APPENDIX J

Fountain Creek Vision Task Force
Water and Land Use/Environment Working Groups, Joint Meetings
Meeting Summaries

Fountain Creek Vision Task Force
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Fountain Creek Vision Task Force
Water and Land Use/Environment Working Groups
Joint Meeting
January 17, 2008
Final Meeting Notes

Attendance

Mary Barber, Barbara Dallemand, Ferris Frost, Judith Rice Jones, Juniper Katz, Brian Kay, Sarah Keith, Irene Kornelly, Dennis Maroney, Gene Michael, Rich Muzzy, Jane Rawlings, Tom Ready, Ryan Tefertiller, Alan Ward, Tim Williams, Niki Koszalka, and Heather Bergman

Strategy Brainstorming

Participants self-selected into nine discussion groups to brainstorm strategies for addressing the current conditions in the watershed. The strategies that emerged from these efforts are listed below. The groups all stressed thee critical issues: 1) the importance of creating and maintaining synergies between strategies for different goal areas; 2) the need to develop and continue education and outreach on all of the issues listed below; and 3) the necessity of establishing a plan for monitoring and maintenance of all projects.

- Wetlands
    - Preserving existing wetlands
    - Identifying some prime locations for new wetlands
    - Assessing the functionality of wetlands including cost/benefit
    - Integrating a management plan related to the overlap of land use and recreation
    - Looking at the whole system of wetlands and developing a comprehensive system to determine how wildlife uses it for movement
    - Considering the water quality impacts from wetlands including the concentration of pollutants
    - Studying wetland vegetation and the uptake of pollutants
    - Maintaining and managing constructed wetlands
    - Enhancing and creating wetlands
    - Creating an environment to reduce sediment before it reaches wetlands
    - Creating a treatment train with staged wetlands
    - Maintaining wetlands to ensure their functionality
    - Using wetland banking as an option to preserve wetlands in one area, making up for the loss of wetlands in another area
    - Creating incentives for the preservation of wetlands
    - Developing tourism and funding options
    - Evaluating monetary value of wetlands for ecological purposes
    - Developing standards, regulations, or guidelines for development around and in wetlands

    - Clarifying wetland regulations
    - Using wetlands in channel stability and treatment of stormwater runoff
    - Managing tamarisk and other invasive species
    - Improving diversity and benefits of wetlands for outdoor education opportunities
    - Encouraging wildlife
    - Introducing endangered species
    - Introducing species of concern precluding future listing under the Endangered Species Act (ESA)
    - Creating wetlands to mitigate invasive species
    - Educating developers, ranchers, and farmers about the value of a wetland on properties
    - Creating pilot projects to demonstrate effectiveness of wetlands
    -
- Recreation
    - Improving water quality and creating recreation along Fountain Creek as a positive and desirable experience
    - Coordinating plans to create a coherent list of recreational links
    - Publishing a coherent map of recreation opportunities within the watershed to include surrounding communities and the location of and connections to the Front Range Trail
    - Managing and maintaining a plan/strategies to address problems with trails
    - Developing trails for multiple uses including recreational, commuter, and wildlife
    - Addressing motorized vs. non-motorized trails and realizing there is a need and desire for both including a management plan
    - Addressing both positive and negative conflicts with horse use and other trail users
    - Managing the riparian corridors for best management practices including weeds and how to control them
    - Problem solving on issues of dog use
    - Tackling problems with mussels and other noxious species
    - Creating opportunities for the following:
        - Archery
        - Frisbee golf course
        - Flat water recreation canoeing
        - Bed and breakfasts
        - Bird and wildlife viewing
        - Fishing and hunting
        - Sustainable trail design
        - Off-highway vehicle park
        - Nature center
        - Camping, including huts and yurts
        - State park
        - Radio-controlled toys park
        - Trail system including bicycle and pedestrian trails
        - Community supported agriculture (CSA)
        - Pole boating
        - Whitewater course

        - Raptor center
        - Wildlife sanctuary
        - Working ranch/ranch education
        - Sightseeing, including enhancing the viewshed where applicable
        - Volunteer opportunities
        - Shooting range
        - Outdoor event center
        - Sports events, including bike and running races
        - Coordinated events calendar
        - Community art center
        - Reservoirs
    - Secure funding through:
        - Great Outdoors Colorado (GOCO)
        - Foundations (private)
        - State Parks
        - Private enterprises
        - Municipalities/counties
        - Tax increase for parks construction and maintenance
        - Partnerships with federal agencies
        - Conservation easements
        - Non-profits
        - Friends or citizens groups
        - Military
        - Corporate sponsors
        - Developers and/or utility providers
        - Railroad
        - Lafarge and other resource extraction corporations
        - Colorado Department of Transportation (CDOT)
        - A future Fountain Creek funding and project implementation entity
        - State, federal, or local dollars
        - User fees to help pay for improvements and new construction
- Residential/Commercial Development
    - Changing land use policies for consistency across watershed and municipalities
    - Using best land management
    - Removing the barriers for low impact/green building (examples: reduce commercial parking standards, promote shared use parking and a parking maximum)
    - Promoting xeriscaping, utilizing native plants (including limits on amount of bluegrass on commercial sites), and creating regulations and incentives for residential properties
    - Retrofitting existing properties for better stormwater management
    - Developing standards and criteria on impacts to the watershed
    - Allowing grey water use
    - Prohibiting building within the floodplain
    - Utilizing streamside overlay ordinances
    - Developing criteria/standards of impact to the watershed
    - Obtaining conservation easements

