# SANTA FE

# BOARD OF COUNTY COMMISSIONERS

# SPECIAL WORK SESSION

## February 8, 2008

Jack Sullivan, Chair
Paul Campos, Vice Chair
Michael Anaya
Harry Montoya **[excused]**
Virginia Vigil

# SANTA FE COUNTY

## WORK SESSION

## BOARD OF COUNTY COMMISSIONERS

**February 8, 2008**

This special work session of the Santa Fe Board of County Commissioners was called to order at approximately 1:07 p.m. by Chair Jack Sullivan, in the Santa Fe County Commission Chambers, Santa Fe, New Mexico.

Roll was called and indicated the presence of a quorum as follows:

**Members Present:**
Commissioner Jack Sullivan, Chair
Commissioner Paul Campos, Vice Chairman
Commissioner Mike Anaya
Commissioner Virginia Vigil,

**Members Absent:**
Commissioner Harry Montoya

## VI. APPROVAL OF THE AGENDA

CHAIRMAN SULLIVAN: Do we have anything to add to the agenda, Roman?

MR. ABEYTA: No, Mr. Chair.

CHAIRMAN SULLIVAN: Anything from the Commission? Okay, we'll move into – and this is going to be abbreviated because some of the Commissioners have other obligations here with the legislature in session. We'll go into item 4, which is the Growth Management Department presentation.

## IV. Growth Management Department Presentation

### A. Introduction *[Exhibit 1: Santa Fe County Utility Plan]*

JACK KOLKMEYER (Land Use Administrator): Thank you, Mr. Chair and good afternoon to Commissioners and staff members. Since we have an abbreviated schedule here this afternoon let me get rolling here as quickly as possible. The bulk of the

presentation this afternoon, as we told you at our last study session will be on water and wastewater issues and the water and wastewater strategy that will be presented by Steve Wust, our Natural Resources Planning Manager.

I just briefly want to show you a couple of things that you have in front of you so we all know where we're going. Steve Wust will be working from a slide show, slide presentation which is this, which will be on the board behind you, but we will be following this format. You also have in front of you the growth management strategy, the yellow sheet, covered piece of paper, and this is the beginnings of the work that we're doing on the environmentally sensitive areas, which has become real important relative to oil and gas. We're going to focus on the water and wastewater strategy today, but the next thing that we're working into and working toward will be these environmentally sensitive areas.

The other important piece that you have in front of you is a timeline. It's this 8-½ by 14 sheet that shows you where we have been and where we're headed. There's been some concern that this is going to take forever but I think if you start to look at the map with us you'll see that we're moving along at a fairly good clip, and I want to just go over a couple things on that timeline. One is a reminder that in August we did this presentation, which was to show you the growth management areas and some initial mapping that we did. If you again would like to see this information as we move forward we will have copies of these things available for you. That was on August 22nd. On October 22nd we did a presentation of the initial environmental mapping that we had started to work on, and then on November 13th, our last session together, and that's one where we came back with more sophisticated data on the maps that we gave you and we focused on roads.

So today's presentation will be on water and wastewater systems. I want to point you to one thing on the timeline map that we've just recently added. If you look at that in the middle, you'll see that there's some red areas in there. That's the point at which we want to then take the – well, we'll have a further discussion with you on these environmentally sensitive areas again, especially because of the nature of the oil and gas issues. Although this will relate to the entire county, we will focus some on the Galisteo growth management area, and at that point we'd like to interface the information that we do as Land Use with the current status of the legal investigation that's going on, including looking at how the land use data may relate to the draft of the oil and gas ordinance at that time, related to the geographic issues that have come forward. We hope to be able to get to that next month. So I think we're right on schedule with a lot of these things.

So that's the agenda for today. Steve Wust will do his presentation. If we have any time left over at the end, Arnold Valdez, our senior planner will go over some of the information that's in the environmentally sensitive areas document that you have in front of you. Then we'll look forward to figuring out with the County Manager how we'll do the next sessions and go from there. Having said that, I'd like to turn the meeting over to Steve Wust who will go over the water and wastewater plan with you. Thank you.

**IV. B. Draft Growth Management Strategy for Water and Wastewater Plan**
**1. Presentation** *[Exhibit 2: Growth Management Strategy: Water and Wastewater Plan; Exhibit 3: Presentation]*

STEPHN WUST (Water Resources Director): Thanks, Jack, Mr. Chair, Commissioners, I'll also note a couple other things. You have in front of you the basically text versions, one of what the presentation will be today, called Growth management Strategy Water and wastewater Plan. That will allow you to peruse some of the details at your leisure. And the other one is the hopefully final version of the Santa Fe County Utility Plan. That's a compilation of the water utility plan and the wastewater utility plan. The water utility plan was presented to you last October or something like that. The wastewater utility plan was developed in conjunction with that out of that meeting. So that's the just the text versions of the plans that will be published, so to speak, and then you again, as Jack said, you have a copy of the power point presentation in front of you.

What I'm going to be presenting today is the water and wastewater plan portion of the overall growth management strategy that as Jack said, a number of staff have been working on and will continue to work on as we go along. However, the Commission had asked to see the water part initially before the other portions, so that's what you're going to be seeing today. I want to emphasize as was presented to you when we introduced the growth management strategy that this is a strategic planning process. It's not a project list. So you won't see a set of projects or a set of money that will go to any particular place. It's a bigger picture as it were. That's what we're going to go through today.

So I'll start with the general strategies that are basically countywide. The regionalization and consolidation are preferred. And this is, I'll emphasize, these are recommendations coming from the strategic planning staff. So we look at think regionalization and consolidation are better than a bunch of small independently competing operations in water and wastewater. The BDD water, and BDD is Buckman, should be utilized for the County utility to serve the growth areas and the El Centro growth management area. The El Centro is the one right around the City of Santa Fe and our Community College District. Places like that. These, by the way, are the four growth management areas that you saw in the earlier presentations: El Norte, El Centro, Galisteo and Estancia.

The County can support other systems through capital but we recommend that it be done through the capital because that would minimize our long-term operating costs, either in terms of staffing or money. So if we can support other systems to improve their own system and management structure then that would minimize the County commitment over the long term. And the County as a general rule should be looking at redefining development patterns in all the areas. That may change from place to place but by smartly redefining development patterns we can produce a lot of good effects without having to go off and spend our own money to do it.

I'll start in the south, the Estancia growth management area, and this is just a summary of what you saw before, the general conditions down there on water and wastewater. There's really one large regional water system and that is Entranosa, serving mostly the City of Edgewood, which is right there. There is one future regional wastewater system, which again is in this case the municipal system of Edgewood which is being developed now, and which the County has committed some funds towards. And then across the rest of the area there's numerous wells and septic tanks, and that's the conditions as we see them today.

Because of those conditions we looked at – and this is part of the planning process – we're looking at, because of the conditions, what are various decision paths that the Commission needs to think about in terms of what direction they'd like to go. The first is the County could support a legislative or direct County funding of private and municipal systems, and also we could develop ordinances to promote centralized water and wastewater systems in new developments, because there are a number of ranches down there that could end up as large developments.

So what are our strategic options. One is to redefine the development patterns. You saw that in the first overall slide, and create a regional water and wastewater system. Now, the implication of that – and you'll see part of that in the text. We go through in a lot more detail the implications and the analysis of these different strategic options. One thing we have to be aware of in the Estancia growth management area is if the County wants to create a regional water and wastewater system it's very, very expensive, because we don't have anything down there right now.

So that leads us to the recommended strategy which is redefine development patterns, which is something the County can do, and then secure a generalized agreement with Edgewood, because that is the regional system and the regional wastewater system in the future, so it would be an efficient use of the County priorities to work with Edgewood, if we'd like to go down the path of regionalization, as opposed to the County trying to create its own, which again, would be very expensive and would take a lot of staff and money.

Moving north to the Galisteo growth management area. Mostly private wells. Again a large area, fairly spread out. A number of septic tanks. In this case there are no large water systems and there are no wastewater systems. There are a few community water systems. Those few community water systems have a number of different types of service issues such as water supply, water rights, infrastructure or management. So there are some seeds of water systems that could be utilized but most of them are in various stages of needing certain types of improvement. But most of the areas, private wells and septic tanks. And there's no existing wastewater system right now.

So the decision path for the County, again, is similar to what you saw in Estancia. Support legislative or direct County funding of the existing water systems, and then ordinances to promote centralized water and wastewater systems in new development. And again, since there are a number of ranches down this way that could end up as large

developments, the County should look at having ordinances or other requirements in place in order to promote centralized and regional systems starting off from the developments.

The strategic options that flow out of that are improving the water systems and develop wastewater systems in the existing communities, such as Madrid, Cerrillos and Galisteo, but try to find a way to preserve these large tracts that are currently mostly ranches, but there are some other properties there. And I just realized, saying that, I was asked to show you that the things in color are other jurisdictions, and so the County only really has jurisdiction over what on these slides are the white areas. But there are a number of large tracts there and if we redefine development patterns and look at things like sensitive areas that Jack mentioned earlier we may be able to preserve large tracts and a large amount of open space and all the various ecological, environmental conditions that go with it.

So the recommended strategy from the staff is to improve the water systems and develop wastewater systems in the existing communities, and that is part of not just simply a water issue but the planning process has been going on in Galisteo and over in Cerrillos and Madrid is that it's preferable to have growth, if it happens, when it happens, to go into the existing traditional and contemporary communities. And a way to encourage that in the water part of the strategy is that if they have good water systems and wastewater systems people would be encouraged to move there instead of trying to carve out their own plot of land and drill a well and have a septic tank. And then at the same time we could preserve some open tracts.

Moving north, the El Centro growth management area. This is one where this is a lot of existing conditions which means there are a lot of options that we can look at. There's several large systems for both water and wastewater. What you see on this map, these triangles, are various smaller water systems. The green is the service area for the County water system. The blue up here is the City system, and down here is the Eldorado system. So there are a few – those are all large water systems. And then you'll see labeled here the various wastewater treatment plants that exist in the El Centro growth management area, including the County's Valle Vista – if I can find it. Somewhere down here. But Rancho Viejo has one that's privately owned. Here's the Valle Vista label but actually it's located right here. State pen is located right up here. And of course the City of Santa Fe wastewater treatment plant right here.

And we didn't put it in but Las Campanas is up that way. So there's a high regionalization potential and in the midst of all these larger systems there are several small community water systems, La Cienega, Agua Fria for example. But this is also one of our highest growth areas.

So the decision path for this is the County could pursue a regionalization plan for both water and wastewater. We could do that alone or we could do it in cooperation with the City of Santa Fe, which has fits and starts as we all know. The County could use its water to supplement smaller systems, or to integrate them into a regional system. Now, that's based on the Buckman project. The BDD project will provide the County with 1700

acre-feet a year of water, and by developing a conjunctive use strategy with our groundwater program wells we would have drought protection and backup in the low water years.

In addition to that, however, the County has an ongoing water agreement with the City that we can perpetually purchase, wholesale, from the City, 500 acre-feet a year, even after Buckman, and that's on top of the Buckman water. However, it's a decision path of what to do with that water. For example, we could commit it as a backup when the river is really, really low and if our groundwater program doesn't finish up with enough water to provide us that protection. We could commit it to additional growth. So there's a couple of options there, and that's not something we're going to go and talk into at any depth here. But that's something we need to think about, where do we want to commit that 500 acre-feet a year after Buckman, on top of the 1700.

So there are strategic options because there are so many things happening in the El Centro growth management area. There's a lot of strategic options. One is to use the BDD water, that's 1700 acre-feet, to serve growth and serve it solely through the County utility. We can use the utility to try to take people off wells, people currently on domestic wells. And as we go, if we try to supplement smaller systems do we make a condition of that do we integrate those into the County system thereby developing a regional water system by integrating smaller community systems into the larger County system? Should we, however, supplement small systems so they stay independent? That is, we could provide them through a master meter with water to supplement their own systems but allow them to stay independent and they would just purchase water from us. And should we consolidate existing wastewater systems into the County system and take residents off septic tanks.

Again, there are a number of wastewater treatment plants, private, state, County, City. We don't have any jurisdiction on the City but with the private ones and the state ones, we could go down a path of developing agreements to purchase or acquire those existing wastewater systems and integrate them into a regional system. I'd like to emphasize that that doesn't mean all the pipes have to be connected. You could certainly have a County system where the County owns several wastewater treatment plants that each have a service area, but we have a consolidated billing and management operation through the County.

Or should we support improvements and expansions of the existing systems and allow them to stay independent? That's kind of a parallel to how we can look at the small water systems. With throwing this one in for El Centro. This is just an analysis of the potential use of that 1700 acre-feet, plus 500 acre-feet purchased from the City water. You could see – let me explain this – this is the amount that's been allocated so far, and that allocation is based on, if you recall the presentation I gave to you where I showed you a spreadsheet where water was being allocated in terms of water service agreements and final development permit approvals that included a water budget.

So that's the total amount of water that's been allocated in one form or another from the County so far. On top of that we have approved master plans that came along

with water budgets. Those are master plans that the County Commission put a requirement that those developments would be served by the County utility. And you can see, when you add all those together, we're already above 1700 acre-feet of the Buckman water. And then on top of that, the proposed water budget for Las Soleras throws us above that and the 500 acre-feet wholesale agreement from – between the City and the County. So you can see through various requirements and commitments and allocations, we've basically reached our 1700 acre-feet. And when the group looked at that, the strategic planning group looked at that, our recommended strategy there was for to recognize that and say we should be utilizing the BDD for the County utility to serve growth areas. That's the direction the Commission's been going so far in terms of the requirements on permits and we felt that was a – that made it nice and basically created a regional system so the County could serve.

And again, under the theme of regionalization, consolidate the existing wastewater systems into a County system, improve the customer base for those various wastewater treatment plants and be able to take residences off septic tanks, because that's a potential contamination source now and into the future for our groundwater. And then something that came out of all that is because when we look at the Buckman water and how we kind of allocated or looked at already with water budgets for new developments reaching that already, we should be seeking new water supplies for mid to long term. And when I say mid to long term I'm thinking 20-year timeframes. Twenty-year projects is usually a good timeframe to look at major water projects. So we should be looking at that. And that is, by the way, included in the County utility plan, about looking for new water sources.

Moving north, El Norte growth management area, the conditions here, mostly private wells, several small community water systems, and it's not listed on the bullets but just north of the county is a future regionalization of water system from Espanola and also future potential regionalization of wastewater, both with Espanola and Santa Clara. However, within the county El Norte growth management, it's in the green here, that's the Aamodt settlement area, and that's a future regional water system itself, and then Pojoaque Pueblo is developing a wastewater treatment plant that could serve as a future regional wastewater treatment system for the Pojoaque Valley. So there's regionalization potential for both water and wastewater.

So our decision path here, the County can support at the legislature or direct County funding of these various systems. Note they're not County systems. We are a participant in the Aamodt system. We may operate it in the future but most of these are not County systems and therefore under the general strategic plan that you saw in the first slide we could support legislative or County funding to develop these systems. We can promote systems or integrate them or encourage them to be integrated into one or more regional systems.

Our strategic options up here – promote development of the regional water and wastewater systems, certainly commitment to Aamodt, and we've already signed onto the settlement there, promote development of small community water and wastewater systems.

The recommended strategy from the team is develop regional water and wastewater systems. Again, regionalization is a good overall strategy and by having it not be County operated, it's minimizing - you see the third bullet there - minimize the ongoing County O&M commitments. Because if you develop regional systems the economies of scale means they can have good operators and good management structures themselves. If smaller systems like to stay small - San Miguel County, we've seen the smaller systems have been combining into alliances, again to develop economies of scale through cooperation while still saying somewhat independent. So we could also support and encourage that kind of thing, the alliances of smaller systems until a regional system is available to them.

So overall, these leaves us some recommended strategic priorities to the County. Number one of course, we've committed a lot of time and money and effort to it, the Buckman Direct Diversion project. Also Aamodt, the settlement we've signed onto and committed already over $5 million in funding for water rights. Looking at regionalization of water, regionalization of wastewater, and seeking new water supplies, primarily for the County utility. And that is it. I stand for any questions or comments, Mr. Chair.

**IV. B. 2. Direction from the Board**

CHAIRMAN SULLIVAN: Any questions for Dr. Wust? Okay, Jack. Go for it.

MR. KOLKMEYER: Thank you, Mr. Chair. Next, we'd like to just briefly go over the environmentally sensitive areas handout that we have for you and I think they're pretty much on time. This presentation will be made by our Senior Planner Arnold Valdez.

**IV. C. Draft Environmentally Sensitive Areas Strategy**

**1. Presentation of maps and concepts** *[Exhibit 4: Presentation; Exhibit 5: Critical Planning Areas Strategy Exhibit 6: Draft Plan]*

CHAIRMAN SULLIVAN: Commissioner Campos is lurking in the hall with his son. So he is hearing you.

ARNOLD VALDEZ (Senior Planner): Good afternoon, Commissioners. I'd like to continue our conversation with a presentation on the environmentally sensitive areas, which is another component of our growth management strategies that we're working on. I have a packet of information for you. The slides are all in the yellow sheets, and there's some supplementary information also, a couple of documents that go into more details on these areas, so that you can read about those later on.

Basically, what we're doing is we're picking up on where the 1995 Growth

Management Plan Left off with regard to certain policies that recognize that certain lands are fragile, sensitive, of such high value to the community, that they need consideration and protection from all kinds of development actions. Also there is some mention of identification and mapping of sensitive natural areas and environmental hazards. Ultimately, these would be considered critical planning areas.

The environmentally sensitive areas that we are currently undertaking will revise and replace some of the general mapping that was done in the 1970s. These maps are old and antiquated. The development review process in the past has relied on developers to submit information regarding certain environmental criteria that's been required. Often, that puts the County in a reactive, defensive position, leading to conflict, and many times the solutions are not satisfactory.

So in order to implement the policies of the Growth Management Plan we feel it is important to develop strategies for developing environmentally sensitive areas. The goal is to protect the health and safety of residents, protect land and resources for current and future generations, to maintain the natural beauty of fragile environments which is the basis of much of our county's economy. And this will be in conjunction with the overall growth management strategies.

The mapping will take place for each of the growth management areas. Each one has unique values and settings. We've developed a systems and settings matrix that has been supplied previously, and we have ongoing GIS mapping and data analysis. We will be developing strategies for each of the growth management areas based on the conditions in that area, similar to Steve's analysis for the water. This is an example of one of the areas that is a little bit further along, although it's not the entire growth management area it is the Galisteo watershed. We're further along on this particular area because of the information that we have received through various partnerships. So this gives you an idea as to the level of detail, although it's not completely detailed with all of the references that we are looking at. It has probably, maybe 80 percent of the mapping layers that we're anticipating will be completed. There's a large printed version also for more reference.

The mapping and identification of these natural areas as I mentioned will enable us to look at where development may endangered health, safety, welfare, resources to citizens and County services. We want to identify areas and lands where actions by land development may damage the culture, environmental resources that define the county, its economy and culture. The maps that are being created are wetlands mapping and that is being done in conjunction with the natural heritage mapping, New Mexico mapping and New Mexico Environmental Department. We'll also be looking at critical recharge areas, hoping that the New Mexico Bureau of Geology and Mineral Resources will be able to assist with the process. We have some mapping that's been completed for the Galisteo Basin. Flood hazard areas, we have a new ordinance that's being revised. We're also getting updated FEMA mapping, so this will be completed later this spring.

Soils mapping will also take place. We do have the NRCS database that has recently been brought up to speed with our GIS Department and with that we'll be able to

map various conditions and limitations for agriculture and other land development possibilities. Fish and wildlife habitat, again, the Natural Heritage of New Mexico program will be helping us as well as the New Mexico Environmental Division. Historic and cultural resources – these are currently being catalogued and have been by the State Historic Preservation Office. The Galisteo Basin Archeological Sites Protection Act is also protecting 24 of the named sites and may include others, and there is a plan being developed also for the management of these resources. Also, the Northern Rio Grande National Heritage Area, recently passed by Congress will also be including a management plan for historic and cultural resources.

And last, we have scenic priority areas. These were previously mapped by a report that was done in 1995 which lists the County visual resources inventory and analysis and has mapped the terrain panoramas, landscape features.

So the results of our mapping effort is to update the maps and the databases and to coordinate that with best available science, and the supplement that I gave you in the back has more details as to why we feel these areas are important and the science resources that we're using to support the mapping. Ultimately, we will come up with recommendations for strengthening the existing Code or perhaps creating new standards, new overlay zoning if necessary, and we will also have recommendations for partnerships to help the County manage special areas as maybe designated or directed by the environmentally sensitive areas. And I think that's all I have.

**IV. C. 2. Discussion** *[Exhibit 7: Timeline]*

CHAIRMAN SULLIVAN: All right. Questions on the environmentally sensitive areas issues? Okay. Good. That's a good overview of that. Appreciate that. Mr. Kolkmeyer. Hit it.

MR. KOLKMEYER: Thanks, Mr. Chair. I would just alert you back to the timeline that we have, and essentially we have four more pieces to go. We'll come back with additional information on the environmentally sensitive areas, and at the point as I mentioned before we started, and that point will probably be next month, we'll be able to take that information and interface that and interrelate that to any of the oil and gas issues that are there at that time. We will have completed our work if we need to move into that discussion in relation to the oil and gas ordinance or other issues, we'll be prepared to do that at that time. And then the next piece is essentially the public services that we need to do the same kind of analysis of, which includes transportation, public safety, fire and sheriff, and then other services as well. That's a discrete piece.

And then we'll take everything that we have at that point and start to tie in the fiscal issues and the funding issues for the overall strategies that we've laid out for you at that point. Then we'll still need to have a discussion of some of the governance issues, that is our relations with Espanola and Edgewood, the City of Santa Fe and some of the other

jurisdictional issues that are out there so we're real clear about what we can and can't do with the specific strategies that we lay out, and then at that point we'll put together the actual strategic planning with actions for you in its final form, and believe it or not, we look to have that completed by the end of April for you.

