MEMORANDUM

DATE: *January 12, 2015*

TO: *Board of County Commissioners*

FROM: *Adam Leigland, Public Works Department Director*

VIA: *Katherine Miller, County Manager*

ITEM AND ISSUE: *BCC Meeting January 27, 2015*
Resolution No. 2015-_____, A Resolution Authorizing the County Manager to Submit an Application to the New Mexico Department of Transportation Applying for Recreational Trails Program Funds. (Public Works / Erik Aaboe)

SUMMARY:
This is a resolution to authorize the County Manager to apply for two NMDOT grants for Rail Trail erosion repairs and trail maintenance equipment.

BACKGROUND:
The New Mexico Department of Transportation (NMDOT) issued a call for projects for funding from the federal Recreational Trails Program. Two projects have been identified that would potentially qualify for funding under this program. The grant applications are due February 1 and NMDOT requires a resolution that documents the commitment of the applicant to meet the grant requirements. Public Works staff met with staff from the Metropolitan Planning Organization and NMDOT to review project feasibility for a number of projects.

DISCUSSION:
Santa Fe County proposes to apply for two separate projects under the RTP program: rail trail erosion repairs ($80,200 total project cost) and acquisition of trail maintenance equipment ($74,000 total project cost.) If the grant applications are successful, the RTP will pay for 85.44% of the project costs and the County will be responsible for the remainder. Because this program requires the14.56% local cash match, NMDOT requires a resolution of sponsorship that assures the County will meet its obligations under the agreement. The Wildlife Mountain Trails Fund (233) has available capacity to be budgeted that would be appropriate for the match if one or both of the project grants is awarded.

ACTION REQUESTED:
Approval of subject resolution

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

RESOLUTION NO. 2015- _____

A RESOLUTION AUTHORIZING THE COUNTY MANAGER TO SUBMIT AN APPLICATION TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION APPLYING FOR RECREATIONAL TRAILS PROGRAM FUNDS

WHEREAS, Santa Fe County, New Mexico, has the legal authority to apply for, receive and administer federal funds; and

WHEREAS, Santa Fe County plans to submit an application for Federal fiscal year 2016/2017 (FFY16/17) to the New Mexico Recreational Trails Program ("RTP") for funds in the amount of $154,200.00, as set forth in "Moving Ahead for Progress in the 21st Century" Act ("MAP-21"), P.L. 112-141, and as outlined in the FFY 16/17 New Mexico RTP Guide; and

WHEREAS, the repairs of Rail Trail erosion and acquisition of trail maintenance equipment described in the RTP application are eligible projects under New Mexico RTP and MAP-21; and

WHEREAS, Santa Fe County acknowledges availability of the required local match of 14.56% and the availability of funds to pay all upfront costs, as RTP is a cost reimbursement program; and

WHEREAS, Santa Fe County agrees to pay any costs that exceed the project amount if the application is selected for funding; and

WHEREAS, Santa Fe County agrees to maintain all project(s) constructed with RTP funding for the useable life of the project(s).

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY, THAT:

1. The Board of County Commissioners of Santa Fe County authorizes the County Manager to submit two applications for FFY16/17 New Mexico RTP funds in the amount of $154,200.00 from the New Mexico Department of Transportation (NMDOT) on behalf of the citizens of Santa Fe County.

2. Santa Fe County assures the NMDOT that if RTP funds are awarded, sufficient funding for the local match and for upfront project costs are available, since RTP is a reimbursement program, and that any costs exceeding the award amount will be paid by Santa Fe County.

3. Santa Fe County assures the NMDOT that if awarded RTP funds, sufficient funding for the operation and maintenance of the RTP projects will be available for the life of the projects.

4. If RTP funds are awarded to the County, the County Manager of Santa Fe County is delegated the authority to enter into a Cooperative Project Agreement with the NMDOT for construction of RTP projects using the RTP funds as set forth by MAP-21 on behalf of the citizens of Santa Fe County. The County Manager is also authorized to submit additional information as may be required by the NMDOT and do all things necessary to implement the expenditure of the RTP funds.

5. That the Board of County Commissioners of Santa Fe County assures the NMDOT that Santa Fe County is willing and able to administer all activities associated with the proposed project.

PASSED, ADOPTED, AND APPROVED this _____ day of January, 2015.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

_____
Robert A. Anaya, Chair
Santa Fe Board of County Commissioners

ATTESTATION:

_____ _____
Geraldine Salazar Date
Santa Fe County Clerk

APPROVED AS TO FORM:

_____ _____
Gregory S. Shaffer Date
Santa Fe County Attorney

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

RESOLUTION No. 2015- _____

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5. That the Board of County Commissioners of Santa Fe County assures the NMDOT that Santa Fe County is willing and able to administer all activities associated with the proposed project.

PASSED, ADOPTED, AND APPROVED this _____ day of January, 2015.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

_____
Robert A. Anaya, Chair
Santa Fe Board of County Commissioners

ATTESTATION:

_____ _____
Geraldine Salazar Date
Santa Fe County Clerk

APPROVED AS TO FORM:

_____ 1-13-15
Gregory S. Shaffer Date
Santa Fe County Attorney

Henry P. Roybal
Commissioner, District 1

Miguel M. Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3

Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

DATE: *January 14, 2015*

TO: *Board of County Commissioners*

FROM: *Adam Leigland, Public Works Department Director*

VIA: *Katherine Miller, County Manager*

ITEM AND ISSUE: *BCC Meeting January 27, 2015*
Resolution No. 2015-____, A Resolution Establishing the Transportation Advisory Committee; Repealing Resolution Nos. 2011-52 and 2012-15 Establishing the Road Advisory Committee; and Amending Resolution No. 2012-151 to Replace the Road Advisory Committee with the Transportation Advisory Committee (Public Works/Robert Martinez)

SUMMARY:
Re-establish the Road Advisory Committee as the Transportation Advisory Committee with some minor modifications.

BACKGROUND:
The Road Advisory Committee (RAC) was originally created by Ordinance 1988-11 and has been restructured several times over the past 26 years. The RAC was recreated by the BCC in April 12, 2011, by Resolution 2011-52 and modified in January 31, 2012, by Resolution 2012-15. The RAC consists of 15 members appointed by the BCC; the number and break-out of appointments per Commission District is based on the mileage of County-maintained roads within the respective Commission Districts. Per resolution, the RAC meets every two months. The current appointments are as follows:

Commission District:	Member:	Term Expires:
1	Edward Medina	3/27/2015
1	Levi Valdez	3/27/2015
1	Vacant	
2	Vacant	
2	Ann Noble	3/27/2015
3	Vacant	
3	Chris Mayrant	3/27/2015
3	Rita Loy-Simmons	3/27/2015
3	Vacant	

3	Vacant	
4	Vacant	
4	Julie Bain	3/27/2015
5	Vacant	
5	Vacant	
5	Bernard Paiz	3/27/2015

DISCUSSION:

Staff feels that the RAC is an important committee, but is in need of some changes. The committee reviewed and provided valuable feedback on the Road Acceptance and Traffic Calming Policies that ultimately were approved by the BCC, and performed a site visit for the one road that has been submitted for acceptance under the Road Acceptance Policy. Staff feels that the RAC can be made even more effective by having the committee review all elements of transportation needs and funding opportunities including but not limited to: roadways, trails, bikeways and transit improvements. The RAC would have more involvement with the MPO and the County Growth Management Transportation Planner, in addition to the current tasks of the Public Works Department.

There are currently eight vacancies on the committee and the remaining seven members' appointments will expire this March. Staff recommends allowing these appointments to expire and reduce the number of members on the committee to eleven, two from each Commission District and one at large. Staff would also like the BCC to consider changing the name of the RAC to the Transportation Advisory Committee. If the BCC adopts the attached Resolution, staff will solicit volunteers and plan to bring the recommended appointments to the BCC at the March 31, 2015 BCC meeting.

ACTION REQUESTED:

The Public Works Department requests approval of the attached resolution amending and restating resolutions 2011-52 and 2012-15 to restructure the composition of the committee and renaming it to the Transportation Advisory Committee.