    - No over-regulating to the point of losing jobs or negatively limiting growth (example: Boulder)
    - Improving mass transit; expanding transportation options and alternatives
    - Improving mixed use opportunities, less sprawl, better utilize cluster development, and supporting appropriate density
    - Preserving open space and agriculture in cases when it makes sense and creating a coherent system to help with human and wildlife corridors
- Industrial land uses
    - Handling waste on site (onsite wastewater area)
    - Determining a policy on how waste is to be handled and follow up with site clean-up when site is "used up"
    - Developing standards/criteria for impact on watershed with an explanation as to how a development will affect the watershed, including light pollutants, habitat, water quality, water quantity, and view corridors
    - Creating time and money incentives
    - Constructing wetlands
    - Creating a regional watershed comprehensive land use plan including incentives and regulations
    - Obtaining conservation easements
    - Including low-impact development (LID) practices in a local pilot or demonstration project site
- Water Quality
    - Identifying E. coli sources
    - Creating a buffer zone and enhancing riparian zone
    - Utilizing best management practices to reduce run-off (porous pavement, sediment basins, infiltration basins, and wetlands enhancements)
    - Assessing effectiveness of water quality standards
    - Accessing current policies and regulations
    - Enhancing wetlands
    - Developing policies and regulations (especially for LID, sand/salt uses, and dog issues)
    - Locating funding sources
    - Formalizing non-structural best management practices, including street sweeping, doggie stations, and policies
    - Creating incentives for maintenance of water quality facilities
- Wildlife
    - Creating viewing areas and birding trails
    - Maintaining migration corridors
    - Enhancing, managing, and protecting habitat connectivity and easements
    - Producing a wildlife management plan for the watershed, including baseline data
    - Building wildlife sanctuaries
    - Defining wildlife in the watershed, including birds, mammals, amphibians, retiles, fish, and insects
    - Investigating agro-forestry as a compatible land use
    - Using annexation agreements to accomplish goals
    - Identifying compatible adjacent uses

    - Deciding on hunting/no hunting
    - Managing noxious weeds
    - Using domestic animals for weed control
    - Managing Canada geese
    - Assembling greenway under and over passes for wildlife
    - Making ponds and water sources for wildlife
    - Manufacturing fisheries
    - Looking at studies that currently exist: Department of Wildlife (DOW), The Nature Conservancy (TNC), and Colorado Natural Heritage Program (CNHP)
    - Managing wildlife collaborations within the watershed
    - Having incentives for buffers and smart growth within the watershed
    - Creating green campsites
    - Managing recreational uses
    - Constructing a bison ranch (tourism option/education/agro-tourism)
    - Creating an inventory of endangered/threatened species
    - Locating best locations for development
    - Identifying funding sources
    - Prioritizing project areas
    - Maintaining serviceable water quality
    - Collaborating with ranchers and planting crops for wildlife
- Sedimentation/Erosion
    - Reducing run-off volume
    - Determining stable sedimentation concentrations
    - Characterizing sediment as bed load or suspended sediments
    - Constructing a pilot project on sediment modeling
    - Accessing downstream impacts of projects including channel forming flow
    - Maintaining channel stability and capacity
    - Maintaining geomorphic characteristics of the stream
    - Dredging
    - Limiting sediment sources during construction
    - Matching the post-development to the pre-development hydrograph
    - Altering detention system design for sediment bypass
    - Creating a pilot project using the Streamside System equipment
- Stormwater Management
    - Reducing source control volume reduction
    - Rewriting land use regulations and policies
    - Assessing downstream impacts
    - Matching pre- and post-hydrographs
    - Utilize structural and non-structural best management practices
    - Implementing LID techniques
    - Implementing a demonstration project
    - Developing a watershed authority or entity
    - Producing annexation requirements
- Flood Control
    - Researching the construction a dam on Fountain Creek
    - Identifying gaps in flood protection

