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NM Stat § 7-36-20: Disconnected Land and Water Policy in a Climate-Altered Peri-Urban Fringe

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Agricultural land, property taxes and water use in Bernalillo County

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Abstract

New Mexico (NM) passed a land use law in 1967 that offers tax subsidies to agricultural landowners and is implemented at the county level. This law illustrates a stark disconnect between land and water policy: there are water policy implications because of it, but it has never been discussed accordingly. With a focus on New Mexico's primary urban county, this study estimates that in 2020, Rio Grande surface flows were used to irrigate 4,388 acres of Bernalillo County land that received the special tax valuation offered through the law. This represents a potential use of nearly 11,000 acre-feet of water, on many properties that are not utilizing the program as it was originally intended, and in a region where agriculture is largely non-commercial. This consumptive use is equivalent to nearly a quarter of Albuquerque Bernalillo County Water Utility Authority's (ABCWUA) entire 2020 surface and groundwater usage, and is enough to support approximately 40,000 homes in the region for a year. This program, which mainly involves county assessor's offices and irrigation districts, lacks cooperative oversight and no system exists in Bernalillo County to track its consumptive water use. Legislative attempts to update and clarify NM Stat § 7-36-20 have been unsuccessful. The law is not accomplishing what it was meant to accomplish when enacted more than 50 years ago – at that time, the intended audience was subsistence farmers. By and large, that is not the same audience currently utilizing the program. The absence of action and public discourse constrains future planning and resiliency efforts as central New Mexico continues into an era of aridification and unreliable water supplies.

Introduction and Synopsis

Bernalillo County's population nearly quadrupled from 1940 to 1970[1] as urbanization spread through the region. This population growth and shift in demand for land placed increasing upward pressure on property values. In 1967, New Mexico enacted *NM Stat § 7-36-20: special method of valuation; land used primarily for agricultural purposes*. This established a means of easing the property tax burden on farmers, effectively functioning as a tax subsidy or exemption. It was a statewide law, but perhaps held particular implications for Bernalillo County, home to Albuquerque and its expanding peri-urban fringe. Almost immediately after the law was passed, criticism arose. University of New Mexico law student James Griffin highlighted issues like low qualification standards, lack of enforcement and penalty systems, and a general absence of accountability in the law school's *Natural Resource Journal*.[2] Griffin recognized the difficulty in interpreting a landowner's intent when applying for the program, and urged changes be considered to what was referred to as the "Greenbelt law," writing the following:

> "The distinction made by the Greenbelt law between agricultural and non-agricultural lands and the resulting assessed valuation are important items on which many tax dollars depend. The law is not intended to inadvertently subsidize the land speculator or developer. Bernalillo County officials admit there is nothing to prevent this from occurring."[3]

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[1] 1940 data: 1940 Population Volume, New Mexico, table 3, page 696. BernCo pop: 69,391. 51% urban.
1970 data: 1970 Census of Population, Vol. 1 Characteristics of the Population, Part 33: New Mexico. US Department of Commerce, published Jan 1973. BernCo pop: 315,774. 94.2% urban.

[2] James Griffin, *Land Use Planning—New Mexico's Green Belt Law: N.M. Stat. Ann §§72-2-14.1 to 14.4 (Supp. 1976).*, 8 NATURAL RESOURCES JOURNAL 190 (1968).

[3] *Id.*

Five decades after Griffin's forewarning, it is worth revisiting the state law and looking at how the program is playing out today – especially in a climate-altered world. In the Rio Grande, which bisects Bernalillo County – flowing north to south through the center of Albuquerque – there is less water. What do we do? One response is to ensure this law is functioning in a way that is consonant with the current climate situation. The objective of this study is to analyze the often-called "greenbelt" law, its local institutional arrangements and water usage. This special method of valuation[4] for agricultural land illustrates a disconnect between land policy and water policy. Though written strictly in terms of tax law, it creates an incentive for significant water use. In 2020, we estimate up to 10,970 acre-feet of Rio Grande surface water flows were used to irrigate 4,388 acres of Bernalillo County land that received the special tax status. This irrigated agriculture is predominately non-commercial.[5]

New Mexico is in a unique position regarding water use. The Rio Grande in the Middle Rio Grande Basin *(MRGB, Middle Basin)* is not adjudicated, interstate and international water compacts are in place, water agencies along the river disagree regarding water accounting,[6] and a large water user in the basin – the Middle Rio Grande Conservancy District (*MRGCD* or *the District*) – has a complicated 100-year institutional history. These factors lead to a baseline lack of transparency and disputable water use accounting before even considering the special use valuation, which does not require consumptive water use tracking. The County tracks the tax

[4] Also referenced in this paper as special valuation, agricultural valuation, tax program, the program, or NM Stat § 7-36-20.
[5] 2017 US Department of Agriculture, Agricultural Census, New Mexico, County Data, Table 4, Net Cash Farm Income of the Operations and Producers
[6] Benson, R. (2020, December 17). Opinion analysis: Court sides with New Mexico over Texas in interstate water dispute. Retrieved March 20, 2022, from https://www.scotusblog.com/2020/12/opinion-analysis-court-sides-with-new-mexico-over-texas-in-interstate-water-dispute/

program but not water usage, and the District manages irrigation but doesn't consider the tax program.

Agricultural history and culture in New Mexico are rich, and contribute a broad array of human and social values to the state. In some areas of the middle basin (especially in Bernalillo County) these contributions are predominately non-market values, and thus not easily quantifiable. Alterations in public tax levies are one lever communities hold to affect the provision of such values (e.g., the amount of land kept in agricultural use).

This law has water policy implications, but was constructed – and is managed – solely as land policy. Irrigation seasons have become strained, with large swaths of the Rio Grande south of Albuquerque drying completely for months each year. The MRGCD has had to stagger diversion times to stretch supplies out longer, and has ramped up fallowing programs using emergency legislative funds, paying out at higher prices and requiring less acreage to do so than in prior seasons.[8] We cannot depend on the same level of snowmelt runoff as has occurred historically, because aridification is leading to a more varied and less reliable supply.[9] Every effort must be undertaken to maintain future resiliency for the state – including property tax law, when pertinent.

[8] Theresa Davis, *Troubled Waters*, ALBUQUERQUE JOURNAL, March 20, 2022, https://www.abqjournal.com/2481229/troubled-waters-ex-emergency-program-pays-farmers-to-fallow-fields.html.
[9] Department of the Interior, Bureau of Reclamation, *Water Reliability in the West - 2021 SECURE Water Act Report*, page 19.

Illustrative vignette

To help illustrate the context of this law in Bernalillo County, we begin by describing a property currently benefiting from an agricultural assessment: a 30-acre estate in the affluent Village of Los Ranchos was assessed by the county in 2020 to be worth $3.2 million. Because of the greenbelt law, the estate paid $9,800 in property taxes instead of $44,000 – a savings of nearly 80%. Of the full property area, the MRGCD reported irrigating 12 acres containing trees, hay and vegetables in 2020. Estimated consumptive water use of that land was 30 acre-feet, which is enough to support around 100 households in the county for a full year. That water usage directly supported the land's special valuation eligibility.

Greenbelt history and NM Stat § 7-36-20

Greenbelt laws were introduced across the US in the aftermath of the Great Depression and Dust Bowl, which were devastating to both commercial and subsistence agriculture.[11] A surge in urbanization and property values followed the country's recovery. Greenbelt programs are used globally in varying forms, and can take different shapes including circular belts, wedges or following a river valley like Albuquerque's "ribbon of green" along the Rio Grande. They can be used to contain urban sprawl, protect air quality, facilitate recreation, or maintain agricultural land, by utilizing tools like conservation easements, zoning regulations or development restrictions.[12] These laws can be particularly useful in states with non-commercial agriculture

[11] Wozniak, Frank E. 1998. Irrigation in the Rio Grande Valley, New Mexico: A study and annotated bibliography of the development of irrigation systems. Proceedings RMRS-P-2. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. pg. 116.
[12] Daniels, Thomas. (2010). The Use of Green Belts to Control Sprawl in the United States. Planning. Practice & Research. 255-271. 10.1080/02697451003740288

and mixed rural-urban areas such as central New Mexico's Middle Basin, which over recent decades has a net negative farm income.[13] New Mexico's version of a greenbelt law decreased farmland property taxes in an effort to keep land in agricultural use and ease the burden of rising land values. The program was created in 1967 during the 28th state legislative session:

> ***NM Stat § 7-36-20: Special method of valuation; land used primarily for agricultural purposes:*** *"The value of land used primarily for agricultural purposes shall be determined on the basis of the land's capacity to produce agricultural products. Evidence of bona fide primary agricultural use of land for the tax year preceding the year for which determination is made of eligibility for the land to be valued under this section creates a presumption that the land is used primarily for agricultural purposes during the tax year in which the determination is made."*[14]

The statute allows agricultural land in New Mexico to be assessed, for property tax purposes, based on its capacity to produce agricultural products rather than at regular market value. Essentially, if a landowner is farming (or grazing farm animals) and can prove it to their county, the value used for calculating their property tax bill decreases – sometimes significantly. This results in lower property taxes due. The law was the result of a compromise built out of two senate bills in the 28th New Mexico legislative session of 1967.[15, 16] This original 1967 law was in place until 1973, when Representative Eugene Cinelli (Democrat) sponsored an effort to

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[13] 2017 Census of Agriculture; Volume 1, Chapter 2 County Level, New Mexico, Table 4, Net Cash Farm Income of the Operations and Producers

[14] NM Stat § 7-36-20 (2018). New Mexico Statutes Chapter 7. Taxation § 7-36-20. Special method of valuation; land used primarily for agricultural purposes

[15] NM Stat § 7-36-20 was enacted at 28th Legislature of New Mexico in 1967, as a result of Senate Bill 380 and Senate Bill 421. It was enrolled as an emergency measure in Ch. 85 of Laws of 1967. The two bills and proceeding joint committee substitute were retrieved from the Legislative Council Service Library, 2021.