Attachments:

1. Resolution 2011-52
2. Resolution 2012-15

SANTA FE COUNTY

RESOLUTION 2015-

A RESOLUTION ESTABLISHING THE TRANSPORTATION ADVISORY COMMITTEE; REPEALING RESOLUTION NOS. 2011-52 AND 2012-15 ESTABLISHING THE ROAD ADVISORY COMMITTEE; AND AMENDING RESOLUTION NO. 2012-151 TO REPLACE THE ROAD ADVISORY COMMITTEE WITH THE TRANSPORTATION ADVISORY COMMITTEE

WHEREAS, the Board of County Commissioners (BCC) of Santa Fe County (County) adopted Resolution Nos. 2011-52 and 2012-15, establishing a Road Advisory Committee (RAC); and

WHEREAS, the BCC adopted Resolution No. 2012-151, which adopted A Policy Establishing Procedures for the Orderly and Uniform Administration of the Santa Fe County Process for Road Acceptance, Designation or Re-Designation, and for the Vacation of County-Maintained Roads (the "Policy"); and

WHEREAS, the Policy assigns certain roles and responsibilities to the RAC; and

WHEREAS, the BCC adopted the Sustainable Growth Management Plan (SGMP) in 2010, Chapter 10 of which lays out County transportation goals; and

WHEREAS, these transportation goals extend beyond roads and include such items as bike lanes and paths and public transit; and

WHEREAS, the BCC desires to improve implementation of the SGMP; and

WHEREAS, the BCC desires to replace the RAC with a new Transportation Advisory Committee, so as to reflect that the County's transportation goals extend beyond Roads.

NOW, THEREFORE, BE IT RESOLVED by the BCC as follows:

1. Resolution Nos. 2011-52 and 2012-15 are hereby repealed and the RAC is hereby disbanded. Resolution No. 2012-151 is hereby amended by replacing the "Road Advisory Committee" with the "Transportation Advisory Committee" everywhere it appears in that resolution.

2. The Transportation Advisory Committee (sometimes, "Committee") is created.

3. The tasks of the Transportation Advisory Committee shall include:

A. Review the road maintenance list annually and make recommendations on such to the BCC.

B. Review and make recommendations on road operation and maintenance policies proposed by the Public Works Department and suggest such policies to the Public Works Department.

C. Discharge of the duties and responsibilities set forth in Resolution No. 2012-151.

D. Review all elements of transportation funding affecting the County, including but not limited to, funding for the following: roadways, trails, bikeways, transit improvements/facilities/services, pedestrian improvements, and bicycle improvements.

E. Review investment recommendations and provide input on transportation planning, to include updating the 5-Year Road Improvement Plan and the Capital Improvement Plan.

F. Perform other tasks and duties as assigned or communicated by the BCC in the Committee's annual work plan or otherwise.

4. The Committee shall be made up of eleven (11) members, two from each Commission District and one at-large. Of the initial appointments, the at-large member and the members from District 2 and District 4 shall serve for a two-year term, and the remaining members shall serve for a three-year term. All subsequent terms shall be for three years to maintain staggering of terms. Members shall serve for no more than two (2) consecutive terms. For purposes of this term limit, a term served on the RAC shall not be considered a term served on the Committee.

5. Members will be appointed by the BCC based on letters of interest, qualifications, and County-wide representation. Members may be removed by the BCC with or without cause. In addition, a member shall be deemed to have resigned their position if they fail to attend two consecutive meetings of the Committee; provided, however, the member may request that the BCC excuse their absences for good cause and allow them to continue serving on the Committee. Vacancies shall be filled for the remainder of the unexpired term.

6. Committee members may not reside within an incorporated municipality. Committee members shall reside within the Commission District they are representing. The at-large member may live in any Commission District. Notwithstanding the geographic distribution of the members, all members shall be charged with representing the best interests of the County as a whole.

7. The Committee shall a chairperson and vice chairperson to serve for one-year terms. The chairperson and vice chairperson shall be selected at the first Committee meeting and annually thereafter.

8. The Committee shall meet no fewer than two times per year and no more frequently than once per month, if needed. The meetings of the Committee shall be held at the Santa Fe County Public Works Building, located at 424 Veterans Memorial Highway, Santa Fe, NM, and such other locations as may be conducive to visible and publicly accessible meetings. Meetings shall be held in accordance Resolution Nos. 2009-2 and Resolution No. 2014-137, as such may be amended or replaced.

9. The terms of this Resolution are contingent upon sufficient appropriations and authorizations being made for the operation of the Committee. If sufficient appropriations and authorizations are not made or given by the County, the Committee shall cease operation until such time as adequate funding exists.

10. A quorum, as defined in Resolution No. 2009-2, Section II(A), is necessary for the Committee to conduct business. All matters coming before the Committee shall be resolved by majority vote.

11. The County Manager shall appoint two staff members, one from Public Works Department/Road Maintenance and one from Growth Management Department/Planning Division, to provide administrative support to the Committee, including the preparation of meeting minutes, the preparation of packets for Committee members prior to each meeting, and the preparation and posting of meeting notices and agendas.

12. The Committee shall adopt and present to the BCC for approval an annual work plan. The first work plan shall be presented to the BCC for consideration within six months of the adoption of this Resolution. Thereafter, work plans shall be presented during a regular meeting of the BCC in January. The work plan shall include a list of tasks or topics to be addressed by the Committee over the year along with a delivery schedule of updates, reports, and other deliverables. The Committee may from time to time amend its work plan with approval from the BCC. The BCC may amend the Committee's work plan at any time. The Committee shall update the BCC in accordance with its approved work plan.

PASSED, APPROVED, SIGNED AND ADOPTED THIS 27th DAY OF JANUARY, 2015.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

_____

Robert A. Anaya, Chairperson

Attest:

_____

Geraldine Salazar, County Clerk

Approved as to form:

_____

Gregory S. Shaffer, County Attorney

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

RESOLUTION 2011- 52

A RESOLUTION CREATING THE SANTA FE COUNTY ROAD ADVISORY COMMITTEE.

WHEREAS, the Board of County Commissioners (the "BCC") recognize the importance and need for Citizen input to identify and plan road improvement projects for Santa Fe County (hereinafter the "County");

WHEREAS, the BCC understands that a Road Advisory Committee should be established to assist the BCC in accomplishing that goal; and

WHEREAS, the BCC recognizes the importance of clearly defining the purposes, duties, and responsibilities of the County Road Advisory Committee.

NOW, THEREFORE, THE BOARD OF COUNTY COMMISSIONERS HEREBY PROCLAIMS AS FOLLOWS:

1. The BCC hereby establishes the Santa Fe County Road Advisory Committee (hereinafter the "Committee"). The Committee shall be organized, have the authorities and purposes as set forth herein.

2. The express purpose of the Committee is to effectively engage and elicit community input to address road maintenance issues and future road improvement projects on County maintained roads.

3. The duties and responsibilities of the Committee include:

   a) Review and annually recommend road improvement projects to the BCC for County maintained roads.

   b) Inspect County maintained roads and report problem areas to the County.

   c) Approve the annual report of the total mileage of public roads maintained in the county for final BCC approval.

   d) Serve as liaison between the BCC and the general public.

   e) Review and make recommendations to the BCC on roads that are being requested for acceptance as County roads.

f) Perform other tasks and duties as assigned or directed by the BCC.

4. Members and alternate members will be appointed by the BCC based on submitted letters of interest, qualifications and County wide representation and serve at the pleasure of the BCC for the terms set forth herein. Appointments of existing members and alternate members of the existing Road Advisory Committee will terminate 30 days after the adoption of the ordinance repealing the existing Road Advisory Committee. Current members are encouraged to reapply for the committee.

5. The Committee shall be made up of fifteen (15) members and 15 alternate members, one each from each geographical area of the County as is consistent with the County Commission Districts and as enumerated in Exhibit "A." Of the initial appointments, seven (7) Committee members and alternates shall serve for a two year term, and eight (8) shall serve for a three year term. Subsequent terms shall be for three years to maintain the staggering of terms and reappointed as is consistent with this Resolution. Committee members and alternates shall serve for no more than two (2) consecutive terms. The Committee chairperson shall serve for a one year term and shall be selected by majority vote of the members of the Committee annually at the January meeting. Vacancies shall be filled for the remainder of the unexpired term by the BCC in accordance with this Resolution. Members and alternates may be removed by the BCC with or without cause.

6. All Committee members and alternates shall reside within the geographical areas they are representing. Notwithstanding the geographic distribution of the Committee members, all Committee members shall be charged with working for and representing the best interests of the County as a whole.

7. The Committee shall meet every other month to carry out their work starting in January of each year on a day and time agreed upon by a majority of the Committee. The meetings of the Committee shall be held at the Santa Fe County Public Works Building, located at 424, Veterans Memorial Highway, Santa Fe, NM, and such other locations as may be conducive to visible and publicly accessible meetings. Meetings shall be held in accordance with the County's Resolution Determining Reasonable Notice for Public Meetings of the Board of County Commissioners of Santa Fe County, and for Boards and Committees Appointed by or Acting Under the Authority of the Board of County Commissioners as well as the County's Resolution Establishing Rules of Order for Meetings of the Board of County Commissioners of Santa Fe County and for Certain Specified Committees.

8. All matters coming before the Committee shall be resolved by majority vote of a quorum of the Committee.

9. The County Manager shall appoint a member of the County staff to serve as liaison to the Committee. The liaison shall be responsible for stenographic services during meetings. The liaison shall ensure that packets are prepared for Committee members prior to each meeting, and that notices and agendas are created and posted in accordance with the County's Open Meetings Act Resolution.