    - Assessing flood risk and channel capacity
    - Using appropriate detention/retention
    - Retrofitting to reduce runoff from existing development
    - Mapping historic floodplain, assessing meander belt, and encouraging conservation easements
    - Buying out floodplain properties
    - Reassessing hydrology to remap current floodplain
    - Re-examining floodplain regulations
    - Re-connecting floodplains to channel
    - Rehiring floodplain manager
    - Developing watershed-wide floodplain ordinance
    - Creating a watershed entity to help with funding
    - Producing flood warning systems
    - Recertifying of levees
    - Evaluating off-line storage
    - Encouraging conservation easements
    - Restricting development in floodplain and meander belt
    - Matching historic hydrographs
- Municipal water needs and return flows
    - Deciding on no growth or growth
    - Achieving more direct reuse
    - Designing efficient plumbing and dual systems (potable and non-potable)
    - Conserving both indoor and outdoor water (agriculture and municipal) water use
    - Establishing tiered rate structures
    - Creating water efficient landscape ordinances and education
    - Furthering potable direct reuse
    - Re-writing water law
    - Producing incentives for water conservation
    - Constructing water storage for surface and aquifer return flows
    - Improving water main leakage
    - Considering cloud seeding
    - Increasing tap fees
    - Minimizing channelization from return flows
    - Creating a grey water system
- Recommendations from the US Army Corps of Engineers Study that the working groups felt were should be reiterated as strategies:
    - Constructing remedial projects in the watershed should be developed with a consistent approach and methodology for project design and construction, including downstream impacts
    - Creating a Fountain Creek Watershed Authority could serve as a funding source for large scale projects, and to assist entities with training, review, and/or maintenance
    - Modifying development policy to include more consideration of open space needs in development (focus on more habitat development within traditional parks)
    - Rehabilitating riparian areas to a healthy, functioning condition
    - Preserving existing wetlands and creating additional wetlands when opportunities exist

- Limiting sediment sources during construction by minimizing over-lot grading in large-scale developments
- Adjusting development policy to include the concepts put forth by the Center for Watershed Protection (cwp.org) and LID (lowimpactdevelopment.org)
- Altering development policy to require the post-development hydrographs to match the pre-development hydrographs for peak, volume, and timing
- Changing development policy to require the post-development sediment transport to match the pre-development sediment transport
- Revising development policy to require assessment of downstream impacts, and particularly the impacts due to small, frequently occurring storm events such as the 2-year event
- Educating and training staff in the principles of geomorphology and sediment transport to support the review process for new development and to support the ongoing efforts of their entities in the watershed.

Next Steps for Strategies

- Several members of the group will work on refining these draft strategies so that the full group can form them into very specific strategies at the next meeting.
  - Flood control: Dennis Maroney
  - Stormwater: Lisa Ross
  - Water quality/sediment: Gene Michaels
  - Agriculture: Juniper Katz
  - Wetlands: Kirsta Scherff-Norris
  - Wildlife: Tim Williams
  - Recreation: Sarah Keith
  - Land Use (residential/commercial and industrial): Tim Williams
  - Municipal water: Carol Baker
- The next meeting is scheduled for Wednesday, January 13th from 1-4:00 p.m.

Fountain Creek Vision Task Force
Water and Land Use/Environment Working Groups
February 13, 2008
Final Meeting Notes

In Attendance

Stephanie Carter, Scott Cowan, Barbara Dallemand, Dennis Darrow, Mike Fink, Ferris Frost, Juliet Glass, Mark Glidden, Amber Jack, Mary Jaurequi, Juniper Katz, Sarah Keith, Carole Lange, Dennis Maroney, Gene Michael, Rich Muzzy, Annie Oatman-Gardner, Cynthia Peterson, Tom Ready, Kirsta Scherff-Norris, Ryan Tefertiller, Brian Vanden Heuvel, Alan Ward, Niki Koszalka, and Heather Bergman

Updates on E. coli Studies

US Geological Survey Study (Rich Muzzy and David Mau)