[16] It is worth noting that the proposed law's language shifted throughout the legislative process. See Table 1 to view the progression.

consolidate state tax laws at the 31st New Mexico Legislative Session. Cinelli was critical of previously convoluted, scattered, and unequitable property tax rules and compiled them into one all-encompassing chapter of law through House Bill 115.[17]

NM Stat § 7-36-20 defines agricultural use as "the use of land for the production of plants, crops, trees, forest products, orchard crops, livestock, poultry or fish," and also includes land that "meets the requirements for payment or other compensation pursuant to a soil conservation program under an agreement with an agency of the federal government[18]." The 1967 law originally stated that agricultural use was not to be "subordinate to another use or purpose of the owner, such as holding for speculative land subdivision and sale, commercial use of a nonagricultural character, recreational use or other nonagricultural purpose,"[19] though the speculative land subdivision clause has since been removed.[20] The statute directed New Mexico's Taxation and Revenue Department to create regulations for determining agricultural land status, including procedures for measuring the carrying capacity of grazing land and for calculating a property's value based on its capacity for producing agricultural products. The special method of agricultural valuation applies to both irrigated and dry land, including property used for grazing. This investigation has considered Bernalillo County properties that have the special valuation *and* are irrigated by the MRGCD.

[17] House Bill 115, Tax Study Committee, section 21. Retrieved from the Legislative Council Service Library, 2021
[18] NM Stat § 7-36-20 (2018).
[19] NM Stat § 7-36-20 (1967).
[20] NM Stat § 7-36-20 (1997).

New Mexico agricultural history and background

Irrigated farming in New Mexico is understood to have originated with ancestral Puebloan communities, prior to Spanish colonization in the sixteenth century that further developed existing systems.[21] Though some regions of New Mexico have commercially successful crop farming (e.g., in the Elephant Butte Irrigation District, and in the southern region of the MGRCD, which encompasses Socorro County), this has often not been the case for farming in Bernalillo County. In describing the Middle Rio Grande Basin in 1987, Ira Clark writes: "The traditional agricultural of the valley, strengthened by the growth of Albuquerque, was one of small farms which returned minimal profits, with family members seeking employment elsewhere to supplement their meager incomes."[22] In 2017, the US Department of Agriculture (USDA) placed the County's average net farm income at a loss of $3,827[23]. Using data from the Bureau of Economic Analysis (BEA), Figure 1 graphs average net farm income (adjusted to 2020 dollars using the Bureau of Labor Statistics' CPI inflation calculator) for Bernalillo County from 2000 to 2020 and shows the decrease that has occurred over time.[24]

The USDA defines a farm as "any place that produced and sold—or normally would have produced and sold—at least $1,000 of agricultural products during a given year."[25] Its most recent Agricultural Census recorded 791 irrigated farms and 4,250 irrigated acres in Bernalillo County.[26] During 2020, there were 281 irrigated parcels in Bernalillo County that were enrolled in the tax program and valued at less than $1,000, using the tax program's definition of 'the

[21] Jose A. Rivera, Acequia Culture: Water, Land and Community in the Southwest 1 (1998).
[22] Ira G. Clark, Water in New Mexico: A History of its Management and Use 387 (1987).
[23] Census of Agriculture, *supra* note 11.
[24] U.S. Bureau of Economic Analysis, "CAINC45 Farm Income and Expenses," 2000-2020 (accessed April 7, 2022).
[25] Robert A. Hoppe & James M. MacDonald. Updating the ERS Farm Typology, page 2, EIB-110, U.S. Department of Agriculture, Economic Research Service, April 2013.
[26] 2017 Census of Agriculture; Volume 1, Chapter 2 County Level, New Mexico, Table 10, Irrigation.

land's capacity to produce agricultural products.' Farm-specific data from the USDA are not available, so it is not possible to see how much overlap exists between these two ways of considering $1,000 in value. However, in contemplating the separate definitions, it can be inferred that the USDA's reports exclude data from many irrigated properties in the Middle Rio Grande Basin that are enrolled in this tax program.

Despite being non-commercial, the agricultural history in New Mexico is rich, and farming contributes value to the state in ways not easily quantifiable. According to a 2011 New Mexico State University (NMSU) study on state property taxes, in the increasing peri-urban fringe, "a drastic increase or revaluation of taxes on agricultural property would cause irreparable harm to the agricultural communities and the well-being of the people of New Mexico as a whole."[27] The cultural aspect of farming is important to the state's collective *querencia* – identity – and many families have farmed their land for generations. In researching agriculture's economic impact of Albuquerque's south valley in Bernalillo County, Tyler Holmes and Rhonda Skaggs found little concrete economic impact data, but did identify an emotional connection to agriculture: "These residents believe that small-scale irrigated agriculture is an essential component of their culture and heritage, is the foundation of their identity as land-based people, results in health benefits, and is something to which they are deeply connected."[28]

Despite the strong cultural connection, agriculture in the region declined through the mid-1900s as the population grew and rural land decreased. By the time the greenbelt law was passed in 1967, land had already been shifting from agricultural areas to housing developments for

[27] John M. Fowler & Roy Seawolf, Legacy of Agricultural Property Tax in New Mexico 34 (2011).
[28] Tyler Holmes & Rhonda Skaggs, Economic Impact of Agriculture in the Southern Albuquerque, New Mexico Metropolitan Area, Research Report 785, 1 (2014).

decades. Between 1940 and 1960, rural land in Bernalillo County dropped from 49% to a mere 8%.[29] Thus, the argument can be made that the law was a "missed boat" scenario.

MRGCD history

The Middle Rio Grande Conservancy District was created under New Mexico's Conservancy Act of 1923 and then grandfathered into the Conservancy Act of 1927, with purposes including flood control, draining swampland and providing water from the Rio Grande for agriculture.[30, 31] The District's creation provided the extensive diversion, ditch, and drainage system that extends through the four counties of MRGCD's jurisdiction.[32] This includes Bernalillo County, home to the Albuquerque metropolitan statistical area.

The MRGCD water distribution system, placed over the top of the historical, decentralized acequia system, helped drain the increasingly swampy lowlands and alkali soils. and did initially increase total irrigated agricultural acreage in Bernalillo County. With its own bonding capacity, implementation of the MRGCD came with new tax levies based primarily on the expected benefits of reclamation (rather than the ad valorem system now in place). Coming during the Great Depression, this especially brought considerable financial pressure on small farmers, and led to considerable conflict with the community– as well as between pueblo

[29] 1940 Population Volume, New Mexico, Table 3, page 696. 1970 Census of Population, Vol. 1 Characteristics of the Population, Part 33: New Mexico. Table 9: Population and Land Area of Counties (1973). Bernalillo County's population in 1940 was 69,391 and was comprised of 51% urban area. By 1970, the population had grown to 315,774 with 94.2% urban land area.
[30] The Conservancy Act of New Mexico, [NM] Stat. section [§] 73-14-1 through 73-19-5 (1923), chapter 140
[31] The 1923 act was substituted by Ch. 45, New Mexico Laws (1927), entitled: "An Act to Provide for the Organization of Conservancy Districts, to Define the Purposes and Powers Thereof and to Repeal Chapter 140 of the Session Laws of New Mexico, 1923, and All Acts or Parts of Acts in Conflict With Any Provision of This Act."
[32] Stephen A. Thompson, Urbanization and the Middle Rio Grande Conservancy District. Geographical Review, vol. 76, no. 1 (1986).

politicians and the federal government. Farm protest groups in the late 1920s and 1930s expressed concern that more economically productive objectives would take precedence over the existing, largely subsistence farming culture. This is supported by acequia scholar Jose Rivera in discussing development in historic farming communities: "Among competing values, economic values are the most often asserted, are most easily quantified, and have been the most subsidized." [33] The strife included what were later deemed the "Ditch Wars" in the early 1930s that occurred both north and south of Albuquerque (e.g., Los Chavez in nearby Valencia County, and Los Duranes in Albuquerque's north valley area).

Despite the concerns of what would become its constituents, the District continued building but soon "found itself unable to effectively raise capital through taxation, and could not afford the necessary maintenance on much of its works. Many irrigable lands sat unused because their owners could not pay their assessment fees."[34] The U.S. Bureau of Reclamation temporarily took over operations for the District to mitigate issues including delinquent taxes, a resulting lack of cashflow, and severe flooding, putting tens of millions of dollars toward the rehabilitation.[35]

Meanwhile, Bernalillo County was growing as a commercial center for the state, becoming an increasingly popular destination as rail transportation developed across the US. From 1920 to 1960, Albuquerque's population increased from just over 15,000 residents to more than 201,000.[36] As one example from the peri-urban fringe, in Albuquerque's north valley, the Village of Los Ranchos was created in 1957, pulling in wealthy landowners and raising property taxes further. These landowners could more easily afford the District's tax assessments.