So I think we're pretty much on track and I think the process that we've laid out is fairly clear and it's really backed up for the first time since we've been doing this kind of planning with some really good GIS and mapping data for you. And that really concludes our presentation for today unless there's some additional comments from our Planning Director, Judy McGowan, if there's anything that you need to add.

And yes, the question of course becomes, are we going in the right direction? Are we going in the direction you'd like for us to be going in? If not now's the time, probably to offer us some guidance or some additional comments on if you think this is the right direction. That and then we stand for questions on any of the information that's been presented to you this afternoon.

CHAIRMAN SULLIVAN: Questions, guidance, recommendations? Criticisms?

COMMISSIONER ANAYA: Mr. Chair.

CHAIRMAN SULLIVAN: Go ahead, Commissioner Anaya.

COMMISSIONER ANAYA: I just want to thank staff for all the work that they've done. I appreciate the presentations. And I think we're going in the right direction.

CHAIRMAN SULLIVAN: Commissioner Vigil.

COMMISSIONER VIGIL: Actually, I missed the water presentation, Mr. Chair, but I realize that a lot of what we actually got and what we're doing, and I'm glad to see it documented because now we can do some comparisons with the growth management strategy and where we're at with water. I think we continually try to improve our portfolio. Is that not correct? And have been working on many of the other issues in regionalization. What I'm hoping we're going to be able to do through this strategic plan is where do we regionalize. I know we have options here and what criteria do we use for that. I guess my sense is that we'll be affiliated with identifying the high growth areas, which we've done to some extent right now, all of that. But I am actually just thinking that this is in my mind a sense of relief because a lot of what we're drafting here we've been doing.

MR. KOLKMEYER: Mr. Chair, if I may respond to that briefly. Yes, that is good because it allocated not only what you do but what we do as well, and also that we really are on the right track whether we may not all see exactly what that track is. The question has been asked repeatedly of us over the last year or so is where are the growth areas and where are we going and I think relative to what you pointed out, it becomes fairly clear that the high growth areas around are in the El Centro area, the urbanizing area. So specifically, where we go and what we do with the water policies is what we'll be working on next.

Secondly, another area of growth are the traditional communities and that raises the

question of how much more can they grow with the systems that they have currently, and that will be our next step to take a look at some of that information. Thirdly are the contemporary communities like San Marcos and also some of the contemporary communities that are really contemporary communities but not by our strategic planning, such as Las Campanas and Eldorado. And we still have to grapple with how much of our effort can we put into the systems for those areas.

And then fourth, there also is the new kind of growth areas or the new community areas that we might want to create, like we did with the Community College District. When we look at the area around the National Guard and La Bajada over just southwest of the Community College District, that is an area that's largely unplanned by the County. We have not gone in there and done very detailed or sophisticated planning, so we may need to look at areas like that, again, in some relationship to how we look at the Community College District area.

But again, kind of relative to what you brought up, Commissioner Vigil, is the growth areas are there and we already know to some extent where they are and this information has validated that, but now we kind of know what the tasks are ahead of us, and we can investigate it a little bit more. Thank you, Mr. Chair.

CHAIRMAN SULLIVAN: Commissioner Campos.

COMMISSIONER CAMPOS: I want to thank Planning staff also because this is something I've wanted to happen for years. We've talked about this for years. I think it is really laying a foundation for a radical departure in how we do business in Santa Fe County. Instead of the developer coming and telling us this is what I'm going to do, the community is going to say this is what we want the community to look like, and this is where you will develop. This is where the densities will be. This is where the infrastructure will be and this is something we've needed to do for a long time. I'm really impressed. It's the community taking charge of its own community, and it's about time. Thank you, Mr. Chair.

CHAIRMAN SULLIVAN: I'll just add that I've always been a proponent of pro-active, not reactive planning and sometimes we get, like with the affordable housing ordinance into a crisis that we need to focus on that immediately and I think we came up with a good resolution but you can't continually plan by crises. You have to at some point plan in a general countywide context and it's certainly what we're doing here. I don't see any criticisms here from the Board so I guess you can assume that the direction is where we want to go and the result is where we want to be.

MR. KOLKMEYER: Thank you, Mr. Chair. Just again, I'd like to thank Steve Wust and Arnold Valdez for their presentations.

CHAIRMAN SULLIVAN: Okay.

COMMISSIONER CAMPOS: Thank you very much.

## V. Adjournment

Chairman Sullivan declared this meeting adjourned at 1:45 pm.

Approved by:

Board of County Commissioners
Jack Sullivan, Chair

ATTEST TO:

VALERIE ESPINOZA
SANTA FE COUNTY CLERK

Respectfully submitted:
Karen Farrell, Wordswork
227 E. Palace Avenue
Santa Fe, NM 87501

# SANTA FE COUNTY UTILITY PLAN

## INTRODUCTION

"The mission of the Santa Fe County Utilities Department is to provide safe and reliable water and sewer utility service to its customers in an efficient and responsible manner." (From the Mission Statement)

There are several "water plans" that Santa Fe County is developing, each targeting a different need within the overall County Growth Management process. The Growth Management Water & Wastewater Plan develops different strategies to ensure adequate water and wastewater services for each management planning area of the County. The 40-year water plan was developed to demonstrate the need and procedure for acquiring adequate water rights for the County Utility supply needs. This plan addresses the needs specific to the Santa Fe County Utility operations for both the near-term and long-term.

The County Utility has both water and wastewater operations. Planning for each contains separate objectives and timetables, however there is a significant interrelationship whereby treated effluent may be used to offset potable water demand. This report incorporates planning for each utility function.

# WATER UTILITY

In order to fulfill its primary mission, the Santa Fe County Water Utility, part of the Growth Management Department, has set priorities:

- Secure a reliable, diverse water supply for its current and future needs.
- Provide for sufficient infrastructure to deliver water to those areas designated to be served by the County.
- Plan for a growing customer base, both from new growth and from moving private well users to the County water system.
- When an adequate long-term supply is secured, expand the utility beyond its current service area. Ideally, those areas would be developed in conjunction with the overall Growth Management Plan for the County.
- Reduce demand through re-use of treated effluent and the promotion of conservation.

The Utility has been additionally tasked to seek ways to assist other community water systems in developing a stable water supply and infrastructure, and establishing effective operations and management. The Santa Fe County Utility Plan recognizes that different areas of the County have different existing historical, cultural, and land use situations, therefore require different planning approaches.

Near-term (pre-Buckman Direct Diversion Project [BDD]), the Utility priority should be fulfilling the water needs within the Santa Fe urban growth areas, directed primarily toward new development.

Mid-term (post-BDD but pre-regionalization), priorities should be directed toward providing an opportunity for private well owners with water quality or supply problems to hook on to the County Utility, and supplementing other systems in need.

Long-term should be directed toward creating a regional system, incorporating smaller systems. Ideally, the regional system would combine the City and County of Santa Fe systems, but there could be a regional system in Santa Fe County exclusive of the City of Santa Fe. In order to accomplish this, the Utility must, in the mid-term, begin seeking additional water supplies, including importation of water from other areas.

## 40-YEAR WATER PLAN

The County produced a 40-Year Water Plan in August 2002. The purpose of the plan was to demonstrate a strategy and use in order to secure its water rights portfolio. For counties and municipalities, a 40-year water plan fulfills the requirements of the Office of the State Engineer (OSE) to demonstrate that water rights are being put to beneficial use.

Much of the strategy in the 40-Year Water Plan is contained within this document, including diversification of both our water rights and water supply portfolios, service to existing well owners who may have water quality issues, potential as a supplemental source of supply for other water systems, and movement toward reuse of treated effluent.

The 40-Year Water Plan was scheduled for revision every five years. This document, and the direction to be set by the Board of County Commissioners (BCC), will lead to that revision. The 2005 Water Plan was prioritized toward existing development, but in the intervening years, the BCC has recognized that County Utility service for new development was beneficial to the community, in that it prevented the creation of multiple independent water systems, or growth supported by shared domestic wells, and allowed the County to manage growth by designating those areas that would be supported by County water service. Therefore, one major revision in this plan is to identify water service to new development within County-designated growth areas as a planning priority.

## SECURE A RELIABLE SUPPLY

The most critical aspect of water utility planning is securing a stable supply. A conjunctive use strategy is the best way to ensure such a stable supply. A conjunctive use strategy diversifies the water supply portfolio to multiple types and locations. In this way, there is no exclusive dependence on any single water supply or type. If one supply diminishes, others can provide for sufficient deliveries. Diversification also reduces the impact to surrounding users at any one location. Over the long-term, a conjunctive use strategy is the most regionally sustainable.

*Near- to mid-term* The Utility will rely on three primary water sources:

1. Contracted supply from the City of Santa Fe. The City and County of Santa Fe have entered into a Water Resources Agreement that allow purchased deliveries from the City to the County of up to 875 acre-feet per year (afy) until BDD comes online, then up to 500afy afterwards. This is

currently the primary water supply for the County. After BDD is online, the County Utility plan is to utilize the City contracted water as a secondary or supplemental supply.

2. Surface Water. The City, County, and Las Campanas are partners in the Buckman Direct Diversion Project (BDD), which will utilize surface water from the Rio Grande. The permitted capacity for the County share is 1700afy. The County Utility plan is to utilize BDD as its primary water supply. Surface water supplies are reliable on a long-term basis, but can fluctuate year-to-year.

3. Ground water. There will be times, due to low river flows, water quality concerns (spills or contaminant releases to the river), or operational difficulties, that BDD will be unable to deliver needed water supplies. The Water Resources Agreement for the BDD authorizes the City to make available to the County water from the City supplies in the event that surface water flows cannot deliver the full permitted capacity. However, this drought relief is not in the full amount of the County capacity. The County could also utilize the 500afy of wholesale water through the Water Resources Agreement, however, this amount may be already utilized as part of the regular County deliveries. Therefore, the County must develop its own ground water sources to provide for backup and supplemental water. The County Utility is in the midst of the implementing the ground water plan:

    a. Hydrologic Model. The County contracted with INTERA to develop a ground water model for the region. That model is completed and is undergoing calibration and refinement. The model will also be used during water rights hearings.

    b. Well Location Selection. Using the results of the model, as well as available technical studies, a number of locations appear favorable for production wells. These locations are being analyzed in detail, both hydrologically and, for those locations that are not County-owned, administratively for possible County acquisition.

        - **Well Location Strategy:** As with an overall conjunctive use strategy, diversification is the key for a sustainable ground water supply. This means multiple wells in multiple locations, reducing the dependence on any one well for supply.

            1. *Analysis of specific locations.* Geologic, hydrologic, and well test analyses will be used to determine the efficacy and long-term production capabilities of

specific locations. The analyses will also be used to demonstrate potential impacts to the aquifer, and methods to minimize such impacts.

2. *Well optimization program.* Conducted at each favorable location, to recommend well size, expected production capability, and well number (one well or multiple wells in a specific location).
3. *Treatment analysis.* If any Safe Drinking Water Act (SDWA) listed contaminants are present at any location, an analysis will be conducted to determine the type of treatment that may be needed, whether mixing or blending will provide an alternative remedy, and comparisons to determine whether the contamination issue outweighs the production capabilities as a water source.
4. *System engineering analysis.* Conducted for the overall system, to effectively integrate well production into storage and delivery capabilities, and recommend additional infrastructure that may be needed.

*Mid- to long-term*

The County Utility remains open to any discussion regarding future water supply. This includes importation of water from other areas. The Utility strategy is to encourage proposers to develop their own project, with the County negotiating to become a customer of water supplies if they are delivered to our system. The Utility also encourages other water systems in the area, particularly Eldorado, to consider participating in regional water supply projects.

*Additional Supplies: Near- to long-term*

The County can obtain additional water supplies through judicious oversight of use and re-use.

1. Re-use of treated effluent. The County is currently in the initial stages of upgrading and expanding the Valle Vista Waste Water Treatment Plant (WWTP), to create a regional facility.
    a. Treated effluent may be used for irrigation, particularly at parks.
    b. New developments serviced by the Valle Vista WWTP can install return-flow lines alongside the sewer lines, to provide treated effluent to homes for outdoor use. Re-use of treated effluent reduces demand on the water utility, resulting in an effective net increase in available supply for potable water.

c. Ultimately, as treatment technologies become affordable and public perception becomes more accepting, wastewater could be treated to drinking water quality, and put directly back into the potable water system.

2. Aquifer Storage and Recovery (ASR). This is a relatively new technique in New Mexico, and the permitting and regulatory process has not yet been finalized and tested. Excess capacity at BDD, or treated effluent, can be injected into the local aquifer. In times of need, that stored water is pumped through existing production wells and delivered to the system. It is expected that any water to be injected will be required to meet drinking water standards, and be compatible with the chemistry of the water in the aquifer. ASR is less efficient than direct re-use, however it is advantageous for storage of excess capacity.
   a. Rancho Viejo has conducted a pilot test of an injection program, which will demonstrate the efficacy of an injection program in the Santa Fe Basin.
   b. An ASR program has the effect of adding to aquifer storage, resulting in a greater supply, and a sustainability of the ground water system.

3. Conservation. By reducing demand, conservation effectively increases available supply, by allowing the existing supply to serve a greater population.
   a. The County has enacted a number of conservation ordinances, primarily through development permit requirements. These include roof catchments, low-water use fixtures in homes, and allowable landscaping.
   b. The County Utility has restrictions and conservation requirements for customers, for example outdoor water use.
   c. In 2006, the County Utility initiated a tiered rate structure, in which customers pay increasingly higher rates as more water is used. A study conducted in western cities demonstrated that tiered rates are one of the most effective conservation measures available to utilities, by significantly reducing demand and encouraging customers to closely examine their water use and potential for leaks.

## COUNTY UTILITY CONSERVATION PLAN

Utility water is metered at two categories of locations: The water sources and the customer delivery points. The difference between the totals is unaccounted water, for which there may be several causes:

- Line loss (leakage in the infrastructure)
- Unauthorized non-metered usage (e.g., construction businesses tapping into the hydrants)
- Authorized non-metered usage (e.g., flushing of lines and hydrants by utility or fire department)
- Erroneous meter registering (older meters tend to under-report)

The County Utility should develop a water conservation and tracking plan, to determine the volume and causes of the unaccounted water, and implement corrections. The goal is to minimize unaccounted water, provide for accurate water accounting, and therefore maximize deliveries in accordance with supply.

Elements of the plan should include:

- Purchase and use of leak detection equipment, implemented on a prescribed schedule of the infrastructure, starting with the oldest part of the system
- Development and advertisement of a reporting system, to provide a mechanism for customers who notice unauthorized usage to report to the Utility. Field staff would be immediately dispatched to the location to investigate the incident.
- Inclusion of construction meter readings in the monthly compilation of water usage for the Utility.
- Requirement to report timeframes and estimated flows during flushing, and include the approximate usage in the monthly compilation.
- Replacement of all meters more than 10 years old, and a yearly meter replacement scheduling plan that includes funding set-asides.

## SECURE WATER RIGHTS

A water supply is unusable without sufficient water rights. The water rights process is designed to protect other users in the basin. Like the water itself, a diverse water rights portfolio provides for an effective and sustainable ability to utilize the supply. Advantages of one type of water right will offset the disadvantages of a different type. The package as a whole should be sustainable.

The County water rights attorney is currently developing a detailed, comprehensive strategy emphasizing the legal aspects of water rights acquisition. This strategy will be integrated into this overall water plan.

*Surface water rights*

County surface water rights going to the BDD include both Native Rio Grande water rights and San Juan – Chama (SJC) leases. Each type has advantages and disadvantages. The County Utility will manage, in cooperation with its BDD partners, the portfolio of native rights and SJC water to sustain deliveries from the BDD while implementing environmental mitigation measures as required by the Environmental Impact Study (EIS) Record of Decision (ROD).

1. Native Rio Grande water rights. The County will continue to acquire native water rights for transfer to the BDD. The advantage of native water rights is that the County owns them outright. The disadvantages of native water rights is that there is a yearly dependence on sufficient flows in the Rio Grande to utilize them, and it is only for the native rights that the ROD requires mitigation measures. Water rights acquisition will be through:
    a. Direct County purchase
    b. Transfer from developers, as required under County policy.

2. San Juan – Chama. Not a standard water right under New Mexico law, but instead a leased right to use water diverted to the Rio Grande as part of the Bureau of Reclamation's San Juan – Chama project.
    a. County Lease. The County has a lease in perpetuity for 375afy of SJC water. The advantage of SJC water is that the yearly allotment can be stored in reservoirs over multiple years. The disadvantage is that, if the flow in the San Juan basin is too low, there may be limited diversions, therefore less than normal SJC water, in a given year.
        i. The County is currently investigating potential SJC storage arrangements both with the Bureau of Reclamation and the City of Albuquerque.
    b. Other Leases. Offers have been made by various entities to negotiate a leasing arrangement for additional SJC water. Those leases will not be in perpetuity, as is the County lease, therefore it is uncertain whether the Office of the State Engineer (OSE) will approve a permit utilizing these leased SJC waters. There are also a number of pitfalls for long-term planning using limited-time leased water. However, it is in the County's best interest to continue to investigate use of leased SJC water. The utility is working with our water rights attorney to develop innovative management solutions to the leasing issue.

3. Aamodt. Under the proposed Aamodt settlement, the combined water system will receive both San Juan – Chama Project water (1079afy) and native Rio Grande water rights (2921afy). The native water rights include those that have been purchased by the County as part of its cost-sharing

allocation to the settlement (1752afy Top of the World water rights). The total amount of water rights and SJC Project water will be somewhat less than that needed at full capacity, but this shortfall of 319afy will be made up by the County and State as the system expands.

*Ground Water Rights*

Due to new policies of the OSE, the act of transferring ground water rights in the Santa Fe Basin has become much more complicated and expensive. However, in order to create an effective ground water component to its conjunctive use strategy, the utility must acquire and transfer ground water and associated rights. Water rights will be transferred to those locations deemed favorable for wells usable by the County system.

1. Acquisition of ground water rights. The County has been acquiring ground water rights in the Santa Fe Basin, through direct purchase, through developer contributions of water rights as part of their required development permit conditions, and through dedications to the County by third parties. The County will continue to evaluate offers of water rights to determine acceptability for the County well program. Water rights must be usable and transferable to a favorable location to be acceptable to the County.

2. Surface water offsets. The OSE will require in-basin surface water offsets for ground water transfers in the Santa Fe Basin. The County will acquire all necessary offset rights through direct purchase, developer contributions, or dedications.

3. Domestic well transfers. Domestic well permits do not guarantee a water right to the owner. However, when private domestic well owners agree to detach their well previously serving their households, and hook up to a community water system, the OSE has allowed a transfer of approximately 1/3 afy as a water right to the system. The County has taken advantage of this transfer for its system. OSE has recently sought to eliminate this allowance, and it is unknown whether such transfers will be allowed in the future. Continuing to allow domestic transfers would be a great benefit to the County system, as it would provide an incentive to in-fill domestic well users within the existing County service area. If decisions allow for domestic well transfers, the County Utility will continue to utilize the process for acquiring water rights in the Basin.

4. Return-flow credits. Allowable diversion from wells may be increased beyond the approved water rights by gaining a credit for treated effluent discharged from a wastewater treatment plant. The County already obtains some credit from the discharge at the Valle Vista WWTP.

Improvements and expansion at Valle Vista will result in a regional WWTP, with significantly more discharge. A portion of that expanded discharge can be used to obtain greater return-flow credits, to offset the water rights within County wells.

## DEVELOP INFRASTRUCTURE

The County Utility must be able to provide clean water to its customers, both for domestic and commercial use, and for fire protection. Water must be delivered at sufficient pressures, with adequate storage and delivery. Utility engineers develop specifications for new construction, to accommodate both immediate and future needs. Utility engineers also oversee replacement and maintenance schedules for existing infrastructure.

*Priority*

1. The top priority for County Utility infrastructure is within the designated service area. This includes development of new infrastructure to meet growing demand, and replacement and maintenance of existing infrastructure as needed.
2. The County is participating with BDD partners to ensure that County infrastructure can accommodate BDD deliveries, while maintaining adequate deliveries to the County through the City system.
3. The County Utility will recommend, as requested, on the ability of the system to deliver supplemental water supply to other water systems.
4. Legislative funding requests often create a project priority for the County Utility. The Utility will prioritize outside requests as per direction of the BCC. The Utility will take an active role in advising the BCC when legislative requests do not conform to BCC priorities, whether funding is adequate for the requested project, how much County staff effort will be involved, and whether those projects will create a long-term County operational funding or staffing commitment.

## RELATIONSHIP TO OTHER SYSTEMS

*Organizational Structure of County*

With the reorganization of the County management structure, the County Utility became part of the Growth Management Department, along with Land Use and Public Works. The County Utility will participate in joint planning for growth throughout the County. This is an ongoing effort that will result in water planning that will conform to an overall growth management strategy.

*Strategy for regionalization*

The history of water in this area has resulted in numerous small systems that range from well-run systems with stable supplies and adequate water rights to systems with severe infrastructure, contamination, supply, and operational problems. The largest systems in the County are the City of Santa Fe, Santa Fe County, the City of Española, the Eldorado Area Water & Sanitation District (EAWSD), and Entranosa. Traditionally, these systems have been in competition with surrounding systems and the County. Additionally, the City of Santa Fe has developed a policy to not consider serving those outside the city limits, while EAWSD is working to improve its water supply, and the City of Española is experiencing both water quality and water supply concerns.