- Objectives of the presentation is to describe fecal source tracking and to provide information about the sanitary survey in Fountain Creek, and planned fecal source tracking investigations
- Basic concept of source tracking assumes that the intestinal bacteria of animal groups are expected to be different because of basic habitat (body temperature, food supply, and digestive system)
- The process for this source tracking is to:
    - Choose source-specific targets that are in the feces of local source groups
    - Characterize "reference material" (also known as manure and sewage) from local sources
    - Test water for fecal contamination
    - Associate contamination with sources
- We apply these tools to Total Maximum Daily Load (TMDL) and related efforts by:
    - Evaluating whether marker concentrations increase at the same rates as indicator-bacteria densities
    - Testing whether sources contribute to contaminated waterways (e.g. sewer line leaks, manure lagoon seepage)
- The project's vision for integrating Microbial Source Tracking (MST) into existing TMDL processes is to
    - Conduct evaluation of when and where fecal contamination enters the waterway (through a sanitary survey and publicly-available data)
    - Look for obvious sources
    - If no obvious sources, collect more data through targeted monitoring, MST markers, and chemical tracers
- Project Timeline
    - Sanitary Surveys started May 2007
    - Microbial Source Tracking started October 2007
    - Draft Report May 2009
- Historical E. coli data (2000-2005)
    - Densities in Fountain and Monument Creeks tend to exceed the 126 Colony Forming Units (CFU)/100 milliliter (mL) criterion
        - In warm-weather months, infrequently in cold-weather months
        - During high flow
        - Upstream from Colorado Springs
        - Over the entire reach from Colorado Springs to Pueblo
- Sample sites on and below Ruxton Creek led to the discovery of leaking and compromised wastewater lines.
- Next phase
    - Identify major contributions of fecal contamination and test for specific fecal contamination sources in key samples.
    - Collect monthly (winter) or biweekly (summer) samples at selected sites
- Further analyses will be performed on E. coli densities, nutrients, wastewater organic chemicals, and microbial source tracking markers
- Anticipated Outcome
    - Identification of specific E. coli sources and source areas
    - 303(d) delisting of upper Fountain Creek
    - Identification of additional downstream E. coli sources

Questions and Answers
When a "hot spot" is found, how is it determined whether the E. coli levels are from a homeless population or from a wastewater break?
The best option is to further research and delve further up into the watershed.

Are there preliminary conclusions that can be made from the study at this point?
Yes, but these need to be scientifically proven before they are released in order to maintain the legitimacy of the study.

Will the study be continued throughout the Creek?
That is the hope. This type of study is expensive, so cost will be a factor.

When is the study going to be completed?
The draft from the study is anticipated for release in March of 2009.

Colorado State University at Pueblo Study (Brian Vanden Heuvel)
- MST methods are used to help identify sources responsible for the fecal pollution of water systems. There are two ways of doing this:
    - Library-Dependent Studies
        - Isolate bacteria from known sources
        - Type or fingerprint bacteria
        - Isolate bacteria from water
        - Match unknowns from water to library (very expensive; uncertain results)
    - Library-Independent Studies
        - Use "biomarker" to determine presence/absence of a host-specific bacteria
        - Attempt quantification by comparing to traditional E. coli counts and quantitative Polymerase Chain Reaction (qPCR)
        - This is the approach used in this study.
- The methods of this study are consistent with the USGS study.
- There are 27 Fountain Creek drainage E. coli monitoring sites, including 4 on the Upper Fountain, 10 on Monument Creek, and 13 on the Lower Fountain.
- The Colorado water quality standard for E. coli density is CFU per 100 mL
- The monitoring sites show higher levels of E. coli occur after storm events.
- The data gathered at Manitou Springs matched the data from USGS.

Questions and Answers
Are you measuring below stormwater outfalls?
The sites are mostly in coherent points like under bridges.

Do you have any preliminary data on the kind of animals that may be contributing to the E. coli levels?
There has been DNA detected in the water of animal species but the kinds of animals can not be discussed at this time.

<u>Vision for a State Park in the Fountain Creek Watershed</u>

Presentation by Tom Ready of Colorado State Parks

- The vision for a State Park in the Fountain Creek Watershed includes opportunities for:
    - Educating
    - Recreating both summer and winter
    - Volunteering
    - Building hiking trails, yurts, wildlife viewing areas, picnic areas, bridges, shelters, and playgrounds
    - Fishing and camping
    - Documenting history of area
    - Accomplishing use by all people
- State Parks looked at 280 acres called the Green View Trust where all main buildings are out of the floodplain. There is a lariat annexation for a 2200-acre area of Pueblo Springs Ranch. State Parks would like to have the Front Range Trail come through this area.
- Stewardship Planning Process
    - Information gathering
    - Baseline natural resource inventory
        - Vegetation
        - Noxious weeds
        - Wildlife
        - Geology soils hydrology
    - Comprehensive stewardship plan
        - Significant features
        - Ecological sensitively zones
        - Objectives
        - Monitoring plans

Questions and Answers

Is Baculite Mesa included in the plans?
Baculite Mesa is not included in the front-range trail plans

How far along is the establishment of a route for the trail?
The exact route has not been proposed at this time; additional discussion with the various municipalities is needed.

Is El Paso County not part of the vision for a state park because of the lack of land availability?
Yes, but there could be some land opening up if the wastewater treatment facility is not built.

Refining of Brainstormed Strategies from January Meeting

The Water and Land Use/Environment Working Groups worked to refine the strategies brainstormed at the January meeting. In particular, the groups began the refinement process for the following issue area: land use, flooding, agriculture, wildlife, and water quality. The group determined the need for additional time to work on these strategies. This will resume at the next meeting. The remaining five issues will be discussed at the next meeting: sedimentation, wetlands, municipal water and return flows, stormwater, and recreation.