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[33] *Supra*, note 17, see preface xiii.
[34] The Great Depression and the 1940s, Middle Rio Grande Conservancy District History, www.mrgcd.com/history
[35] Clark, supra, note 18, see 387-388.
[36] 1970 Census of Population, Vol. 1 Characteristics of the Population, Part 33: New Mexico. US Department of Commerce, published Jan 1973

MRGCD eventually moved to a stabler revenue structure, based more heavily on urban property taxes. With a change in the late 1950s, the District was legally moved from a benefits-based tax levy system to an ad valorem tax basis more consonant with a non-commercial agricultural area and a large urban center. In a recent written description of its history, the District states that "the continued presence of farming in the middle valley gives the area a unique rural/urban environmental and social mix. Here, a greenbelt of small farms, irrigated lands, and a variety of pastures and gardens within the city and township limits help temper the contemporary, urban landscapes. With increased urbanization, the Conservancy has [developed an] oasis in the midst of the state's largest metropolitan area."[37]

The law today and how it works

Today in Bernalillo County, a landowner may apply for an agricultural valuation through the County Assessor's office. The land must be at least one acre in size (though waivers may be requested and granted for less). Residential buildings, yards, driveways, and parking areas are excluded. Upon receiving a landowner's application, an Assessor's office employee makes a field visit to measure and evaluate the actual area of agricultural use. If there is nonagricultural use on the property that brings in more income than the agricultural use (e.g., a property that farms alfalfa but also operates a bed-and-breakfast operation), it does not qualify for the special

[37] Growth and Sustainability: the MRGCD Today..., MRGCD History, https://www.mrgcd.com/history/ (last visited Apr 8, 2022).

valuation program. The County has a nine-page factsheet posted on its website for interested landowners that presents three main standards:[38]

- The property must be used for a bona fide agricultural purpose;
- The agricultural use must be the primary use of the land; and
- The agricultural use cannot be passive or incidental.

According to this information sheet, if the land has been granted this valuation in the immediately preceding year, a new application is not required. After three consecutive years, a "presumption of agricultural use" exists. Agricultural use can be proved in a variety of ways, including farm income reports or expense reports, evidence of product sales or intent to sell, and evidence of subsistence or as feed. These requirements come into play when considering legislative intent and landowner intent surrounding the program, and are discussed at length later in the report.

The Taxation & Revenue Department authored a set of guidelines for each New Mexico county to administer intra-departmentally when making valuation determinations. On an internal level, Bernalillo County utilizes the *New Mexico County Assessor's Agricultural Manual.*[39] Though it has not been revised since 1988, the text leaves room for annual modification in some areas, based on changing economic factors. The capitalization rate method, defined in the manual as the "market rate of return expressed as a percentage," is applied to agricultural income (or potential income) and used to calculate the agricultural value. Income or potential income are

[38] Bernalillo County Assessor's Office. Bernalillo County Assessor's Policies and Procedures: Special Method of Agricultural Valuation. Albuquerque, New Mexico. https://www.bernco.gov/Assessor/wp-content/uploads/sites/44/2021/03/AGexemptionasessor.pdf

[39] New Mexico County Assessor's Agricultural Manual, retrieved from Bernalillo County, 2021. On file with author.

determined based on a myriad of factors, including soil type and slope, historical weather data, cost and availability of water, cultural crop practices in the area, and comparisons to nearby properties. The Taxation & Revenue Department is required to reassess the capitalization rate at least once every five years.

There are some discrepancies between landowner-facing materials and internally used materials. The posted information sheet states, as mentioned above, that a new application is not needed each year. The manual, however, states that "[t]he owner of the land must make application to the County Assessor in each tax year in which the valuation method of this section is claimed to be applicable to his land."[40] It is unclear which guideline is put into practice.

Bernalillo County's agricultural assessments are processed through its regular property taxation system. For a parcel without an agricultural assessment, its tax rates are applied to one-third of the net taxable value (on a tax bill, the wording is "assessed value land" plus "improvements" less any applicable exemptions) and the resulting total is the amount of taxes owed. When a parcel is enrolled in the agricultural use program, the standard "assessed value land" value is replaced with one-third of the agricultural valuation determined by the County – almost always a lower amount. This appears on a tax bill as "taxable value land." The mill rate is then applied to that value. To summarize: the mill rate applied to the property does not change, but the net taxable value does. Most basically, the calculated annual tax bill for a property without an agricultural assessment can be represented as:[41]

[((IMPROVEMENTS$ + LAND$)*1/3) – (EXEMPTIONS$)]* TAXRATE = TAXES DUE

[40] *Ibid.*
[41] For an example provided by the Bernalillo County Assessor's Office see: https://www.bernco.gov/Assessor/wp-content/uploads/sites/44/2021/03/2020-NOV-2_18_2020.pdf

The calculated annual tax bill for a property with an agricultural assessment can be represented as:

[((IMPROVEMENTS$ + AGLAND$)*1/3) – (EXEMPTIONS$)]* TAXRATE = TAXES DUE

Where: IMPROVEMENTSS$ is the assessed value of structures on the property, LANDS$ is the assessed value of land (non-agricultural), AGLANDS$ is the assessed value of agricultural land receiving the special use valuation, EXEMPTIONS$ represents the combination of several possible deductions (e.g, $4,000 in 2020 for veterans, and $2,000 for head of family, etc.), and TAXRATE is the given tax rate in a year and tax district for that particular property. The material inside the brackets [ ] represent the net taxable value.

Intent of the program

Understanding intent is paramount to the administration and implementation of NM Stat § 7-36-20, and different interpretations of these discussions could lead to notably different results in program enrollment. Two state court cases have taken up the task of interpreting the legislative intent behind the statute for situations in the Albuquerque area.

County of Bernalillo v. Ambell in 1980[42] involved a property owner whose land had transitioned out of agricultural use. The main issue of the case was regarding how the property would be assessed directly after the special valuation was removed. Supreme Court Judge Mack Easley noted that the original legislation communicated a clear intent for a "dramatic tax-break."

[42] County of Bernalillo v. Ambell, 611 P.2d 218 (1980), 94 N.M. 395. (Supreme Court of New Mexico). May 19, 1980. Opinion, Judge Easley. https://law.justia.com/cases/new-mexico/supreme-court/1980/12665-0.html.

> *"It is clear that the legislative intent behind this special method of property tax valuation is to aid the small subsistence farmers in our state. But once a property's use has changed from agricultural to non-agricultural, there is no longer the need to give the property owner special tax treatment."*[43]

A pertinent issue arising from this quote is the definition of "subsistence." While the word does not appear in the text of the statute itself, this court asserted that enrolled property owners should be using the land for subsistence farming. And in the twenty-first century, subsistence farming is difficult to define. The National Agricultural Library defines it as "A farming system where the food and goods produced are predominantly consumed by the farm family and there is little surplus for sale in the market."[44] This definition could support hobby farms and the many high-earning, off-farm property owners in the Middle Rio Grande Basin.[45] However, other definitions of subsistence speak to "a bare or minimum level of existence."[46] This lends more to the idea that mere survival would depend on the items providing sustenance, likely excluding hobby farms. Then, aside from either of those views, there are properties in Bernalillo County that are operated as "U-pick," or third-party run farms, which by their very definition are not intended to be consumed by the farm family. Even the wider definition would not include third-party farming, despite the tax program allowing it. These varying definitions call into question whether NM Stat § 7-36-20 is still supporting subsistence farming.

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[43] *Ibid.*
[44] US Department of Agriculture. Glossary search results: subsistence farming. NAL Agricultural Thesaurus and Glossary. Retrieved March 20, 2022, from https://agclass.nal.usda.gov/mtwdk.exe?s=1&n=1&y=0&l=60&k=glossary&t=2&w=subsistence%2Bfarming
[45] Justice, T., McDonough, T. & Karpoff, T. (2019). The Village of Los Ranchos de Albuquerque 2035 Master Plan. https://www.losranchosnm.gov/2035-master-plan
[46] "subsistence, n." *OED Online*. Oxford University Press, March 2022. Web.

In 1999, the New Mexico Court of Appeals took up the issue of the intent behind this statute in Alexander v. Anderson[47], but within a different framework – whether the involved land was used actively or passively for its agricultural use. Several property owners were denied agricultural valuations for the 1996 tax year after having been granted them in prior years. One family had previously sold its alfalfa crop for income, but current yields were only being used to feed their own horses. Other property owners were denied the special valuation because the court found that "they maintain the grass primarily as a lawn, saving only a small portion to be cut and baled each year…the primary use of the property is a residential 'homesite' and not land primarily put to agricultural use."[7] The denials came after County workers conducted field visits and observed that the owners were using the ag products only for themselves, without attempting to make a profit. Judge Armijo's opinion noted that:

"…We must construe the Legislature's intent in its provision of the 'agricultural use' exemption and give explicit meaning to its chosen words." … "We find that Section 7-36-20 evinces a legislative intent to deny tax relief to those who demonstrate mere passive or incidental cultivation of their lands," … "Notably, it is not merely 'agricultural use' which qualifies a property under this provision, but "bona fide agricultural use."[48] This would seem to subvert the prior court case, which indicated a requirement for the farm family to use the land's products for themselves. However, it does take up the issue of "bona fide" use, as stated in the statute and in the County's current set of regulations.

It is difficult to evaluate intent, and also difficult to prioritize one intent over another. This holds true in an area like central New Mexico, and especially a county like Bernalillo that

[47] Alexander v. Anderson, 973 P.2d 884 (1999), 126 N.M. 632, 1999-NMCA-021 (NM Court of Appeals). January 5, 1999. Opinion, Judge Armijo. https://law.justia.com/cases/new-mexico/court-of-appeals/1999/18041-2.html
[48] Alexander v. Anderson, *supra* note 40.

houses a large urban center, where agriculture represents a strong connection to culture and history but is predominately not commercially successful. What rules should be used to navigate this, and can it be done objectively? Putting the above discussion into practice would almost certainly call for removal of the special valuation – and potentially, subsequently the agriculture – of some properties in the area. In attempting to measure success of the law, if the collective or public goal is to keep agricultural land from being developed, then it is fair to say success has been reached. However, looking at available demographics of who is using the program, it can be argued that the intended target audience – subsistence farmers – is not the same audience currently utilizing the program.