PASSED, APPROVED, SIGNED AND ADOPTED THIS 12 DAY OF April 2011 BY THE BOARD OF COUNTY COMMISSIONERS.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

Virginia Vigil, Chairperson

Attest:

Valerie Espinoza, County Clerk

Approved as to form:

Ana Marie Ortiz for
Stephen C. Ross, County Attorney

SFC CLERK RECORDED 04/13/2011

COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

BCC RESOLUTIONS
PAGES: 5

I Hereby Certify That This Instrument Was Filed for Record On The 13TH Day Of April, 2011 at 01:17:58 PM And Was Duly Recorded as Instrument # 1532214 Of The Records Of Santa Fe County

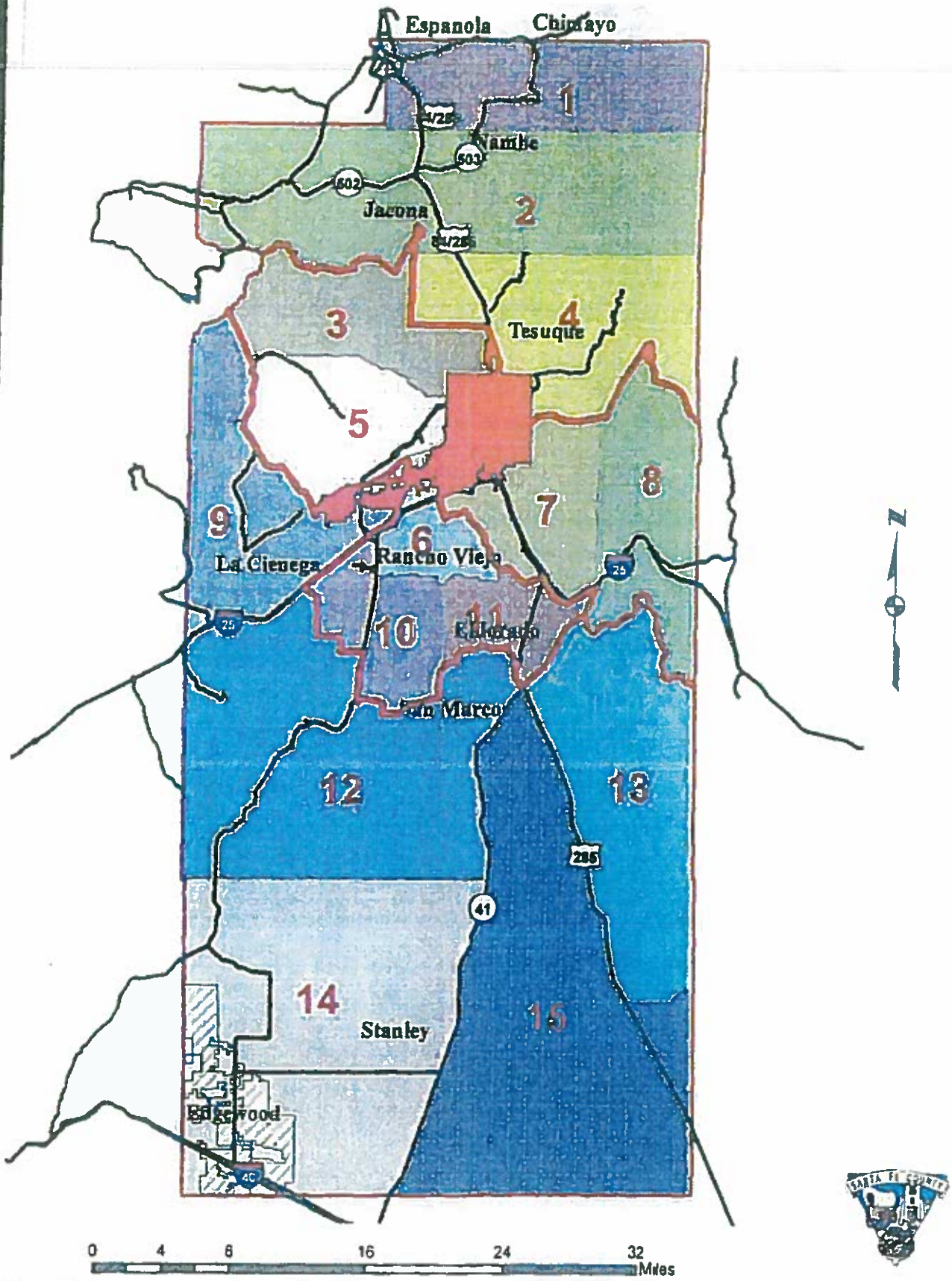
Witness My Hand And Seal Of Office
Valerie Espinoza
Deputy _____ County Clerk, Santa Fe, NM

EXHIBIT "A"

Comm. District:	*Road Adv. Area:*	*Communities served:*
I	1	Arroyo Seco, Chimayo & La Puebla
I	2	El Rancho, Jacona, Pojoaque, Nambe & Cuyamungue
I	4	Tesuque, Chupadero, Rio en Medio & Hyde Park Estates
II	3	La Tierra & Tano Road areas
II	5	Caja del Rio, Puesta del Sol, Pinon Hills & Agua Fria
III	9	La Cienega, La Cieneguilla, Remuda Ridge & Rancho de La Luna Subdivision
III	12	Rancho Alegre, Cerrillos, Waldo, Madrid and Golden
III	13	Ojo de La Vaca & White Lakes Area
III	14	San Pedro, Cedar Grove & Edgewood
III	15	Galisteo & Stanley
IV	7	Arroyo Hondo, Seton Village, Sunlit Hills & Old Santa Fe Trail area
IV	8	Canada de Los Alamos, San Sebastian, Canoncito, Valencia and Glorieta
V	6	Old Galisteo Road, Rancho Viejo, Valle Lindo Sub. & Town & Country Subdivision
V	10	Turquoise Trail and San Marcos areas
V	11	Eldorado and Lamy areas

EXHIBIT A

Santa Fe County Road Advisory



THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

RESOLUTION 2012-15

A RESOLUTION AMENDING RESOLUTION 2011-52(ESTABLISHING THE ROAD ADVISORY COMMITTEE) TO DELETE REFERENCES TO ALTERNATE COMMITTEE MEMBERS, TO DELETE EXHIBIT A AND REFERENCES TO GEOGRAPHIC DISTRICT BOUNDARIES AND TO SPECIFY THE NUMBER OF COMMITTEE MEMBERS REQUIRED FROM EACH COMMISISON DISTRICT

WHEREAS, the Board of County Commissioners (the "BCC") enacted Resolution No. 2011-52, A Resolution creating the Santa Fe County Road Advisory Committee on April 12, 2011;

WHEREAS, created a Road Advisory Committee composed of fifteen (15) members and fifteen (15) alternate members from each geographical area of the County;

WHEREAS, paragraphs 4, 5, and 6 of Resolution No. 2011-52 reference the appointment and qualifications of alternate committee members;

WHEREAS paragraphs 4, 5, and 6 of Resolution No. 2011-52 reference the requirement that each committee member and alternate member shall each be from a specific geographical area of the County as is consistent with the County Commission District enumerated in Exhibit A of Resolution No. 2011-52; and

WHEREAS, since the enactment of that resolution there is no longer a need for alternate members to be appointed to the Road Advisory Committee nor a need to limit membership to residency in a particular Commission District;

WHEREAS, since alternate committee members and Commission District boundaries are no longer necessary, the exhibit setting forth each Commission District in Resolution No. 2011-52 is not needed.

NOW, THEREFORE BE IT RESOLVED, that the following amendments are made to Resolution No. 2011-52:

1. Paragraph 4 is amended to read as follows:

"Members will be appointed by the BCC based on submitted letters of interest, qualification and County wide representation and serve at the pleasure of the BCC for the terms set forth herein."

2. Paragraph 5 is amended to read as follows:

"The Committee shall be made up of fifteen (15) members, including three (3) members from Commission District 1, two (2) members from Commission District 2, five (5) members from Commission District 3, two (2) members from Commission District 4, and three (3) members from Commission District 5. Of the initial appointments, seven (7) Committee members shall serve for a two year term, and eight (8) shall serve for a three year term. Subsequent terms shall be for three years to maintain the staggering of terms and reappointment as is consistent with this Resolution. Committee members shall serve for no more than two (2) consecutive terms. The Committee chairperson shall serve for a one year term and shall be selected by majority vote of the members of the Committee annually at the January meeting. Vacancies shall be filled for the remainder of the unexpired term by the BCC in accordance with this Resolution. Members and alternates may be removed by the BCC with or without cause."

3. Paragraph 6 is amended to read as follows:

"All Committee members shall be charged with working for and representing the best interests of the County as a whole."

