The

Cost of Community Services Study: An Analysis

By

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How Jefferson County Became Involved With the Cost of Community Services Study

The Cost of Community Services Study (COCS) was invented by the American Farmland Trust, and has been increasingly used by planners and planning boards to help justify the development of land use plans that protect farmland and open space through various private property control techniques. The Jefferson County commissioners clearly got the idea to do their study from the Sonoran Institute at a Western Community Stewardship Forum "Hallmarks of Successful Communities" training workshop, held in Park City, Utah, (October 21-23, 1999), and conducted by Sonoran "in partnership" with the National Association of Counties.[1] One Jefferson County commissioner, and at least one planning board member attended the workshop, travel and lodging expenses paid for by the Doris Duke Foundation.

On the second afternoon of the workshop, a Sonoran representative presented a session on "Evaluating Growth Management Tools", in which, among other things, he discussed: "agricultural districting"; "conservation easements"; "purchase of development rights"; "agricultural zoning"; "open space development"; and "transfer of development rights".[2] On the workshop's third morning, the same Sonoran employee conducted a session which introduced participants to "fiscal impact analysis, including Cost of Community Services Studies and how they are conducted."[3] Interestingly enough, on that same morning, immediately following Sonoran's COCS presentation, a representative of American Farmland Trust, inventors of the COCS, co-presented with another Sonoran representative, an "in-depth review of critical elements of a private, voluntary land conservation program (role of land trusts, purchase of development rights, and conservation easements.)"[4]

On the last afternoon of the workshop, the schedule required that: "With help from their Sonoran Institute liaison, county teams will develop community action plans that identify three or four specific objectives they hope to realize in the next 12 months. Teams will identify a person responsible for each objective and a date by which the objective will be realized. County teams will then report back to the entire group on their plans."[5] Then, on the very next session, the last one of the workshop, Sonoran's Luther Propst commented on the counties' action plans, and pledged "the Sonoran Institute's commitment to providing technical assistance to counties in realizing their action plan."[2]

This had clearly been a facilitated set-up, and Jefferson County bought into it: first, an indoctrination into the "tools" available to planners to get control of private property rights; next, the COCS; then, workshop mandates that counties "will" develop action plans, responsible persons, and dates certain by which their action plans would be realized; and finally, Sonoran's magnanimous offer of "technical assistance...in realizing their [Jefferson County's] action plan." It is almost a certainty that out of this same workshop came Jefferson County's idea, conveniently suggested by Sonoran, to get money from Sonoran to do the COCS.

In plain words, The Sonoran Institute sold Jefferson County on the idea of doing a COCS, and even offered to pay for it.

Origin of the COCS Study

In their handbook on how to do a COCS study, American Farmland Trust (AFT) says they invented the technique to answer, that is, dispute, common claims that farmland, forest land and open space reach their highest and best use when converted to residential development, and that the governing entity, in our case counties, will prosper more from residential property.[3] "Of these claims, AFT is most concerned about those used to oppose laws and statutes that benefit farmland, most notably use-value or current-use assessment, agricultural districts and zoning, and purchase of conservation easement programs. What particularly concerns us is that despite these claims, no basis in fact exists for opposing farmland retention programs to solve fiscal problems."[4] While that last sentence certainly contains its own interesting ambiguities, one fact seems obvious: AFT was dismayed because people concerned about private property rights were opposing laws and statutes that created agricultural districts, rural zoning, and conservation easements.

Finally, "In the 1980's AFT became concerned about attacks on several Northeastern use-assessment programs. To learn if working lands contributed to the local tax base, AFT developed an inexpensive, easy-to-understand way to determine a community's bottom line by apportioning the direct costs of public public services to specific land uses."[5] And so, the COCS was born, all sounding simple, straightforward and easy.