As well as trying to interpret original legislative intent, it is likewise important to think about future intent. What should the goal of the program be moving forward as the state contends with climate change? Non-market values that have been generated by the special use valuation like green space access, species habitat (native, non-native and migratory), and urban heat island effect relief must be considered if a reevaluation takes place. In this, several questions present themselves: do the non-market values created by the "ribbon of green" through Albuquerque outweigh the price (monetary or otherwise) of its water use? Are benefits to community and wildlife significant-enough positive externalities to reframe the program to include them as qualifying factors? Or should the focused be narrowed, "subsistence farming" defined and stricter enforcement be implemented?

Current data: land, water and dollars

During 2020, 3,689 Bernalillo County land parcels received the special valuation status.[49] Many of these were not irrigated with Rio Grande surface flows (e.g., they might be grazing properties not on the valley floor). Of those 3,689 total properties with special valuations, 1,169 were in MRGCD's system. One hundred sixty-six of them were fallow in 2020, leaving 1,003 actively irrigated in 2020.[50] The focus of this investigation is the intersection: the 1,003 MRGCD-irrigated parcels that received the special valuation status during 2020.[51] This encompassed 4,388 acres of land in Bernalillo County.

The total 2020 assessed agricultural value of those 4,388 acres was just under $36 million, as assessed by the County[52]. This is less than 25% of that collective land's regularly assessed market value of $141 million.[53] Some parcels received more than a 99% discount on land value when enrolled in the tax program, leading to a similarly significant discount on their property tax bills.

Turning to irrigation, each parcel is categorized by MRGCD using one or more of 10 crop codes: *alfalfa hay, irrigated pasture, other hays/grasses, corn, vegetables/row crops, garden, fruit trees, nursery trees, other trees, and yards (*see tables 2 and 3).[54] Alfalfa and hays/grasses make up a large portion of the acreage. Additionally, an analysis of this dataset yielded 101 unique properties that MRGCD has designated only as 'yard' – which seems to indicate passive, non-agricultural use. This land encompasses 98 irrigated acres, and its

[49] Bernalillo County Assessor's Office, Excel file, on file with author.
[50] Appendix A shows more detailed data on this, as well as a methodology of how the data were compiled.
[51] See figures 2 and 3 for map representations of enrolled parcels.
[52] Bernalillo County Assessor's office agricultural value data. Full value: $35,967,622.
[53] Bernalillo County Assessor's office agricultural value data. Full value: $141,080,029.
[54] MRGCD irrigation files, obtained from the District's GIS department. On file with author. Tables 2 and 3 show detailed examples of these data.

agricultural value by Bernalillo County is $3.6 million,[55] representing a mere 33.7% of the land's normal assessed value. These properties saved an estimated total of nearly $98,000 in 2020[56], and this utilization of the greenbelt law is clearly outside the bounds of the program, no matter whose definition is used – the statute's, municipal government, state government, or the courts. The posted Bernalillo County information sheet surrounding the program states that "Appurtenant residential lands which are also ineligible for the special method of agricultural valuation include, but are not limited to, the following: yards, lawns, driveways, swimming pools, tennis courts, and all such similar facilities."[57] Some of these 'yard' categories fall within the boundaries of the demographically affluent Village of Los Ranchos, which had 219 total properties with the special valuation in 2018[58]. This, and the mere existence of the 'yard' category,' lend to the assertion that the tax program may not be currently used as was originally intended by legislature.

We processed the individual tax bills of all 1,003 properties to see what their owed taxes would have been in 2020 had the special valuation not been applied. Several key results follow:

- Landowners each saved an average of $1,608.97 on their property tax bills
- Total landowner savings across all properties (and inversely, revenue loss to Bernalillo County, was $1,783,226.91
- Property tax bills averaged 43.9% of what they would have been without special valuation

[55] Bernalillo County Assessor's office agricultural value data. Full value: $3,592,920.
[56] Calculated by author, using the County's agricultural value determinations and previously mentioned tax calculation.
[57] Assessor's office, *Supra*, see 33.
[58] E-mail from James Kolberg, Socioeconomic Analyst, Mid-Region Council of Governments of New Mexico, to author (February 15, 2022, 02:31 PST) (on file with author).

- Sixty-three properties had a greater amount of discount on their taxes than the average USDA-calculated Bernalillo County net farm income loss of $3,827

From a landowner perspective, financial benefit is the most straightforward gain from the special valuation program. This can partially explain the persistent pattern of negative net farm income, observed on average, in Bernalillo County – these properties either lose money or have minimal net farm income, but this is partially offset by the special use valuation on property taxes. To help illustrate, a sample of six properties was generated (Table 4) using the previously stated calculations and agricultural valuation data – two randomly chosen parcels that are the median size (two acres in Bernalillo County), two that are smaller than the median size of 2 acres, and two that are above the median size. The six sample parcels paid a total of $24,382 in 2020 property taxes. Their total estimated savings was $7,355, with an average property tax savings of 50%. Both randomly chosen parcels at the median size were recorded by MRGCD as growing alfalfa. One of these landowners paid $6.52 in property taxes because of the special valuation, which is 0.30% of what we estimate their full bill would have been without the special valuation. The other paid $3,295, which represents around a 10% discount. This illustrates well the wide range of subsidy granted by the program. The two parcels below median size paid 69% and 39% of estimated full taxes, and the parcels above median size paid 90% and 6% of estimated full taxes.

On the flip side of landowner financial gain is Bernalillo County's loss – most of the County's revenues come from property taxes and gross receipts taxes (see table 5).[59] By depleting these revenues, the special valuation system puts a higher burden on all taxpayers

[59] Sources of funding. Finance Division. (2021, April 19). Retrieved February 18, 2022, from https://www.bernco.gov/finance/investor-relations/sources-of-funding/

across the region. In 2020, the County Assessor recorded valuations for 285,418 parcels.[60] Taking the total $1,783,226.91 saved by landowners through the program and applying it county-wide to all those parcels shows that taxpayers each paid $6.25 in 2020 to support NM Stat § 7-36-20. Also on the losing side of financials is MRGCD, which receives funding from property tax revenues as well. For the fiscal year ended June 2021, 83% of the District's revenues - $19,100,137 - came from ad valorem collections.[61]

Consumptive water use is a significant factor of the special use valuation program and a reason we advocate for adapting it. Consumptive use is difficult to quantify for multiple reasons in Bernalillo County. On an agricultural basis, the middle basin does not currently have the infrastructure to track diversion and return flows at the individual irrigator level (though other irrigation basins in the state do track at this level – see "Institutions and their challenges"). Additionally, the river is not fully adjudicated, flows have lowered over time, and transparency of water use in the state has been an ongoing concern.[62]

An assumed average consumptive use of 2.5 acre-feet per acre of irrigated land has been utilized for this report, taking into account commonly used estimates using the Blaney-Criddle and Penman methods.[63] We applied this rough estimated average to the 1,003 parcels

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[60] Property Valuation Maintenance Program and Annual Report, 5 (2020). https://online.flippingbook.com/view/84942/6/

[61] State Of New Mexico Middle Rio Grande Conservancy District Financial Statements And Independent Auditors' Report, June 30, 2021, page 17. https://www.mrgcd.com/wp-content/uploads/2022/02/4027-State-of-NM-Middle-Rio-Grande-Conservancy-District-FY21-Final.pdf It should be noted that these are revenues for the entire District, which extends significantly outside of Bernalillo County. A Bernalillo County-specific value was not available.

[62] Matthew Reichbach, ISC Wins Black Hole Award for Lack of Openness, Mar. 16, 2017 https://nmpoliticalreport.com/2017/03/16/isc-wins-black-hole-award-for-lack-of-openness/

[63] The following reports were used to decide the 2-3 acre-feet/acre range:
Benjamin L. Harding, P.E.; James T. McCord, Ph.D., P.E. Evaluating Hydrologic Effects of Water Acquisitions on the Middle Rio Grande; Norman Gaume, S.S. PAPADOPULOS & ASSOCIATES, INC, 2002. Evaluation of the Middle Rio Grande Conservancy District Irrigation System and Measurement Program; New Mexico Interstate Stream Commission Memorandum May 1, 2020 from Hannah Riseley-White, Pecos Basin Manager.

(encompassing 4,388 acres) with the special use valuation designation that were irrigated in 2020. This equates to a total estimated potential consumptive use of 10,970 acre feet. For perspective, this amount is equivalent to 22% of the entire Albuquerque Bernalillo County Water Utility Authority (ABCWUA, the water and wastewater provider for the greater Albuquerque area) surface and groundwater consumptive use in 2020;[64] more than 10% of the water that New Mexico owed Texas at the end of 2020 after a particularly dry season;[65] or enough to fully sustain around 40,000 Albuquerque-area households for a full year.[66] This is not to say the entire 10,970 acre-feet would have remained unused if the special valuation didn't exist. However, we must acknowledge the program is a common denominator the acreage and water use have in common.

Institutions and their challenges

Agricultural water use (under water allocation rules) and property taxes (under payment rules) are complicated institutional issues when approached separately, and NM Stat § 7-36-20 affects both. Water use is often excluded from tax and land policy conversations, as shown with this law, where different aspects are tracked by different agencies. The District tracks irrigation water use (at least in the aggregate), and the Assessor's Office system tracks land enrolled in the special valuation program. An institutional arrangement does not currently exist to provide

[64] ABCWUA had a 2020 total consumptive use, including ground and surface water, of 49,507 AF. Email from David Morris, Communications & Public Affairs, ABCWUA, to author (February 14, 2022, 1:31pm PST) (on file with author).
[65] New Mexico Addendum to the Engineer Advisers' Report to the Rio Grande Compact Commission April 2021 – RGCC 2021 accounting method 1
[66] The Utton Transboundary Resources Center The University of New Mexico School of Law, Water Matters! Domestic Wells 12-2 (2015). https://uttoncenter.unm.edu/resources/research-resources/water-matters-2015---full-pdf.pdf

cooperative oversight. Water writer and scholar John Fleck has pointed out the prominence of fragmented water management in New Mexico, deeming such situations the "'no-one's-in-chargeness' problem."[67] It would be beneficial to the peri-urban fringe community and its natural resources for these entities to work in tandem to manage the program, as shown by Vincent Ostrom et. al's research regarding regional governance in metropolitan areas.[68] Despite the potential for streamlining and management partnerships, and the fact that both entities are largely dependent on ad valorem or property taxes,[69] a lack of legislative guidance and some conflicting motivation factors may create a rift between these agencies and discourage them from working together.

