

Arkansas Basin Roundtable
Meeting of July 14, 2010
Meeting Notes

Roundtable Business

Chairman Barber called the meeting to order at 12:45 pm. Members and visitors introduced themselves. Twenty five (25) members were present. There are 41 roundtable members at this time - 21 is a quorum. The agenda was reviewed. An addition to the minutes was made.

Public Comment:

Perry Cabot reminded attendees of the next Public Progress Report Meeting, which will be in Salida, on August 18th, at 1:00 pm. The meeting will be held at the Salida SteamPlant Event Center, at 220 West Sackett. Please invite colleagues to attend.

A motion was made by Reed Dils and seconded by Jay Winner to approve the minutes of the May meeting. The motion passed unanimously. It was decided to approve June's minutes at the next roundtable meeting.

Subcommittee Updates

DSS Update – Phyllis Thomas, from Brown and Caldwell, Project Manager.

There was a meeting on June 11th with the subcommittee. The subcommittee has reviewed the first three chapters. Brown and Caldwell is working on Chapters 4 and 5 at this time.

Non-Consumptive Use Committee Update – SeEtta Moss

There is now a signed contract, and field studies have begun. SeEtta will bring an updated timeline to the next meeting.

IBCC/CWCB Report

Jay Winner: Heather Bergman facilitated the last meeting. The group broke into sub-groups that talked about agriculture, conservation, non-consumptive, IPPs, etc. Jay felt that it was the most productive meeting they had ever had. The West Slope said 150,000 acre feet, just don't take it out of the headwaters. Everyone is struggling with quantifying non-consumptive needs.

Jeris Danielson: Agreed that the IBCC meeting finally made progress and that there was meaningful discussion. The joint Gunnison/Arkansas Sub-Committee met in Salida. They came to some fundamental agreements. Jeris' assignment was to write a goal or objective that both roundtables could agree with. Both roundtables agreed that the water should be contracted for by the State of Colorado (200,000 AF), and that it should be held by the State. The purpose of that water is not for trans-mountain diversion, but to be held against a Lower Basin compact call. Representatives from both roundtables agreed to send a letter to the State of Colorado, urging them to move forward immediately with the contract between the State of Colorado and BOR. The letter will be sent to the Governor.

Jim Broderick: Has reviewed the BOR contract. Some changes still need to be made.

Wayne Vanderschuere: agreed that it was probably one of the most interesting meetings they've had. Wayne was volunteered for a water conservation consumption task force, another subcommittee between the two roundtables.

Perry Cabot: Public Education and Outreach Committee. Perry is writing up an Education and Action Plan that will make the Arkansas Basin RT eligible for state funding in the amount of \$1,800, to be used for education purposes. Perry would like to present the action plan for approval in August. There will be an annual meeting at the beginning of next year for all of the basin PEPO committees.

Reed Dils: The CWCB board meeting will be in Salida next week, on Tuesday and Wednesday, at the SteamPlant. The agenda is online, and this meeting can be listened to online.

WSRA Grant Requests

Update: Arkansas Headwaters Diversion Structure Improvement Project – Rob White

This was a \$65,000 grant to provide engineering studies to evaluate and re-design four diversion structures on the Arkansas River: Granite, Helena, Hydraulic and Oil Creek Water Diversion Structures. The goal of the engineering studies was to improve the water delivery efficiency of each of the water diversion structures at all water levels while improving boater safety, fisheries management, and the recreational experience of visitors to the Arkansas Headwaters Recreation Area. The engineering studies are complete. The next step will be to work with the ditch companies involved, and to find funding sources to make the repairs that will meet the above goal.

Fountain Creek Fish Marking and Monitoring Study – May motion was to bring this application to a super-majority vote. A quorum was noted. A motion to approve this application was made by SeEtta Moss, seconded by Michael Stiehl. The motion passed with a vote of 19 – 4. If anyone would like to present a written minority opinion; it will be included when the application is forwarded to the CWCB.

Tipping Point Study: George Oamek, Honey Creek Resources (see handout)

A Proposed Method for Incorporating Rural Population-Business thresholds, or “Tipping Points” in Water Transaction Evaluations.

This study is trying to measure the total impact to rural communities, the unintended consequences, or negative externalities, resulting from water transfers.

The goal of the threshold approach is to ‘marry’ traditional input-output economic analysis to a framework that can estimate the cumulative impacts to rural communities’ businesses, employment, and ultimately population.

Business Population Threshold – the minimum population needed to support a certain type business operating with average costs.

Sample Population Thresholds (general, not specific to Colorado)

Type of Business	to support one business
Drinking places	224
Eating places	212
Gas stations	605
Grocery stores	702
Farm & garden equipment	579
Farm Supply	575
Hardware	1,167

Hierarchy of communities

1. Convenience
 - a. Hamlet – gasoline, c-store, eating/drinking place
 - b. Minimum Convenience – add grocery, drug, hardware, bank
 - c. Full Convenience – add garage/auto dealer, variety store, clothing, dry cleaning, mortuary, lumber, motel, jewelry, farm supply
2. Specialty
 - a. Partial Shopping – add plumber, florist, paint/glass, sports, etc.
 - b. Complete Shopping – add tires, antiques, camera, music, etc.
3. Wholesale
 - a. Secondary Wholesale – 50 establishments
 - b. Primary Wholesale – 100 establishments
 - c. Metropolitan Wholesale – 500 establishments

Weaknesses of Input/Output Models

1. Universal Scalability – assumes economic activity can be smoothly dialed up or down, ignores business ‘lumpiness’
2. Fixed Technology – ignores changes in technology and economic trends, e.g. retail trend to ‘big box’ stores, increasing farm and irrigation efficiency, etc.
3. Mobile Labor Force – ignores community loyalty, retirement, etc.