A Closer Look at the COCS Study

The first fact that must be recognized is that, to the best of my knowledge, COCS studies are never peer reviewed. Sound science must always stand peer review; but the COCS is not sound science—indeed, it is not even science. I submit that, if ten people were to independently conduct COCS studies of the same set of data, they would arrive at ten different results.

The fundamental methodology of a COCS study is simple. Suppose you are going to do one for a Montana county. First, you must choose a study time period for which to collect data, preferably the last completed fiscal year. Second, you must establish land-use categories that suit the purposes of your study, the four categories for a COCS traditionally being: Residential; Commercial; Industrial; and Farmland/Open Space (these in fact being the four that Jefferson County used). Third, using those four designated land-use categories, you must separate all county revenues for that period into the land-use category from whence they came. Fourth, you must separate all county expenditures for that same period into the land-use category to whence they went. Fifth, you must divide the total revenue from each land-use category by the total expenses spent on that category, thereby determining the income-to-cost-of-services ratio for each land-use category. And last, you must publish a report of your study, containing a tidy little table showing the ratio of revenues-to-expenditures for each land-use category, and, inevitably, the fact that Residential land-use properties cost the county money, and the other three all make the county money, in fact quite a lot of money.

But is it really all so straightforward and easy? Not hardly.

In their COCS handbook, AFT claims that, "Although a rural acre with a new house will undoubtedly generate more total revenue than an acre of cows, such simplistic arguments do not provide communities with a realistic bottom line."[6] They then go on to promote a technique that takes a small subset (one fiscal year) of complex data, ignoring that data's fundamental complexity and its inherently intricate demographic and sociological factors, subjectively allocates that data based on highly arguable assumptions, and reduces it to a simplistic argument that provides the kind of results AFT wants to see. In making the claim that *their* simplistic argument *does* provide communities a realistic bottom line, AFT includes an interesting caveat: "Financial snapshots , they [COCS studies] do not predict the fiscal impact of future land use decisions but do give communities a better baseline of budgetary information."[7] In spite of that somewhat convoluted warning from AFT, communities who use the COCS, including Jefferson County, deliberately apply its results as being predictive of "the fiscal impact of future land use decisions", the very thing AFT says the studies are not supposed to do.

Two other things AFT says COCS studies do not do are: "Judge the intrinsic value of any land use"; or, "Solve fiscal imbalances or prescribe a course of action."[8] Yet, communities who use the COCS, including Jefferson County, employ its results toward those very ends, that is, to judge the comparative, intrinsic values of the designated land uses, and to imply courses of action to solve, or prevent, fiscal imbalances. If you don't intend to use the COCS study for those purposes, the question then is, Why even bother to do one?

While AFT claims their COCS studies are "Straightforward and inexpensive,...[and] can be used by local decision makers"[9] (a claim that directly contradicts their statements quoted in the preceding paragraph), they go on in their handbook to cast reasonable doubt on their own claim that the studies are "straightforward". In regard to the allocation of expenditures, AFT warns COCS practitioners: "The heart of a COCS study is allocating expenditures based on land use demand. Since most town [and county] records are not kept by land use, this process requires significant effort. Try to stay intrigued and do not get frustrated if this step is difficult; it is a critical part of your study."[10] With this statement, AFT has, of course, introduced the fundamental truth of the intense subjectivity involved in the COCS process, suggesting not only that the cost allocations are highly subjective, but that the subjective decision making processes of the practitioner might be negatively influenced if she loses her sense of "intrigue" and becomes "frustrated". There can be little doubt that such mitigating elements seriously erode the "straightforward" claims AFT makes about this obviously non-objective process.