The most effective way to serve all County constituents and maintain a sustainable water supply is to develop a regional water system. The Aamodt settlement is an example of such a regional approach. The first step toward a regional system for the remainder of the County has been the partnership for the BDD. The BDD will be the basis of a regional supply that can eventually serve a major portion of the County. However, it is ineffective to deliver supplemental supplies to numerous individual water systems that have varying abilities to maintain their own infrastructure, or sustain appropriate billing, operations, and administration. The legislature has also expressed interest in formation of a regional system for Santa Fe County. The Utility strategy will be to assist and cooperate with other water systems, while working toward the goal of a regional system.

*Regional Strategy*

1. Small systems. As small systems request supplemental water supply or operational or funding assistance from the County, include in any agreement a procedure for eventual County acquisition of the system to integrate it into the regional County system.
2. City of Santa Fe; Las Campanas; EAWSD. Engage in discussions to negotiate eventual consolidation into a joint regional water system.

*Strategy for projects not connected to County system*

From time to time, the BCC directs the County Utility to assist other systems or communities in developing projects for creation or improvement of their system. The Utility approach is to provide assistance with the goal of minimizing long-term County funding or staffing commitments, by supporting project design that will allow the systems to operate independently, or in conjunction with other regional systems.

## FUNDING

1. General Obligation Bonds. In 2004, voters authorized the sale of $51 million of general obligation (GO) bonds to fund water projects. While the majority of bond money is designated for BDD, some amount may be used for County Utility water projects. The amount will depend on BCC decisions regarding designation of bond money for BDD or other projects. It is expected that voter approval for additional GO Bonds will be requested in 2008.
2. Revenue Bonds. At some growth point, the Utility will be able to sustain revenue bonds. Capital from such bonds will be used to support Utility water and wastewater projects. The County Utility is working with the County bond counsel and the County Finance Division to anticipate the timing for revenue bonds.
3. Gross Receipt Tax (GRT) Bonds. GRT bonds are the primary source of funding for wastewater projects, but may also be used for BDD and other water projects. The principal source of funding for current GRT bonds is the Capital Outlay GRT. Until 2012, one half of the revenue from this tax is dedicated to regional projects, such as BDD.
4. Cash reserves. The County Utility, as an enterprise fund, maintains a reserve, funded through customer payments, for maintenance and replacement costs. The County Utility must develop a replacement schedule for aging infrastructure, including meters, in order to ensure adequate reserves with a timetable for expenditures, and reduce the potential for leaks and incorrect water delivery calculations.
5. Developer contributions. As with water rights, County permit conditions require developers to construct water infrastructure in order to obtain County water service. Plans and construction must be approved by Utility engineers prior to the County accepting the system for service.
6. State funding. The County develops priority lists that are presented to the legislature each year, however this funding is never certain. The Utility does not rely on this funding, but can quickly integrate the funding if it becomes available.
7. Federal funding. The County maintains communications with our Congressional delegation, to seek ways to obtain federal funding for projects. This funding has not been extensive in the past, and future funding levels are uncertain.
8. Aamodt Settlement. The capital cost of the County portion of the Pojoaque Basin regional water system is approximately $90 million, with $30 million coming from the federal government, $50 million from the State, and $10 million from the County.

County Utility staff will work with staff from the County Finance Division to recommend the most effective mix of funding for any particular project.

# WASTEWATER UTILITY

In order to fulfill its primary mission, the Santa Fe County Utility has set priorities for wastewater operations:

- Upgrade and expand its existing wastewater treatment plant (WWTP) at Valle Vista.
- Develop sufficient effective infrastructure to provide sewer service to those areas designated to be served by the County.
- Plan for a growing customer base, both from new growth and from moving septic tank users to the County sewer system, by developing a rate structure adequate to fund operations and maintenance.
- Expand the utility beyond its current service area through capital funding of County infrastructure and partnerships with new developments.
- Reduce water demand through re-use of treated effluent.

The Utility has been additionally tasked to seek ways to assist other communities in developing local treatment systems or hooking into other regional WWTP. The Santa Fe County Utility Plan, and the County Growth Management Strategy, recognize that different areas of the County have different existing historical, cultural, and land use situations, therefore require different planning approaches.

Near-term, the Utility priority should be completing the new Valle Vista WWTP, creating a regional system capable of fulfilling the wastewater needs within the Santa Fe urban growth areas, directed primarily toward new development, as well as those existing septic tank users who will be located along County sewer lines.

Mid-term, priorities should be directed toward County acquisition of those larger systems that are independently operated by developments.

Long-term should be directed toward creating a series of regional systems, incorporating smaller systems and those constituents currently on septic tanks.

## UPGRADE AND EXPAND VALLE VISTA WWTP

Effective sewer service is best provided by modern plants using technologies to allow multiple options for re-use of treated effluent.

*Near-term* The Utility will concentrate on upgrading its existing WWTP at Valle Vista, and expanding its service area to both new developments and septic tank users in the area from Las Soleras to the State Pen:

1. There is currently a Feasibility Study being conducted to determine the best technologies to use at Valle Vista, and service areas that can be accommodated. The Feasibility Study will examine operational requirements and uses for treated effluent for the different technologies.

2. Once the Valle Vista WWTP is upgraded, the Utility will begin to tie in septic tank users who are along existing sewer lines.

3. New developments, for example Las Soleras or San Cristobal, who wish to tie into the new Valle Vista WWTP, will be required to fund or build all internal sewer lines, plus contribute to any additional main lines that will be needed. All new lines should include return flow lines to deliver treated effluent to customers.

4. The Utility will undertake a rate study, in order to have appropriate customer charges in place when new customers are added. The rate study will include metering and billing for use of treated effluent.

5. New infrastructure will tie in septic tank users along those lines.

6. Once this system is operating effectively, the Utility will propose expansion of the WWTP and service area, to create a regional system, with the goal of eliminating all septic tank use.

7. ALTERNATIVE: The County is engaged in discussions with the State of New Mexico regarding the potential for the County to acquire the WWTP at the State Pen, which could serve the same area as Valle Vista. If this is enacted, the County will abandon the Valle Vista WWTP, and upgrade the State Pen WWTP to create its regional system for this area.

*Mid-term*

The County Utility believes that it is in the best interest of our constituents to have all sewer service be operated and maintained in a comprehensive manner, without smaller independent systems operating in proximity. Therefore, it would best serve those constituents by having all WWTP be operated by the County. Toward this objective, the County Utility proposes to negotiate with owners of existing WWTP, with the goal of County acquisition, then operation of the WWTP. The County Utility may then evaluate expansion and upgrade of those WWTP, to create additional regional sewer systems, in order to expand the existing service areas. Expansion and upgrades will proceed in a manner similar to that proposed for Valle Vista. Currently, there are two viable sewer systems

that could qualify for this approach, and two that should become viable in the future:

1. Rancho Viejo: The developer operates the sewer system and WWTP, however the development is already on the County water system. Treated effluent is used by the homeowner association for irrigation of common landscaping. County Utility acquisition of the sewer system would create a consistent customer base for the County Utility.

2. Las Campanas: There is an agreement in place that allows the County to acquire the Las Campanas water system. The developer has expressed interest in the County acquiring both the water and sewer systems. Treated effluent is used for the golf course, and the County would be favorably disposed to continue this arrangement. Acquisition of both systems would provide a consistent customer base for the County Utility.

3. Village at Galisteo: This development, which proposes its own water and sewer systems, recently gained master plan approval. The developer representative has expressed interest in ceding both the water and sewer systems to the County, once they have been built and are operating. The sewer system has the potential to become a regional system not just for the immediate area, but also the Eldorado Area Water & Sanitation District (EAWSD). The greater Eldorado area has almost 3000 homes on septic tanks; a regional sewer system serving this area would provide great benefit for County constituents. Because the WWTP would be located in the Village at Galisteo, outside the EAWSD service area, it would most appropriately be operated by the County Utility. However, funding and construction of infrastructure within the EAWSD would best be developed through a partnership between the County and EAWSD.

4. Pojoaque Valley: Santa Fe County and Pojoaque Pueblo have entered into an agreement wherein the County may eventually take over operations of the Pojoaque Pueblo WWTP, and serve the greater Pojoaque Valley. Such a takeover would occur when a sufficient number of County residents hook into the system, although the timing and funding of this remain uncertain.

*Long-term*

The County Utility recognizes that there are significant areas of the County that have no immediate prospects for sewer service. A long-term strategy to serve these areas would include funding and construction of new WWTP, and the accompanying infrastructure to provide sewer service. Wastewater infrastructure

is considerably expensive, therefore a long-range funding strategy should approach this effort as sequencing.

## DEVELOP ADDITIONAL INFRASTRUCTURE

The County Utility must be able to provide effective sewer service to its customers, both for domestic and commercial use. Utility engineers develop specifications for new construction, to accommodate both immediate and future needs. Utility engineers also oversee replacement and maintenance schedules for existing infrastructure.

*Priority*

1. The top priority for County Utility infrastructure is within the designated service area for Valle Vista. This includes development of new infrastructure to meet growing demand, and replacement and maintenance of existing infrastructure as needed.
2. The County will partner with developers to ensure new developments have appropriate infrastructure.
3. The County Utility will recommend, as requested, as to the ability of the system to handle additional loads.
4. The BCC has committed capital funds for Sombrillo and Edgewood with development of wastewater systems. The Utility will assist these areas in developing their projects and infrastructure, which would be operated by entities other than the County Utility.
5. Legislative funding requests often create a project priority for the County Utility. The Utility will prioritize outside requests as per direction of the BCC. The Utility will take an active role in advising the BCC when legislative requests do not conform to BCC priorities, whether funding is adequate for the requested project, how much County staff effort will be involved, and whether those projects will create a long-term County operational funding or staffing commitment.

## STRATEGY FOR REGIONALIZATION

*Organizational Structure of County*

With the reorganization of the County management structure, the County utility is now part of the Operations section of the Public Works Division within the Growth Management Department. Water and Wastewater Planning is a section within the Land Use Division of the Growth Management Department.

*Strategy for regionalization*

The history of wastewater in this area has resulted in individual septic tanks for both residences and commercial properties. Several larger subdivisions have created their own WWTP to serve their particular developments. The City of Española has a WWTP, and is evaluating expanding service to outside the city limits, which would include some areas in northern Santa Fe County. Santa Clara and Pojoaque Pueblos also have WWTP capacity that may serve County constituents.

The largest wastewater system in the County is the City of Santa Fe. The City of Santa Fe has developed a policy of only limited service outside the city limits. Santa Fe County and Pojoaque Pueblo have entered into an agreement wherein the County may eventually take over operations of the WWTP, and serve the greater Pojoaque Valley. Details of the takeover, and prospects for funding the infrastructure necessary to hook up County residents, have not been developed.

The most effective way to serve County constituents is to develop a series of regional WWTP. Valle Vista is the first step toward this goal, and the County is seeking to acquire existing plants as a second step. Further steps will be integrated into the long-range funding and construction plan, which should be developed after the upgrade of the Valle Vista WWTP and acquisition of existing systems is realized.

*Strategy for projects not connected to County system*

From time to time, the BCC directs the County Utility to assist other systems or communities in developing projects for creation or improvement of their system. The Utility approach is to provide assistance with the goal of minimizing long-term County funding or staffing commitments, by supporting project design that will allow the systems to operate independently, or in conjunction with other regional systems.

## FUNDING

1. Gross Receipt Tax (GRT) Bonds. GRT bonds are the primary source of funding for wastewater projects, but may also be used for water projects. The principal source of funding for current GRT bonds is the Capital Outlay GRT. Until 2012, one half of the revenue from this tax is dedicated to County projects, e.g. Valle Vista.
2. Revenue Bonds. At some growth point, the Utility will be able to sustain revenue bonds. Capital from such bonds will be used to support Utility

water and wastewater projects. The County Utility and Water/Wastewater Planning are working with the County bond counsel and the County Finance Division to anticipate the timing for revenue bonds.

3. Cash reserves. The County Utility, as an enterprise fund, maintains a reserve, funded through customer payments, for maintenance and replacement costs. The County Utility must develop a replacement schedule for aging infrastructure, in order to ensure adequate reserves with a timetable for expenditures, and reduce the potential for leaks and line breaks.
4. Developer contributions. County permit conditions often require developers to construct sewer infrastructure. Plans and construction must be approved by Utility engineers.
5. State funding. The County develops priority lists that are presented to the legislature each year, however this funding is never certain. The Utility does not rely on this funding, but can quickly integrate the funding if it becomes available.
6. Federal funding. The County maintains communications with our Congressional delegation, to seek ways to obtain federal funding for projects. This funding has not been extensive in the past, and future funding levels are uncertain.

Growth Management Department staff will work with staff from the County Finance Division to recommend the most effective mix of funding for any particular project.

# GROWTH MANAGEMENT STRATEGY
# WATER & WASTEWATER PLAN

## Purpose

The Land Use Division of the Growth Management Department of Santa Fe County created a Growth Management Team to recommend strategies to the Board of County Commissioners for growth management for the County. The Growth Management Strategy will comprise subsets of issues related to growth, including roads, water, community services, and zoning. The Team has introduced the planning process and current conditions in presentations to the BCC.

Because water is such a critical issue for the County, especially as it relates to growth, the Growth Management Team was requested to present the water segment first. This Water Plan was designed as a component of the overall Growth Management Strategy. Therefore, the water planning strategies presented in this document were not derived independently, but in conjunction with the overall growth management strategies being developed by the Team.

## Previous Water Plans

*County Water Utility Plan and Wastewater Utility Plan*
In 2007, the County Water Resources Department produced a water plan and wastewater plan. Both were specific to utility operations and planning, therefore did not address water planning as a component of an overall County growth management strategy. However, because the utility serves the growth areas of the El Centro GMA, those plans did presage the strategies presented for the El Centro GMA in this document.

In order to provide a consistent policy for water planning, the County Water and Wastewater Utility Plans will be revised as necessary to incorporate the direction as set forth by the approved water planning strategies in this Growth Management Strategy Water Plan.

*40-Year Water Plan*
The County produced a 40-Year Water Plan in August 2002. The purpose of the plan was to demonstrate a strategy and use in order to secure its water rights portfolio. For counties and municipalities, a 40-year water plan fulfills the requirements of the Office of the State Engineer (OSE) to demonstrate that water rights are being acquired in order to be put to future beneficial use.

Much of the strategy in the 40-Year Water Plan is contained within the County Water Utility Plan, including diversification of both the County water rights and water supply portfolios, service to existing well owners who may have water quality issues, potential as a supplemental source of supply for other water systems, and movement toward reuse of treated effluent.

The 40-Year Water Plan was scheduled for revision every five years. In order to provide a consistent policy for water planning, the revision will incorporate the direction as set forth by the approved water planning strategies in this Growth Management Strategy Water Plan.

## Plan Approach

It is recognized that strategies for water and wastewater applicable to one area of the County will not be effective in other areas. For example, the Estancia GMA cannot be served by the County utility, therefore water and wastewater strategies must address the conditions specific to that area. The Growth Management Strategy has divided the County into four Growth Management Areas (GMA), and this plan follows that format. The four areas, from south to north, are: Estancia, Galisteo, El Centro, and El Norte.

For each area, a planning process was followed. A core group of the Team collectively worked through this process concentrating on water and wastewater issues for each GMA. The result of this process are Recommended Strategies applicable County-wide, and Recommended Priority Projects as pertains to water & wastewater.

The Planning Analysis consists of five steps:

1. Conduct a SWOT analysis, enumerating the Strengths, Weaknesses, Opportunities, and Threats for effective water and wastewater services.
2. Develop several strategic options, and outline the implications to the County for each option.
3. Select a Recommended Strategy from the options.
4. Define Obstacles to implementing the recommended strategy.
5. Suggest Specific Actions that the County can take to overcome the obstacles and begin to implement the recommended strategy.

The analysis was based on an examination of the current conditions, with preliminary broad decision points set out for each area. Current conditions included the potential for regionalization.

## Current Conditions - Water

*Estancia Growth Management Area*

- One dominant (and one secondary) large system: Entranosa and Thunder Mountain in western part of planning area
- Mostly private wells throughout rest of planning area
- Few community systems
- REGIONALIZATION POTENTIAL: Entranosa for the western part of the planning area

*Galisteo Growth Management Area*

- Mostly private wells
- A few community water systems having difficulties with supply
- REGIONALIZATION POTENTIAL: Low at this time, possible if County delivers supply to this planning area

*El Centro Growth Management Area*

- Four dominant large systems: City of Santa Fe, Santa Fe County, Las Campanas, Eldorado Area Water & Sanitation District
- Securing of water supply: City, County
- Many private wells
- Several small community water systems, working independently but will consider supplemental supply from the County
- REGIONALIZATION POTENTIAL: Santa Fe County, City of Santa Fe

*El Norte Growth Management Area*

- Many private wells
- Several small community water systems, working independently; most incapable of significant expansion
- Pojoaque/Tesuque/Nambe Valley: Future regional system; governed by Aamodt settlement
- REGIONALIZATION POTENTIAL: Española municipal system, alliance of smaller water systems

## Current Conditions - Wastewater

*Estancia Growth Management Area*

- Mostly septic tanks
- REGIONALIZATION POTENTIAL: Edgewood municipal system

*Galisteo Growth Management Area*

- Mostly septic tanks
- REGIONALIZATION POTENTIAL: Low at this time

*El Centro Growth Management Area*

- Three dominant large systems: City of Santa Fe, Las Campanas, Rancho Viejo
- One small system with high growth potential: Santa Fe County
- Many septic tanks
- REGIONALIZATION POTENTIAL: Santa Fe County, City of Santa Fe, Eldorado Area Water & Sanitation District

*El Norte Growth Management Area*

- Mostly septic tanks
- REGIONALIZATION POTENTIAL: Española municipal system, Santa Clara WWTP, Pojoaque Pueblo WWTP

## Decision Paths

*Estancia Growth Management Area*

- County to support legislative or direct County funding of private or municipal systems
- Ordinances to promote centralized water & wastewater systems in new developments

*Galisteo Growth Management Area*

- Ordinances to promote centralized water & wastewater systems in new developments
- County to support legislative or direct County funding of existing systems

*El Centro Growth Management Area*

- County to pursue regionalization alone or with City of Santa Fe
- County to supplement smaller systems, or integrate them into County system
- Where to commit the 500 acre-feet per year water that can be purchased from the City of Santa Fe

*El Norte Growth Management Area*

- County support at legislature or direct County funding.
- Promote independent systems, consolidation, or integration into regional system.
- Single or multiple regional systems

## Analysis

*Estancia Growth Management Area*

1. **SWOT**
   - Strengths:
     1. Strong State Engineer process-wells
     2. Regional water planning group
     3. Waste water treatment plan to be built
     4. Regional water system in place

   - Weaknesses:
     1. Scattered domestic wells
     2. No new water sources/closed basin
     3. Lack of community planning
     4. Remote and spread out - far from Santa Fe County infrastructure

   - Opportunities:
     1. Define development strategy, it hasn't happened yet
     2. Collaboration in Regional Planning

   - Threats:
     1. Contamination of aquifer-septic tanks & agricultural runoff
     2. Potential sprawling conditions: makes water systems costly to build/implement
     3. Piecemeal annexation
     4. Any large ranch can submit for development at any time

2. **Strategic Options and Implications:**
   1. Redefine development patterns
      a. Ordinances must be passed
      b. Staff time for planning and implementation

   2. Create regional water/waste water systems
      a. Expensive – large area to be covered
      b. Small population served

c. Who would operate – County staffing issues

**3. Recommended Strategy:**

1. Redefine development patterns

**4. Obstacles:**

1. Political - private property rights
2. Cross jurisdictional w/municipality (Edgewood)

**5. Actions:**

1. Secure generalized agreement w/Edgewood
2. Define staffing plan for implementation

*Galisteo Growth Management Area*

**1. SWOT**

- Strengths:
  1. Strong community planning process
  2. Large undeveloped tracts remain
  3. Ongoing preservation of open tracts
  4. Several community water systems
  5. Watershed Partnership
  6. Low growth projections

- Weaknesses:
  1. Water system infrastructure and operation problematical
  2. Water supply limited or localized
  3. Spread out so regional infrastructure potential limited
  4. No wastewater systems

- Opportunities:
  1. Improve water systems
  2. Collaboration with community planning groups and Watershed Partnership
  3. Within range of County utility
  4. Can define development strategy
  5. Preservation of large tracts and protection of riparian and recharge areas

- Threats:
  1. Any large ranch can submit for development at any time
  2. Limited protections from contamination, particularly from mining or oil & gas

2. **Strategic Options and Implications:**
    1. Improve water systems and develop wastewater systems within existing communities
        a. Expensive, or staff time to support other funding requests
        b. Need agreements with systems
        c. Small systems cannot always effectively operate
    2. Preserve large tracts
        a. Must purchase land or create conservation agreements
    3. Redefine development patterns
        a. Ordinances must be passed
        b. Staff time for planning and implementation

3. **Recommended Strategy:**
    1. Concentrate growth into existing traditional and contemporary communities by improving their water systems and developing wastewater systems, with concomitant preservation of open tracts

4. **Obstacles:**
    1. Political-private property rights
    2. Expensive
    3. Developing agreements with communities and water systems
    4. Local resistance to WWTP
    5. Limited water sources

5. **Actions:**
    1. Secure funding to improve water systems and develop wastewater systems
    2. Develop ordinances for preservation and protection of open tracts

*El Centro Growth Management Area*

1. **SWOT**
    - Strengths:
        1. Existing regional (or potentially regional) water & wastewater systems
        2. Strong government oversight
        3. Several viable community water systems
        4. Easy to extend County infrastructure
        5. BDD project
        6. Good water supply in basin

- Weaknesses:
  1. Wastewater systems not fully developed
  2. Current growth patterns not ideal in much of GMA
  3. County has placed requirements for areas to hook to County system (e.g., La Cienega) without the available water supply
  4. City/County/MDWA disagreements
  5. Limit to County authority

- Opportunities:
  1. Easy to serve large population
  2. Annexation of Las Soleras by the City of Santa Fe will free up additional substantial water supply for County utility

- Threats:
  1. Uncooperative annexation by City of Santa Fe
  2. More demand for water than is available, even with BDD
  3. Over-drilling by domestic wells and development systems
  4. Over-commitment of available water supplies by County

**2. Strategic Options and Implications:**

1. Utilize BDD water supply for County utility to serve El Centro growth areas
   a. Water supply unavailable for other uses
2. Use utility to take everyone off wells
   a. Water supply unavailable for new growth
   b. New developments will drill their own wells
3. Incorporate some or all of small community water systems into County system
   a. Need agreements
   b. May need to purchase or condemn
4. Supplement small systems with water supply, allowing them to operate independently
   a. May allow continuation of marginal systems
   b. Allows for competing systems
   c. Need agreements
5. Incorporate existing wastewater systems into County regional system, and expand County system to take residents off septic tanks
   a. May need to purchase or condemn
   b. Need to fund hookups to make palatable to some residents
6. Support improvements and expansion of existing wastewater systems, allowing them to operate independently
   a. Funding sources unknown

b. Creates competing systems

3. **Recommended Strategy:**
    1. Utilize BDD water supply for County utility to serve El Centro growth areas
    2. Incorporate existing wastewater systems into County regional system, and expand County system to take residents off septic tanks.
    3. Looking to the future, examine new water supplies beyond BDD, including importation of water from other areas.