Next Steps

- The group will continue to refine the strategies at the next meeting.
- The next meeting is scheduled for March 11, 2008, from 9:00 a.m. to 1:00 p.m.

Fountain Creek Vision Task Force
Water and Land Use/Environment Working Groups
March 11, 2008
Final Meeting Summary

Attendance

Carol Baker, Stephanie Carter, Scott Cowan, Barbara Dallemand, Dennis Darrow, Jeff Drabing, Mike Fink, Ferris Frost, Juliet Glass, Kim Headly, Jim Houk, Amber Jack, Neil Katz, Brian Kay, Sarah Keith, Irene Kornelly, Carole Lange, Gene Michael, Rich Muzzy, Cynthia Peterson, Kirsta Scherff-Norris, Ryan Tefertiller, Tim Williams, Daryl Wood, Niki Koszalka, and Heather Bergman

New and Pressing Issues in the Watershed

- The Fountain Creek Vision Task Force did not receive the Heritage Grant for the planning policy workshop.
- The Fountain Creek Corridor Master Plan (FCCMP) is applying for federal earmark funding to pay for two demonstration projects in the watershed. The funding will enable project construction to begin in 2009.

Review of Current Conditions Maps

Prior to the meeting, Thomas and Thomas, the mapping contractors, began to categorize some information from the current conditions papers on to maps. Jim Houk from Thomas and Thomas brought draft current conditions maps to the meeting for the group to review. Participants asked questions, and then provided feedback to Thomas and Thomas about the data on each map and how the data are represented visually on the maps. The group also provided specific recommendations for improvement to the maps. Thomas and Thomas will prepare revised maps that address these issues as much as possible.
[Note: Because the draft maps are not available in electronic form and the questions and comments from the group about the maps only have meaning if you can actually see the maps, the questions and comments will not be reproduced here. To see the individual questions and comments about the draft maps, please email Niki at fountain@keystone.org.]

Refining Strategies

Participants broke into small groups to continue to refine addressing the current conditions papers and strategies. Some groups completed this effort, while others agreed to continue to work together until they finish. All of completed strategies will be presented to the Consensus Committee meeting on March 21, 2008.

Fountain Creek Vision Task Force
Water and Land Use/Environment Working Group
April 8, 2008

Final Meeting Notes

Attendance

Carol Baker, Stephanie Carter, Scott Cowan, Barbara Dallemand, Danny Elsner, Ron Enserro, Mike Fink, Ferris Frost, Juliet Glass, Annie Oatman-Gardner, Cynthia Peterson, Juniper Katz, Sarah Keith, Irene Kornelly, Gene Michael, Rich Muzzy, Lisa Ross, Ryan Tefertiller, Tim Williams, Niki Koszalka, and Heather Bergman

Action Items

Water and Land Use Environment Working Group	Submit any incomplete strategies to Heather Bergman by April 15, 2008
Rich Muzzy and Danny Elsner	Collect list of requested to studies to verify if comparable studies have been completed

New and Pressing Issues in the Watershed

- Carol Baker and Rich Muzzy are presenting at the State of the Rockies River Workshop but are not representing the Fountain Creek Vision Task Force (Task Force).
- There is a Southern Delivery System meeting at Carson High School at 6:00 pm on April 8, 2008.
- The Fountain Creek Corridor Master Plan (FCCMP) is moving forward. A draft of their work will be available to the Task Force by mid April. The Task Force agreed to hearing a presentation by the FCCMP.
- Thomas and Thomas will bring the maps to the April 25, 2008 Consensus Committee meeting and plan to have them at the Water and Land Use/Environment Working Group meeting in May.

Prioritize Strategies in Small Groups

- The Consensus Committee was receptive to the presentation of the strategies but felt the information was hard to assimilate. The amount of information was beyond the depth and breath of comprehension by the Consensus Committee. A draft of the entire plan was requested and the Consensus Committee agreed to reading assignments from the draft plan.
- There are currently 334 strategies. The facilitator explained this is too many for a strategic plan. The strategies need to be prioritized into a shorter and more coherent list. In the 344 strategies, there were several areas of overlap/convergence including:
    - Creating an entity to coordinate, fund, and regulate the Fountain Creek Watershed;
    - Requesting studies (the group agreed Rich Muzzy and Danny Elsner will collect the list of requested studies to determine if comparable studies already exist);
    - Mapping and planning;
    - Maintaining and creating wetlands;
    - Establishing best management practices (BMPs);
    - Having education/outreach programs; and
    - Instituting pilot projects.
- The facilitator created a chart showing the pros and cons of each group and the work completed thus far on strategies.