In order to lessen the impact of such potential loss of intrigue and onset of frustration, AFT assures the practitioner: "Even though expenditure reports are generally available from department heads, you may still have trouble allocating expenses. Start with ones you can apportion with little or no assistance. For example, education and most health and human services are residential. Remember, farm houses are considered residential."[11] Having already established in their own words that a COCS study is subjective in its most critical area, cost allocation, AFT proceeds to subjectively establish some fundamental COCS cost-allocation assumptions that contain a built-in bias against the Residential land-use classification. The decision to allocate all education expenses against Residential may on the surface seem reasonable, but a bit deeper analysis opens the assumption to deep philosophical as well as substantial matter-of-fact debate. Many people live where they live, and put their kids in nearby local schools, because of the nearby location of the commercial or industrial enterprise where they work. In our own local regard, the question is: If Jefferson County got rid of all its commercial and industrial enterprises, how many residents would remain? And the reasonable suggestion seems to be that those residents that are here because of some commercial or industrial entity ought to have at least some of their cost of county services apportioned to the businesses and industries that brought them here and keep them here.

The same can be said of the allocation of farm house expenses to Residential, the question needing to be asked being: How many farm houses are where they are because of the agricultural land they serve? In the area of Jefferson County where I live, the decrepit, decayed remnants of family farm houses dot the landscape, houses that were lived in only during the time they served smaller family farms and ranches. These farm houses became vacant when they no longer served as housing for the people who worked the agricultural land on which they sat. The underlying implication of this assumption, when taken to its logical conclusion, encourages the county to get rid of its family farms and ranches, and consolidate all agricultural land in the hands of fewer and fewer, larger and larger ranchers, all for the sake of minimizing Residential land uses. It need not even be said that such a policy would be extremely detrimental to American agriculture, American consumers, and the national interest; I believe it would also be disastrous to the well being of Jefferson County.

Also, the assumption that "health and human services" costs should all be allocated against the Residential land-use category is again open to serious philosophical and matter-of-fact debate, innumerable reasons being obvious as to why many health and human services costs should be allocated against the commerce or industry wherein lie their fundamental causes. Libby, Montana, would be an extreme case in point. But even aside from that, the same argument that many people are here because of commercial, agricultural, and industrial enterprises, applies for health and human services costs as well as it did for school cost allocations. Here is a classic case where the devil would lie buried in the details of how a given COCS practitioner assigned each line-item of cost; but the fact remains, AFT's fundamentally flawed assumption, explicitly stated in its handbook, is that all of those costs be allocated against Residential land use.

AFT's COCS study handbook is replete with statements that illustrate the non-straightforward character of the technique: "General government expenses can be hard to allocate"[12]; "Of all expenses, public works can be toughest to assign";[13] "When you talk to the highway superintendent, try to tease out quantifiable data"[14]. One particularly interesting instruction to the practitioner says: "If you hope that farm, forest and open lands will show a positive contribution, make sure you are conservative when you allocate revenues to them and liberal when you allocate their expenditures. This will help keep your study impartial and credible."[15] The first thing AFT does here is admit that the COCS sponsors and practitioner might be hoping for a certain result, that is, might well be conducting the study with the intent of achieving some pre-determined outcome. The second thing AFT does here, and a curious thing it is, is to state that by making intentionally partial allocations you can claim your study is impartial and credible. The simple fact is, if you make partial allocations, your study is partial. Another simple fact is, if allocations can be made partial in one direction, they can just as easily be made partial in the other.

In regard to the bias inherent in a COCS study, AFT again admits it best in their own words: “If you can gather reliable data from interviews, use it. When you cannot, use the property tax fall-back percentages[16] described in the revenues section. Keep in mind it is best to *bias against your own interest*.”[17] (Italics in original.) Here again, AFT is admitting that the sponsors and practitioner have a biased interest in how the COCS study comes out. AFT also, in clear and explicit terminology, urges the practitioner to bias their own COCS study, ostensibly against their own interest, but again the fact remains, if you bias a study it is biased, and if you can bias against your own interest, you can just as easily bias for it. The COCS study *is not* straightforward, and it *is* biased—and AFT admits it in their own words.

