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Tracing the Source of Irrigation: An Examination of Colorado Ditch Company Collections in Archival Repositories

Patricia J. Rettig

ABSTRACT

The history of irrigation is significant in the western United States, which has now experienced over 150 years of irrigation development. When considered fully, the history of Western irrigation goes beyond agriculture and extends to engineering, economics, business, sociology, law, politics, ecology, and more. The historical understanding to be gained from any of these viewpoints depends on the preservation and accessibility of original records created by irrigators. In the West, ditch company records are the earliest and best source of irrigation history. This article examines to what extent historical records of Colorado ditch companies have been preserved in and made accessible through public archival repositories. It also contextualizes ditch companies and their records and makes recommendations so such records can be available for a variety of research.

“...irrigation is the life-blood of institutions in the Western half of the continent and its history is, in a marked degree, the history of the people themselves.”—William Smythe, *The Conquest of Arid America*¹

The importance of irrigation history is just as significant, if not more so, now as when this statement was published over a century ago. The arid West, which Smythe called “The Better Half of the United States,” has now experienced over 150 years of irrigation development, but the future of irrigated agriculture is under constant

1. William Ellsworth Smythe, *The Conquest of Arid America*, Americana Library edition. (Seattle: University of Washington Press, 1969), 261. This book was first published in 1900, revised in 1905, reprinted until 1911, and reissued in 1969 (p. xxix).

scrutiny, if not direct threat, by modern interests. Understanding the history of irrigation is crucial as organizations, communities, and individuals make water-related choices and decisions about the West's future.

Historical irrigation records are helpful documentary sources for a variety of disciplines. When considered fully, the history of Western irrigation goes beyond agriculture and extends to engineering, economics, business, sociology, law, politics, ecology, and more. The historical understanding to be gained from any of these viewpoints relies on the preservation and accessibility of original records created by irrigators. In the West, ditch companies,² created to build irrigation canals and distribute allocated water, are not only the oldest irrigation organizations, but also among the longest lasting organizations. As organizations, they created and maintained records from the beginning, unlike the earlier independent individual irrigators. Thus, ditch company records are the earliest and best source of irrigation history throughout the West.

Hundreds of ditch companies either once operated or still exist in Colorado, one of the leading states of Western irrigation development.³ But to what extent have their historical records been preserved in and made accessible through public archival repositories? This article examines that question after contextualizing Colorado ditch companies and their records, and then makes recommendations so such records can be available to tell “the history of the people themselves.”

Historical Context

“Ditches help to invent and reinvent Colorado.”—Justice Greg Hobbs,
*Ditch Company Handbook*⁴

Colorado has two nicknames: the Centennial State and the Headwaters State. It was founded as a territory in 1861 and gained statehood in 1876, the year of the United States centennial. Mining was the early draw in the settlement of the state, but agriculture soon outpaced it as ditches⁵ were dug to divert water from the many rivers having their headwaters in the mountains and flowing to the dry but fertile plains.

2. The term “ditch companies” is used throughout this article to encompass all such organizations, no matter what name they go under.
3. Elwood Mead, *Irrigation Institutions: A Discussion of the Economic and Legal Questions Created by the Growth of Irrigated Agriculture in the West* (New York: The Macmillan Co., 1903), 143.
4. Justice Greg Hobbs, “Preface,” in *Ditch Company Handbook* (N.p.: DARCA, 2007), 1.
5. While in the eastern United States, a ditch is generally a structure to drain away water and a canal is a manmade structure for transportation on water (e.g., the Erie Canal), in the West, the terms are used interchangeably to refer to manmade structures used to transport irrigation water. The word “ditch” has come to predominate and will be used throughout this article.

The historical development of Western irrigation is generally recognized as occurring in three stages, which in Colorado closely parallel the state's development.⁶ In the late 1850s and early 1860s, the earliest European settlers independently dug ditches from creeks and rivers for their nearby fields. As Western settlement and development increased with the Civil War raging in the East during the early and middle 1860s, individuals banded together to form ditch companies in order to share the work and pool the capital needed to build longer ditches to reach more distant lands. The work proceeded rapidly as the decade progressed. In the 1870s, corporate canals (also called carrier ditch companies) arrived, with investors putting up the money to build bigger, longer, or more technically difficult ditches in the hopes of making a profit, though many of these ventures eventually failed.⁷

In Colorado, modern irrigation development⁸ began in the San Luis Valley under the acequia system, brought by the Spanish as inherited from the Moors. An 1852 diversion from the Culebra River for the San Luis People's Ditch in the town of San Luis is recognized as the oldest water right in the state.⁹ At the time, this area was part of New Mexico Territory, recently acquired by the United States from the Republic of Mexico. Acequia systems, predominating in this region, are similar to ditch companies but have broader cultural aspects as communities, not just water-transport organizations. Colorado's eastern plains, settled mainly by eastern U.S. migrants and European immigrants, saw the largest number of ditch companies, diverting especially in the South Platte and Arkansas river basins. Ditch companies eventually existed in all of the state's major basins.