	Need Goals	Too many Strategies	Action Items as Strategies	Needs Specificity
Agriculture		**X**	**X**	
Water Quality		**X**	**X**	
Recreation		**X**		
Flooding		**X**	**X**	
Wetlands	**X**			**X**
Wildlife	**X**			**X**
Outreach				**X**
Municipal Water	**X**			
Land Use				

- A participant felt wetlands was as a strategy not an end to a goal. Wetlands are a strategy and a reality. The group agreed the goal statements came from the Consensus Committee and the strategies need to be in line with the goals. The group will write goals and strategies and present them to the Consensus Committee who has the option to say yes or no.
- A participant voiced concern over what strategies stay in the document and which end up in the appendices. The process, including strategies in the document, is the decision of the Consensus Committee. Once the Consensus Committee agrees on a document, the public will have the opportunity to attend a meeting to discuss the document and see maps/charts. Political support is needed to back up the document.
- The facilitator reviewed the differences between a goal and a strategy per the request of a participant. An example: A goal is to increase after school programs by 50%. A strategy is to hire an after school coordinator. Action items include allocation of funds, writing/posting a job description, and interviewing/selecting top candidates.
- The facilitator tasked the group to come up with 10 strategies for the 10 issue areas. The participants worked in small groups to identify the top three strategies for inclusion in the strategic plan. All other strategies will be recorded in an appendix but will not be included in the body of the plan. After breaking into small group discussions, the groups reported back on the strategy writing progress.
    - The flooding group narrowed down the strategies to five and adopted the stakeholder goals.
    - The municipal water and return flows group returned with three strategies and seven goals.
    - The wetlands group decided upon goals and need to work on strategies and action items under the goals.
    - The wildlife group is hoping to have fewer than ten strategies for both wetlands and wildlife. The group also discussed if the wildlife goals could fit under the land use/environment heading. Wetlands would need to remain separate if wildlife is incorporated into land use/environment.
    - The water quality/quantity and sedimentation group have goals with recommended changes. They also have five strategies.
    - Agriculture requested giving one goal to wildlife/wetlands and has five strategies.
    - The land use/environment group created one goal. The Water and Land Use/Environment group discussed the wording of the goal and agreed to utilize

the terminology "ecosystem viability and functionality". Eight strategies and several action items were established.

- The recreation group will have goals and strategies to Heather Bergman by April 15, 2008.

Action Planning

Participants begin identifying the individuals and/or entities responsible for leading the implementation of each of the remaining strategies. They will also identify partners in implementation and target dates for each strategy.

The group scheduled the next meeting from 11:30 to 3:30 on May 6, 2008.

Fountain Creek Vision Task Force
Water and Land Use/Environment Working Groups
Joint Meeting
May 6, 2008
Draft Meeting Summary

Attendance

Carol Baker, Gary Barber, Chris Butler, Scott Cowan, Dennis Darrow, Ron Enserro, Ferris Frost, Dwight Gardner, Juliet Glass, Merle Grimes, Jim Houk, Amber Jack, Juniper Katz, Sarah Keith, Irene Kornelly, Carole Lange, Dennis Maroney, Gene Michael, Rich Muzzy, Annie Oatman-Gardner, Cynthia Peterson, Lisa Ross, Ryan Tefertiller, Graham Thompson, Ross Vincent, Tim Williams, Chris Woodka, Niki Koszalka, and Heather Bergman

Action Items

Flooding group	Complete action items and submit to Heather Bergman by May 13, 2008
Rich Muzzy (water quality group)	Complete action items, goals/strategies, and benchmarks and submit to Heather Bergman by May 23, 2008
Agriculture group	Complete action items and submit to Heather Bergman by May 16, 2008
Wildlife group	Complete action items and goals/strategies and submit to Heather Bergman by May 20, 2008
Municipal water group	Complete benchmarks and submit to Heather Bergman by May 15, 2008
Chris Butler (land use group)	Complete action items, goals/strategies, and benchmarks and submit to Heather Bergman by May 23, 2008
Outreach group	Complete action items, goals/strategies, benchmarks, and current conditions and submit to Heather Bergman by May 23, 2008
Recreation group	Complete action items and submit to Heather Bergman by May 20, 2008

Wetlands group	Complete action items and goals/strategies and submit to Heather Bergman by May 12, 2008
Carol Baker, Annie Oatman-Gardner, Juniper Katz, Dennis Maroney, Ross Vincent, and Tim Williams	Meet with Jim Houk and Gary Barber to discuss mapping data
Heather Bergman	Send the contact information for the National Resources Conservation Service (NCRS) riparian restoration expert to the group

New and Pressing Issues in the Watershed

- An expert from NCRS came to Pueblo and presented on new strategies for riparian restoration. Pueblo has a project working to restore 10-acres. Heather Bergman will send out contact information from the expert.
- The Fountain Creek Foundation (FCF) has been established and is holding a press conference on Saturday May 10, 2008. FCF's work will focus mainly on outreach and education on the watershed.
- There was a watershed network information sharing workshop in Pueblo about the data sharing network.