PASSED, APPROVED, SIGNED AND ADOPTED THIS 31 DAY OF January, 2012.

THE BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

Liz Stefanics

Liz Stefanics, Chair

Attest:

Valerie Espinoza

Valerie Espinoza, County Clerk

COUNTY CLERK SANTA FE COUNTY NEW MEXICO

Approved as to form:

Stephen C. Ross, County Attorney

COUNTY CLERK SANTA FE COUNTY NEW MEXICO VALERIE ESPINOZA

COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

BCC RESOLUTIONS
PAGES: 2

I Hereby Certify That This Instrument Was Filed for Record On The 1ST Day Of February, 2012 at 03:21:21 PM And Was Duly Recorded as Instrument # 1659211 Of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Valerie Espinoza
Deputy County Clerk, Santa Fe, NM

Henry P. Roybal
Commissioner, District 1

Miguel M. Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3

Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: *January 13, 2015*

TO: *Board of County Commissioners*

VIA: *Adam Leigland, Public Works Director*
Katherine Miller, County Manager

FROM: *Charlie Nylander, Chair, Water Policy Advisory Committee*

ITEM AND ISSUE: *BCC Meeting January 27, 2015*
Resolution No. 2015-___, A Resolution Adopting the Recommendations of the Water Policy Advisory Committee on Aquifer Storage and Recovery and Back-Up Water Supply and Presentation of White Paper

SUMMARY:
This is a request for approval of the Water Policy Advisory Committee's recommended resolution and associated policy recommendations on Aquifer Storage and Recovery.

BACKGROUND:
On April 30, 2014, the BCC approved Resolution No. 2013-42, which created the Water Policy Advisory Committee (WPAC). Resolution No. 2013-42 required the WPAC present an annual work plan for BCC approval in January of each year.

On January 28, 2014, the BCC approved the WPAC's calendar year 2014 work plan. The second task on that plan was to "Investigate aquifer storage and recovery (ASR) alternatives and develop a White Paper, policy recommendations, and draft resolution for BCC consideration."

The WPAC met extensively, both in full and in subcommittees, since that time and has prepared the required documents.

DISCUSSION:
The attached White Paper, *Potential Aquifer Storage and Recovery Projects in Santa Fe County: An Exploration of the Concept of Aquifer Storage and Recovery and its Potential Application in Santa Fe County*, examines both the concept of ASR and enumerates a list of potential projects in Santa Fe County (pages 8-10). The WPAC found that ASR, in the right context, can provide benefits, but that any ASR project needs to be considered in context of other water supply alternatives.

Additionally, because of the infrastructure costs and permitting difficulties, ASR will not address the County's the County's short to medium-term back-up water supply needs.

The recommendations of the White Paper, found on pages 4-5, are summarized below:

A. ASR is a valuable tool for water supply management, but it would be premature to select any specific ASR project for implementation at this time without further study.

B. ASR alternatives identified herein need to be further investigated, particularly regarding their benefits, feasibility and cost effectiveness. Alternatives should be ranked using approved criteria.

C. Consider any ASR alternative in combination with the use of other groundwater supplies to meet Santa Fe County Utilities back-up water supply.

D. Use the County's partnership with the City of Santa Fe and the Bureau of Reclamation in the Santa Fe Basin Climate Change Study work to seek funding for more detailed investigation into both ASR and other future supply options.

E. Use the County's partnership with the City of Santa Fe and the Bureau of Reclamation in the Feasibility Study to Optimize the Use of Regional Reclaimed Wastewater work to seek funding for more detailed investigation of ASR options, possibly including small-scale pilot projects.

F. Incorporate ASR alternatives in the County's Water and Wastewater Master Plan process.

G. Work with other local and regional water resource management groups and agencies in analyzing ASR alternatives.

H. If development of new wells is found to be preferable to ASR, fully consider the potential impacts in the siting and use of any new wells.

I. In order to fully evaluate any ASR alternative, provide additional resources to the Utilities Division so as not to diminish resources for on-going projects and Utility Division workload.

The second attachment to this memo is a draft resolution that expresses the BCC's support for the concepts listed above.

ACTION REQUESTED:
Approve subject resolution, which results from the recommendations of the ASR White Paper.

Attachments:
1. White Paper with 2 appendices
2. Proposed resolution

POTENTIAL AQUIFER STORAGE AND RECOVERY PROJECTS IN SANTA FE COUNTY

An exploration of the concept of aquifer storage and recovery and its potential application in Santa Fe County

Prepared By

Santa Fe County Water Policy Advisory Committee

January 2015

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ACKNOWLEDGEMENTS

The Board of County Commissioners of Santa Fe County Resolution No. 2013-42, is "A Resolution Establishing a Water Policy Advisory Committee". This resolution was passed, approved, and adopted on April 30, 2013. The Water Policy Advisory Committee (Committee) thanks the Board of County Commissioners for Santa Fe County for their vision in creating Resolution No. 2013-42. The Committee also thanks Adam Leigland, Director, Public Works Department, Claudia Borchert, Director, Utilities Division, and Paul Casaus, Utilities Engineering Associate for their continuing technical support of the Committee in carrying out the scope and duties of the Committee. The following Committee members contributed to the preparation of this White Paper and deserve recognition and appreciation for their efforts: Charlie Nylander, Chair, Gil Tercero, Co-Chair, Consuelo Bokum, Mukhtiar Khalsa, Bill King, Steve Rudnick, Anna Hamilton, Sigmund Silber, Rita Loy Simmons, Erik (Rik) Thompson, Shelley Winship and Martha Trujillo.

EXECUTIVE SUMMARY and RECOMMENDATION

The Water Policy Advisory Committee (Committee) researched aquifer storage and recovery (ASR), aquifer recharge (AR) and aquifer storage (AS). In order to increase the longevity of the regional aquifers, optimize seasonal operational flexibility, fully use existing water supplies, and increase the water supply available to the County in the future, the Committee identified twenty potential ASR alternatives within Santa Fe County, disregarding ownership or jurisdiction. Four ASR prerequisites include a) a source of permitted, often treated, water supply to infiltrate or inject into the aquifer; b) geohydrologic conditions that allow infiltration or injected water to be received, stored without excess loss, and reliably recovered; c) infrastructure to convey water to and from the injection/recovery location; and d) an accommodating regulatory framework. The source water for the ASR alternatives includes surface water diverted from the Rio Grande, reclaimed wastewater, storm water runoff, and Santa Fe River water. Most projects require collaboration and partnerships with other water users in the regions, like the City of Santa Fe. While ASR should be considered to be a valuable tool for any comprehensive water resource management program, implementation of ASR may not represent the best, cost-effective technology for providing water supply in Santa Fe County, when compared to potential development of other sources of water supply.

The Committee recognized that Santa Fe County became more interested in ASR after pursuing a siting study for the development of approximately eleven (11) groundwater wells as a back-up water supply source in the 2009 timeframe. At that time, the potential impacts and associated costs related to drilling those back-up wells were recognized to be substantial, and the thought was that ASR might be a better alternative to the drilling of wells to provide a new source of water supply. However, the Committee has come to the conclusion that in the short- and medium-terms, acquisition of existing appropriate wells, and/or the development of new wells is the best method to provide water supply, while continuing to study the feasibility of implementing ASR in the long-term as a component of the County's water supply portfolio. Presently, ASR should not be viewed as an immediate panacea, but rather with further study it may play a vital role in providing water supply in the long-term. Based on its investigations, the Committee **recommends** the following:

- ASR is a valuable tool for water supply management, but it would be premature to select any specific ASR project for implementation at this time without further study.
- ASR alternatives identified herein need to be further investigated, particularly regarding their benefits, feasibility and cost effectiveness. Alternatives should be ranked using approved criteria.

- Consider any ASR alternative in combination with the use of other groundwater supplies to meet Santa Fe County Utilities back-up water supply.
- Use the County's partnership with the City of Santa Fe and the Bureau of Reclamation in the Santa Fe Basin Climate Change Study work to seek funding for more detailed investigation into both ASR and other future supply options.
- Use the County's partnership with the City of Santa Fe and the Bureau of Reclamation in the Feasibility Study to Optimize the Use of Regional Reclaimed Wastewater work to seek funding for more detailed investigation of ASR options, possibly including small-scale pilot projects.
- Incorporate ASR alternatives in the County's Water and Wastewater Master Plan process.
- Work with other local and regional water resource management groups and agencies in analyzing ASR alternatives.
- If development of new wells is found to be preferable to ASR, fully consider the potential impacts in the siting and use of any new wells.
- In order to fully evaluate any ASR alternative, provide additional resources to the Utilities Division so as not to diminish resources for on-going projects and Utility Division workload.