The ditches built by these companies originally formed the backbone of many communities, enabling the co-dependent development of urban and rural locales. Today, with decades of increasing urban encroachment on rural lands and with industries and cities buying agricultural water rights for various purposes, some long-established irrigation ditches are falling out of use and most are misunderstood by urbanites. Ditch companies now have to work with municipal and industrial shareholders and board members, and they have to protect their property and explain their purpose when someone uses the ditch for dumping yard waste or as public property to play in.¹⁰ Additional public understanding of the historical origins,

6. Mead, 52–55.
7. Gregory M. Silkensen, *The Farmers' High Line Canal and Reservoir Company: A Century of Change on Clear Creek* (Denver: North Suburban Printing, 2000), 29.
8. See Kenneth R. Wright, *The Water Mysteries of Mesa Verde* (Boulder, Colo.: Johnson Books, 2006). for details on Native American use of reservoirs for irrigation in what is now the southwest corner of Colorado.
9. *A Hundred Years of Irrigation in Colorado: 100 Years of Organized and Continuous Irrigation, 1852-1952* (Denver and Fort Collins: Colorado Water Conservation Board and Colorado Agricultural and Mechanical College, 1952), 3.
10. Lawrence J. MacDonnell, *From Reclamation to Sustainability: Water, Agriculture, and the Environment in the American West* (Niwot: University Press of Colorado, 1999), 6.

purposes, and development of ditch companies could go a long way toward helping everyone be better neighbors.

Ditch Companies Defined

“Mutual irrigation companies: the most important organization you’ve never heard of.”—David Freeman, *The Poudre Runs Through It*¹¹

Going by the various terms ditch, canal, irrigation, or irrigating company, sometimes with the term “mutual” attached, these entities formed for the purpose of constructing ditches to transport irrigation water. Membership in a ditch company, a private entity, is voluntary, gained by buying available shares of stock. Only members can share in the water and company assets. In return for annual assessment fees, members receive their share of the water and proportional voting rights. As non-profit organizations registered with the Secretary of State, ditch companies use member fees to maintain and improve their structures, not to make a profit. Ditch companies vary in size, with the larger ones having related lateral companies, being the branch ditches off the main canal.¹²

Ditch companies are usually managed by a board of directors elected from the membership. Typical board positions include president, secretary, and treasurer, with all positions and duties defined in the company’s bylaws.¹³ There may or may not be any paid employees of the ditch company, depending on the size and complexity of its property and operations, though there is usually a ditch rider employed to ensure physical maintenance of the ditch and diversion structures, as well as to open and close headgates during the irrigation season.¹⁴

Ditch companies, as private holders of valuable water rights, have played an important role in defining Colorado’s water law. The Colorado Supreme Court decision in *Coffin v. Left Hand Ditch Company* (1882) confirmed the use of the prior appropriation doctrine, encoded in the state constitution in 1876. This “first in time, first in right” doctrine relies on documented historical usage, the concept of whoever first put the waters of a stream to beneficial use has first rights of allocated water. The state instituted a formal system of recording, documenting, and administering these rights by creating the State Engineer’s Office in 1881. Numerous other cases on

11. David Freeman, *The Poudre Runs Through it: Part 2 - Educational Session* [video] (February 24, 2011), <http://www.youtube.com/watch?v=ZqXjSXsoyRY> (accessed July 23, 2011).

12. Robert G. Dunbar, *Forging New Rights in Western Waters* (Lincoln: University of Nebraska Press, 1983), 28.

13. Raymond L. Anderson, *Irrigation Enterprises in Northeastern Colorado: Organization, Water Supply, Costs*, ERS 117 ([Washington, D.C.]: U.S. Dept. of Agriculture, Economic Research Service, Resource Development Economics Division, 1963), 1.

14. See Stanley G. Crawford, *Mayordomo: Chronicle of an Acequia in Northern New Mexico*, 1st ed. (Albuquerque: University of New Mexico Press, 1988). for the description of the duties of a ditch rider, called a mayordomo in the acequia system.

various issues involving ditch companies have gone before Colorado's water courts and Supreme Court since then, with one concluding as recently as May 2011.¹⁵

Two related types of Colorado irrigation organizations require mention. Reservoir companies are organized under the same concept as ditch companies, though to hold allocated shares of water in a reservoir. Some companies do both activities—store and transport water—and are named accordingly. In 1901, Colorado authorized the creation of irrigation districts. These differ from companies in that membership is involuntary, the organization is a public entity, and creation is based on raising funds for large projects. Though equally important, neither of these two types of irrigation organizations was specifically considered in this study.¹⁶

Ditch Company Records

“Irrigation on the American continent is older than historical records.”—Elwood Mead, *Irrigation Institutions*¹⁷

Ditch company records are not entirely unlike those of any small, non-profit organization. Their most routine records are meeting minutes, from directors', shareholders', and special meetings. In the early days, these were handwritten into bound ledgers; later, typed pages may have been affixed or compiled separately. Now, the occasional ditch company with a website may post meeting minutes there. Often the initial ledger also contains a copy of the company's articles of incorporation and bylaws, along with any amendments. This set serves as the founding documents, setting forth the purpose of the company, the location of the point of diversion, the officer positions and duties, various meetings and operations required, and company stock.