Opportunities and Constraints Maps (Jim Houk)

- The maps show different saturations of color indicating the number of attributes or specific watershed indicators. The maps are also broken down into sub-watersheds. The challenge is to determine how to consolidate data into useful categories. Opportunities and constraints in the watershed can be used to create a vision map. The maps show that several of the sub-watersheds have saturated color for positive and negative attributes.
- Rich Muzzy and Pikes Peak Area Council of Government (PPACG) provided data on impervious area. The map revealed several trends in the watershed. The darker saturation of color represents the higher percentage of impervious area. There was a discussion at the Consensus Committee meeting suggesting the numbers represented on the map for impervious area are incorrect. The map data for 2020 may reflect build out and assumes there is no low impact building (LID).
- The individual attributes that contribute to the saturation of color on the maps, are weighted equally. During the Consensus Committee meeting a conversation was engaged in to discuss whether they should remain equally or differently weighted.
- The facilitator sent a survey to the Consensus Committee to determine if the attributes needed to be weighed differently. The intention of the survey was also to remove items from the attributes list that are not helpful.
    - Certain attributes are driving factors for other listed attributes. Impervious area is a driving factor for water quality. A participant suggested heavier weighting for the attributes with driving factors.

    - A participant felt the influence of the Audubon Society on the attributes was obvious and suggested the attributes that are good for the Creek need to carry different weights.
- The facilitator urged the group to tell the map makers where to proceed next and to help determine what the maps will ultimately represent. The maps the group looked at today are a beginning point, not an end point.
    - One participant felt the addition of types of soil, specifically hydrological A and B would be a helpful tool. Soil information is available in the county soil maps.
    - Another suggestion was to create a map that had broad stroke constraints including where the railroad is or if I-25 will prohibit the development of a park in a certain area.
    - Tim Williams, Ross Vincent, Carol Baker, Annie Oatman-Gardner, Dennis Maroney, and Juniper Katz agreed to meet with Jim Houk and Gary Barner to discuss mapping data.

Questions and Answers
Will these maps be available on an interactive web based site?
The maps will be posted but interactive access will be limited.

Can the document contain a layer for each decided or agreed upon attribute?
Yes, but it is an immense amount of work. The question the maps are intended to answer is: what is the non-consumptive water use of the Fountain Creek watershed.

How far down can the aggregated attributes be disaggregated?
There is a map layer for each attribute.

Is it possible to produce a map showing what the Creek would look like if certain changes occurred to the watershed?
No, the hope is for the maps to have enough information to show areas of focus and to make better use of resources.

<u>Goals, Strategies, Action Plans, and Indicators of Success</u>
- The facilitator asked the participants to work in small groups to refine the goals and strategies. The group also needs to develop an action plan. When the Consensus Committee reviewed the goals and strategies they wanted to know what success looks like and what are the quantitative benchmarks for success. Benchmarks for success are needed for 2, 5, and 10-years in the future. Benchmarks are a great tool to hold a group accountable to its goals.
- The group broke into sub-groups and reported back their progress.

Flooding
- The flooding group created an action statement and modified/completed benchmarks.
- They will complete their action items and submit to Heather Bergman by May 13, 2008.

Water Quality
- Rich Muzzy will complete action items, goals/strategies, and benchmarks. He will turn them into Heather Bergman by May 23, 2008.

Land Use

- Chris Butler will complete action items, goals/strategies, and benchmarks. He will turn them into Heather Bergman by May 23, 2008.

Agriculture

- The agriculture group has completed the benchmarking exercise. The benchmarks include:
    - Work with landowners to voluntarily protect 1,000 acres each year until 2012, of agricultural land ad associated water rights. Assess future conservation goals for the following 5-years in 2012.
    - By the end of 2008, hold a workshop with local producers to learn what would help their businesses be more sustainable and successful; by March 2009, issue a report on increasing the sustainability and success and success of agriculture in the watershed.
    - By 2013, create a demonstration project on sustainable agricultural practices in the watershed.
    - Compile baseline documentation for ecosystem health. In 5-years use data to access the impacts of sustainable agriculture practices. The agriculture group plans to refine this benchmark.
- The agriculture group is waiting for further clarification from the Consensus Committee on the goals/strategies.
- They will complete their action items and submit to Heather Bergman by May 16, 2008.

Recreation

- The recreation group has completed the benchmarking.
- They will complete their action items and submit to Heather Bergman by May 20, 2008.

Wetlands

- The wetlands group has completed the benchmarking.
- They will complete their action items and goals/strategies and submit to Heather Bergman by May 12, 2008.

Wildlife

- The wildlife group has completed the benchmarking.
- They will complete their action items and goals/strategies and submit to Heather Bergman by May 20, 2008.

Municipal Water

- The municipal water group has completed the action items and goals/strategies.
- They will complete the benchmarks and submit to Heather Bergman by May 15, 2008.