I urge the interested reader to obtain a copy of the AFT COCS Study Handbook,[18] and read it for yourself, looking carefully to spot the admittedly non-straightforward, built-in bias of the study, and the contradictions inherent in the handbook itself. Then ask yourself whether or not is reasonable to be using this “tool” to manipulate public opinion, and direct both short- and long-term land-use policy in directions that are not in the best interests of many private property owners. For that is exactly what is being done.

The Jefferson County, Montana, COCS Study

Before beginning a discussion of this particular study, let me briefly review the events leading up to it. In October, 1999, certain Jefferson County officials traveled, expenses paid by the National Association of Counties, to a workshop in Park City, Utah, which was co-hosted and co-conducted by the Tucson, Arizona, based environmentalist and leading Yellowstone-to-Yukon (Y2Y) advocate organization, the Sonoran Institute. At the workshop, Sonoran conducted a majority of the presentations, showing the “challenges” facing rapidly growing rural communities, discussing “tools” available to governments to deal with it, promoting use of the COCS study, getting counties in attendance to commit, at the workshop, to taking action, and then giving those counties Sonoran’s commitment to help them take that action. The Jefferson County officials returned home, having bought into the Sonoran package which included getting a $10,000 grant from the environmentalist Lucille and David Packard Foundation, through Sonoran, to do a COCS study, and the donation of the time of two of Sonoran’s people, paid for by a Y2Y grant from the environmentalist V. Kann Rassmussen Foundation, to come in and run the Jefferson County planning process. A free lunch for Jefferson County, so to speak. But we all know the truth about free lunches.

The Jefferson County, Montana, COCS study was conducted by a paid consultant, using Jefferson County closed fiscal year 2000 data, the results being published in a report dated January, 2001.[19] My purpose in discussing this study is certainly not to cast aspersions, or to denigrate either the work or the character of the consultant or anyone else involved in conducting the study. My concerns, arguments and disagreements are directed at the basic nature of the COCS, its flawed fundamental assumptions, its built in biases, and its use for the kind of policy-making purposes its own designers have said such studies should not be used for. *Anyone* conducting a COCS study, even if accepting only the most basic AFT assumptions, is going to come out with a biased result; the attempted oversimplification of complex data, the subjectivity involved in allocating revenues and especially expenses, the necessary ignoring of sociological and demographic factors, all demand that the results of any COCS study be looked at askance, and taken with a huge grain, if not an entire barrel, of salt. And yet, once completed and published, and presented dogmatically in public meetings, and at last published in local newspapers and editorialized on as being absolute verity, in spite of warnings to the contrary from AFT themselves, the study's results become transformed into the major factor driving the planning process—they become supreme, dogmatic authority.

My first problem with the Jefferson County COCS study can be found on the published study's title page which claims it was "sponsored by the Jefferson County Planning Board".[20] In terms of having an interest in the outcome, it might be said that the Jefferson County Planning Board did have some sponsorship of the study; but in reality, the Sonoran Institute has the real vested interest in the study's results: those results well serve Sonoran's Y2Y agenda in Jefferson County; and of the ten-thousand-dollars Sonoran gave to the county, six-thousand of those dollars went to pay for the COCS study. So, Sonoran gave the COCS study idea to Jefferson County; it is Sonoran's interests that are most served by the study's outcome; and Sonoran paid the entire cost of the study. There is no question that the Sonoran Institute is the real sponsor of the Jefferson County COCS study. Once again, in regard to their planning and zoning efforts, and Sonoran's role in it, it seems the county does not like to tell things the way they really are.