INTRODUCTION

The Board of County Commissioners of Santa Fe County adopted Resolution No. 2013-42, A Resolution Establishing a Water Policy Advisory Committee on April 30, 2013. The resolution stated the scope of duties of the committee, and included the following:

..."to assist the County in addressing proposed aquifer storage and recharge activities, design plans, and projects;"...

What is aquifer storage and recharge?

Aquifer recharge (AR) is the enhancement of natural ground water supplies by adding water to an aquifer. AR can be accomplished by using man-made conveyances such as: infiltration basins (spreading basins), infiltration galleries (infiltration trenches), injection wells, and vadose zone recharge wells (dry wells). AR can also be accomplished using natural conveyances by discharging surface water into a dry watercourse or streambed. Wherever AR is implemented it results in aquifer storage

(AS) of the added water, a practice that prevents the evaporative loss of water that would occur if water were stored above-ground in surface impoundments. Aquifer storage and recovery (ASR) is a term used to refer to water that is stored in an aquifer and also recovered by pumping wells adjacent to the AS area (See Appendix 1).

The Jemez y Sangre (JyS) Regional Water Plan (which geographically includes most of Santa Fe County) includes a valuable White Paper on ASR in Volume II of the plan. The JyS White Paper states:

"ASR is increasingly being used in the United States to assist managing water resources, particularly in the Arid Southwest. For example, 20 full-scale artificial recharge projects are currently operating in the vicinity of Phoenix, Arizona, with several of these having storage capacities in excess of 100,000 acre-feet (Unangst et al., 1999). Source water for some of these projects is surface water derived from the Colorado River, while others recharge treated wastewater effluent. ASR has not yet been implemented on a large scale in New Mexico, but all indications are that it will become increasingly important over the coming years.

Potential benefits of ASR and artificial recharge include:

- Seasonal and long-term storage of excess surface water (water banking);
- Minimization of surface storage costs;
- Method of accommodating supply and demand peaks;
- Disposal of treated wastewater effluent (zero discharge);
- Replenishment of groundwater supply;
- Improved water quality (soil-aquifer treatment);
- Attenuation of water quality changes over time;
- Minimization of evaporative water losses (vs. surface storage);
- Opportunity to obtain return flow credits; and
- Reduction of land subsidence rates.

In the JyS region, ASR is applicable to three of the alternatives identified by the Planning Council: (1) bank water (inject surface waters for retrieval at a later time), (2) treat wastewater and inject as artificial recharge, and (3) manage storm water. Because existing water/water rights must be used for ASR, new water is not created to meet growing demand. ASR will however, provide a mechanism for reusing effluent or storing other water rights when surface water rights and supply exceed current demand."

Since the JyS Regional Water Plan was accepted by the New Mexico Interstate Stream Commission in 2003, new ASR projects have been implemented statewide, including: Albuquerque Bernalillo County Water Utility Authority Bear Canyon infiltration project using treated Rio Grande surface water; City of Rio Rancho infiltration project using reclaimed wastewater; and Village of Cloudcroft project for injection and indirect reuse of their reclaimed wastewater; and a pilot test demonstration at Rancho Viejo in Santa Fe County. These ASR projects have proven that this technology will be a valuable aspect of water resource management in New Mexico.

Why Might Santa Fe County Consider and/or Pursue ASR?

Santa Fe County might consider and/or pursue ASR in order to:

1. Increase the longevity and reliability of ground water supplies;
2. Supplement the County Water Utility's water supplies;
3. Store excess water supply in the near term to satisfy long term demands; and
4. Increase seasonal operational flexibility for County Water Utility.

What are the Prerequisites for ASR in Santa Fe County?

Available source of water: In order to implement ASR the first prerequisite is a water supply that is "available" for injection or infiltration into an aquifer. The water supply must be available for use (i.e. be excess water not subject to present demand) and must be legally obtainable for use (i.e. the County must have water rights for the use of the water). Wet water and water rights represent two of the three legs of the water supply stool, with water infrastructure representing the third leg of the stool (as listed next).

Water Infrastructure: Water infrastructure may be a prerequisite for transmitting the available source of water supply to the site or location where the water will be injected or infiltrated into an aquifer. Likewise, water infrastructure may be needed to treat the water prior to injection or infiltration, and of course would be needed if installation of injection well(s) or infiltration basin(s) is needed. Lastly, infrastructure may be needed if recovery well(s) are needed, including any incumbent pipelines, pumping facilities, and storage tanks that might be needed for distribution and use of the ground water once stored in the aquifer.

Geohydrologic Conditions: In order to successfully inject or infiltrate water into an aquifer and/or successfully extract the water stored in an aquifer, geohydrologic conditions must be conducive to the movement of water downward through the vadose zone into the saturated zone that is the aquifer wherein water is stored and from which water can be extracted. Factors such as sub-surface geology, including stratigraphy, structure and lithology have a profound effect on the suitability of ASR sites. The geochemistry of the injected or infiltrated water must be compatible with the geochemistry of the subsurface waters. Geologic characteristics of the subsurface formations containing an aquifer, such as lithology, porosity, permeability, transmissivity, and hydraulic conductivity, affect the flow of water into and out of the saturated zone (i.e. aquifer). Thus, an ASR site must be selected carefully based on geohydrologic conditions to maximize the sites' suitability for a successful ASR project.

Regulatory Permits: Regulatory permits are required from the Office of State Engineer (OSE) and New Mexico Environment Department (NMED) for an ASR project. Water rights and well construction permits must be secured from OSE, and a ground water discharge permit or underground injection control permit (UIC), and/or approval by the NMED Drinking Water Bureau must be obtained from NMED prior to initiation of an ASR project. The permitting process can be time-consuming, and once issued the permits generally require rigorous water quality and quantity monitoring and reporting.

Economic Feasibility: A Preliminary Engineering Report (PER) that includes an analysis of project alternatives, and Project Cost Analysis must be performed in order to determine the practicality and cost-effectiveness of any proposed ASR project. Often, if it is determined that water can obtained from another source with less expense than implementing an ASR project, there may be little incentive for constructing an ASR project.

POTENTIAL ASR PROJECTS

Presently, there are twenty (20) potential ASR alternatives that could be considered as candidates for further study in Santa Fe County. The twenty potential projects can be divided into four general categories depending on the source of potential water supply for the ASR project, as follows: five alternatives that use surface water diverted from the Rio Grande; eleven alternatives that use reclaimed wastewater; two alternatives projects that use storm water runoff ; and two alternatives that use stream and acequia (e.g. Santa Fe River) flows. The following information summarizes these potential projects (See Table in Appendix 2).

Alternatives That Use Water Diverted from the Rio Grande:

1. Divert water from the Rio Grande; pump water eleven miles to Buckman Regional Water Treatment Plant; treat the water; distribute treated water via new pipeline to existing but reconfigured Buckman well(s) for injection into the aquifer.
2. Divert water from the Rio Grande, pump water eleven miles to Buckman Regional Water Treatment Plant; treat the water; distribute treated water via new pipeline to new injection/production well(s) near treatment plant.
3. Divert water from the Rio Grande; pump water via new pipeline 3-5 miles to Arroyo Calabasas; discharge water for infiltration; use existing Buckman well field to pump water from aquifer. (This option is similar to the Bear Canyon recharge program that the Albuquerque Bernalillo County Water Utility Authority is using.)
4. Under the Aamodt settlement and planned Pojoaque Basin regional water system, maximize diversion from the Rio Grande at San Ildefonso using County and Pueblo unused native and San Juan Chama Project water rights; pump the water via new pipeline several miles; discharge water into a stream or arroyo to allow infiltration; construct new production well(s) to capture the infiltrated water as a back-up supply for the regional water system.
5. Maximize use of the County the native Rio Grande and San Juan-Chama water via Buckman Direct Diversion to supply the utility needs of both the City and the County, thus decreasing the City's reliance on groundwater. pump water 11 miles to Buckman Regional Water Treatment Plant; treat the water; distribute the water into City water systems, allowing the City to pump much less groundwater for City/County use, i.e. preserves existing groundwater by emphasizing the use of surface water.