Outreach

- The outreach group will submit the action items, goals/strategies, benchmarks, and current conditions paper to Heather Bergman by May 23, 2008.

Fountain Creek Corridor Master Plan (FCCMP) (Merle Grimes and Graham Thompson)

- The overall master plan goals include:
    - Improving watershed health by reducing erosion, sedimentation and flooding and improving water quality;
    - Creating stable riparian and wetland ecosystems to attract and support native wildlife and vegetation;
    - Sustaining productive agricultural lands along corridor;
    - Laying-out trail from Colorado Springs to Pueblo with recreational and educational opportunities; and
    - Gaining public and private support through partnerships to facilitate implementation and future funding.
- The planning philosophy is:
    - To provide general planning criteria and an overall concept for establishing a healthy Fountain Creek that is:
        - Stable;
        - Healthy creek ecosystem (wetlands, bugs and birds, aquatic life and mammals);
        - Self-maintaining;
        - Cost effective; and
        - Long-term sustainability.
    - The FCCMP has additional considerations including:
        - Action/reaction;
        - Creek is a system;
        - Flow of water and sediment;
        - Cross section and profile along with pattern; and
        - Implementation strategy.
- The FCCMP is trying to accomplish:
    - Improvements in health and safety;
    - Improvements in water quality;
    - Improvements for wildlife;
    - Improvements in stream stability;
    - Improvement to fisheries;
    - Improvements in stream health;
    - Reduction in flooding;
    - Reduction in sedimentation; and
    - Improvements in access and visibility.
- The FCCMP will accomplish this by:
    - Understanding the difference between an unhealthy and healthy Fountain Creek; and
    - Recommending a course of action for making unhealthy portions of the Creek healthy.
- A natural river channel includes:
    - Systems that are dynamic systems;
    - Water and sediment being conveyed;
    - Erosion and sediment are natural processes;
    - Meanders in the river; and

    - Measurable and reproducible forms
- Healthy creek characteristics include:
    - A natural creek meander; and
        - If there was no sinuosity the meander would be straight.
        - Creeks change sinuosity when there is an obvious reason like a railroad bridge or there was previous channelization.
    - A typical riparian ecosystem. This includes:
        - Aquatic wetland (cattails);
        - Semi–aquatic wetland (rushes and sedges);
        - Upland riparian (cottonwood and willow trees); and
        - Sandbar.
    - A picture of a healthy reach of creek showed:
        - Good meander pattern;
        - Good buffer zone;
        - No encroachment of land use;
        - No highly eroded cutbacks;
        - No down cutting or up cutting;
        - No further sedimentation due to the road being set back;
        - Good balance of energy between the creek and the floodplain;
    - A picture of an unhealthy reach of creek showed:
        - Road in floodplain;
        - Bridge connecting to roadway;
        - Banks poorly defined;
        - Agriculture encroachment;
        - Vegetation along the creek;
        - Higher costs more for farmers to maintain land; and
        - Vegetation debris
- Options for repairing Fountain Creek include:
    - Emulating nature when ever possible; and
    - Drafting working criteria and mitigation for FC master plan improvements.
- The FCCMP plans to apply what is known about Fountain Creek to:
    - Develop a program to educate and encourage landowners to repair their reach of the creek;
    - Seek potential matching funds;
    - Provide creek restoration and stabilization criteria;
    - Provide examples of how to correctly repair the creek;
    - Provide planning and design assistance; and
    - Review the approval process prior to implementation
- The FCCMP feels partnerships with groups can:
    - Improve watershed health;
    - Create stable riparian and wetland ecosystems;
    - Sustain productive agricultural lands;
    - Bring ideas and dollars to the project (partnerships);
    - Connect trail from Colorado Springs to Pueblo; and
    - Create a regional amenity/“Crown Jewel”.

Questions and Answers

What assumptions are being made on the flows of Fountain Creek?
The work being done is only a concept and is based on bank-full flow, the existing sediment loads, and current plan form. For the design and implementation stage the flows will need to be determined and taken through a design process. FCCMP plans to set up benching in appropriate cross sections to alleviate changes in the flows.

To what extent do soil types matter when dealing with stream meander?
Soil types alone do not determine the meander of a stream one way or another. There are other attributes that can play into the meander pattern.

Has the FCCMP taken into account the variables in flow rate?
Some flow rate and future use assumptions will need to be made. FCCMP is open to revisiting the master plan to determine any necessary mitigation.

What data is being collected and by whom?
There is the need for sediment/flow study and the United States Geological Survey (USGS) is planning to start a 2-year study. The intent of the USGS study is to establish the sediment load gaps.

Is the USGS study for the whole watershed?
No, it is just for a small area in the upper part of the Fountain Creek watershed.

Is the FCCMP considering purchasing areas outside of the floodplain?
Yes.

Will this master plan be used to shape policy?
Yes.