In its introduction, the report reveals two things about the Jefferson County COCS study. First, "common guidelines are followed based on methods developed by American Farmland Trust."[21] As I have already shown, those common AFT guidelines contain arguably flawed allocation assumptions which bias the study before it ever gets off the ground. Second, the introduction claims that: "The COCS is a valuable tool for community planning because it shows the impact each land use has on the county's overall finances."[22] What is clear here is the intent that the study's results be applied as a shaper of county planning; that the results be accepted as predictors of the fiscal impacts of future uses of private property within the county. This in spite of warnings in AFT's own COCS Study handbook that COCS studies are, "Financial snapshots, they do not predict the fiscal impact of future land use...",[23] and, COCS studies "do not: Predict the impact of future [land use] decisions."[24] Interestingly, in a seeming contradiction to its earlier statement, Jefferson County's COCS report itself offers that same admonition: "This COCS does not predict the future impacts of new development, but simply identifies the current contributions of existing land uses."[25]

In its List of Contacts and Interviews, the Jefferson County report lists as advisory groups: the Jefferson County Commissioners; and the Jefferson County Planning Board.[26] Based on a few questions about the study posed to commissioners and planners, I actually suspect the commissioners and planning board had little involvement with the study, and therefore know little about the details of how it was conducted, what the underlying assumptions were, how the detailed decisions were made, and what actually went in to arriving at the final set of ratios. In fact, the primary advisors were the heads of the particular county offices and departments from where the data originated.[27] In light of that, the least responsibility of the commissioners would be to ascertain from each department head, in strict confidence, how each feels about the reliability of the study, and the degree of accuracy, or lack thereof, with which cost allocations could actually be made.

The Jefferson County COCS study used several of AFT's recommended assumptions, primarily those of allocating all farm house transactions to Residential, and all school expenditures to Residential.[28] As I've already argued, doing this introduces into the study a fundamental bias against the Residential land-use classification, and underlines the prima facie ludicrousness of trying to use the study as a county land-use planning tool. Contrary to one of AFT's recommended assumptions, that "state aid for schools is residential income",[29] the Jefferson County study disregarded all state and federal aid for schools.[30]

The results of the Jefferson County COCS study are:[31]

Land Use Ratio Calculations	Residential	Ag/Open	Commercial	Industrial	Total
Total revenues	$4,323,665	$1,182,356	$600,607	$4,740,074	$10,846,701
Total expenditures	$9,357,182	$350,874	$464,005	$257,321	$10,429,376
Ratio expressed dollar-to-dollar	**$1 to $2.16**	**$1 to $0.29**	**$1 to $0.77**	**$1 to $0.05**	

According to the report, the state and federal school revenues which were excluded from the study totaled: $5,055,362 ($264,930 being the federal contribution).[32] If we take the AFT handbook recommendation and include that money as residential revenue (and expenditure), the table becomes:

Land Use Ratio Calculations	Residential	Ag/Open	Commercial	Industrial	Total
Total revenues	$9,379,027	$1,182,356	$600,607	$4,740,074	$15,902,064
Total expenditures	$14,412,544	$350,874	$464,005	$257,321	$15,484,744
Ratio expressed dollar-to-dollar	**$1 to $1.54**	**$1 to $0.29**	**$1 to $0.77**	**$1 to $0.05**	

Notice now that the Residential revenues-to-expenditures dollar-to-dollar ratio has dropped from $1 to $2.16, to $1 to $1.54. I'm not arguing that $1.54 is an acceptable number, but I am showing that by altering one of the study's fundamental assumptions, we can cause a dramatic change in one of its most important bottom line results.

We can now look at some other philosophical considerations, and juggle some other numbers in the Jefferson County study. Perhaps the most fundamental problem inherent in any COCS study is the fact that no land-use category exists unto itself. To assume that any do, and the typical COCS study does make that assumption, is to introduce yet another bias that renders the study and its results incomprehensible. For instance, a sound assumption could be that the growth of Residential land use happens because of the growth of Industrial and Agricultural land uses, primarily, in many cases, from Industrial. (Even this assumption leads to a philosophical debate, and to the need for preliminary demographic studies of the size, for instance, of ranches in the study area, a likely sound assumption being that a larger number of smaller ranches would tend to promote the growth of more commercial/residential land-use than would the existence of a smaller number of larger ranches. And this assumption inevitably leads to yet another one, namely, that Commercial and Residential land-use categories are inextricably linked, and in fact can not be separated to facilitate studies like this.) If you accept the assumption that Residential land use tends to happen because of the growth of Industrial and Agricultural land uses, you must then also accept that Commercial land use tends to happen primarily because of the growth of the other three, probably primarily because of Residential. As for the "snapshot" COCS study of Fiscal Year 2001, Jefferson County, Montana, such assumptions would certainly be credible.