Alternatives that Use Reclaimed Wastewater:

6. Pump City of Santa Fe reclaimed wastewater to the Buckman Regional Water Treatment Plant; treat the water; distribute treated water via new pipeline to existing but reconfigured Buckman well(s) for injection into the aquifer.
7. Pump City of Santa Fe reclaimed wastewater to the Buckman Regional Water Treatment Plant; treat the water; distribute the treated water via new pipeline to new injection well(s) near treatment plant.
8. Pump City of Santa Fe reclaimed wastewater to appropriate location in the Santa Fe River (e.g. between Siler Road and Lopez Lane); discharge treated water into Santa Fe River for infiltration; and construct new production well(s) or infiltration galleries to capture infiltrated water.
9. Discharge reclaimed wastewater from Santa Fe County wastewater treatment facility (Quill) into adjacent arroyo for infiltration; use the existing production well(s) at the State Penitentiary to capture infiltrated water.
10. Discharge reclaimed wastewater from Oshara wastewater treatment plant into adjacent arroyo for infiltration; construct new production well(s) to capture infiltrated water; construct new pipeline to distribute produced water.
11. Discharge reclaimed wastewater from La Pradera wastewater treatment plant into adjacent arroyo for infiltration; construct new production well(s) to capture infiltrated water; construct new pipeline to distribute produced water.
12. Discharge reclaimed wastewater from Ranchlands wastewater treatment plant into adjacent arroyo for infiltration; construct new production well(s) to capture infiltrated water; construct new pipeline to distribute produced water.
13. Pump Ranchlands wastewater treatment facility reclaimed wastewater via new pipeline to existing injection wells in Rancho Viejo. Additional treatment likely needed.
14. Discharge reclaimed wastewater from Pueblo of Pojoaque wastewater treatment plant into adjacent arroyo for infiltration; construct new production well(s) to capture infiltrated water; construct new pipeline to distribute produced water.
15. Discharge reclaimed wastewater from Town of Edgewood wastewater treatment plant into adjacent arroyo for infiltration; construct new production well(s) to capture infiltrated water; construct new pipeline to distribute produced water.
16. Reusing wastewater from the Pa'koo wastewater treatment facility.

Alternatives that Use Stormwater Runoff:

17. Construct passive stormwater retention structures that slow the flow of rain and snow melt water in a watercourse, allowing increased infiltration into the shallow aquifer, enhancing water availability for adjacent shallow wells.
18. Construct active stormwater retention structures (e.g. infiltration galleries, basins, caissons) that capture rain and snow melt water in specific areas, allowing increased infiltration into the shallow aquifer; construct new production well(s) to recover the infiltrated water; construct new pipeline to distribute produced water.

Alternatives that Use Stream and Acequia Flows:

19. Identify where surface flows in streams and rivers (e.g. City of Santa Fe's (City) Living River Program) recharge groundwater and construct new production well(s) to capture infiltrated water.
20. Identify where acequia flows recharge groundwater and construct new production wells to capture infiltrated water.

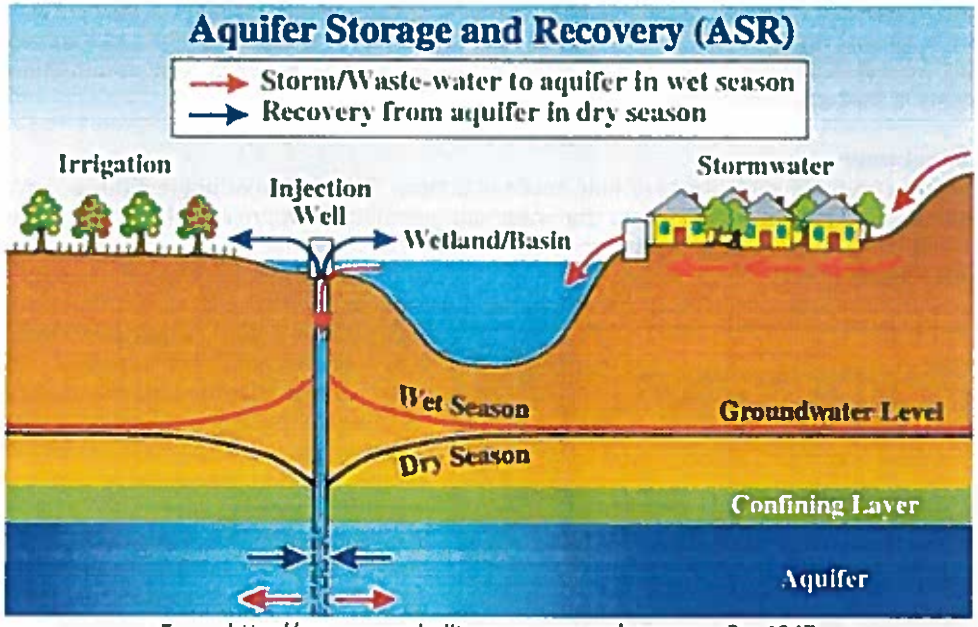
CONCLUSIONS

- The maximum quantity of water supply that the County has available for ASR alternatives at the present time is about 1,000 afy.
- Given the current regulatory requirements, ASR projects in New Mexico require significant approval time and financial resources for the permitting and monitoring.
- In the short- to mid-term, the County has Rio Grande excess surface water supply that could be available for ASR, however due to the complexity of ASR, the acquisition of existing wells and/or development of new wells should be prioritized in the short- to mid-term, while simultaneously performing additional studies to determine the role of ASR for the County.
- If acquisition of existing wells, and/or development of new wells is to be pursued, the County should site the wells and plan the use of such wells so as to minimize and/or mitigate impacts on other existing wells and/or surface and groundwater water rights and water users.

Aquifer Storage and Recovery Alternatives in Santa Fe County

October, 2014. Prepared for the Water Policy Advisory Committee by SF County staff

Purpose: In the Water Policy Advisory Committee (Committee) founding Resolution 2013-42, the Board of County Commission (BCC) directed the Committee in 9.c. ***"to assist the County in addressing proposed aquifer storage and recharge activities, design plans and projects".*** In order to understand some of the aquifer storage and recovery (ASR) options that may exist within Santa Fe County, staff has prepared a list of ASR options with a description of each, as well as a table that helps to provide some comparative information. Staff proposes that after familiarizing themselves with the option, the committee members rank or assign a rating (e.g. 1-5) to each option, to indicate to the Commission which options, in the Committee's opinion should be pursued. To provide more general information, an article of both Artificial Recharge and ASR is attached.



From: http://www.campbelltown.sa.gov.au/page.aspx?u=1947

Artificial Recharge (from Water Encyclopedia: Science and Issues)

Water-supply development is challenging. Increasing demands for water joined with concerns for environmental protection require a variety of new water management tools. Such a tool for the **conjunctive use** of surface water and **groundwater** supplies is the artificial recharge (AR) of groundwater. Application and benefits are worldwide.
Artificial recharge of groundwater is the process of adding water to an **aquifer** through human effort. Many different techniques and purposes exist for causing AR, but this discussion focuses on augmentation of a water supply for later use. Projects are varied but usually involve storing surplus surface water in an aquifer for later use. Recovery (withdrawal) of the stored underground water commonly is by wells.

Aquifer storage and recovery is a special type of artificial recharge of groundwater that uses dual-purpose wells for both injecting water into the aquifer and recovering (withdrawing) it later. Although the intent of AR generally is to increase groundwater storage for later use, incidental activities such as excess irrigation, **stormwater** disposal, canal leakage, and leaking water pipes may also result in AR. Artificial recharge and aquifer storage and recovery are valuable water management tools that effectively help to offset increased demands for water. The variety of techniques, methods, and circumstances for these processes is vast and expanding.

Artificial Recharge

Artificial recharge requires some form of man-made structure. Surface spreading techniques involve keeping water at the surface in areas where the water can percolate down to a shallow, unconfined aquifer. Spreading basins, check dams in stream channels, furrows, trenches, and ditches are common AR examples (see Figure 1).
Surface spreading areas require periodic maintenance since the suspended sediment in the source water will settle out, clog the surface of the recharge area, and reduce the recharge rate. **Microbial** growth in the shallow soils also causes clogging. Many countries and most western states within the United States possess some AR projects that use some form of surface spreading techniques.
Injection techniques use wells to accomplish AR. Injection wells usually place water directly into a deep, confined aquifer where surface spreading would usually not work. Injection wells also require maintenance to remove particles, microbial growth, and chemical precipitates (solid substances).

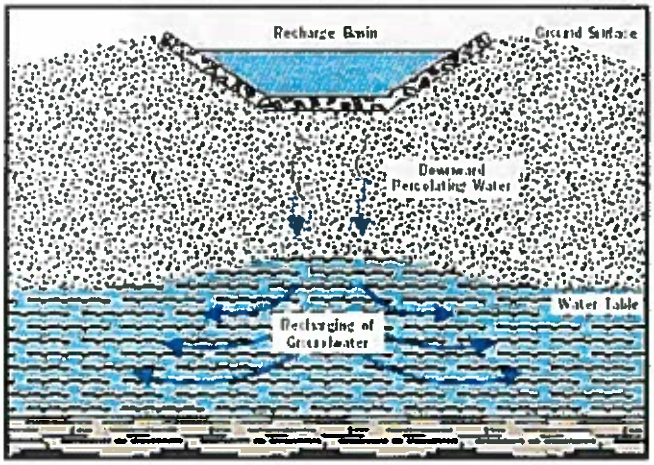


Figure 1. Generalized cross-section of artificial recharge of groundwater using a surface spreading technique.