Theoretical Foundation

The number of businesses in a community, by type, depends on:

1. local population
2. the distance to the next nearest population center

These relationships have been statistically estimated. They found the National Establishment Times Series to be a good source.

Assumptions to Implement Threshold Approach

There are two rounds of economic impacts from out-of-region water transfers

Round 1: initial direct impact, measured by economic multipliers

Relationships between three key variables

1. Irrigated acreage and farm employment
2. Farm employment and regional employment (this is where traditional models stop)
3. Regional employment and regional population

Round 2: Cumulative impact resulting from Round 1 impacts plus 'threshold' effects – population change and population-business thresholds

1. Population change from Round 1 determines how many businesses are affected by threshold effects.
2. Threshold effects lead to business closures, est. by type and the number of employees affected for each.
3. Job loss and population reduction from threshold effect comprise the Round 2 impact.

Study works like this:

START

1. Obtain estimate of reduction in irrigated acres.
2. Estimate change in farm employment based on acreage/employment relationships.
3. Estimate indirect and induced employment impacts using multiplier.
4. Relate incremental employment impacts to incremental population changes using employment/population ratio.

THRESHOLD IMPACTS

5. Calculate the number of businesses by type using revised population estimate and threshold parameters.
6. Determine the number of businesses shut down due to threshold impacts.
7. Estimate the additional population reductions due to threshold business impacts.
8. Determine total population change by adding incremental and threshold population impacts.

END

Crowley County Case Study

- looked at years 1970-1990 (prior to corrections facilities)
- approximately 35,000 acre reduction in irrigated acreage

Initial Assumptions

- Acres/Employee Ratio: one farm employee is equivalent to 240-320 irrigated acres (increases over time from 1970-1990)
- Total employment multiplier is assumed to be 2:0: one farm job and one support job
- Employment-population ratio was initially set at 0.57. This ratio is complex, and is based on:
 - labor immobility, due to loyalty and low cost-of-living
 - county demographics
 - commuted elsewhere, rather than moved
 - community diversification responses
 - low cost rural start-ups
 - remaining residents have lower incomes
 - pass-through tourism

Initial Results

The data compared traditional method to threshold method, which shows more people leaving. Actual population was much higher than either method would estimate.

Why the difference between model and actual?

It is thought that the employment-population relationship threw off results, due to:

- County Demographics – high proportion of government payments, older age.
- Labor Immobility – due to loyalty and low cost of living
- Commuted Elsewhere – rather than move
- Pass-through Tourism – this not quantifiable by the model.
- Community Diversification Responses –

Correctional facilities
Telecommuting
Low cost retail start-up

The model was adjusted for these differences in employment-population relationships.

Lamar Case Study (looking forward)

- Assumes 30,000 AF reduction in irrigated acreage over the next 10 years, with water transferred out of the region.
- Looked at Lamar trade area, including Lamar and areas east of John Martin Reservoir.
- Baseline community population growth rate is 0.60% per year.

Conclusions

1. Rural community economic impacts may be greater than previously estimated.
2. The more rural and isolated the community, the greater the impact.
3. Threshold approach is appealing and appears to have a theoretical basis.
4. Model is relatively simple and transferrable.
5. More work is needed on the employment-population relationships.
6. The database used here also includes business revenue data - impacts to local tax base can also be estimated

Policy Implications

- Relatively higher adverse impacts to rural communities may require re-evaluation of buy-and-dry transfer strategies.
- Water storage projects may be relatively more appealing than Ag transfers
- A better way to compare ag-urban water transfer strategies, such as Super-Ditch
- Possible way to 'work in reverse' to examine rural development strategies, such as increasing local food production.

Next steps

- Phase 2 in nearing its end
- Estimated thresholds unique to the Lower Arkansas Valley
 - Soliciting your input
 - Re-examining employment-population relationships

Feedback and Q&A

A: This study did not include changes in farm income as part of the economic impact.

A: This study did not look at the Conservation Reserve Program (CRP) in Crowley County.

Q: Would the acres involved in CRP mirror the dry-up? A: Yes, it probably would.

Q: If lease impact is more than farm income, are you taking that into account? A: It appears that lease revenues are more likely to stay in the local economy than buy & dry revenues.

Q: Did they look at bank deposits? A: No, but this info could probably be obtained.

Comments:

- Buy & Dry transfer is not a strategy, it's a market. Leasing/fallowing is another type of market.
- Should include the internet as a possible factor in employment-population relationships
- Large farms have less people on them. Large farms tend to buy wholesale, bypassing local retail vendors. This would be a factor in employment-population relationships.
- The economy in Rocky Ford was based on 40-acre farms in the 1920s. The population is the same in 2010. Now, there must be more people living on public assistance.
- The study does not prove that "buy and dry" or agriculture leaving the valley is a cause rather than a symptom of economic downturn.
- This is a good effort that needs work to be more effective.

Review of the next meeting's agenda

Meeting was adjourned at 2:39 pm.

Respectfully submitted,
Jay Winner