Let us then reallocate some numbers, and in so doing take the AFT handbook's advice, and "*bias against your own interest*", assuming that the interest of the Sonoran-sponsored Jefferson County COCS study was to make Residential development look bad. "If you hope to find positive contributions from the working landscape," says the AFT handbook, "allocate more revenues to the residential sector and more expenditures to farm, forest and open land. This will make your study more objective, so it will be easier to defend your findings."[33] This is another interesting suggestion by AFT, that by arbitrarily allocating "more revenues to the residential sector and more expenditures to farm, forest and open land", you will somehow make your study more objective. In any event, let us go ahead and do that, not adding revenues to Residential, but taking away some of its expenses and reallocating them to the Agricultural, Commercial, and Industrial land-use categories. (Remember now, we assumed that these last three categories are responsible to some degree for the growth of the Residential category, and therefore can justly be blamed for some of its expenses. And anyway, the AFT handbook says to go ahead and do this.)

As we begin to reallocate percentages of expenses away from Residential and add them to the other three, the cost-services-ratio of the Residential land-use category obviously begins to drop. At a 10% reallocation, the ratio becomes \$1 to \$1.38; at 20% it becomes \$1 to \$1.23; at 30% it becomes \$1 to \$1.08; and at 35% it becomes virtually \$1.00 to \$1.00.

The 35% COCS study table looks like this:

Land Use Ratio Calculations	Residential	Ag/Open	Commercial	Industrial	Total
Total revenues	\$9,379,027	\$1,182,356	\$600,607	\$4,740,074	\$15.902,064
Total expenditures	\$9,368,154	\$927,376	\$1,328,758	\$3,860,457	\$15,484,744
Ratio expressed dollar-to-dollar	**\$1 to \$1.00**	**\$1 to \$0.78**	**\$1 to \$2.21**	**\$1 to \$0.81**	

In this table, 35% of the original Residential expenses have been taken away from that category and arbitrarily spread across Ag, Commercial and Industrial: 4% to Ag, 6% to Commercial, and 25% to Industrial. Remember, the first assumption that has gone into this table is the inclusion into Residential of all state and federal school monies. The second assumption is that Ag, Commercial and Industrial bear some measure of responsibility for Residential being there, and we will now say that their sharing 35% of the blame for Residential expenses is not unreasonable; and in fact, in terms of a typical COCS study, it is as defensible to say that as it is to say anything else. We have in fact followed the AFT handbook's advice, and allocated more expenses to Ag, Commercial and Industrial, thereby making our study more objective and defensible. (They said it, not me.)

What we must now notice, under these assumptions, and under this 35% reallocation of expenses, is that Residential looks okay, Ag is still looking good, as is Industrial. But Commercial now looks absolutely terrible, having ballooned to a ratio of \$1 to \$2.21! This is even worse than the original study's bleak picture of Residential. What we must now do is hold a public meeting, authoritatively present these findings, and scare Jefferson County's residents into believing that we simply cannot allow any more Commercial development within the county.

In matter of practical fact, that is not really what we must do. What we must really do is now admit that, by making our own defensible assumptions and allocations, we can manipulate our COCS study until we get it to say what we want it to say. Am I suggesting that the Jefferson County study contractor rigged the study? Not at all. But what I am again suggesting is that the COCS process is flawed, unrealistic, and fundamentally unreliable, *regardless of whatever assumptions you make*!