Other crucial ditch company records are the stock certificates and accompanying ledgers, where ownership in the company is tracked, as well as financial ledgers, which are sometimes accompanied by receipts, invoices, bills, check registers, and bank statements. Legal documents, especially if a company was involved in litigation or holds land easements, also may be part of the records of ditch companies. Some companies also produce annual reports, either for the company as a whole or as individual financial and other reports. Correspondence generally exists, but may not be saved over time. Less likely document types include clippings, maps, and photographs.

15. Bruce Finley, “Colorado Supreme Court upholds limits on transfer of water rights from farmers to suburbs,” *The Denver Post* (Denver, June 1, 2011), http://www.denverpost.com/search/ci_18179696. (accessed July 23, 2011).
16. Records for one irrigation district were found, and this collection is listed in the Related Collections subsection below.
17. Mead, 41.

Important but rarely in existence are water records and ditch rider notes. Since the main business of a ditch company is to distribute water in appropriate shares, this gets recorded for tracking purposes; however, it may not be important to a company from year to year. Ditch rider records of maintenance activities and headgate operations are as close to on-the-ground operation of a ditch company as possible. However, if a ditch rider does record this information, it may be held by him, not the company, or if it is held by the company may again not be important in succeeding years.

In Colorado, ditch companies recognize the importance of their records for documenting their legal status, rights, and property ownership, as well as their overall history. Sometimes company bylaws specify what records to create and maintain. Ditch companies tend to manage their records in a variety of ways, though few if any use formal records management methods. With not all companies having offices, some pass the records from officer to officer, some keep them in bank vaults, some keep them at their attorney's office.¹⁸ As private entities, they ardently protect their records for their own purposes. Yet this protection generally has to do with proprietary self-preservation rather than public knowledge through openness and access. Of course, with the resource value and monetary value of water rights being incredibly significant in Colorado, this protection is understandable.

While some ditch company officers recognize the benefits archival repositories can provide—including organization of the materials, secure and environmentally controlled storage, and potential digitization—most tend to be wary of public access to their records. Some companies may have permitted historian access on their own terms, but many do not want access open to any interested party, which could include the “opposition” in legal terms, or entities looking to acquire valuable water rights. Many archival repositories can agree to impose access restrictions on the ditch company's terms, but this takes an extra level of trust, understanding, and negotiation, on both sides.

The benefit to researchers and the public of having ditch company records in repositories is the openness of the records. To be better able to understand how the various organizations developed, what challenges they faced, and how they operated is just the beginning of a modern understanding of Western development more than a century ago. While history is often examined in broad strokes, these very localized developments give significant details providing a granularity not available elsewhere. Also, since ditch company records are more likely to survive than the personal papers of the people involved, often the only way to get to the history of the people is through the organization's records.

18. See Silkensen for description of a ditch company choosing to dispose of records and Karen Rademacher, “History” in *Ditch Company Handbook* for reminiscences of a ditch company office: “Typically, a large ornate safe in the back room of the company office held dusty, yellowed ledger books and hand-drawn maps.”

State-level documentation of ditch companies includes water rights information managed by the State Engineer's Office, non-profit registration information maintained by the Secretary of State's Office, and legal records maintained by the court system. Much of this can be found through online searchable databases on the appropriate office's website. The Secretary of State's business search database is particularly helpful as digital copies of articles of incorporation and other official documents are included. Because the Colorado State Archives is the final destination for the archival records of these state agencies, some of these records and related ditch company information can be found there.

Literature Review

"To write history without putting any water in it is to leave out a large part of the story."—Donald Worster, *Rivers of Empire*¹⁹

No professional literature concerning ditch company records in archival repositories was found to exist. The closest applicable document is perhaps the author's chapter "Information Management" published in DARCA's *Ditch Company Handbook*. The chapter was written to advise ditch companies on recordkeeping.