4. **Obstacles:**
    1. Competing demand for the available water from small systems
    2. View of public that County is promoting new development
    3. Resistance by existing systems to incorporating into regional system
    4. Inefficient service areas by City and County
    5. Public resistance to giving up private wells and septic tanks

5. **Actions:**
    1. Work out annexation agreement with City of Santa Fe
    2. Define water and wastewater service areas and policy for County, and work out agreement with City on service areas
    3. Develop ordinances to deal with development and water supply outside service areas
    4. Develop utility staffing and rate plans in anticipation of expansion of County utility and takeover of existing systems

*El Norte Growth Management Area*

1. **SWOT**
    - Strengths:
        1. Existing community water systems, with several more being developed
        2. Proximity to potential regional water & wastewater systems
        3. Aamodt settlement developing regional water system and resolving water rights issues

    - Weaknesses:
        1. Many domestic wells and septic tanks in crowded conditions
        2. Several competing jurisdictions
        3. Aamodt does not include wastewater

- Opportunities:
  1. Collaboration with acequia, land grant, and community associations
  2. Española Basin Regional Issues Forum (EBRIF) as a communications and cooperation tool

- Threats:
  1. Limited County control on Aamodt
  2. Competition between entities and population segments
  3. Failure of Aamodt settlement

**2. Strategic Options and Implications:**

1. Promote development of regional water & wastewater systems
   a. Must get agreements with large systems, small systems and communities
   b. Funding mechanism must be developed
   c. Need agreements for operations
2. Help Aamodt succeed
   a. Funding is still an unknown
   b. Need direction if settlement is not completed
3. Promote development of small community water & wastewater systems
   a. Creates competing systems
   b. Need funding mechanism
   c. Need agreements for operations – large burden if County agrees to operate and maintain

**3. Recommended Strategy:**

1. Develop regional water & wastewater systems (including Aamodt)
2. Support and encourage alliances of smaller community water systems

**4. Obstacles:**

1. Cross-jurisdictional differences
2. Cost and funding
3. Competition and disagreements

**5. Actions:**

1. Develop inter-jurisdictional agreements
2. Efficient funding of connections to existing regional supplies and WWTP
3. Continue to participate in and promote the Aamodt settlement

## RECOMMENDED STRATEGIES

From the analysis, two themes emerged that are applicable County-wide:

- Regionalization and consolidation are better than smaller, competing systems. When many entities compete for limited funding, most projects receive less than the amount needed to complete any project. Competition for limited water sources taxes the aquifer and damages its long-term viability. Smaller systems do not have the financial or managerial resources to operate and maintain the system adequately. Larger systems, including the County, have the ability to provide water resources, can develop new sources, and have the operational capability to maintain the system. When feasible, consolidation of smaller systems into regional systems, or expansion of regional systems into areas not currently served, is the best strategy for providing water and wastewater service. Where less feasible, creation of alliances amongst several smaller systems would enable them to manage and operate effectively.

- The County should take the initiative to redefine development patterns to be more compatible with its vision for growth. Currently, zoning and development is pegged to water availability, without full acknowledgement of the other factors that can create developments that will tax County resources in the future. The County should create Code requirements and Ordinances to formulate growth patterns that are compatible with County resources and development vision.

## RECOMMENDED STRATEGIC PRIORITIES

### *BUCKMAN DIRECT DIVERSION*

The Buckman Direct Diversion Project is the largest, most ambitious water project the County has ever undertaken, and entails significant cross-jurisdictional agreements with the City of Santa Fe and Las Campanas. BDD will provide the largest water supply to the County utility, and enable water service to the largest population. As such, Santa Fe County should devote its largest share of resources, both financial and staffing, to BDD. Because the County utility will serve the highest growth areas, giving the largest return on investment, BDD water should be dedicated to the County utility to serve designated growth areas and County commitments within the El Centro GMA. Already submitted master plans for new developments could encompass the entire 1700 acre-feet per year (afy) of water available from BDD.

County commitments are those areas that the County has already designated as preferable to being served on the County utility. They include those areas where

the County has passed an Ordinance or Resolution requiring residents on wells to hook to the County system when it becomes available (e.g., La Cienega; the Community College District), and those systems that need assistance (e.g., Cañoncito). The County should also initiate discussions and negotiations with other systems, to prepare for supplemental water supplies if they become available in the future (e.g., expansion of the diversion capability of BDD; importation of water from other projects).

The County must make a decision on the commitment of 500 afy of water that the County may purchase, in perpetuity, from the City of Santa Fe. This is a water supply that is in addition to the 1700 afy from BDD. However, the County has not yet ensured a reliable drought backup supply to equate to the BDD supply. If the 500 afy is dedicated to new growth, taking residents off wells, or supplementing existing small systems, the County may not be able to supply its full commitments during drought years, when the BDD supply is curtailed. If the 500 afy is dedicated strictly to drought relief, the County may be in a position of having an available water supply that is not being utilized. An effective strategy, then, would be to set aside the 500 afy as drought relief while continuing to work on the well program, and investigating additional water sources. If new sources become available that could create a reliable drought backup (e.g., an expansion of the well program for a complete conjunctive use strategy), then the 500 afy could be dedicated to other uses.

The County should also take the opportunity that BDD presents as a joint project, to engage in discussion with the City of Santa Fe to resolve water and wastewater service outside the City limits, and negotiate service to areas with a high potential to be annexed.

*AAMODT*

The Aamodt settlement will resolve the long-standing and antagonistic water dispute in the Pojoaque Valley. It remains unknown whether the settlement will succeed, but the County should proceed with a full commitment to the process and settlement. Because the County has accepted responsibility for operating the County portion of the system, commitments of funding and staffing should be set aside early. In addition, the County utility should develop rate and staffing plans in preparation for operation of the system.

In conjunction with the Aamodt water settlement, the County should continue to proceed with development of the Pojoaque Pueblo WWTP, to plan for infrastructure and eventual operation, in order to hook up County residents currently on septic tanks.

*Regionalization of Wastewater – El Centro GMA*

Most new large-scale development has occurred utilizing collective wastewater systems. The unfortunate downside is that there are now several competing wastewater systems in the El Centro GMA, including those operated by the County and the City of Santa Fe. Such competition diminishes the County's ability to utilize treated effluent effectively, and to plan service area expansion. The County should initiate acquisition, through negotiation and agreement, of all wastewater systems operated outside the City limits, engage in discussions with the City to resolve service areas, and form agreements with all new developments specifying the criteria by which the County will acquire new systems as they are built.

*Regional wastewater for northern El Norte GMA*

While the northern part of Santa Fe County has numerous small communities in rugged topography, there exists two large WWTP that could be utilized as regional wastewater systems. The County should promote the construction of infrastructure to hook up residents currently on septic tanks. After construction, operation and maintenance of the system would be the responsibility of the WWTP operator, relieving the County of ongoing operational expenses. The County should partner with Santa Clara Pueblo, the City of Espanola, Rio Arriba County, and the communities, to jointly seek funding.

*Regional water and wastewater for Estancia GMA*

Because the large water systems in the Estancia GMA are private, there is little opportunity for funding or partnerships for the County. However, the County can encourage, through the development permit process, new large developments to hook into the water systems, preventing the creation of competing water systems, or the proliferation of shared wells.

The only viable potential for regional wastewater is the new WWTP to be constructed by the City of Edgewood. Similarly to the project strategy proposed for northern El Norte GMA, the County should partner with the City of Edgewood to construct infrastructure to hook up County residents to the Edgewood system, then turn over operation and maintenance to Edgewood.

*Seek new water supplies*

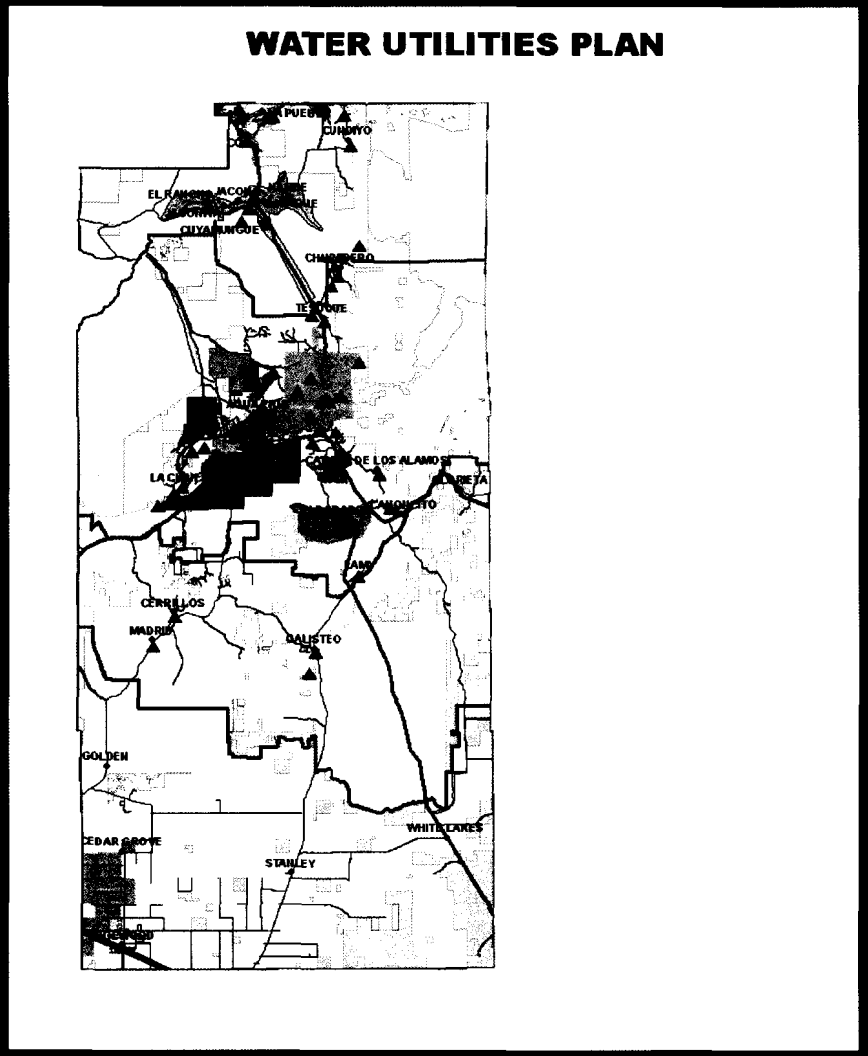
It is apparent that, over a 20-year timeframe, all of the BDD water will be utilized. The County should embark on a mid- to long-term strategy of developing additional water supplies, including importation of water. A reasonable strategy for the short-term is for the County to always remain amenable to proposals on water supplies, with the preference for the County to potentially become a customer of the water supplier, but minimizing the role of the County in developing or constructing the water supply project.

In the mid-term, if water supplies have not materialized, and projections continue to suggest that the County will exhaust its supply, then the County should seek its own projects for new water supplies. This may involve negotiation with agricultural interests for acquisition of water rights and supplies, and development of a project for water delivery. Such projects should be considered on a ten-year timeframe for completion.

# GROWTH MANAGEMENT STRATEGY

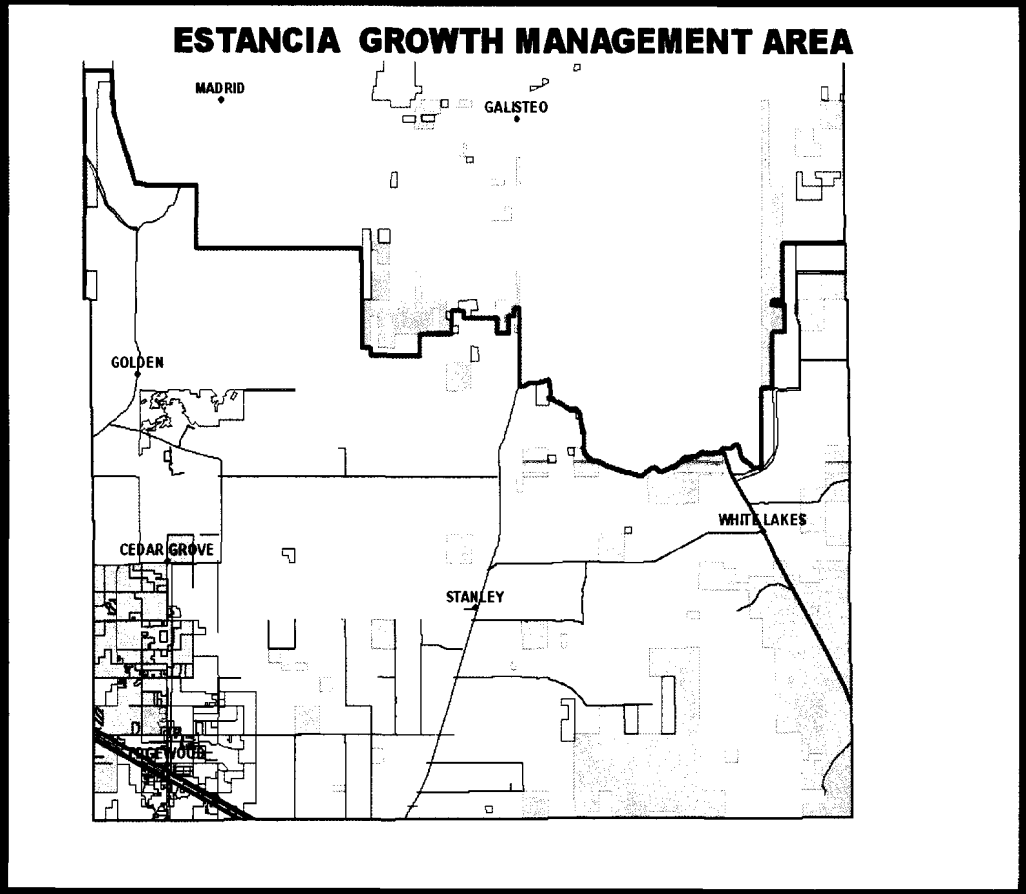
## WATER & WASTEWATER PLAN

# WATER & WASTEWATER PLAN GENERAL STRATEGIES



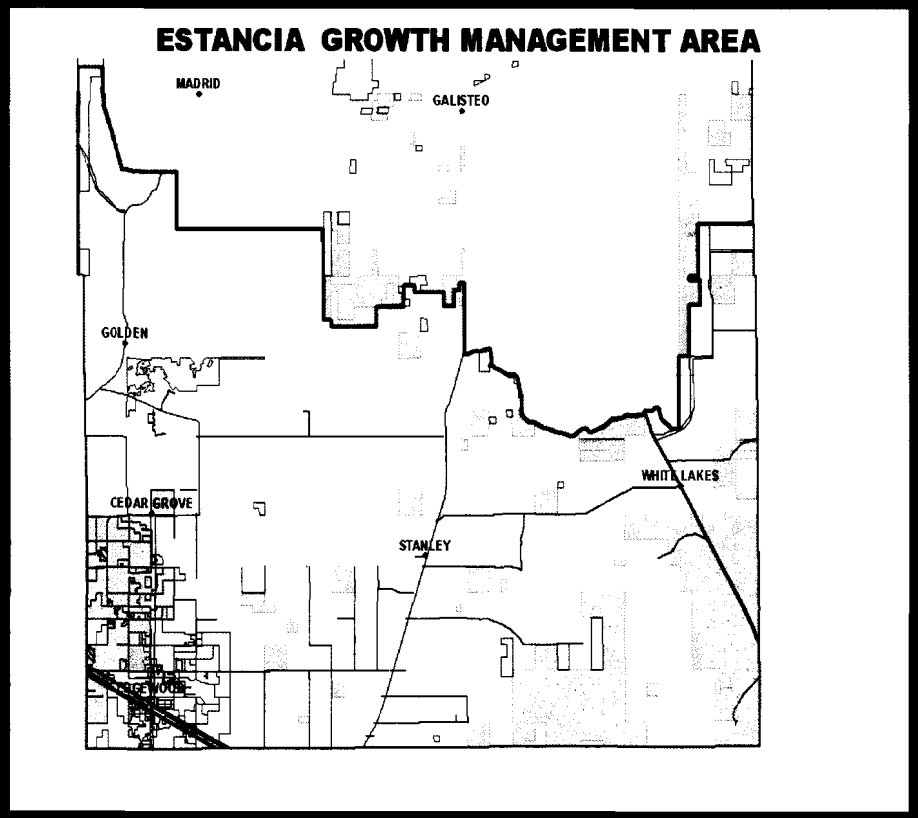

- REGIONALIZATION AND CONSOLIDATION ARE PREFERRED
- BDD WATER UTILIZED FOR COUNTY UTILITY TO SERVE GROWTH AREAS IN EL CENTRO GMA
- COUNTY SUPPORT FOR OTHER SYSTEMS SHOULD BE THROUGH CAPITAL, MINIMIZING LONG-TERM COMMITMENTS OF FUNDING OR STAFF
- COUNTY SHOULD REDEFINE DEVELOPMENT PATTERNS IN ALL AREAS

# ESTANCIA GMA GENERAL CONDITIONS




- ONE REGIONAL WATER SYSTEM
- ONE (FUTURE) REGIONAL WASTEWATER SYSTEM
- NUMEROUS WELLS AND SEPTIC TANKS ACROSS A LARGE AREA