A reasonable expectation exists that both the County and the District would be motivated to remove falsely enrolled properties since both entities benefit from property tax revenues. However, for MRGCD this is complicated by two factors. The first is that it supplements ad valorem revenues with a flat rate "water service charge" per acre irrigated. In the 2021 fiscal year, this was $43.82 per acre, totaling $2,415,816[70] - not an insignificant amount. The second is that it is widely understood the District has an inherent goal of irrigating as much land as possible. To wit, this is supported by a letter sent out to some of the District's customers in 2020

[67] John Fleck, Regional water governance: Rio Rancho, Albuquerque and the question of scale, JFleck at Inkstain (Feb. 11, 2015, 4:03 PM), http://www.inkstain.net/fleck/2015/02/regional-water-governance-rio-rancho-albuquerque-and-the-question-of-scale/.

[68] Ostrom, Vincent, Charles M. Tiebout, and Robert Warren. "The organization of government in metropolitan areas: a theoretical inquiry." *American political science review* 55.4 (1961): 831-842.

[69] For the fiscal year ended June 2021, 83% of the District's revenues came from ad valorem collections. *Supra,* note 52, see 9.

[70] MRGCD independent auditors' report, *Supra,* note 52. It should be noted that these are revenues for the entire District, which extends significantly outside of Bernalillo County. A Bernalillo County-specific value was not available.

regarding a water banking program, stating that "[t]he Water Bank supports the intent of the MRGCD that as many irrigable acres as possible remain in agricultural production…"[71]

Other aspects of the District's operations support the fact that conservation may not be widely prioritized by the agency. It does not utilize increasing block rates like other water-using agencies, such as ABCWUA, which is the water and wastewater provider for the greater Albuquerque area. Additionally, ABCWUA can raise rates or enforce fines when necessary. Though it does not regularly exercise these abilities, the tools do exist as a contingency plan. If needed, ABCWUA also has drought pricing rules. MRGCD does not have a similar "conservation toolbox" in place. It does, however, have more employees in the field than the County has working along irrigated properties - its irrigation system operators (ISO) are on the ground daily during irrigation season and visit all irrigated properties, whereas the County Assessor's office only visits one-third of properties with an agricultural assessment per year.

Physical jurisdiction also works against the prospect of cooperative efforts in this program. County and District boundaries don't overlap perfectly. For instance, MRGCD's "Albuquerque Division" does not only include Bernalillo County land - some property in Sandoval County is included, which also has an average negative net farm income (in fact, three of the four MRGCD counties have a negative net farm income – the only county that reported as having positive average net farm earnings in the USDA 2017 Census of Agriculture was Socorro).[72] Each County Assessor's office handles its property taxes separately, which widens the scope of participants that would need to be involved in cooperative work.

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[71] Letter from Mike A. Hamman, Middle Rio Grande Conservancy District chief executive officer, to Water Bank Applicants (Jan. 27, 2020) https://www.mrgcd.com/wp-content/uploads/2021/01/WaterBankLetterhead-2020-FINAL.pdf

[72] Agricultural Census, *Supra,* note 11. Net farm cash income of operations, on average, per farm for the Middle Rio Grande Basin counties are as follow: Santa Fe County, -$5,452; Sandoval County, -$513; Bernalillo County,

Looking at physical infrastructure, the MRGCD is not set up well to track water use in a consistent or automated way in general, let alone for this tax program. In 2020, the District did not have a system set up like neighboring irrigator Elephant Butte Irrigation District (EBID) in southern New Mexico, which more closely tracks individual water use using FlowProbe meters and Remote Telementry Units (RTU) at ditch turnouts.[73] This, combined with MRGCD's aversion to curtailing water use for any reason, led to one external report written for New Mexico's Interstate Stream Commission to state that "no other irrigation district in New Mexico attempts to provide unlimited access to water to its members while having no mechanisms to measure or estimate its water deliveries to its members."[74]

All of these factors culminate in the fact that no institutional setup was initially implemented for system-wide management when the tax law was passed. No funding was allocated, nor mandates put in place, nor a framework laid out. Initiating a system like this without guidance or financial support would no doubt be a daunting task for municipal agencies to enact, and would likely require additional staffing.

Criticism, comparisons and attempts at change

Scholars John E. Anderson and Richard W. England at the Lincoln Institute of Land Policy have done substantial research in comparing special-use valuation programs across the country. They have criticized the programs on a number of issues, including: too-lenient barriers

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Valencia County, -$3,516; Socorro County, $11,067; Torrance County, $6,415. Cibola County data were withheld from the census to avoid sharing identifying data.

[73] EBID Surface Water Delivery System, HOW IRRIGATION SYSTEMS MEASURES WATER DELIVERY. https://www.ebid-nm.org/irrigation-systems

[74] Norman Gaume, S.S. PAPADOPULOS & ASSOCIATES, INC, 2002. Evaluation of the Middle Rio Grande Conservancy District Irrigation System and Measurement Program

to ward off inappropriate enrollment; penalties that are too inconsequential to discourage manipulation; and the high monetary cost of the programs for municipal government: "Policy makers need to ask whether or not wealthy taxpayers with high incomes deserve substantial tax breaks for owning rural land." [75]

Critique of the low qualification requirements are not unfounded. New Mexico has some of the least restrictive (or most inclusive, depending on perspective) standards for agricultural land valuation programs in the United States. Anderson and England found that many states have a minimum acreage requirement that ranges from 3 to 160 acres[76]. In New Mexico, only one acre is required (and even this can be waived). Some states have an annual agricultural income requirement to maintain the special valuation, using metrics like gross farm income or annual sales receipts for proof. In New Mexico, a $100 annual minimum income from agricultural products (or potential of income) was put in place during the 1967 legislature,[77] but was not carried on into the updated 1973 law. Some states penalize owners who develop lands that had previously been granted an agricultural valuation, which strongly supports the spirit of keeping rural land rural. As noted by Anderson and England, at least 28 states have rules like this in place.[78] One way this is administered is by charging the landowner the difference in foregone property taxes for a specified period of years. However, these penalties may not be significant enough to dissuade development. New Mexico originally had a stipulation that disqualified land that was being held for speculative development, but that was removed in 1997. The state does have a penalty for landowners who fail to notify the Bernalillo County Assessor's office once

[75] John E. Anderson & Richard W. England, Use-value Assessment of Rural Land in the United States 123-143 (Lincoln Institute of Land Policy) (2014).
[76] Agricultural Census, *Supra* note 22.
[77] New Mexico Laws of 1967, Chapter 85. Senate Finance Committee Substitute for Senate Bills Nos. 380 and 421; Approved March 15, 1967. Page 645.
[78] Anderson & England, *Supra* note 65, at 25.

their property ceases to be used for agricultural purposes, however – if the County realizes this has occurred, a penalty may be incurred of either $25, or 25% of the difference between taxes paid and what the taxes would have been without the special valuation (the greater of the two). It is unknown how many times this penalty has been instituted.

While New Mexico's qualification requirements are lax compared to many other states, this does not necessarily equate to neglect. For the last four years, the County has visited roughly one-third of ag-valued properties annually to ensure compliance with its guidelines (Figure 4) on with limited staffing. The special valuation was removed from a total of 340 properties from 2017-2019 (Figure 5).[79] New approved applications have dropped since 2017, though the rate of approval is not clear (e.g., in 2019, 29 new applications were approved, but it is unknown how many were denied).

UNM law student Griffin offered his issues with the law soon after its passage[80], and the subsequent court cases seem to support his criticism. Additionally, the Western Landowners Alliance (WLA), an organization that aims to sustain western working lands, has done considerable work in trying to adapt the special use valuation law. Leadership from the group contributed to a 2015 report from Colorado State University, which suggested that "[s]tricter enforcement of current laws is expected to reduce non-market natural resource values and increase the net tax burden [across the relevant jurisdiction] due to conversion from agriculture to residential development."[81]

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[79] Bernalillo County Property Valuation Maintenance Program & Annual Report, years 2017-2020. Email with document attachments from Gloria Artz, Executive Assistant to the Assessor, Bernalillo County, author (March 19, 2022, 2:28pm PST) (on file with author).

[80] Griffin, *Supra* note 2.

81 Daniel Villar et al., *Economic implications of differential taxation for agriculture in the Intermountain West: issues and alternatives*, DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS 50 (2015), http://hdl.handle.net/10217/167314

In New Mexico, more than a dozen, mostly unsuccessful bills have been introduced over the last three decades suggesting varying changes to the program (see Table 6). Senator Peter Wirth (Democrat), former Representative and current Senator Roberto J. Gonzales (Democrat) and late Senator Carlos R. Cisneros (Democrat) sponsored of many of these efforts. Three bills are of particular interest to this study; all of them focus on keeping or expanding land in the special use valuation program. Despite some acknowledgement of water resources in a general manner, there has been no specific effort to account for water used by the special valuation:

- In 2015, SB 112 was passed into law. It allowed fallowed land to qualify for the program if the land was: resting in order to maintain its agricultural capacity, or resting as a direct result of moderate drought confirmed by the USDA in the County.
- In 2015, SB 330 failed to pass. It attempted to allow land that "provides ecological services for public benefit as an agricultural use of land" to qualify for the special use valuation.
- In 2017, SB 459 failed to pass. It attempted to add an "open space" option based on things like restrictive covenants, permanent conservation restrictions, or enforceable deed restrictions. Access to an acequia or well was required. The land's current use would have been required to fulfill one of several goals, one of which was to "protect water supply or otherwise allow for the permeation of water into the ground."

