9	14	26	19	8	7	18	30	19	30	9	15	22	17	21	30	7	3	18	14	20	15		