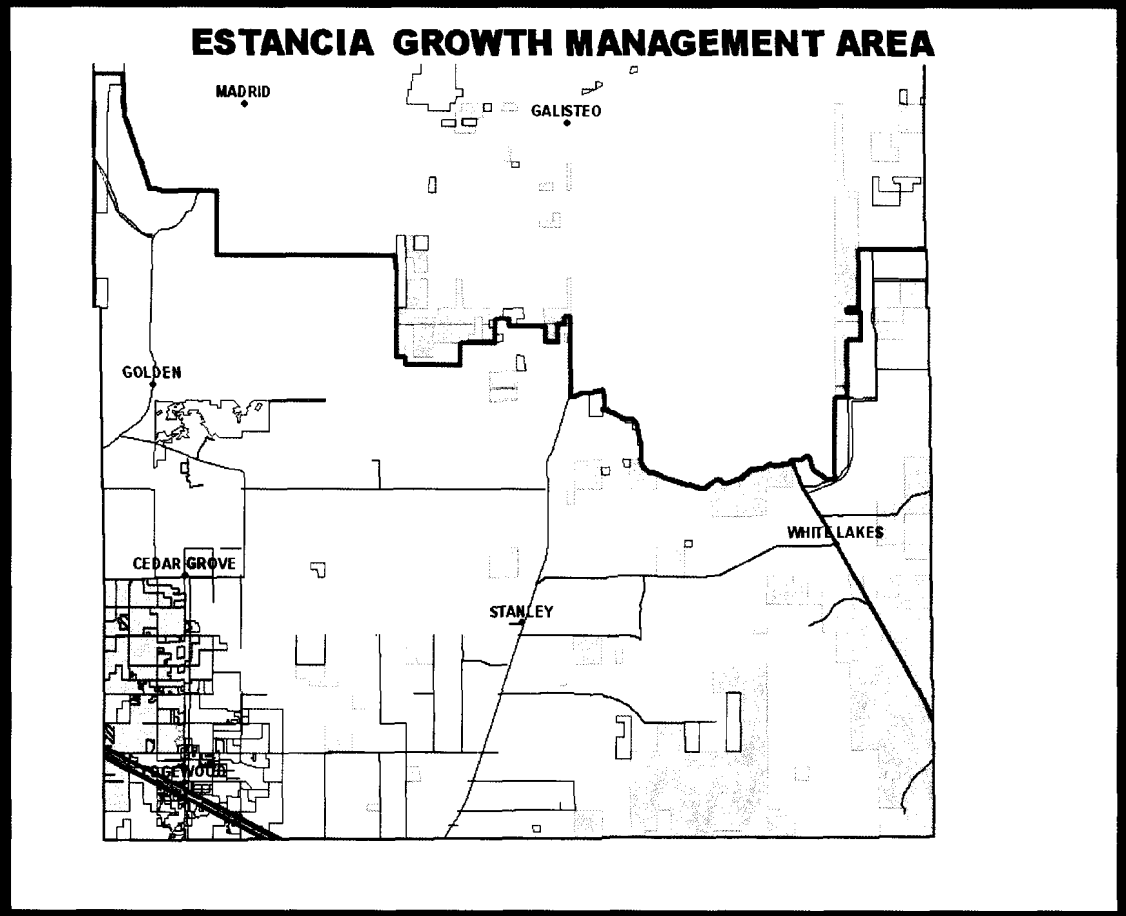
# ESTANCIA GMA DECISION PATHS




COUNTY TO SUPPORT LEGISLATIVE OR DIRECT COUNTY FUNDING OF PRIVATE OR MUNICIPAL SYSTEMS

ORDINANCES TO PROMOTE CENTRALIZED WATER & WASTEWATER SYSTEMS IN NEW DEVELOPMENTS

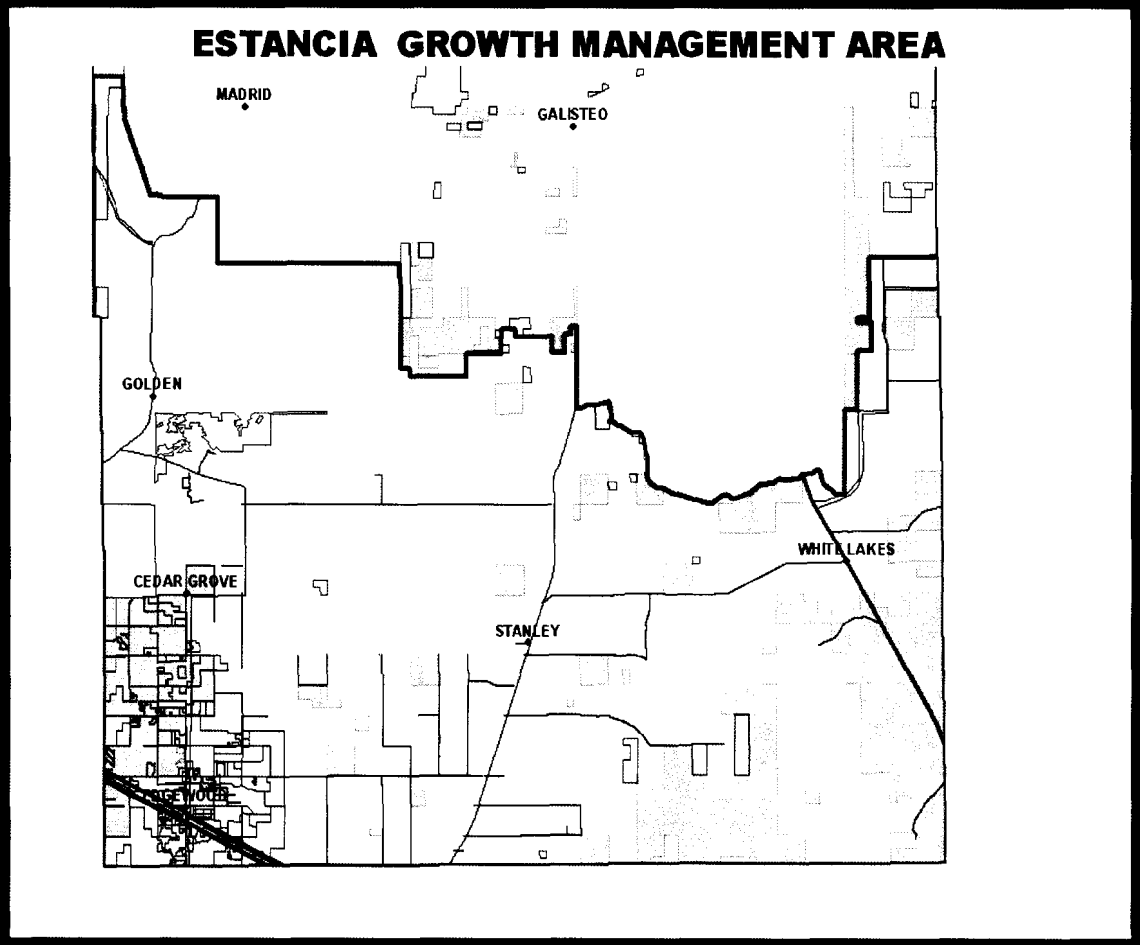
# ESTANCIA GMP
# STRATEGIC OPTIONS




REDEFINE DEVELOPMENT PATTERNS

CREATE REGIONAL WATER/WW SYSTEMS

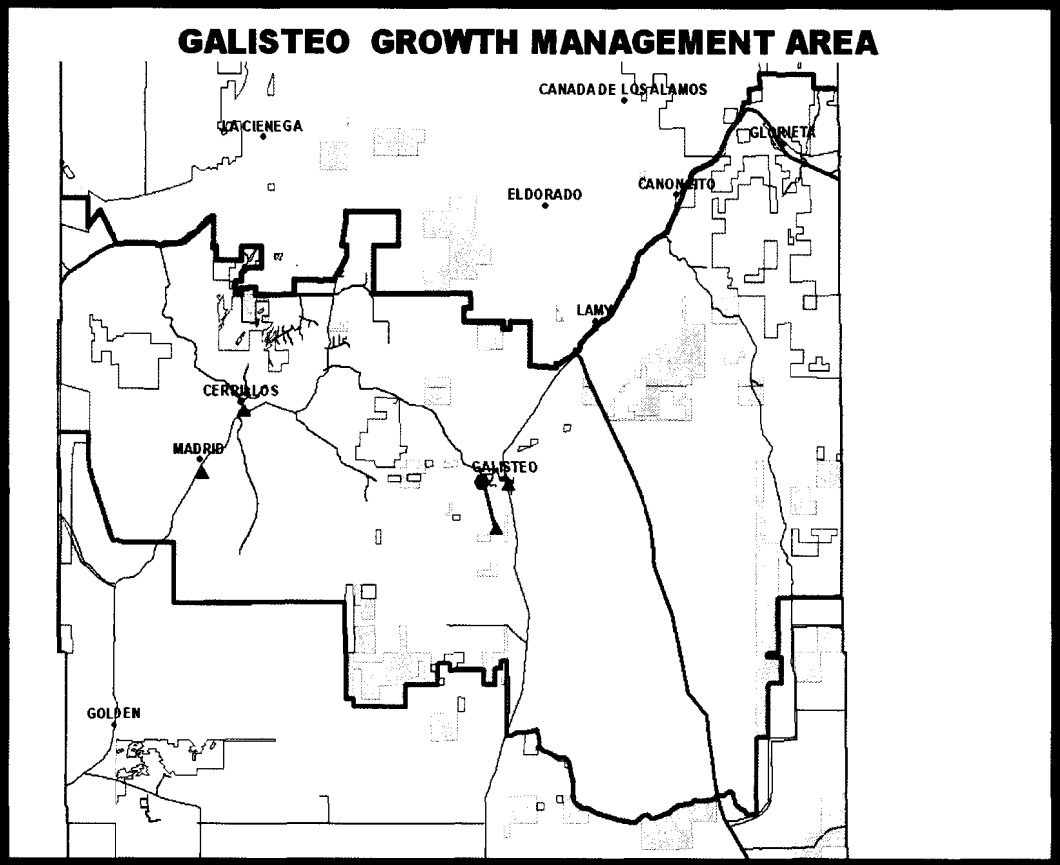
# ESTANCIA GMA RECOMMENDED STRATEGY




REDEFINE DEVELOPMENT PATTERNS

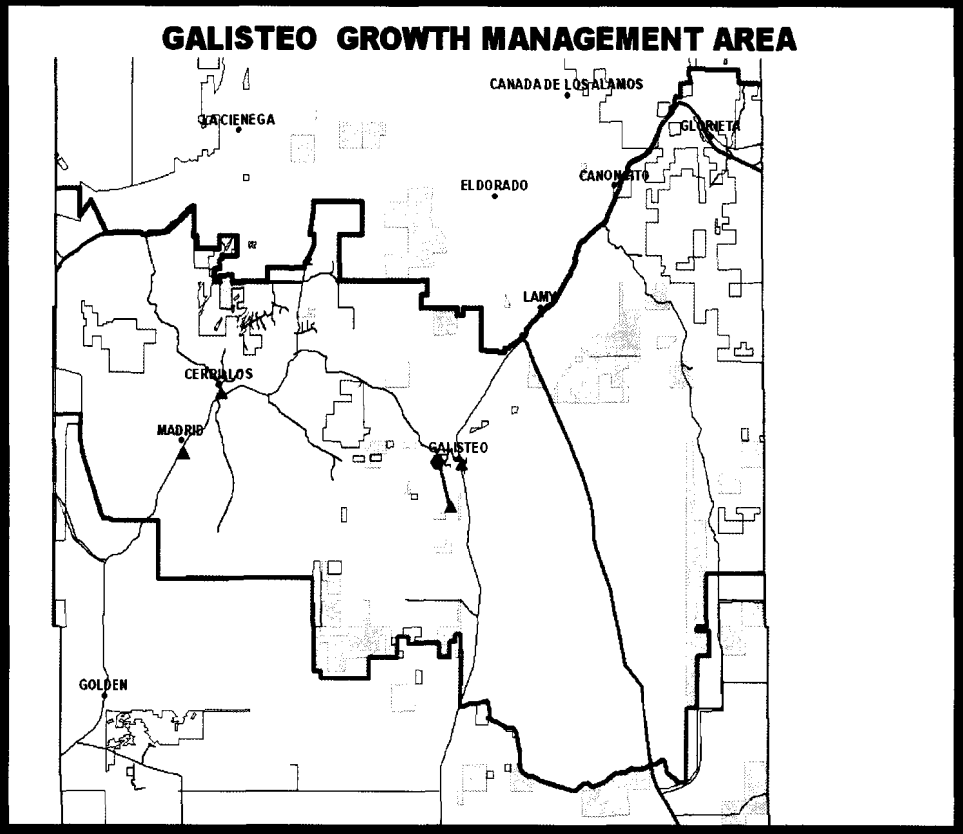
SECURE GENERALIZED AGREEMENT WITH EDGEWOOD

# GALISTEO GMA
# GENERAL CONDITIONS




- MOSTLY PRIVATE WELLS
- A FEW SMALL COMMUNITY WATER SYSTEMS HAVING SERVICE ISSUES
- NO REGIONAL WW SYSTEMS

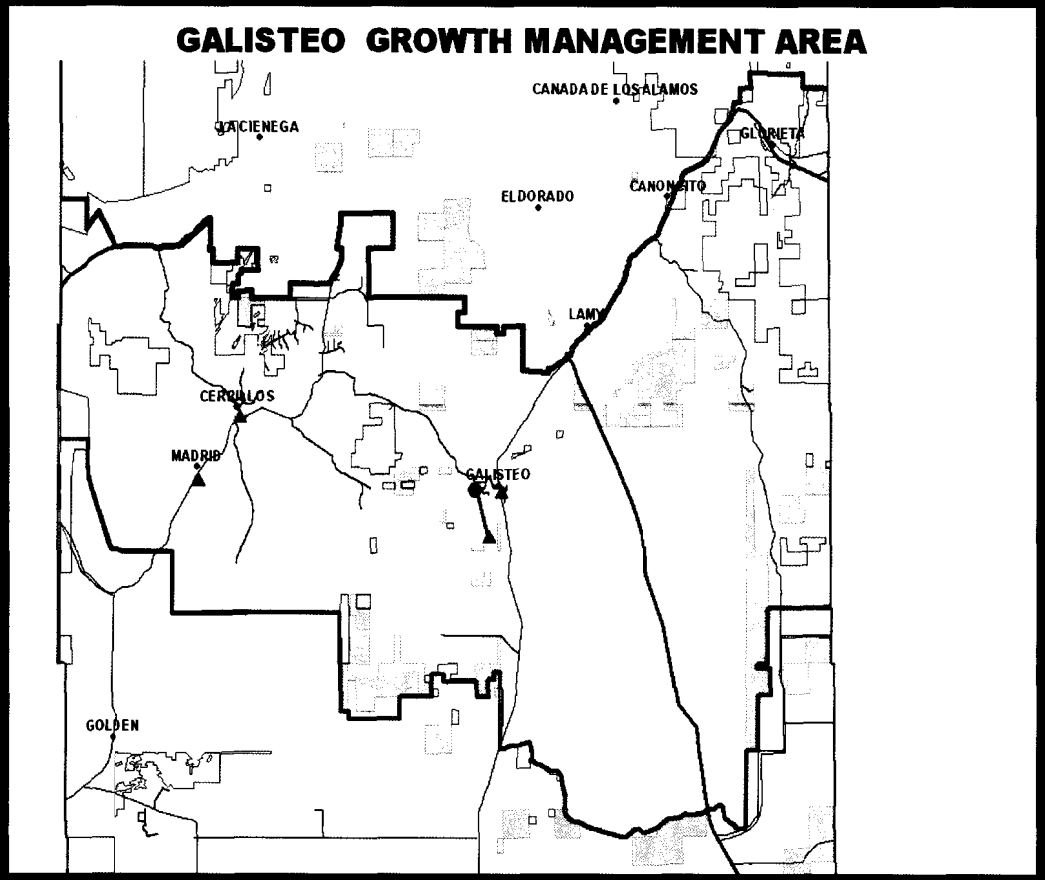
# GALISTEO GMA DECISION PATHS




COUNTY TO SUPPORT LEGISLATIVE OR DIRECT COUNTY FUNDING OF EXISTING WATER SYSTEMS

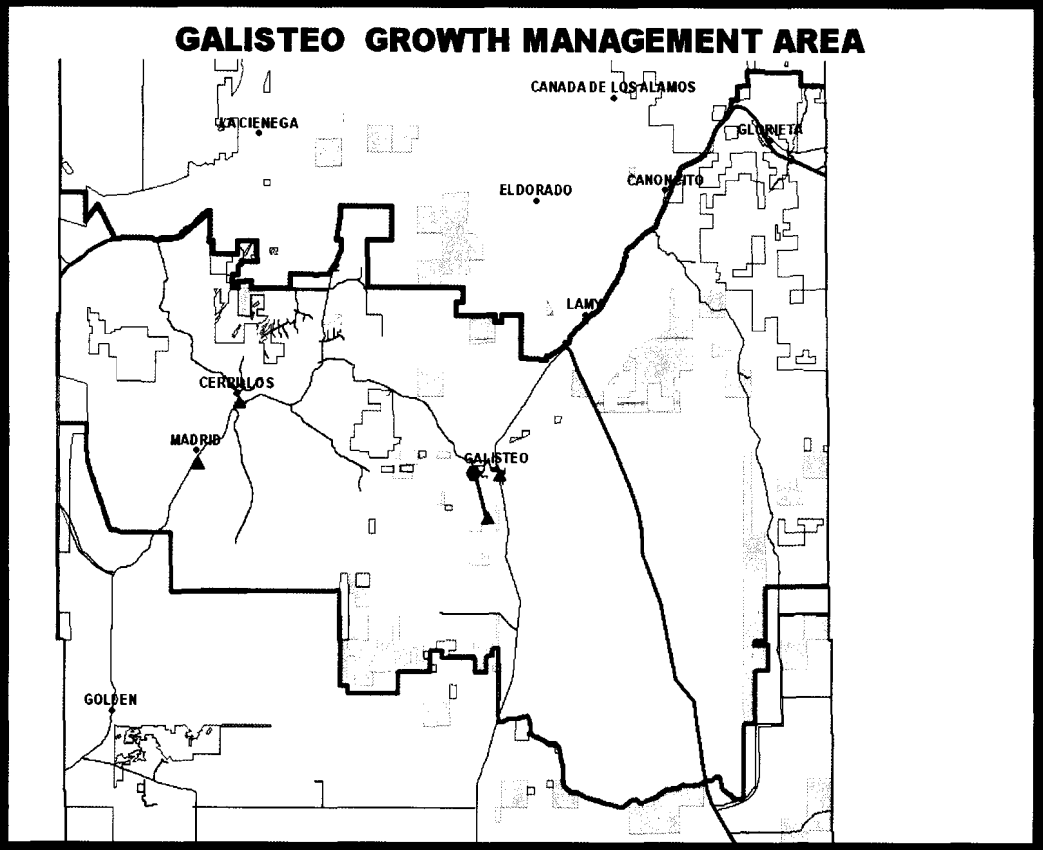
ORDINANCES TO PROMOTE CENTRALIZED WATER & WASTEWATER SYSTEMS IN NEW DEVELOPMENTS

# GALISTEO GMP
# STRATEGIC OPTIONS



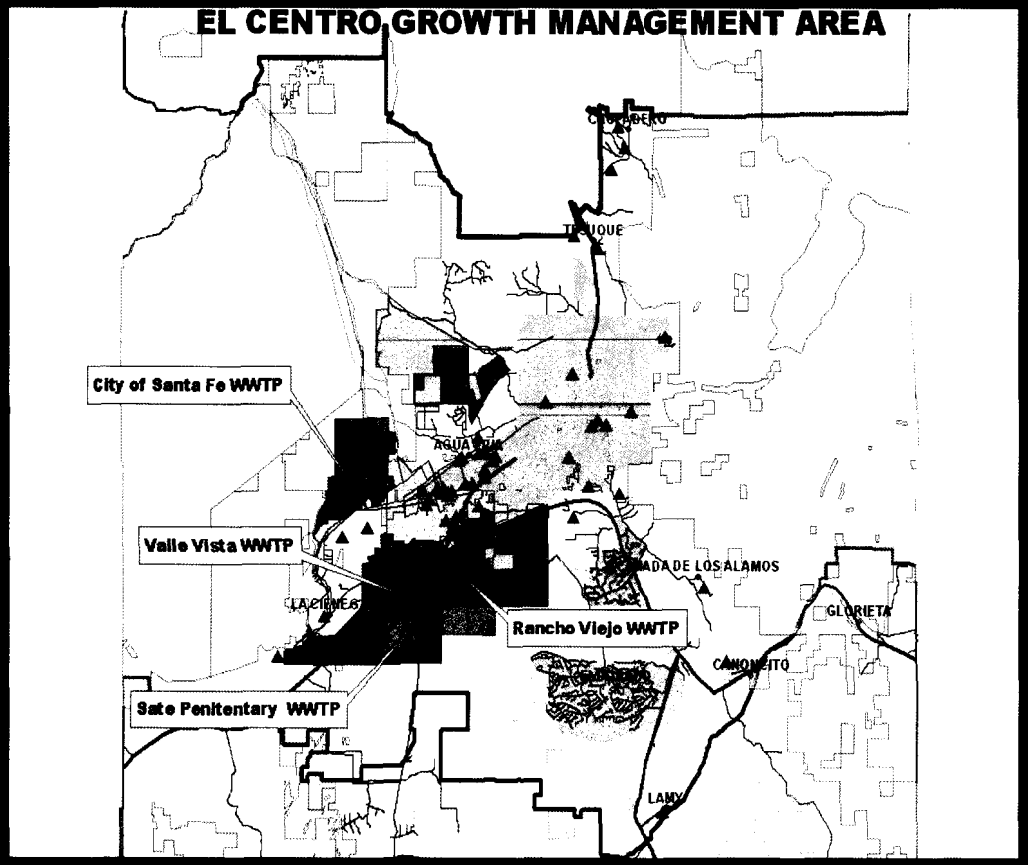

- IMPROVE WATER SYSTEMS AND DEVELOP WW SYSTEMS IN EXISTING COMMUNITIES
- PRESERVE LARGE TRACTS
- REDEFINE DEVELOPMENT PATTERNS

# GALISTEO GMA RECOMMENDED STRATEGY



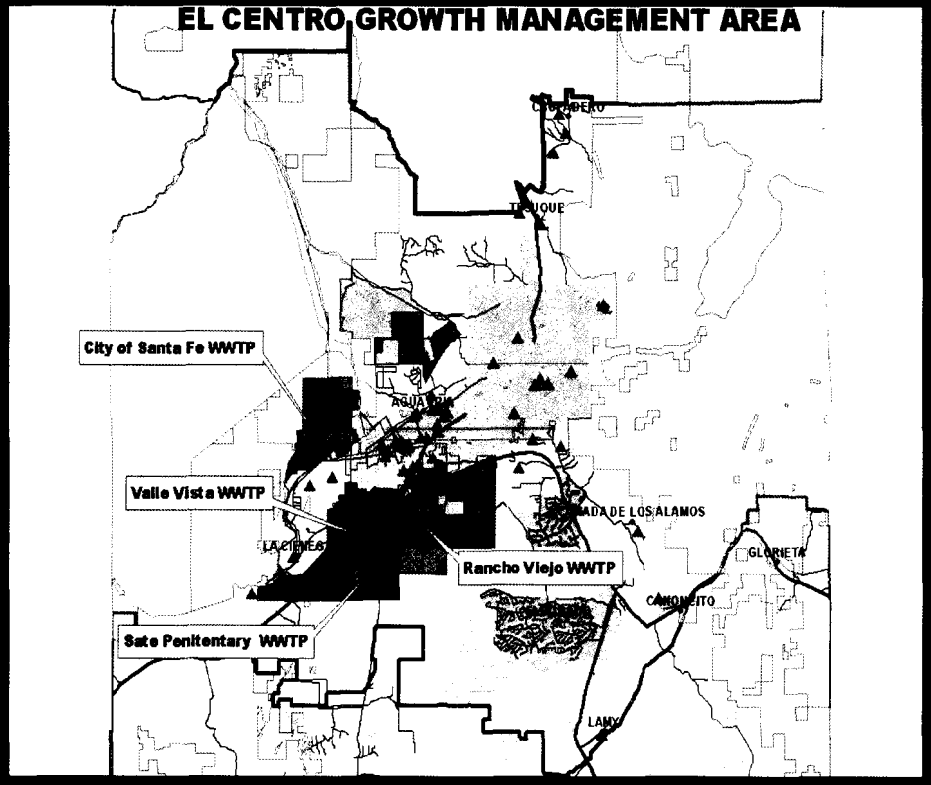

- IMPROVE WATER SYSTEMS AND DEVELOP WW SYSTEMS IN EXISTING COMMUNITIES
- PRESERVE OPEN TRACTS

# EL CENTRO GMA
# GENERAL CONDITIONS




- SEVERAL LARGE SYSTEMS FOR BOTH WATER & WW
- A FEW SMALL COMMUNITY WATER SYSTEMS
- HIGH REGIONALIZATION POTENTIAL
- HIGH GROWTH AREA