Injection wells are used in many countries. For example, such wells have been an important part of the water supply system in Israel since 1956. Society generally views the various AR structures as a more environmentally acceptable way to manage water rather than building dams for more surface storage. Yet the use of AR in any location still must overcome a variety of technical, legal, and financial obstacles. Artificial recharge provides a tool to maintain or increase reliable water supplies. In some areas, agriculture and other uses have resulted in serious groundwater depletion. AR is important in these locations as a means of stabilizing the supply and sustaining withdrawals by wells. A large project in Los Angeles County, California recharges an annual average of 308 billion liters (80 billion gallons, or 250,000 acre-feet).

In some coastal areas, groundwater depletion can reverse the natural movement of groundwater to the sea and cause **saltwater intrusion** of the aquifer inland. In this case, AR provides a valuable hydraulic barrier that will likely prevent water quality degradation.

Site selection for AR is critical. Some aquifers hold little or no potential for successful AR projects, whereas others have great potential. Ideally, an aquifer will hold, store, and transmit desired amounts of recharge water without significant migration and chemical degradation of that water. In addition, the **permeability** of shallow earth materials should not limit the **infiltration** by surface spreading. Site investigation for AR should include **hydrogeologic** mapping of the aquifer to identify aquifer characteristics. Advanced techniques would use computer simulations for modeling groundwater flow and transport.

Water availability is often the most important consideration for the timing of AR. This occurs when the supply from the source is abundant and exceeds other demands. In most cases this involves strong seasonal weatherrelated influences, but it can also result during peak flow events or unusually wet years. Typically, AR by spreading techniques uses untreated surface water as its source. Injection techniques have used untreated water, treated drinking water, or reclaimed water, as appropriate for the site-specific conditions. The injection of reclaimed wastewater is a more constant supply and less dependent on seasonal availability.

Aquifer Storage and Recovery

Aquifer storage and recovery (ASR) may be defined as the storage of water in an aquifer through a well during times when water is available, and later recovery of the water from the same well (see Figure 2). ASR is a specific type of AR that involves **potable** water. The technique provides for specific placement of water in the aquifer and recovery of essentially the same water. Ideally, the recovered water will remain potable and not require additional treatment. ASR is generally pursued by cities.

ASR can occur in saline (salty) or **brackish** aquifers. This is possible when the potable injection water displaces, rather than mixes with, the natural water. Some mixing on the fringes of the stored water does take place and reduces the quality of some of the recovered water. ASR pilot testing is important to identify the chemical changes associated with any aquifer.

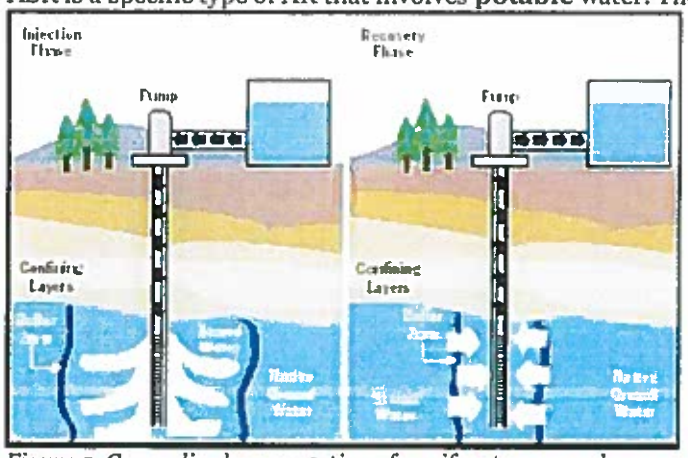


Figure 2. Generalized cross-section of aquifer storage and recovery.

There are now ASR facilities in many countries and several U.S. states. Most of the facilities in the United States are in Florida, Arizona, and California, but the oldest ASR facility in the country is at Wildwood, New Jersey. Starting in 1968, the Wildwood community began the development of a system that now has four ASR wells. Each year the system stores about 380 million liters (99 million gallons) during off-peak months and recovers about 300 million liters (79 million gallons) during the summer months.

ASR has valuable application potential in numerous locations. Many cities are already using ASR to provide a source of water for daily use, peak demands, and emergency supply. The popularity of ASR is likely to expand as a component of total municipal water supply.

Donn Miller

Read more: http://www.waterencyclopedia.com/A-Bi/Artificial-Recharge.html#ixzz3FgDHjr8w

Appendix 2. Aquifer Storage and Recovery Alternatives in Santa Fe County

	Potential ASR Projects	Injection/ Infiltration Location	Source	Water Rights	Whose Water	Max Water Produced (afy)	Cost	Energy use	Notes	Rationale
1	RG->BRWTP-> BWF Direct Inject	Buckman well field	Rio Grande	SJC/native	SFCo + CiSF	1750	$$$	$$$	assumes working within EIS limit of 8730 afy	a,c
2	RG->BRWTP-> New well(s)	close to BRWTP	Rio Grande	SJC/native	SFCo + CiSF	1750	$$$	$$$	assumes working within EIS limit of 8730 afy	c
3	RG raw--> arroyo--> BWF	Arroyo Calabasa	Rio Grande	SJC/native	SFCo + CiSF	1200	$	$		
4	Aamodt RWS	Arroyos and river in Pojoaque Basin	Rio Grande	SJC/native	RWS Board	2500	$$$	$$$		c
5	RG->BRWTP maximization--> less gw pumping	NA	Rio Grande	SJC/native	SFCo + CiSF	1200	$	$	conjuctive management within existing permit; win-win?; impact on rates need to be considered	
6	CiSF WWTF->BRWTP-> BWF Direct Inject	Buckman well field	Airport Rd WWTF	City and Co sources	CiSF	2000	$$$	$$$	requires additional treatment; assumes other water needs met	
7	CiSF WWTF->BRWTP-> New well(s)	close to BRWTP	Airport Rd WWTF	City and Co sources	CiSF	2000	$$	$$	requires additional treatment; assumes other water needs met	
8	CiSF WWTP --> lower SF River	CiSF Lopez Lane/ SF River area	Airport Rd WWTF	City and Co sources	CiSF	2000	$	$	assumes other water needs met	
9	Quill WWTF--> arroyo--> Permit wells	Hwy 14/ Upper La Cienega	Quill WWTF	SFCo	SFCo	550	$$	$	if 1/2 mgd treatment plant; assumes a new WWTF is built	
10	Oshara WWTF--> arroyo	S of I-25	Oshara WWTF	Oshara/ SFCo?	Oshara/ SFCo?	20?	$	$	after irrigation needs met	
11	La Pradera WWTF--> arroyo	S of I-25	La Pradera WWTF	La Pradera/ SFCo?	La Pradera/ SFCo?	20?	$	$	after irrigation needs met	
12	Ranchlands WWTF--> arroyo	Rancho Viejo	Ranchlands WWTF	Ranchland/ SFCo?	Ranchland/ SFCo?	50	$	$	after irrigation needs met	
13	Ranchland WWTF--> Rancho Viejo Injection Wells	Rancho Viejo	Ranchlands WWTF	Ranchland/ SFCo?	Ranchland/ SFCo?	50	$$	$$	after irrigation needs met; requires additional treatment	
14	Pojoaque WWTF --> arroyo	Pojoaque Basin	Pojoaque WWTF	Pojoaque Pueblo						
15	Edgewood WWTF-->?	Estancia Basin	Edgewood WWTF	EPCORE	Town of Edgewood	?	$?	$	for commercial corridor; use of reclaimed water from WWTP premature now	
16	Pa'koo Subdivision	Estancia Basin		TBD	TBD			-	water for golf course	
17	Stormwater capture: passive	suitable arroyos and streams throughout SFCo	rain and snow	none	project entities	10s to 100s	$	-	could require OSE permit	
18	Stormwater capture: active	suitable arroyos and streams throughout SFCo	rain and snow	TBD	project entities	10s to 100s	$$	-	could require OSE permit	
19	SF Living River Recovery	CiSF downtown SFRiver	Santa Fe River	NA	CiSF	600	$$	$$		
20	Acequias for recharge									a,c

Abbreviations: RG=Rio Grande; BRWTP=Buckman Regional Water Treatment Plant; BWF=Buckman well field; RWS=Regional Water System; CiSF= City of Santa Fe; SFCo; WWTF=wastewater treatment facility

Currently under consideration in a Feasibility Study to Optimize the Use of Regional Reclaimed Wastewater (Partners: CiSF, SFCo, and Bureau of Reclamation)

May be considered in the above mentioned Feasibility Study

SANTA FE COUNTY

RESOLUTION NO. 2015 - _____

A RESOLUTION ADOPTING THE RECOMMENDATIONS OF THE WATER POLICY ADVISORY COMMITTEE ON AQUIFER STORAGE AND RECOVERY AND BACK-UP WATER SUPPLY