Elsewhere, some western states have taken different approaches with agricultural tax valuation programs. In 1972, California enacted the Open Space Subvention Act, which helps offset property tax revenue depletions through state grants paid to participating counties. According to California's Department of Conservation, more than $863m were paid out of the

state's general fund for this use from 1972-2010.[82] Nevada has included language surrounding open space and the public benefits it provides from the beginning, in its suite of special use valuation laws originally enacted in 1975: "The legislature hereby declares that it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate agricultural and open space lands and the vegetation thereon to assure continued public health and the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens."[83]

This Nevada verbiage is similar to the more recently attempted legislative changes in New Mexico. It could fit Bernalillo County's situation well, since it appears much of the included land in the County – particularly in the greener areas of the north valley – are better categorized as open space than subsistence farming or true agriculture. This would effectively preserve the open space and non-market benefits, while remaining within the bounds of the statute.

Where do we go from here?

This investigation provides an initial analysis of a law that is painfully outdated and has wide-reaching ramifications in the state. Our objective is not to villainize the program nor the agencies that administer it, but to encourage clarification and better data tracking to support conservation, especially as climate projections show decreased and more variable surface water

[82] California Department of Conservation, Open Space Subvention Act. Retrieved March 20, 2022, from https://www.conservation.ca.gov/dlrp/wa/Pages/Open-Space-Subvention.aspx
[83] 1975 Nev. Stat. § 749.010 (1975).

supplies.[84] Viable updates to the special valuation program include both incentive and regulatory-based actions. Amount or percentage-based sliding scales could be implemented based on factors like irrigation efficiencies, household income, whether farming is a primary income source, and crop type. Qualifying factors could be either expanded or restricted. Language surrounding water use could be authored. A simple starting place is to phase out the "yard" properties. Lawns or turfgrass do not fall within the statute's qualifying categories by any interpretation, so the 101 properties and 98 acres that MRGCD deem as yards should be investigated. This is a clear and non-complex step on a manageable amount of land for Bernalillo County to cover – it represents less than 3% of the total number of properties with agricultural valuations.

Fundamental, functional changes to NM Stat § 7-36-20 would require legislative action and could therefore be a lengthy ordeal, as evidenced by the recent slew of failed bills in the state. However, in the interim, there is room within the bounds of the law's current parameters for changes on a cooperative basis. Irrigation system operators for the District could incorporate the County's program data and note in their field logs any properties that appear to have fallen out of agricultural use. ABCWUA and the District could compare water use information to create a more comprehensive data set. Data-sharing is an easily utilized tool – it was a simple task herein to combine the land and water data sets, as both have overlapping attributes and use the same GIS software. Presumably, this would be a straightforward incorporation for the entities as well.

[84] U.S. Department of the Interior, *Supra* note 8.

Water scholars often look to Dr. Elinor Ostrom, late recipient of the 2009 Nobel Prize in Economic Sciences, when contemplating common-pool natural resource issues. Ostrom developed the concept of polycentric governance in dealing with finite resources – the idea that "local property can be successfully managed by local commons without any regulation by central authorities or privatization."[85] In the case of NM Stat § 7-36-20, management by agencies at a local level can be successfully utilized to promote better use and administration of the program. As discussed previously, there are clear incentives for Bernalillo County and MRGCD to work together on this issue: recaptured tax revenues and recaptured water resources.

Part of Ostrom's advocacy for local management regimes is because of the increased level of flexibility permitted within them – a smaller, municipal arena can be used to experiment with different ideas, learn the costs and benefits that result, and more easily iron out problems since a smaller participant pool is involved.[86] This is reflected in her greenhouse gas emissions policy research, and we propose it is also applicable to water resources and this New Mexico law. Ostrom also urges more immediate action rather than trying to wait for a broader, top-down solution: "The likelihood of developing an effective, efficient, and fair system to reduce greenhouse gas emissions that can be rapidly initiated at the global level appears to be very low. Given the severity of the threat, simply waiting for resolution of these issues at a global level, without trying out policies at multiple scales because they lack a global scale, is not a reasonable stance."[87] In this spirit, the District and County can implement some changes while waiting for potential statutory updates in the coming years. Continued and compounding effects of climate

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[85] Elinor Ostrom – Biographical. NobelPrize.org. Nobel Prize Outreach AB 2022. Sun. 20 Mar 2022. https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/biographical/

[86] *Id.* at abstract

[87] Elinor Ostrom, *A Polycentric Approach for Coping with Climate Change: Policy Research Working Paper 5095*, 20 THE WORLD BANK, DEVELOPMENT ECONOMICS 550–557 (2009).

change are being observed, and there is growing uncertainty from southwest US river scholars over whether society is capable of making the needed changes in time, before reaching a catastrophic point.[88]

NM Stat § 7-36-20 is no longer serving the audience for which it was intended or in the way it was intended. An integration must take place between these areas of land and water policy to holistically consider the law, the region's values, and the need for water conservation. In light of climate change, and especially in the peri-urban fringe of central New Mexico, it is vital to include agriculture and future development in all water conservation dialogues. There are several areas in which future research would be beneficial regarding this statute:

- Exploring OpenET regarding agricultural land in the region. This may prove useful in gaining a more detailed comprehension of how much surface water is used for irrigation in MRGCD's jurisdiction.
- Completing a program comparison between central New Mexico and southern New Mexico, where Elephant Butte Irrigation District (EBID) tracks individual irrigation water use at a closer level.
- Investigating restrictive covenants. There may be newer neighborhoods in Bernalillo County that were developed with restrictive covenants in place to prohibit homeowners from applying for the special valuation if they receive water from MRGCD.

[88] At the 2021 Water & Tribes Initiative Annual Gathering, which was hosted by the S.J. Quinney College of Law, Brad Udall (Water and Climate Research Scientist) stated "My biggest fear is it's easier to let the system crash than it is to find the really hard solutions to manage and support an 11 million acre-foot river." Udall's quote was regarding the Colorado River, not the Rio Grande, but the systems face similar issues from a management and climate change standpoint.

- Completing a regional demographic analysis on agricultural property and ownership. This would be useful in evaluating equitable changes to the program.
- Studying the Taos region, since its agricultural assessment program has recently undergone a shift in level of enforcement. This study could include the Taos County Assessor's Office, the County's Agricultural Resolution Team (ART), and the Taos Land Trust organization.
- Looking at comparisons to other taxpayer-funded services. We have established the rough estimate of what the Bernalillo County agricultural assessments cost each taxpayer in 2020 ($6.52). Looking at other county services such as libraries, municipal golf courses, or public pools would provide valuable cost-benefit context.

Closing

By the time New Mexico's greenbelt law was enacted in 1967, we argue it was already outdated – urbanization had been occurring for decades and subsistence farming in its classic sense was essentially gone. The statute is based on outdated economic and demographic data, has unclear goals, and is using shrinking water resources without accounting for them or incorporating any purposeful conservation efforts. Now, two decades into the 21st century, NM Stat § 7-36-20 is effectively supporting hobby farming instead of subsistence farming, though some would assert that this custom and culture farming still provides an important suite of benefits that is worthy of a public tax reduction, as a kind of payment for ecosystem services.

There are water policy implications because of this tax law, and it should thus be discussed as a water policy issue. In the absence of action, the program will have detrimental

effects on New Mexico's future planning and resiliency efforts as the entire US southwest continues into an era of aridification and shrinking water supplies. The region is warmer and has more variable precipitation than it has historically, and some areas now require up to 140% of normal headwaters snowpack to result in normal runoff levels .[93] In 2021, a year after the data were collected for this investigation, the Rio Grande through Albuquerque fell to the lowest levels since the early 1980s. MRGCD's irrigation season had to be shortened, and the city of Albuquerque had to rely on groundwater for municipal use. Consumptive water use has real impacts on the surrounding region, and this program is contributing significantly to that consumptive use. It is no longer sustainable for policies that affect water resources to stay stagnant.

In a 2021 interview with the author of this study, former UNM law student James Griffin, in looking back at his *Natural Resources Journal* article from 53 years ago and discussing the persisting policy gaps, said "We both know that global climate change has made the disconnects more obvious and severe. Land use planning may give lip service to water supply but doesn't do anything to stop them from approving larger and larger developments."[94] Griffin also stressed the importance of getting "the attention of those who make legislation and establish policy in water use and allocation" regarding NM Stat § 7-36-20. Recent years have brought increased interest to these land-water policy disconnects, along with recognition for the need to integrate the two areas.[95] Conversation and scrutiny have increased regarding arid metropolitan areas and

[93] Dave Hovde, *Some state officials are calling the latest drought "unprecedented,"* KSBY CALIFORNIA'S CENTRAL COAST, August 4, 2021, https://www.ksby.com/homepage-showcase/some-state-officials-are-calling-the-latest-drought-unprecedented.
[94] Griffin, James. Phone conversation, July 27, 2021.
[95] Sarah Bates, *Bridging the Governance Gap: Emerging Strategies to Integrate Water and Land Use Planning*, 52 Nat. Resources J. 61 (2012).
Available at: https://digitalrepository.unm.edu/nrj/vol52/iss1/3

their intent to continue developing and growing. The results generated by this study demonstrate an acute need to reevaluate and update the greenbelt law in New Mexico's Middle Rio Grande Basin.