So. Who then benefitted most from the flawed original Jefferson County COCS study? The answer is obvious: the Sonoran Institute did, and their Y2Y agenda.

And how did they benefit?

First of all, Sonoran, a primary and self-admitted Yellowstone-to-Yukon advocate, in getting control of Jefferson County planning, convinced the county to do the COCS study whose pre-determined outcome painted as disastrous any further Residential development in the county. The planning board (along with commissioners, newspaper editors, and a number of county citizens), convinced of the study's veracity, now intend to use it as a planning "tool" to formulate various open space preservation rules and regulations such as agriculture districting, agriculture land zoning, conservation easements, and whatever other devices can now be sold as justifiable in gaining control of private property rights. All of which fits nicely into the Y2Y agenda of developing core areas, corridors, and buffer zones. Y2Y is well served by any device which contributes to the restriction of private property rights.

Second, Sonoran, a foundation-money driven organization, depends on just such successes as getting control of Jefferson County planning, successfully promoting the use of a COCS study, and damaging private property rights in the interest of Y2Y, to renew appeals to their granting, environmentalist foundations for yet more money to continue further engagement in those same activities. For Sonoran, it is an interesting, and lucrative, cycle. Several weeks ago a newspaper article reported that Sonoran has just received a new $522,000 grant from the Doris Duke Charitable Foundation, specifically for the acquisition of private property and conservation easements.[34] Did their success in getting control of Jefferson County planning have anything to do with their being awarded that new grant? Very likely it did.

The bottom line of it all is this: the Jefferson County COCS study, because of its inherent biases and subjectivity, must not be used in any way to guide, direct, or influence county planning.

ENDNOTES

[1] Western Community Stewardship Forum Training Workshop, cover letter to Dear Participant dated October 13, 1999, by C. Vernon Gray, President, National Association of Counties, and Luther Propst, Executive Director, Sonoran Institute.

[2] Ibid., Annotated Agenda, page 2.

[3] Ibid.

[4] Ibid., page3.

[5] Ibid.

[2] Ibid.

[3] Is Farmland Protection A Community Investment?: How To Do A Cost of Community Services Study, by Julia Freedgood, American Farmland Trust, Spring 1993, page 1.

[4] Ibid.

[5] Ibid., page 2.

[6] Ibid., page 1.

[7] Ibid., page 2.

[8] Ibid., page 4.

[9] Ibid.

[10] Ibid., page 15.

[11] Ibid.

[12] Ibid., page 16.

[13] Ibid.

[14] Ibid., page 17.

[15] Ibid.

[16] Ibid., page 14. Fall-back percentages are the percentage of property tax revenue raised by each land-use category. To allocate any otherwise unallocatable expenditures based on these property tax revenue percentages is another questionable assumption, and highly debatable practice used in a COCS study.

[17] Ibid., page 16.

[18] Order from: American Farmland Trust, National Office, 1920 N Street, N.W., Suite 400, Washington, D.C., 20036; Phone: (202) 659-5170, Fax: (202) 659-8339.

[19] Cost of Community Services in Jefferson County, Montana, by Beth Murphy, sponsored by the Jefferson County Planning Board, January, 2001.

[20] Ibid., title page.

[21] Ibid., page 1.

[22] Ibid.

[23] Freedgood, op. cit., page 2.

[24] Ibid., page 4.

[25] Murphy, op. cit., page 2.

[26] Ibid., page 11.

[27] Author's phone conversation with Beth Murphy, 4/06/2001.

[28] Murphy, op. cit., page 2, 3.

[29] Freedgood, op. cit., page 14.

[30] Murphy, op. cit., page 5.

[31] Ibid., from table on Results Summary page.

[32] Ibid., Appendix A.

[33] Freedgood, op. cit., page 16.

[34] Preservation for posterity: $8.2 million donation will help environmental groups buy land surrounding park, The Bozeman Chronicle, 8/18/01.