WHEREAS, on January 13, 2009, the Board of County Commissioners (BCC) of Santa Fe County (County) approved the Santa Fe County Conjunctive Management Plan for the Santa Fe Basin (CMP), which outlined the County's strategies to manage its surface and groundwater portfolios and identified the need and possible methods to provide a groundwater-based back-up water supply, to include consideration of aquifer storage (ASR) and recovery as well as wells; and

WHEREAS, on June 14, 2011, in compliance with the CMP, the BCC approved Resolution No. 2011-88, which directed staff to "immediately assess the potential of aquifer storage and recovery (ASR) or other technologies to address storage of the County's full allotment of water in the BDD project, management of water surpluses, water shortages, water delivery system infrastructure failures, and replenishment of the aquifer"; and

WHEREAS, on April 30, 2013, the BCC approved Resolution No. 2013-42, creating the Water Policy Advisory Committee (WPAC); and

WHEREAS, Paragraph 10 of Resolution No. 2013-42 requires, in January of each year, the WPAC to present to the BCC for approval a work plan for the upcoming calendar year; and

WHEREAS, on January 28, 2014, the BCC approved the WPAC Calendar Year 2014 work plan, which, in meeting the requirements of Resolution No. 2011-88, included the task of presenting "...White Paper, policy recommendations, and resolution regarding aquifer storage and recovery to the BCC for approval"; and

WHEREAS, the WPAC has studied the issue of ASR and developed a white paper, policy recommendations, and a draft resolution on the topic, which were recommended for approval by the WPAC at its January 8, 2015, meeting; and

WHEREAS, on September 30, 2014, the BCC approved Resolution No. 2014-103, endorsing the concept of regionalization of water and wastewater services for and within the County.

NOW, THEREFORE, BE IT RESOLVED by the BCC as follows:

1. ASR has been studied as required by the CMP, Resolution No. 2011-88, and the WPAC Calendar Year 2014 work plan. The analysis concluded ASR is a

potentially viable water supply component and water resource management tool for Santa Fe County.

2. ASR has four prerequisites in order to be feasible:
    a. Source of permitted, often treated, water supply to infiltrate or inject into the aquifer.
    b. Geohydrologic conditions that allow infiltration or injected water to be received, stored without excess loss, and reliably recovered.
    c. Infrastructure to convey water to and from the injection/recovery location.
    d. Permissive regulatory framework.
3. Given the uncertainty in the interplay of the four prerequisites identified above and the County's need for a reliable back-up supply to be available in the short- and medium-term, the County's resources are best focused on developing existing groundwater rights and supplies and funding currently earmarked for ASR should be repurposed toward that effort. However, ASR as a long-term strategy does merit further exploration, study, and funding in the context of other future water supply options.
4. In the short- and medium-term, as indicated in the CMP and Resolution No. 2011-88, the County shall pursue the use of groundwater wells to provide back-up water supply. This undertaking shall involve the acquisition of groundwater rights, the acquisition of existing appropriate wells, and/or the development of new wells. The siting of all new well locations will carefully consider impacts, costs, and benefits for all County stakeholders and take advantage of information and insights gained from prior well development activities.
5. The County shall continue to partner with the Bureau of Reclamation and the City of Santa Fe to investigate alternatives to using ASR to use reclaimed wastewater regionally for meeting future water supply needs in the context of two ongoing planning efforts: A Feasibility Study to Optimize the Use of Regional Reclaimed Wastewater and the Santa Fe Basin Climate Change Study.
6. Staff shall continue to cooperate with the City of Santa Fe, La Cienega, La Cieneguilla, Agua Fria, Santa Fe Basin Water Association, Eldorado Area Water and Sanitation District, Las Campanas, and other stakeholders as identified to partner in regional back-up strategies to meet the goals articulated in Resolution No. 2014-103.

PASSED, APPROVED, AND ADOPTED THIS 27th DAY OF JANUARY, 2015.
BOARD OF COUNTY COMMISSIONERS

_____
Robert A. Anaya, Chair

ATTEST:

_____
Geraldine Salazar, Santa Fe County Clerk

APPROVED AS TO FORM:

_____
Gregory S. Shaffer, Santa Fe County Attorney

Henry P. Roybal
Commissioner, District 1

Miguel Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3

Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: *January 13, 2015*

TO: *Board of County Commissioners*

FROM: *Charles Nylander, Chair, Water Policy Advisory Committee*

VIA: *Adam Leigland, Public Works Department Director*
Katherine Miller, County Manager

ITEM AND ISSUE: *BCC Meeting January 27, 2015*
Resolution No. 2015-___, A Resolution Approving the Water Policy Advisory Committee's Calendar Year 2015 Work Plan

BACKGROUND:

Resolution No. 2013-42, adopted by the BCC on April 30, 2013, created the Water Policy Advisory Committee. Paragraph 10 of the resolution says:

> Within two months of the creation of the Committee and at the second BCC meeting in January of each year thereafter, the chair of the Committee shall present to the BCC for approval a draft work plan for the upcoming calendar year or portion thereof. The work plan shall include a list of tasks or topics to be addressed by the Committee over the year along with a delivery schedule of updates, reports, and other deliverables. The chair may from time to time amend this work plan with approval from the BCC. The BCC can amend this work plan at any time. The chair shall update the BCC in accordance with this work plan.

Paragraph 9 of the resolution outlines the various tasks that the WPAC may include in a work plan.

The WPAC Calendar Year 2014 included two items: evaluation of water system regionalization, which was presented to the BCC on August 26, 2014, and evaluation of aquifer storage and recharge, which is to be presented to the BCC on January 27, 2015.

The WPAC solicited feedback for possible 2015 tasks from both the BCC and from staff. The feedback received has been incorporated in the proposal presented. The attached work plan represents the Committee's best estimate of its capacity. As the year progresses, the Committee will gain a better understanding of its capacity and may seek to amend the work plan accordingly.

REQUESTED ACTION:

Approval of subject resolution.

SANTA FE COUNTY

RESOLUTION NO. 2015 -_____

A RESOLUTION APPROVING THE WATER POLICY ADVISORY COMMITTEE'S CALENDAR YEAR 2015 WORK PLAN

WHEREAS, on April 30, 2013, the Board of County Commissioners (BCC) of Santa Fe County approved Resolution No. 2013-42 creating the Water Policy Advisory Committee (WPAC); and

WHEREAS, Paragraph 10 of Resolution No. 2013-42 requires, in January of each year, the WPAC to present to the BCC for approval a work plan for the upcoming calendar year; and

WHEREAS, the WPAC has developed its Calendar Year 2015 Work Plan, attached hereto.

NOW, THEREFORE, BE IT RESOLVED by the BCC as follows:

1. The attached WPAC Calendar Year 2015 Work Plan is hereby approved.

2. If, over the course of the year and in the course of executing the approved work plan, the WPAC deems it necessary or advisable to modify its work plan, it shall bring recommended changes to its work plan to the BCC for consideration.

PASSED, APPROVED, AND ADOPTED THIS 27th DAY OF JANUARY, 2015.

BOARD OF COUNTY COMMISSIONERS

_____

Robert A. Anaya, Chair

ATTEST:

_____

Geraldine Salazar, Santa Fe County Clerk

APPROVED AS TO FORM:

_____

Gregory S. Shaffer, Santa Fe County Attorney

SANTA FE COUNTY WATER POLICY ADVISORY COMMITTEE (WPAC)
CALENDAR YEAR 2015 WORK PLAN

Date	Activity
January 27, 2015	WPAC presentation to BCC of (i) white paper and recommendation(s) with a proposed resolution regarding aquifer storage and recovery ASR and (ii) WPAC Calendar Year 2015 Work Plan.
2015 Task 1:	**Review water allocation status in Santa Fe County and develop/review draft water development and allocation policies.**
2015 Task 2:	**Review and approve Santa Fe Basin Climate Change Study - A 40-year water supply plan for the Santa Fe Basin.**

Date	Activity
July 28, 2015	WPAC presentation to the BCC of (i) white paper and recommendation(s) with a proposed resolution regarding water development and allocation policies and (ii) recommendation on the Santa Fe Basin Climate Change Study.
2015 Task 3:	**Provide input to and review the County's water policies on the Aamodt Settlement and the County-owned portion of the Pojoaque Basin Regional Water System.**
2015 Task 4:	**Provide input to and review the County's water and wastewater master plans.**

Date	Activity
January 26, 2016	WPAC presentation to the BCC of white paper and recommendation(s) with a proposed resolution regarding the County's water policies on the Aamodt Settlement and the County-owned portion of Pojoaque Basin Regional Water System.
TBD, 2016	Upon completion of the Utilities' Master Plans, WPAC presentation to the BCC of white paper and recommendation(s) with a proposed resolution regarding the County's water and wastewater master plan.