Tables, figures and appendices

Tables

Table 1: Evolution of the law's language and phrasing

Evolution of the law's language and phrasing				
	SB 380	**SB 421**	**Joint committee**	**Final law**
Land use requirement	"used extensively" for agriculture	"actively devoted" to agriculture	serve "no other purpose" than agriculture	"used primarily and principally" for agriculture
How long the land use must have been in agricultural use before qualifying	2 successive years	2 successive years	5 successive years	5 successive years

Table 1 shows the progression of language as the proposed property tax bills proceeded through the 1967 New Mexico legislative session. Two bills existed initially, were heard in one combined committee meeting, and then passed into law.

Table 2: Example of irrigated parcels categorized with only a single crop code

Data gathered from crop codes that *exclude* combinations (ONLY "AH" - not "AH/IP," "AH/GD," etc). Data taken from intersecting layer.			
	Number of occurrences	**Irrigated acres**	**Ag value, determined by the County**
Alfalfa Hay (AH)	304	2,407	$ 9,669,041
Irrigated Pasture (IP)	408	1,245	$12,518,760
Other hays/grasses (OH)	48	151	$4,488,872
Corn (CN)	6	41	$ 55,905
Vegetables/row crops (VEG)	7	10	$ 166,098
Garden (GD)	6	13	$ 72,665
Trees-fruit (TF)	7	20	$ 76,986
Trees-nursery TN)	1	1	$ 20,256
Trees-other (TO)	6	11	$ 31,562
Yard (YD)	101	98	$ 3,592,920

Table 2 displays properties by crop code occurrence. This table only includes properties that have a singular crop code attached – if a property is labeled by the MRGCD with multiple crop codes (e.g. alfalfa and corn on the same parcel), that occurrence is excluded from this table.

Table 3: Example of irrigated parcels categorized with multiple crop codes

Data gathered from crop codes that *include* combinations (AH includes properties listed as AH, AH/IP, AH/GD, etc.) Data taken from intersecting layer.			
	Number of occurrences	**Irrigated acres**	**Ag value, determined by the County**
Alfalfa Hay (AH)	329	2,677	$ 11,080,556
Irrigated Pasture (IP)	471	1,563	$ 14,912,918
Other hays/grasses (OH)	59	183	$ 5,159,644
Corn (CN)	6	41	$ 55,905
Vegetables/row crops (VEG)	13	19	$ 355,469
Garden (GD)	22	33	$ 363,336
Trees-fruit (TF)	37	70	$ 1,315,796
Trees-nursery (TN)	3	13	$ 85,669
Trees-other (TO)	38	51	$ 1,256,401
Yard (YD)	135	131	$ 4,657,355

Table 3 displays properties by crop code occurrence. This table includes all properties, including properties labeled with a singular crop code and properties labeled with more than one.

Table 4: Sample of six parcels in Bernalillo County

	Crop designation	Irrigated acreage	2020 property taxes paid ($)	Estimated full 2020 taxes if not granted the special valuation ($)	Savings of estimated full taxes ($)	Percent of estimated full taxes paid
Parcel 1 below the median size	Yard	0.4	4,779.76	6,962.56	2,182.80	68.60%
Parcel 2 below the median size	Yard	1	326.56	833.63	507.07	39.20%
Parcel 1 at the median size	Alfalfa hay	2	6.52	2,103.68	2,097.16	0.30%
Parcel 2 at the median size	Alfalfa hay	2	3,295.10	3,368.75	73.65	97.80%
Parcel 1 above the median size	Irrigated pasture/fruit trees	3	15,932.80	17,752.95	1,820.15	89.70%
Parcel 2 above the median size	Alfalfa hay	4.8	41.56	716.05	674.49	5.80%
Totals (except %, which shows the average):			**24,382.30**	**31,737.62**	**7,355.32**	**50.23%**

Table 4 shows details of the randomly chosen six-parcel sample.

Table 5: Bernalillo County revenues

Bernalillo County revenues, fiscal year				
	Property tax	Percent of total revenues	Gross receipts tax	Percent of total revenues
2011	122,275,071	51%	113,354,187	47%
2012	129,585,691	51%	117,086,938	46%
2013	132,624,981	51%	120,149,781	47%
2014	139,744,912	52%	123,184,816	46%
2015	142,069,070	52%	128,400,872	47%
2016	146,095,633	47%	160,455,894	51%
2017	149,700,594	48%	159,416,140	51%
2018	152,871,618	42%	201,447,827	56%
2019	158,183,807	43%	207,245,350	56%
2020	163,394,820	42%	224,755,832	57%

Table 5: A significant portion of Bernalillo County revenues each year come from property taxes. This table is sourced from Bernalillo County's Sources of Funding webpage: https://www.bernco.gov/finance/investor-relations/sources-of-funding/

Table 6: Legislative activity over the last 25 years

NM Stat § 7-36-20 legislative activity from 1997-now			
Year	**Bill**	**Status**	**Summary**
1997	HB 1112	Passed	Presumption created that land remains entitled to valuation 'if the land was valued as ag in either or both of the two tax years preceding the year in which application is made and the use has not changed'
2004	HB 537	Not passed	Would have increased amount of years required before it is assumed that the land remains entitled to ag valuation
2005	HB 867	Passed	Added "production of captive deer or elk" and hunting to the qualifying requirements
2013	SB 510	Passed	Adjusted timing of application due dates
2014	SB 248	Not passed	For land no longer in ag use, would apply a tiered, gradual return to full tax bill to avoid an exponential jump in value that may be unaffordable for a property owner
2014	HB 301	Not passed	Would adjust the way a County Assessor processes and notifies of the removal of agricultural assessments
2015	SB 112	Passed	Expanded qualifying factors to allow the fallowing of agricultural land for: resting to maintain agricultural capacity, and resting as a direct and confirmed result of drought
2015	SB 330	Not passed	Would allow land that "provides ecological services for public benefit as an agricultural use of land" to qualify/
2017	SB 459	Not passed	Would create allowance for "open space" to qualify, based on conservation easements, enforceable deed restrictions, etc. Would allow a protection of water supply as qualifying use.
2017	SB 350	Not passed	Would add penalty and tax recapture clauses. Penalty would include paying the difference between taxes assessed under the special valuation, and the taxes that would otherwise have been assessed against the land, up to five years.
2018	HB 163	Not passed	Would widen the umbrella of qualifying land to include land that is not agricultural, but that is unimproved and being actively conserved or preserved from development
2019	HB 332	Not passed	Would allow "unimproved land" to qualify – instead of using the normal calculation, this land would automatically be valued at 25% of the regularly assessed value.

Table 6 shows 13 legislative attempts, including three successfully enrolled bills, at changing the agricultural use valuation law.

Figures

Figure 1: Net farm income in Bernalillo County over time

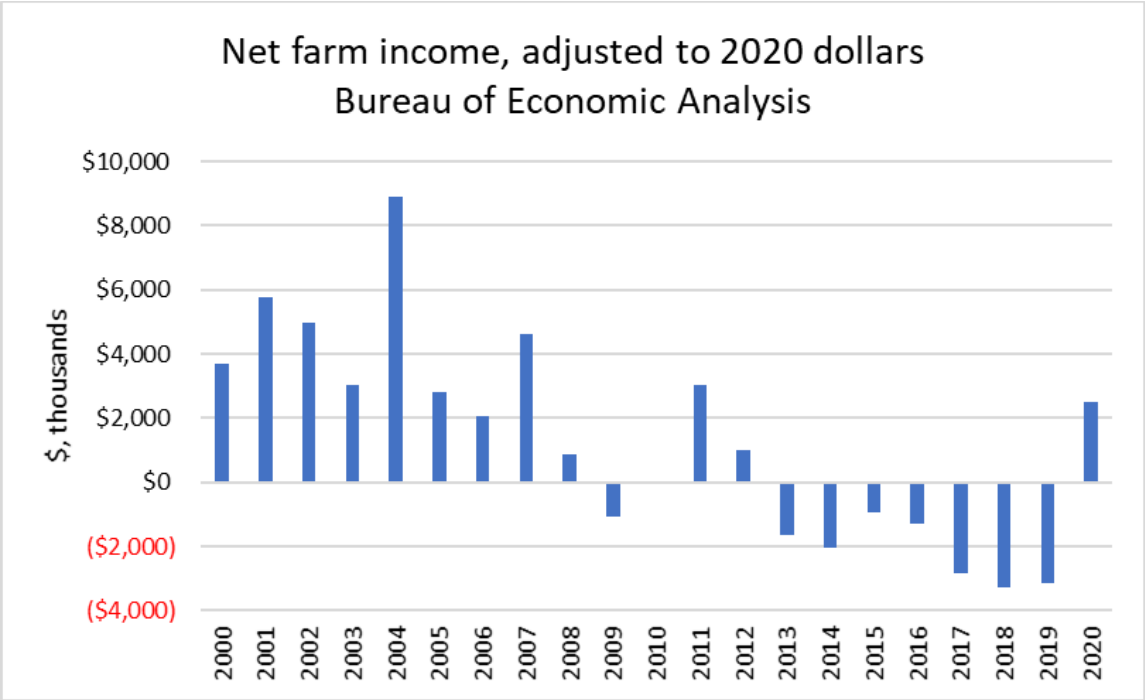

Figure 1 shows Bernalillo County's decreasing net farm income, adjusted to 2020 dollars using the US Department of Labor CPI inflation calculator. Sourced from Bureau of Economic Analysis.