# EL CENTRO GMA DECISION PATHS

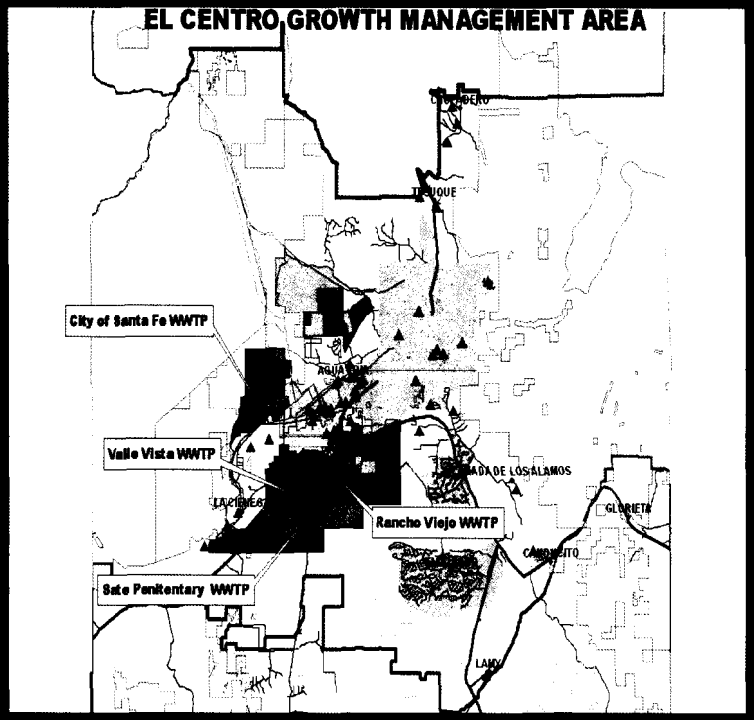



COUNTY TO PURSUE REGIONALIZATION ALONE OR WITH CITY OF SANTA FE

COUNTY TO SUPPLEMENT SMALLER SYSTEMS, OR INTEGRATE THEM INTO REGIONAL SYSTEM

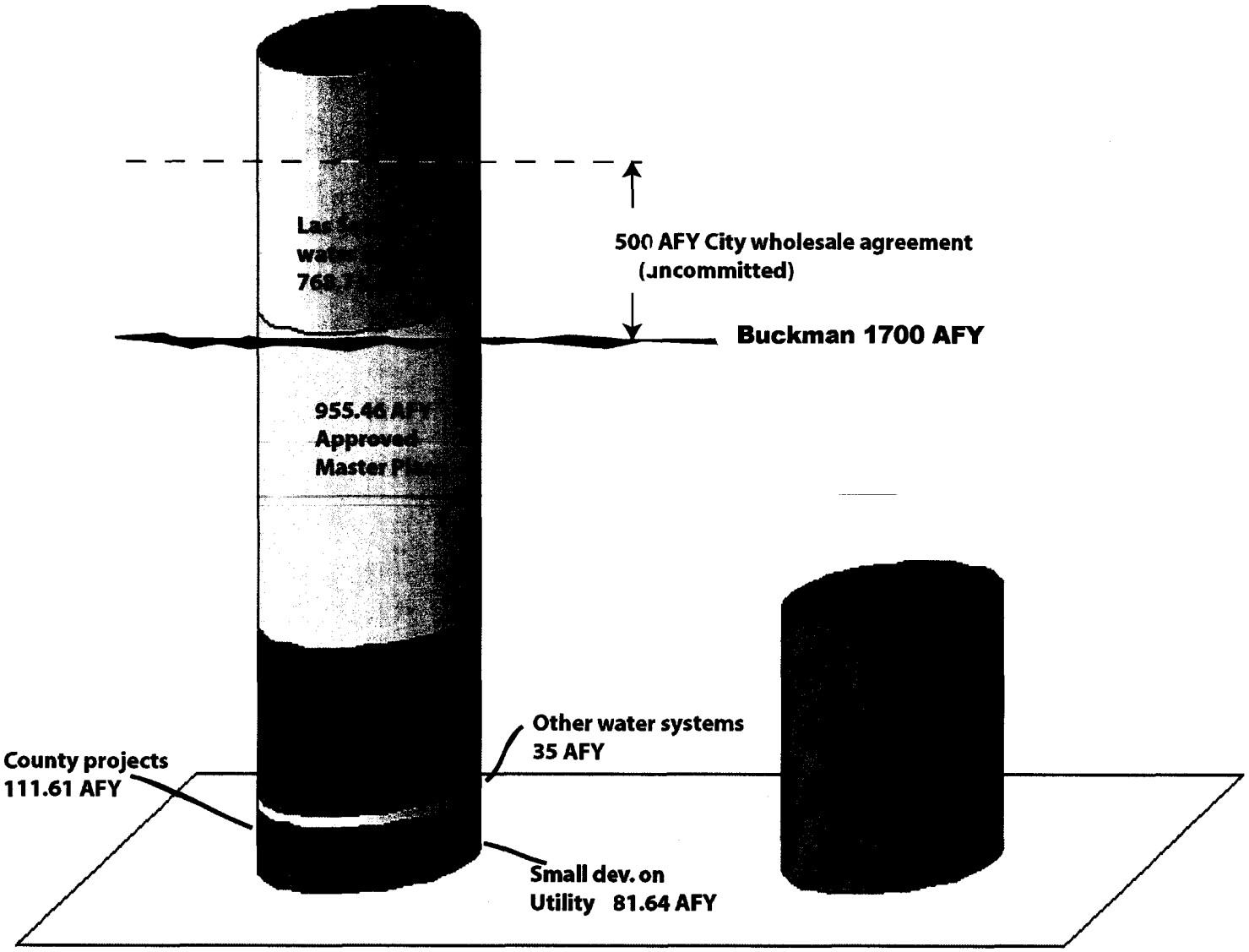
WHERE TO COMMIT 500 AFY COUNTY CAN PURCHASE FROM CITY (AFTER BDD)

# EL CENTRO GMP
# STRATEGIC OPTIONS

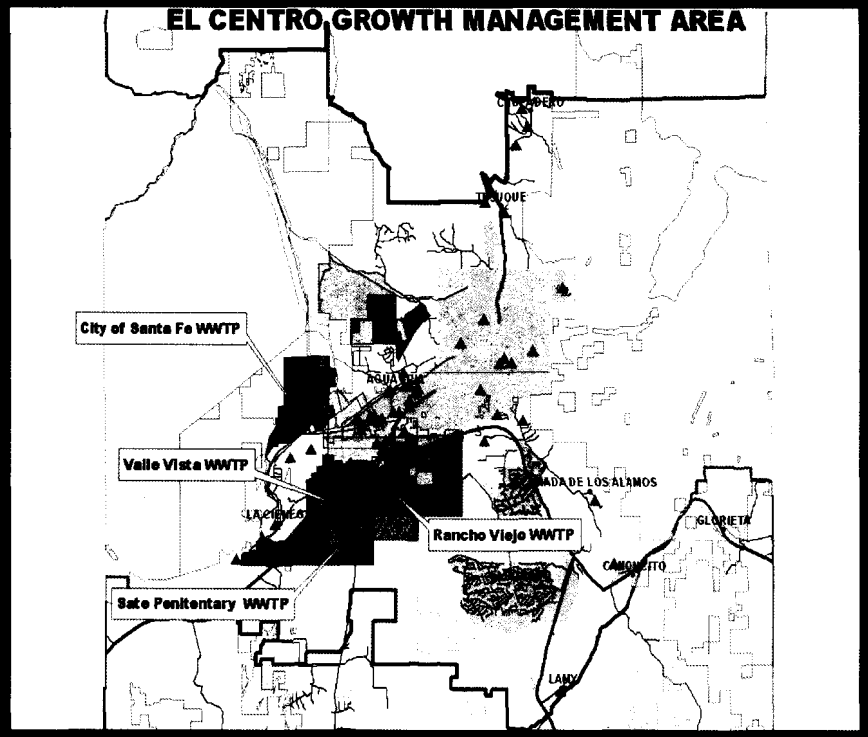



- USE BDD FOR COUNTY UTILITY TO SERVE GROWTH
- USE UTILITY TO TAKE PEOPLE OFF WELLS
- INTEGRATE SOME OR ALL OF SMALL SYSTEMS INTO COUNTY SYSTEM
- SUPPLEMENT SMALL SYSTEMS SO THEY STAY INDEPENDENT
- CONSOLIDATE EXISTING WW SYSTEMS INTO COUNTY SYSTEM; TAKE RESIDENTS OFF SEPTIC TANKS
- SUPPORT IMPROVEMENTS AND EXPANSION OF EXISTING SYSTEMS SO THEY STAY INDEPENDENT

## County Utility Allocated and Potential Water Demand

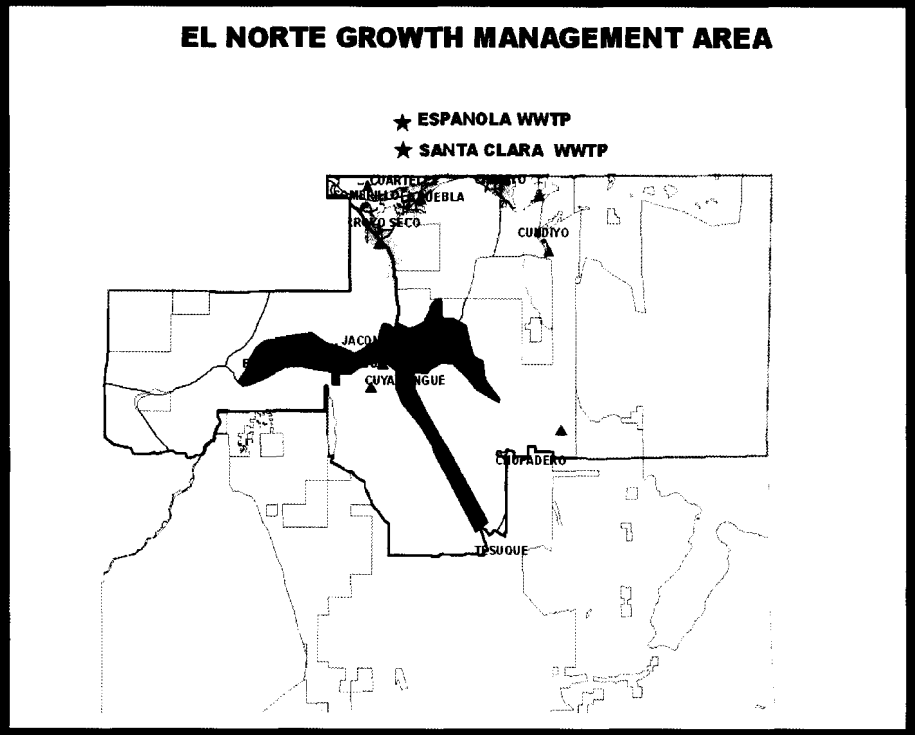


# EL CENTRO GMA RECOMMENDED STRATEGY



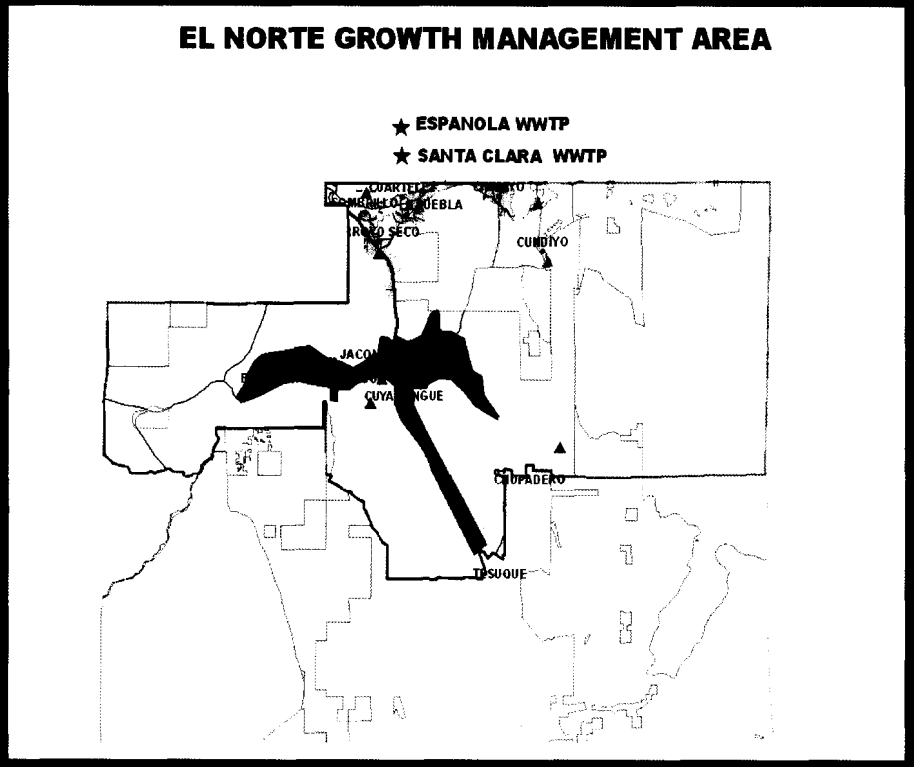

- UTILIZE BDD FOR COUNTY UTILITY TO SERVE GROWTH AREAS
- CONSOLIDATE EXISTING WW SYSTEMS INTO COUNTY SYSTEM, AND TAKE RESIDENCES OFF SEPTIC
- SEEK NEW WATER SUPPLIES FOR MID- TO LONG-TERM

# EL NORTE GMA
# GENERAL CONDITIONS




- MANY PRIVATE WELLS WITH SEVERAL SMALL COMMUNITY SYSTEMS
- MOSTLY SEPTIC TANKS
- AAMODT MAY DICTATE WATER FOR POJOAQUE VALLEY
- HIGH REGIONALIZATION POTENTIAL FOR BOTH WATER & WW

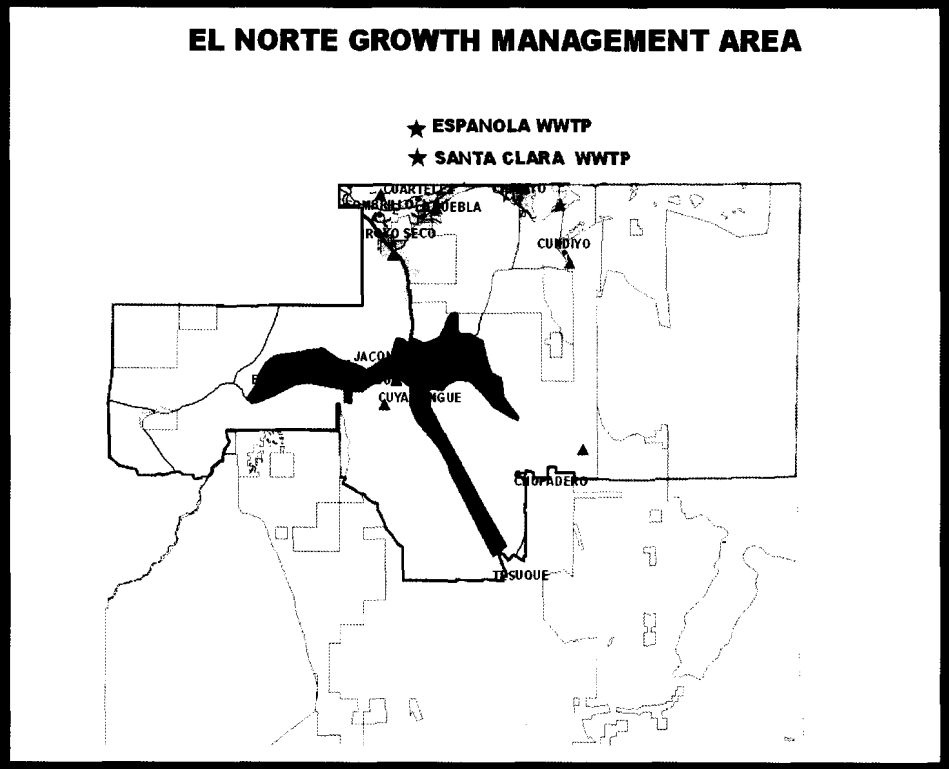
# EL NORTE GMA DECISION PATHS




COUNTY SUPPORT AT LEGISLATURE OR DIRECT COUNTY FUNDING

PROMOTE INDEPENDENT SYSTEMS OR INTEGRATION INTO ONE OR MORE REGIONAL SYSTEM

# EL NORTE GMA STRATEGIC OPTIONS

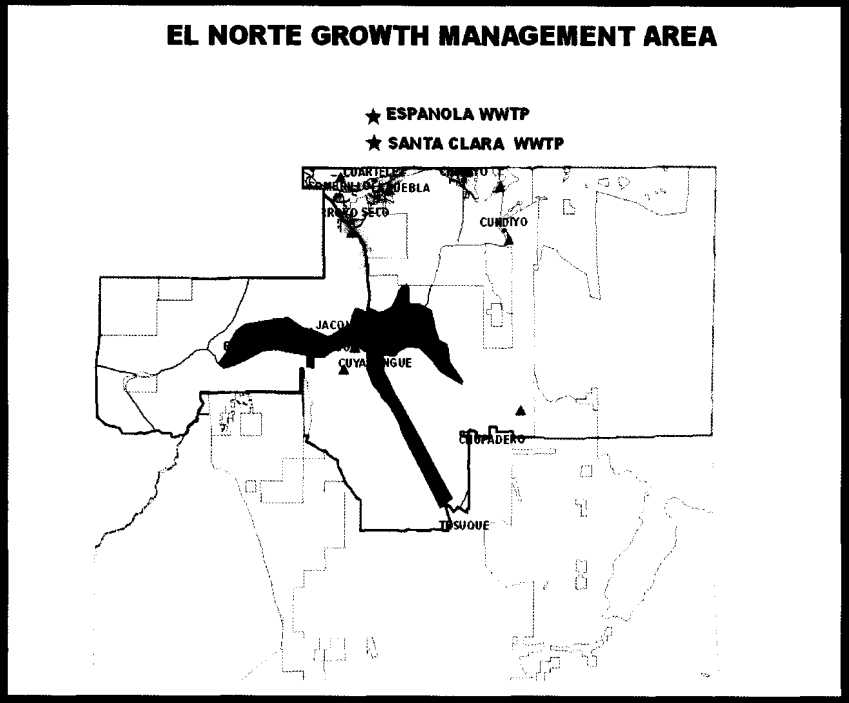



PROMOTE DEVELOPMENT OF REGIONAL WATER & WW SYSTEMS

COMMITMENT TO AAMODT

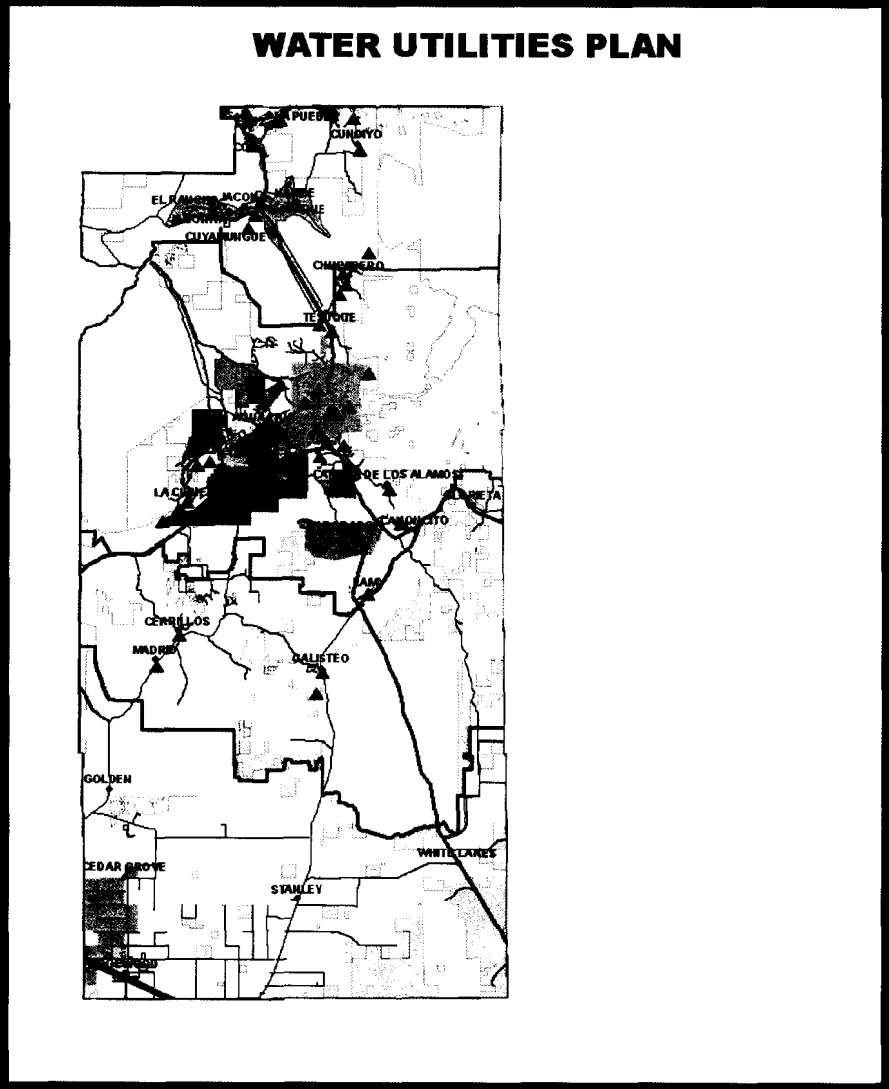
PROMOTE DEVELOMENT OF SMALL COMMUNITY WATER & WW SYSTEMS