Figure 2: Visualizing a section of irrigated land with special use valuations

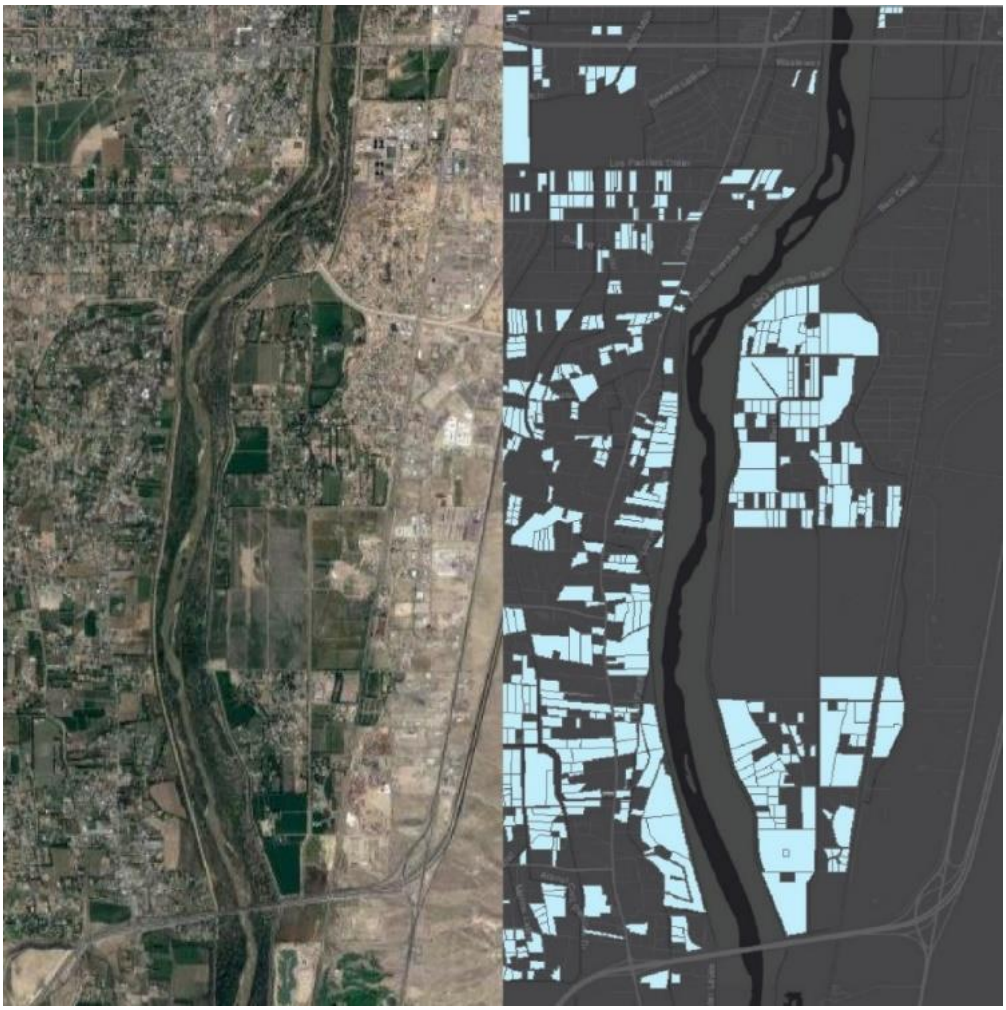

Figure 2 visualizes the special use valuation in Albuquerque's South Valley, with Rio Bravo Blvd. and Interstate 25 as north and south barriers, and Isleta Blvd. and Interstate 25 as west and east barriers. Satellite imagery is on the left. On the right is a GIS representation of the same area, showing irrigated properties that received the special valuation.

Figure 3: Visualizing three categories of land: irrigated, special use valuation, and both

Figure 3 shows a map of a small section of Albuquerque's North Valley, with Chaves Road and Dietz Place as north and south barriers, and the Rio Grande and Griegos Drain as west and east barriers. Yellow shading indicates properties that are irrigated with Rio Grande surface flows; blue shading indicates properties that have an agricultural valuation; green shading indicates properties that have both – the intersection on which this report focuses.

Figure 4: Bernalillo County Assessor's Office field visits data

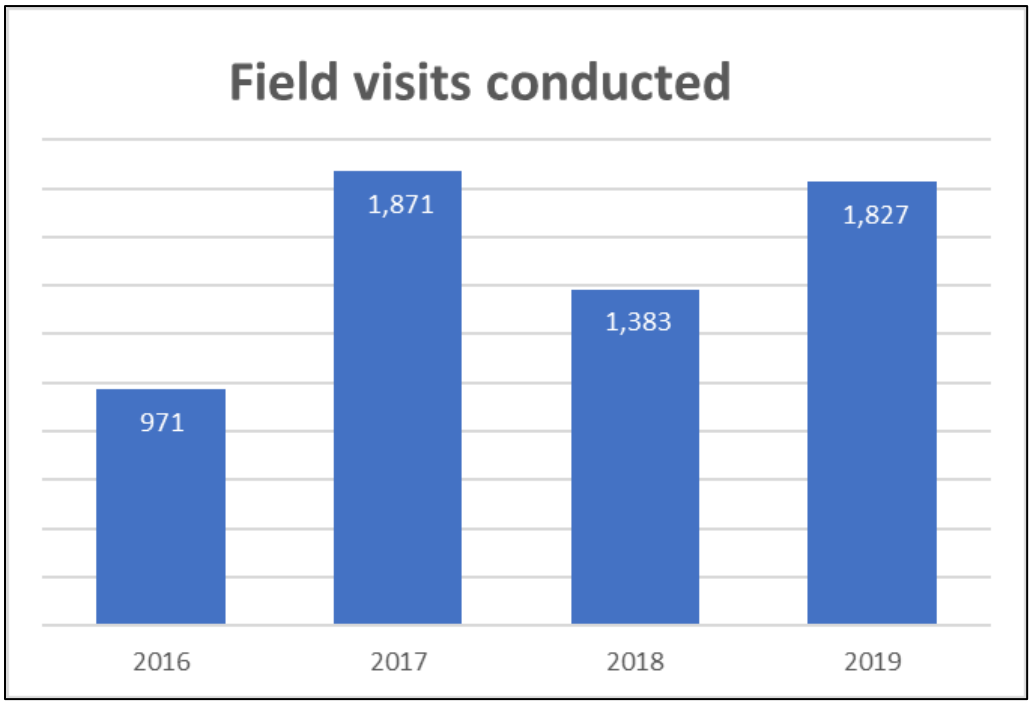

Figure 4 shows the number of field visits to properties with agricultural valuations made by Bernalillo County Assessor's Office over time.

Figure 5: Changes in number of properties with agricultural valuations over time

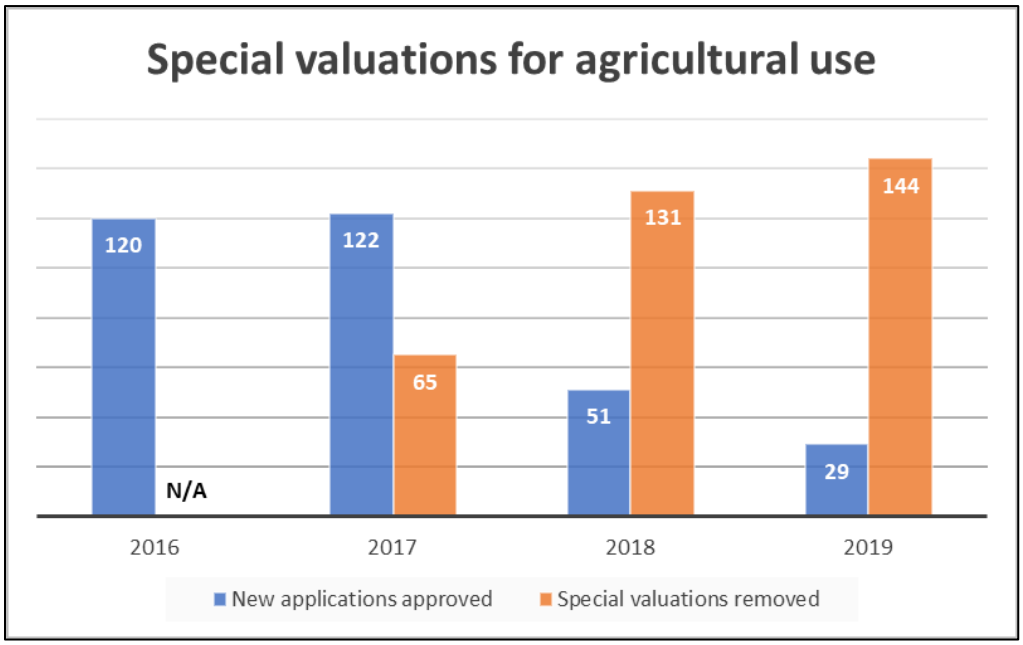

Figure 5 shows the number of new agricultural use valuations (blue) and the number of properties that lost agricultural valuations (orange) over time.

Figure 6: Intersection of data

Figure 6 shows the intersection of data used as the main focus of this investigation – land that was irrigated by the Middle Rio Grande Conservancy District (2,273 properties) and land that received an agricultural assessment from the Bernalillo County Assessor's Office.

Appendix A: GIS methodology for 2020 Bernalillo land use and irrigation data

Irrigation use data were obtained from the District's mapping department in the form of a GIS shapefile. An analysis of this showed that the MRGCD irrigated 2,273 parcels of land (plus an additional 753 properties that are in the District's system, but were fallowed or in idle status during that year).

Land use data were obtained from the County Assessor in the form of an Excel spreadsheet and GIS shapefile. An analysis of this showed that during 2020, 3,689 Bernalillo County parcels received the special valuation status.

The two GIS shapefiles were overlaid in ArcMap and the "intersection" tool was used to extrapolate the parcels that were included in both layers. This showed that 1,003 parcels fell within the scope land that: (i) received the special valuation for their land and (ii) used Rio Grande surface flows to irrigate it. The scope of this paper deals with these 1,003 properties, as shown in Figure 6.

It should be noted that there are two categories outside of this intersection: (i) properties that are irrigated, but do not receive the tax break; and (ii) properties that receive the tax break, but are not irrigated. Additionally, for the purposes of this analysis, fallowed parcels were excluded.