# EL NORTE GMA RECOMMENDED STRATEGY




- DEVELOP SEVERAL REGIONAL WATER & WW SYSTEMS (INCLUDING AAMODT)
- SUPPORT AND ENCOURAGE ALLIANCES OF SMALLER COMMUNITY WATER SYTEMS
- MINIMIZE ONGOING COUNTY O&M COMMITMENTS

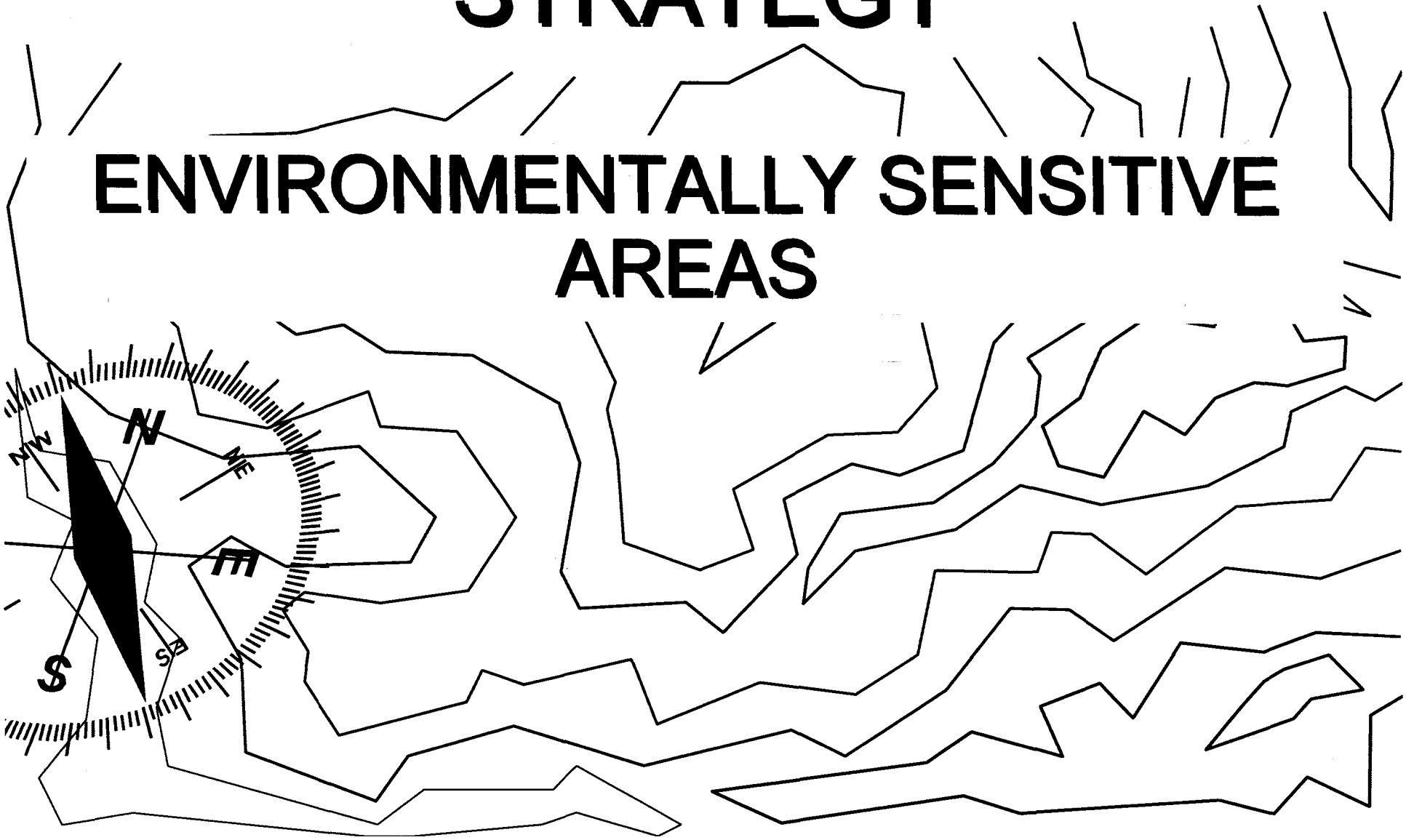
# RECOMMENDED STRATEGIC PRIORITIES



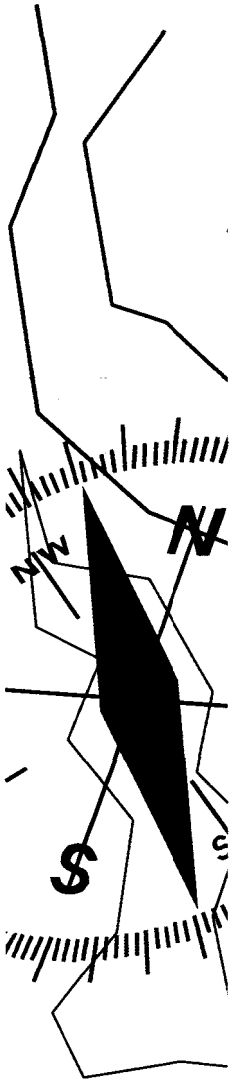

- BUCKMAN DIRECT DIVERSION
- AAMODT
- REGIONALIZE WATER
- REGIONALIZE WASTEWATER
- SEEK NEW WATER SUPPLIES

# GROWTH MANAGEMENT STRATEGY

## ENVIRONMENTALLY SENSITIVE AREAS



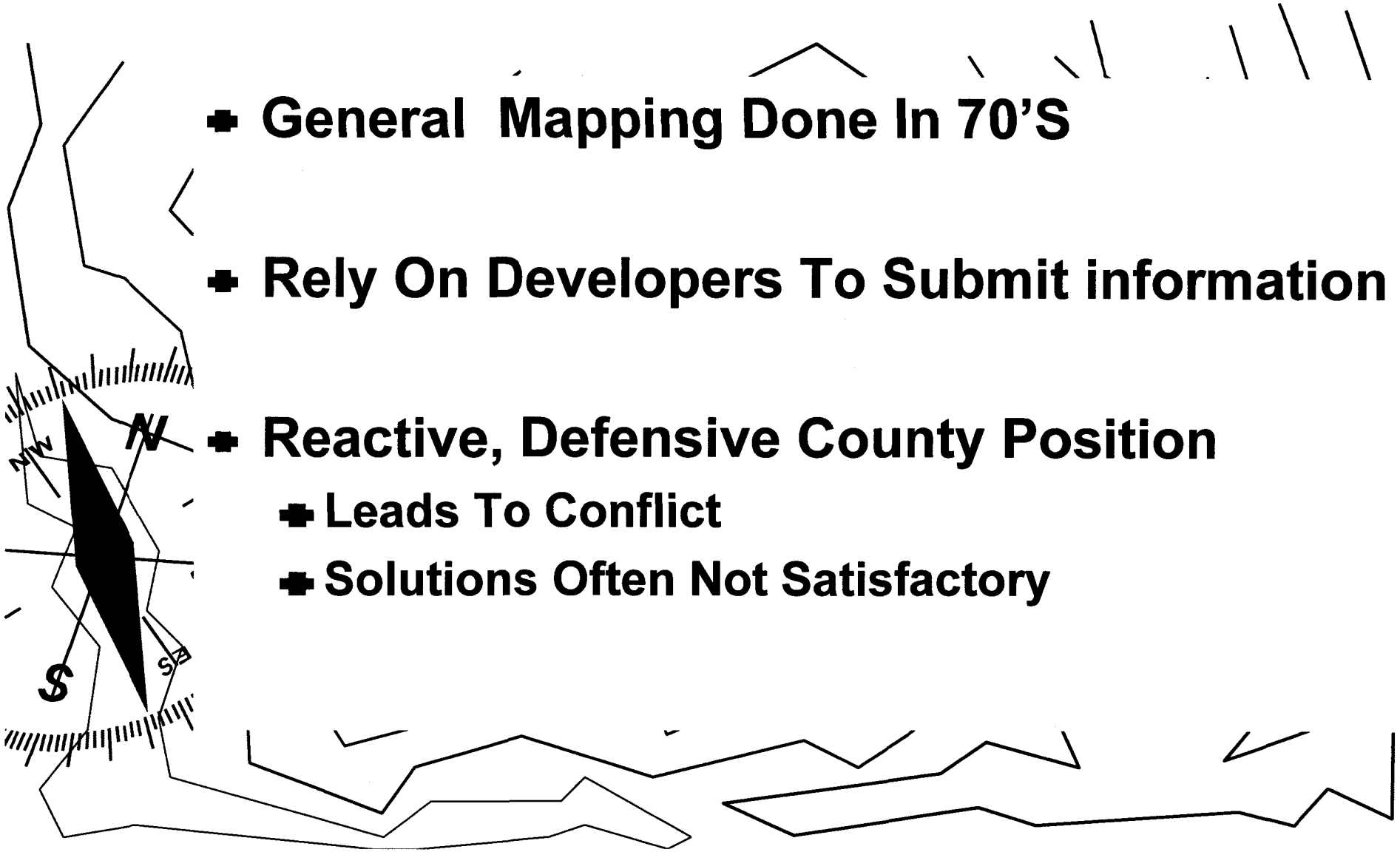
# ENVIRONMENTALLY SENSITIVE AREAS GOALS




- **Basic Policies Adopted In 1999 Growth Management Plan:**
  - **Recognize That Certain Lands Are Fragile, Sensitive Or Of Such High Value To The Community That They Need Consideration & Protection From All Kinds Of Development Actions**
  - **Identify & Map Sensitive Natural Areas And Environmental Hazards**
  - **Critical Planning Areas**

# ENVIRONMENTALLY SENSITIVE AREAS

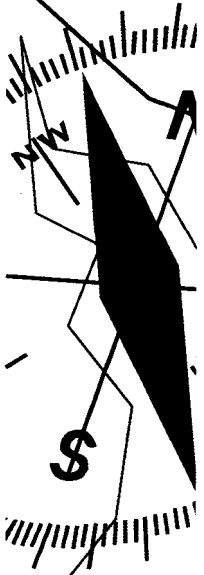
## CURRENT COUNTY ACTIONS




- General Mapping Done In 70'S
- Rely On Developers To Submit information
- Reactive, Defensive County Position
  - Leads To Conflict
  - Solutions Often Not Satisfactory

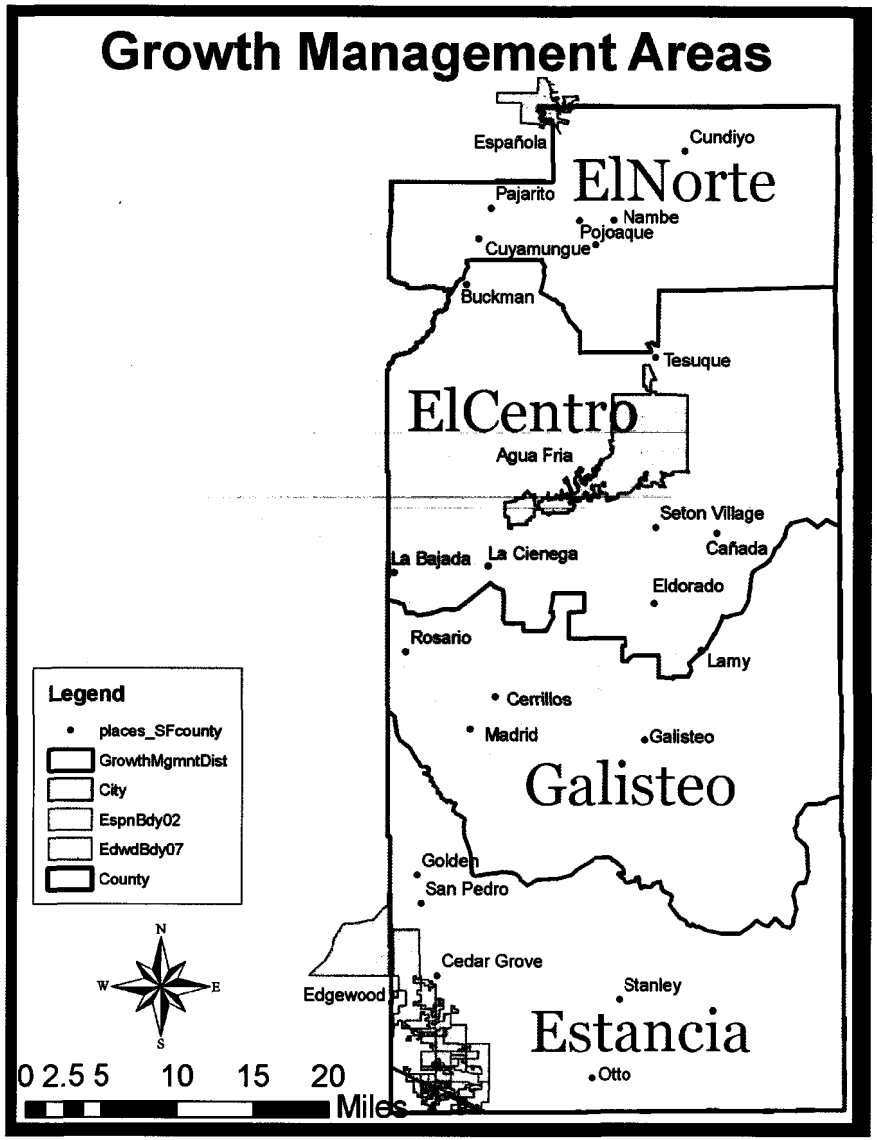
# ENVIRONMENTALLY SENSITIVE AREAS

## STRATEGIC DIRECTION




- **Implement Policies Of GMP**
- **Develop Strategies For Protecting Environmentally Sensitive Areas**
  - **Key To Health And Safety Of Residents**
  - **Protect Land & Resources For Current & Future Generations**
  - **Maintain Natural Beauty & Fragile Environments – Basis Of Much Of County Economy**
- **Will Be In Conjunction With Overall Growth Management Strategies**

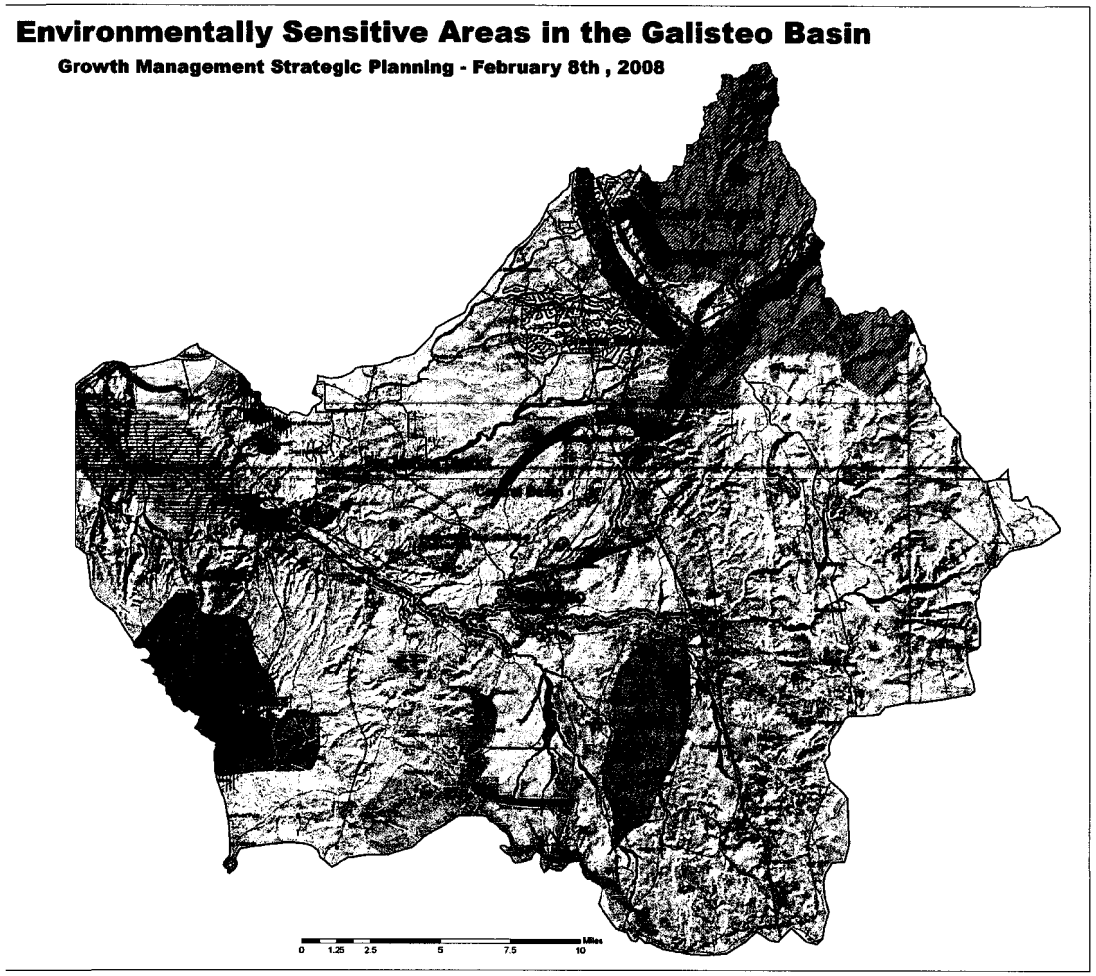
# ENVIRONMENTALLY SENSITIVE AREAS APPROACH




- Map For Each Growth Management Area
  - Unique Values & Settings In Each GMA
  - System & Settings Matrix
  - GIS Mapping & Data Analysis
- Develop Strategies For Each GMA Based On The Conditions In Each Area

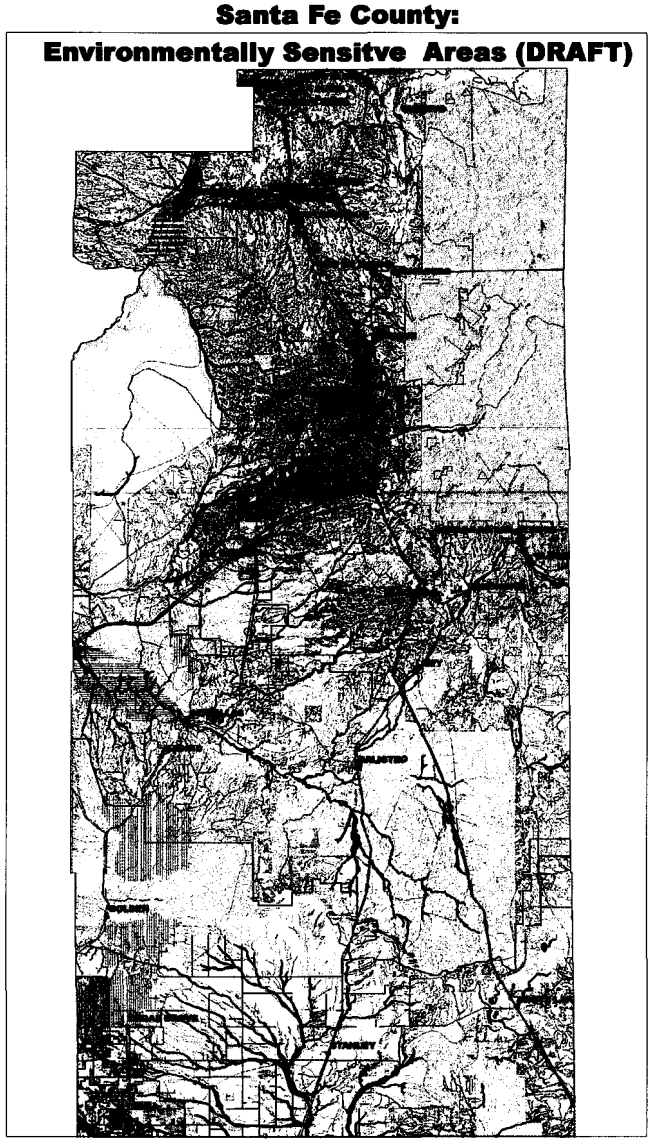
# ENVIRONMENTALLY SENSITIVE AREAS

# APPROACH




- Galisteo Growth Management Area

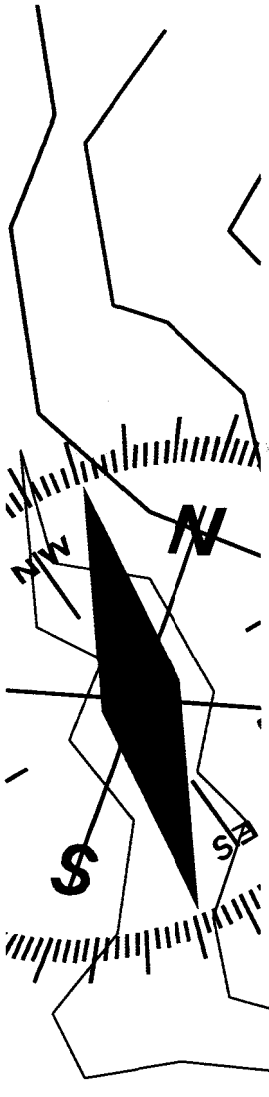
# ENVIRONMENTALLY SENSITIVE AREAS APPROACH




- Map/Identify Natural Areas Where Development May Endanger The Health, Safety, Welfare & Resources Of Citizens Or County Services

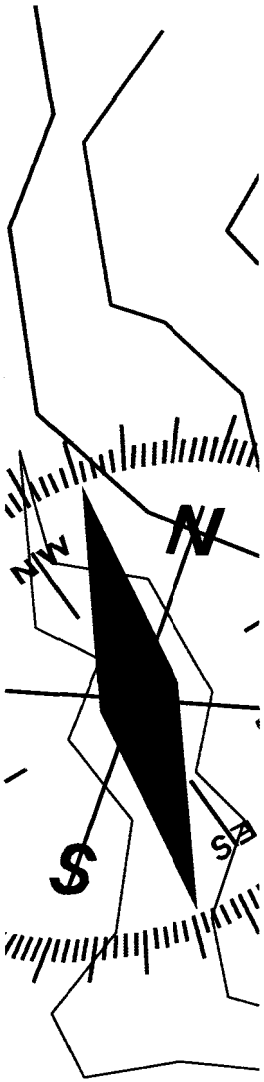
- Map/Identify Areas And Lands Where Actions By Land Development May Damage The Cultural & Environmental Resources That Define The County, Its Economy, Its Culture

# ENVIRONMENTALLY SENSITIVE AREAS PROCESS



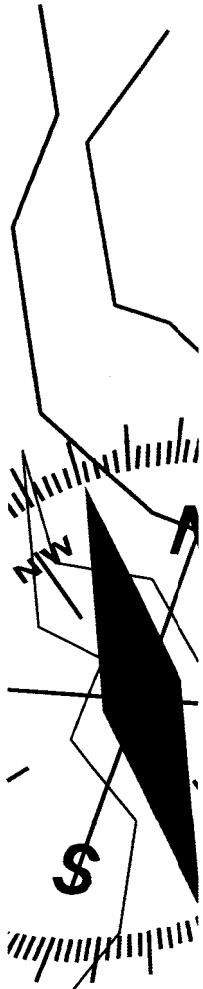

- Maps Being Created:
  - Wetlands
    - **Natural Heritage New Mexico Mapping & NMED**
    - **Function Of Wetlands: Habitat, Water Quality Protection, Flood Protection, Recharge**
  - Critical Aquifer Recharge Areas
    - **New Mexico Bureau of Geology & Mineral Resources**
    - **Areas Vulnerable To Ground Water Contamination, Protection Of Community Well Heads, Areas Critical For Protection Potable Water Supplies**
  - Flood Hazard Areas
    - **Updated FEMA Mapping**
    - **Areas Subject To Flooding**
    - **Protection Of Stream Connectivity & Healthy Riparian Habitat To Limit Flooding, Limits On Public Costs**

# ENVIRONMENTALLY SENSITIVE AREAS PROCESS



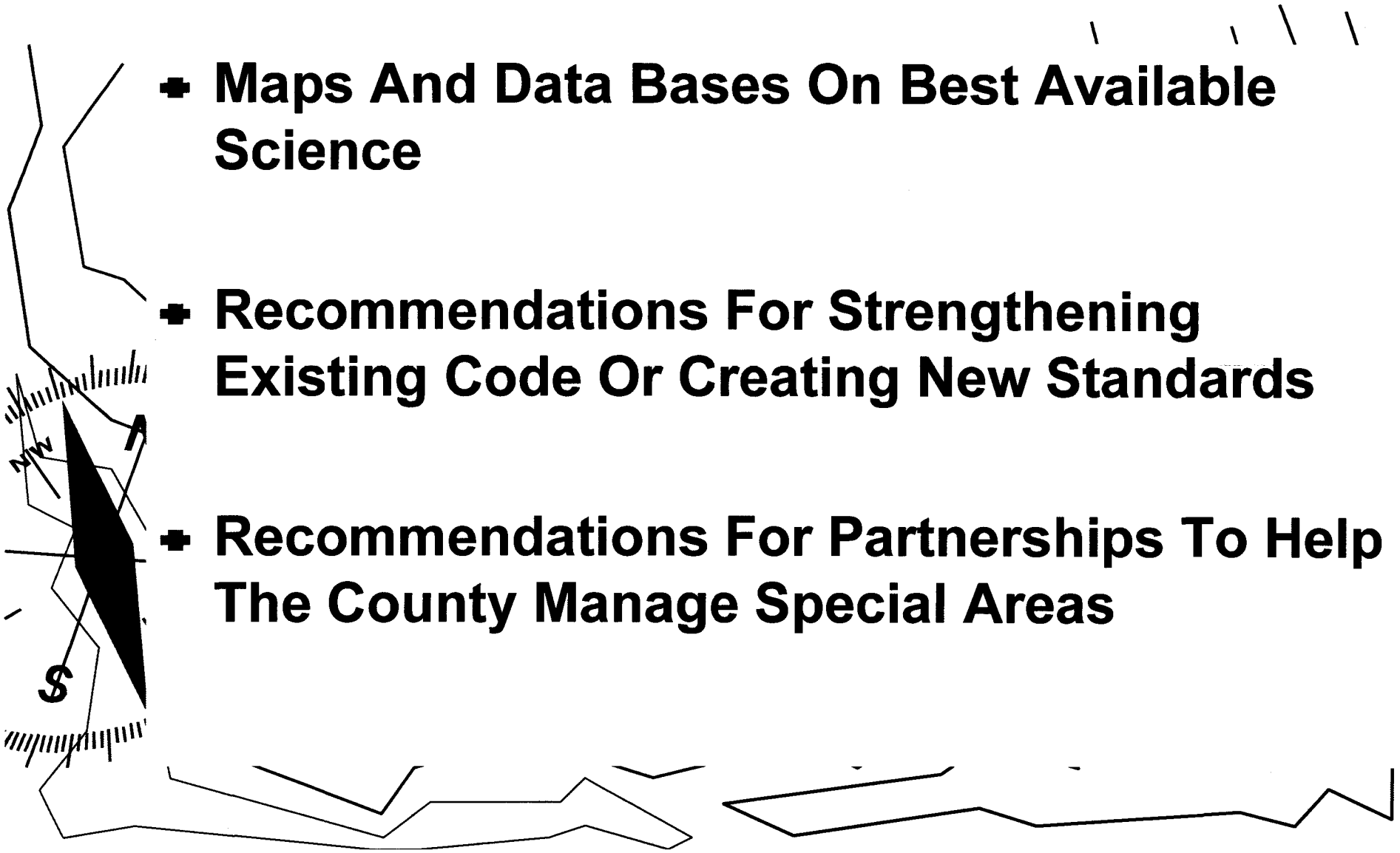

- MAPS BEING CREATED:
  - Unsuitable Soils/ Agriculture & Grazing Lands
    - **NRCS Land Capability Maps**
    - **Areas With Limitations And Hazards For Development**
    - **Capacity For Supporting Agricultural Economy**
  - Fish & Wildlife Habitat
    - **Natural Heritage New Mexico Mapping & NMED Mapping/Data Base**
    - **Perform Many Important Physical & Biological Functions: Species Diversity, Recreation, Air & Water Quality, Neighborhood Separation, Erosion Control**

# ENVIRONMENTALLY SENSITIVE AREAS PROCESS




- MAPS BEING CREATED:
  - **Historic & Cultural Resources**
    - **State Historic Preservation Office (ARMS)**
    - **Galisteo Basin Archaeological Sites Protection Act**
    - **Northern Rio Grande National Heritage Area**
    - **Protect Sites From Development & Natural Hazards**
  - **Scenic Priority Areas**
    - **County Visual Resources Inventory & Analysis**
    - **Protect Valuable Sites, Vistas, Roads & Trails**
    - **Varied Terrain, Vast Panoramas And Arid Landscape Make County Vulnerable To Losing Its Beauty**

# ENVIRONMENTALLY SENSITIVE AREAS EXPECTED RESULTS




- **Maps And Data Bases On Best Available Science**
- **Recommendations For Strengthening Existing Code Or Creating New Standards**
- **Recommendations For Partnerships To Help The County Manage Special Areas**

# GROWTH MANAGEMENT STRATEGY
# CRITICAL PLANNING AREAS

## The Santa Fe County Growth Management Plan

In 1999, the County Land Use Department produced a growth management plan. The general plan goals and growth management policy are to promote development that avoids sprawl; protects open spaces and to maintain the diverse character of the county through creative development design solutions; ensure the availability and diversity of housing and economic opportunities with adequate and economically efficient infrastructure and services; and to maintain and preserve traditional communities and support their traditional economic structure.

## Purpose

Critical planning areas are a component of the overall Growth Management Strategy. Critical Planning Areas are defined in the Santa Fe County Growth Management Plan/General Plan (1999) as communities or places where:

a. critical population size has been reached;
b. pollution of water resources has occurred or is threatened;
c. cultural integrity and unique character are threatened;
d. fire protection is hindered;
e. a high rate of growth is occurring relative to the small size of a community;
f. mediation is needed because of a lack of consensus on development issues among residents;
g. where existing infrastructure is inadequate and detailed planning is needed;
h. New Community Districts are designated.

Since 1980 the County has had policy and plans that recognize that certain lands in the County are fragile, sensitive or of such high value to the community that they need extra consideration and protection from all kinds of development

actions. Up till now, aside from some general mapping done in the mid-70's, the County has relied on developers to bring forward this information with applications and the staff and commissioners attempt to then affect the location and character of land protection. This leaves the County and its citizens in a reactive and defensive position, leads to conflict and often does not result in satisfactory resolutions.

Through the Growth Management strategy, staff will be proposing to implement the policies of the 1999 GMP to identify and protect sensitive lands before development applications are imminent. Protection of the County's resources now and for future generations is the mandate of County adopted policies. Protection of health, safety and welfare is the basis of County zoning powers.

Protection of environmentally sensitive areas is key to protecting the health and safety of the people, the reasonable use and enjoyment of property and to maintain the natural beauty and fragile environment of areas through regulations, education and code enforcement. Therefore, the critical planning areas/strategies presented in this document were not derived independently, but in conjunction with the overall growth management strategies being developed by the Team.

## Critical Planning Areas Approach

It is recognized that strategies for critical planning areas applicable to one area of the County will not be effective in other areas. The Growth Management Strategy divides the County into four Growth Management Areas (GMA), and this plan section follows that format. The four areas, from south to north, are: Estancia, Galisteo, El Centro, and El Norte. Each of these GMA's is a unique ecological and cultural landscape setting. A systems and settings matrix was established at the onset of the planning process in order to identify and catalog the specific attributes of each GMA. Associated with the data base, a GIS mapping system was employed in order to create base maps and overlays and analysis of existing conditions and specific natural/cultural resource information.

For each area, a planning process was followed. The planners collectively worked through this process concentrating on critical and sensitive environmental areas for each GMA.

Staff is currently researching and mapping Environmentally Sensitive Areas, a concept recommended in the 1999 Growth Management Plan, in order to:

- Identify natural areas where development may endanger the health, safety and welfare of citizens or of County services
- Identify areas and lands where actions by land use development may damage the cultural and environmental resources that define Santa Fe County and are the basis of our economy and culture

The result of this process are maps and Recommended Strategies applicable County-wide, as they pertain to natural resources and environment.
The following categories of environmental information are currently being mapped:

- Maps locating the sensitive or critical areas for wetlands, critical aquifer recharge areas, flood hazard areas, severe soils limitations, agriculture and grazing lands, fish and wildlife habitat, historic and cultural resources, scenic priority areas.
- Recommendations for strengthening existing land development code standards or implementing new code standards
- Recommendations for partnerships with organizations and agencies that have the expertise or powers to help the County manage these special areas.

Identification of the Environmentally Sensitive Areas for each Growth Management Area, will give rise to appropriate zoning strategies to be considered for these designations.

**DRAFT: FOR REVIEW ONLY**

## Environmentally Sensitive Areas

A. Santa Fe County is collecting data, mapping, and analyzing Environmentally Sensitive Areas (ESA) in an effort to regulate all uses, activities, and developments within, adjacent to, or likely to affect, one or more ESA's , consistent with the best available science and the provisions herein.

B. Environmentally Sensitive Areas shall include the following categories:

1. Wetlands as designated by Natural Heritage New Mexico, and New Mexico Environment Department. Wetlands and streams are environmentally sensitive and serve numerous natural functions and values. These functions include wildlife and fisheries habitat, water quality protection, flood protection, shoreline stabilization, stream flow, and ground water recharge and discharge. In many situations these functions cannot be adequately replicated or replaced.

- The scientific literature supports in the inclusion of protective buffers from wetlands to provide sediment control and nutrient inputs to wetlands, and to protect important wetland functions.
- The scientific literature supports protective buffers ranging from 25 to 300 feet of relatively intact native vegetation to adequately protect wetland functions and values.

2. Critical aquifer recharge areas as designated by New Mexico Bureau of Geology & Mineral Resources in Aquifer Map & Geologic maps defining, sole source aquifers, well head protection areas, special protection areas, and other areas that are susceptible or vulnerable to ground water contamination as areas with a critical recharging effect on aquifers used for potable water.

- Potable water is an essential life-sustaining element.
- Much of [the region's] drinking water comes from groundwater supplies.
- Once ground water is contaminated it is difficult, costly, and sometimes impossible to clean up.
- Preventing groundwater contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm to people.

3. Flood hazard areas as designated in FEMA Mapping. Flood hazard areas are subject to periodic inundation that results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses are caused by development in areas prone to inundation that increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood proofed, elevated, or otherwise protected from flood damage also contribute to flood loss.
Floodplain and stream connectivity are major elements in maintaining healthy riparian habitat and off-channel habitats for the survival of fish species and conveyance of floodwaters. If river, floodplains and other systems are not viewed holistically as biological, geomorphological units, this can lead to serious degradation of habitat and increase flood hazards, which, in turn, can contribute to listing of various fish species as threatened or endangered and result in extraordinary public expenditures for flood protection and relief.

- Frequently flooded areas, including the 100-year floodplain and the floodway, are commonly mapped on flood insurance maps, often known as Flood Insurance Rate Maps, or FIRMs.

- Santa Fe County Ordinance No: 603323 (new ordinance & maps being drafted for adoption)
-

4. Soils/ Agriculture & Grazing lands with severe limitations as designated by NRCS Land Capability Mapping. Land capability classification is a system of grouping soils primarily on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time.

- Class 1 soils have slight limitations that restrict their use.
- Class 2 soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.
- Class 3 soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
- Class 4 soils have very severe limitations that restrict the choice of plants or require very careful management, or both.
- Class 5 soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- Class 6 soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
- Class 7 soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.
- Class 8 soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes.

Other Soils related interpretive maps:

- Land Use planning
- Construction materials
- Building Sites/Roads
- Waste Disposal
- Water Management

5. Fish and wildlife habitat conservation areas as designated by Comprehensive Wildlife Conservation Strategy for New Mexico and Natural Heritage New Mexico. Fish and wildlife habitat conservation areas perform many important physical and biological functions that benefit the [jurisdiction] and its residents, including but not limited to: maintaining species diversity and genetic diversity; providing opportunities for food, cover, nesting, breeding and movement for fish and wildlife; serving as areas for recreation, education and scientific study and aesthetic appreciation; helping to maintain air and water quality; controlling erosion; and providing neighborhood separation and visual diversity within urban areas.
Wetlands and streams are environmentally sensitive and serve numerous natural functions and values. These functions include wildlife and fisheries habitat, water quality protection, flood protection, shoreline stabilization, stream flow, and ground water recharge and discharge. In many situations these functions cannot be adequately replicated or replaced. The scientific literature supports in the inclusion of protective buffers from streams to provide sediment control, nutrient inputs to downstream waters, large woody debris, and other functions important to riparian areas.

6. Historic and Cultural resources as designated by:
   - State of New Mexico Office of Historic Preservation. The mission of the Historic Preservation Division is to protect, preserve and interpret the unique character of New Mexico
     • by identifying, documenting (recording), evaluating and registering prehistoric and historic properties throughout New Mexico;
     • by coordinating historic preservation activities at all levels of government in New Mexico and with individuals, private organizations, and traditional communities;
     • by educating the public about historic preservation; and
     • by protecting and preserving significant historic and prehistoric sites throughout the State.
     •
   - The Galisteo Basin Archeological Sites Protection Act. PUBLIC LAW 108–208—MAR. 19, 2004. PURPOSE.—The purpose of this Act is to provide for the preservation, protection, and interpretation of the nationally significant archaeological resources in the Galisteo Basin in New Mexico
     (1) the Galisteo Basin and surrounding area of New Mexico
     is the location of many well preserved prehistoric and historic archaeological resources of Native American and Spanish colonial cultures;
     (2) these resources include the largest ruins of Pueblo Indian settlements in the United States, spectacular examples of Native American rock art, and ruins of Spanish colonial settlements; and
     (3) these resources are being threatened by natural causes, urban development, vandalism, and uncontrolled excavations.

   - The Northern Rio Grande National Heritage Area Authorized by Congress October 12, 2006 in Northern New Mexico stretches from Santa Fe to Taos and includes the counties of Santa Fe, Rio Arriba and Taos. A "national heritage area" is a place designated by the United States Congress where natural, cultural, historic and recreational resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of human activity shaped by geography. These areas tell nationally important stories about our nation and are representative of the national experience through both the physical features that remain and the traditions that have evolved within them. It encompasses a mosaic of cultures and history, including eight Pueblos and the descendants of Spanish ancestors who settled in the area as early as 1598. Within its boundaries are many significant historic sites and a cultural landscape that reflects long settlement of the region.

7. Scenic priority areas/views
   - Santa Fe County Visual Resources Inventory and Analysis, October 1995 report presented the following findings:
     1. Scenic places valued by the public include: Major landforms such as the Sangre de Cristo, Ortiz, South and San Pedro Mountains; less well-known scenic areas, such as Diablo Canyon, Lamy train station and village, and Devil's throne near Waldo.
     2. Scenic Vistas: important scenic points, such as those from Galisteo toward Ortiz and San Pedro Mountains, From 1-25 coming north up La Bajada looking toward

Santa Fe and the Sangre de Cristo Mountains, and the 360-degree views from Tetilla peak near la Bajada.

3. Scenic roads and trails: scenic roads and trails, such as the turquoise Trail (Highway 14), segments of Highway 285, 41, and I-25, and trails along Rio Medio and Rio Frijoles.

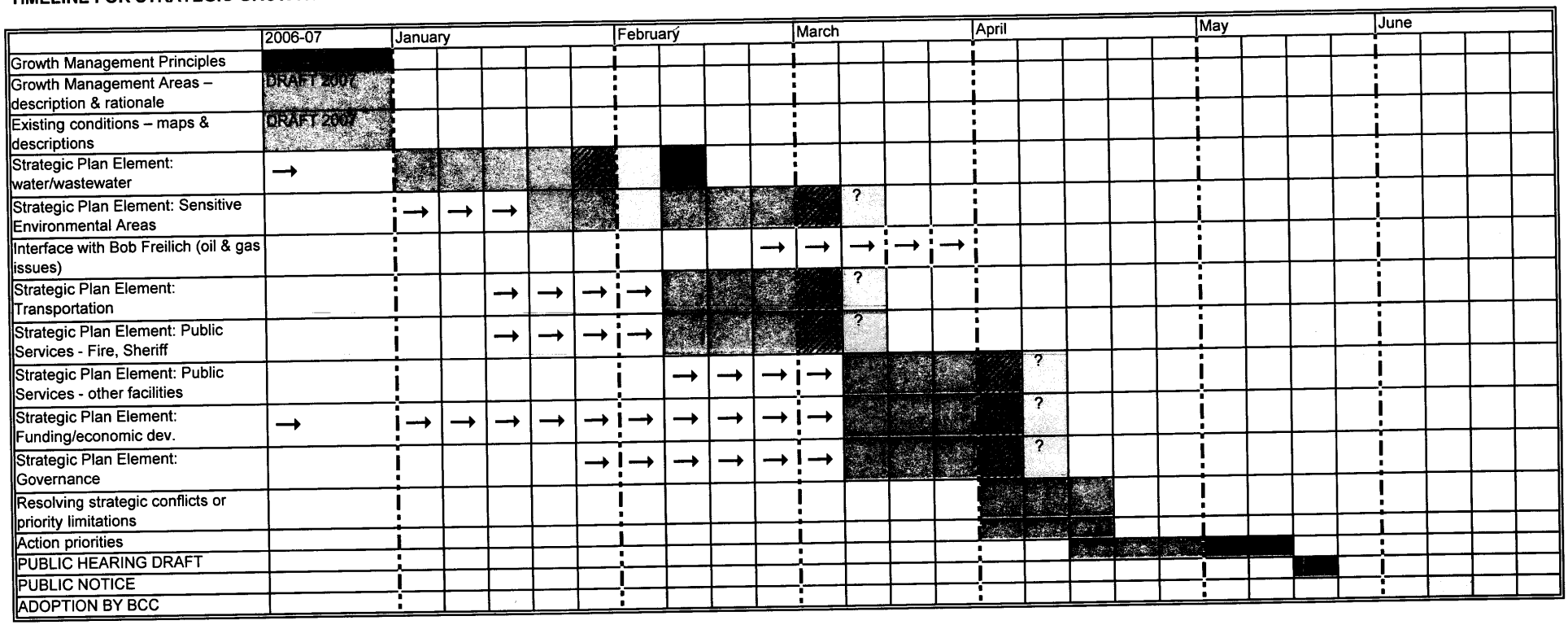
- Other general findings included:

1. Because of its open landscapes, vast panoramas, and pronounced topography, the scenic quality of Santa Fe County as a whole is very vulnerable. This means that if development is not carefully planned it could easily degrade the County's scenic beauty.

C. All areas within the county meeting the definition of one or more Environmentally Sensitive Areas, regardless of any formal identification, are hereby designated Environmentally Sensitive Areas and are subject to the provisions of this Title.

"Adjacent" is used as a way to allow for various inclusion distances, rather than rely on a single arbitrary distance for all critical areas. Jurisdictions with several types of critical areas will find that this allows the regulations to be applied to site-specific conditions. The distances included should be the maximums that might be encountered and should be based on the best available science.

## TIMELINE FOR STRATEGIC GROWTH MANAGEMENT PLAN




DRAFT FEB 8, 2008

→ Preparation
Element in draft form
Run thru final draft
Element complete
BCC meeting

? Denotes no date set