Ditch company histories are only slightly more abundant. The best is Gregory Silkensen's *The Farmers' High Line Canal and Reservoir Company: A Century of Change on Clear Creek* (2000). Silkensen was given access to the company's records, though he states that in 1949 anything more than six years old was destroyed. However, with the existing records, interviews, and additional research, Silkensen produced a comprehensive history which describes the company's complex origins as well as many legal issues. Also good, though brief, is James Hansen's *The Water Supply & Storage Company: A Century of Colorado Reclamation 1891-1991* (1991). Hansen similarly had access to the company's records to tell the story of this major company in northern Colorado. He included numerous photographs to help tell the story visually. An earlier student paper is *A History of the Water Supply and Storage Company* (1952) by Betty Kissler. Her lengthy narrative is very orderly with an emphasis on the structures and changes over time.

William Kelly, a water lawyer in Greeley during the middle of the twentieth century, wrote at least two pieces on ditch companies during his life, both of which are rare finds. Colorado State University Archives and Special Collections holds "The Laramie-Poudre Irrigation Company. The Poudre Valley Canal. The Greeley-Poudre Irrigation District" (1964), which an attached letter calls an unpublished article. At the Colorado Historical Society is *The New Cache La Poudre Irrigating Company: The Cache La Poudre Reservoir Company, Some History for the Past 88 Years* (1958), which

19. Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West*, 1st ed. (New York: Pantheon Books, 1986), 19.

is substantial at 246 pages. As the lawyer for these companies, Kelly could write from personal experience as well as his own files.

The only journal article on a Colorado ditch company found is by James Sherow, "Utopia, Reality, and Irrigation: The Plight of the Fort Lyon Canal Company in the Arkansas River Valley" (1989).²⁰ He cites his access to the company records, which he used not only to tell the company's history but also to illustrate bigger issues in the Arkansas Valley. Sherow also conducted interviews, used newspapers, and consulted the Arkansas Valley Ditch Association Records at the Colorado Historical Society.

Some ditch companies which have websites have posted historical information and even essay-length histories. There have also been a few compilations related to ditch company history, such as those for the Left Hand Ditch Company,²¹ the Greeley and Loveland Irrigation Company,²² and the Church and Dry Creek Valley ditch companies.²³ These compilations generally are by amateur historians who extensively excerpt newspaper articles, interviews, or meeting minutes. They are important contributions to the sparse literature focused on Colorado ditch companies.

While few books or articles have been written with a focus on ditch companies, many other water-related histories and biographies include significant mention of ditch companies.²⁴ There are also a dozen or so booklets and books on ditch histories, each focusing more on a specific structure and associated changes than on the company behind it.²⁵

20. James E. Sherow, "Utopia, Reality, and Irrigation: The Plight of the Fort Lyon Canal Company in the Arkansas River Valley," *The Western Historical Quarterly* 20, no. 2 (May 1, 1989): 163-184.
21. S. Alice Ochs, *Water: Basis for Success: Left Hand Ditch Company History, the First 130 Years* (Longmont, Colo.: S. Alice Ochs, 1996).
22. Bill Hartman, *A Century of Remarkable Progress: the Greeley and Loveland Irrigation Company* (Greeley: Greeley Printing Co., 1981).
23. Lou Walther, *A Monograph on the Church and Dry Creek Valley Ditches*, 2nd ed. ([S.l: s.n.], 1985).
24. See both James Earl Sherow, *Watering the Valley: Development along the High Plains Arkansas River, 1870-1950* (Lawrence: University Press of Kansas, 1990), and Jane E. Norris and Lee G. Norris, *Written in Water: The Life of Benjamin Harrison Eaton* (Athens: Swallow Press/Ohio University Press, 1990) as examples.
25. See, for example, David Skari, *High Line Canal: Meandering Through Time: A Historical Trail Guide* (Denver: C & M Press, 2003).; Robert Michael Pyle, *The Thunder Tree: Lessons from an Urban Wildland* (New York: Lyons Press, 1998).; Michael Holleran, *Historic Context for Irrigation and Water Supply: Ditches and Canals in Colorado* (Denver: Colorado Center for Preservation Research, University of Colorado at Denver and Health Sciences Center, 2005), http://hdl.handle.net/10176/co:3740_ucdh612d632005internet.pdf.; and A.W. McHendrie, "The Hatcher Ditch (1846-1928): The Oldest Colorado Irrigation Ditch Now in Use," *Colorado Magazine* 5, no. 3 (1928): 81-95.

Methodology

“Because there are few archival files or library catalogues ... using the category ‘ditch’ or ‘canal,’ a great deal of digging was required. For this task it helps to be an incurable archive enthusiast.”—Kate Lee Kienast, *Historic Irrigation Ditches & Canals in the Denver Metro Area: New Concepts for Old Waterways*²⁶

The research goal was to determine what collections of Colorado ditch company records exist in public archival repositories. Further, once discovered, the aim was to examine where those collections are located, what geographical areas they cover, and what holes in coverage exist. The search was extensive but not necessarily comprehensive. It was not meant to be a statewide records survey for collection development purposes, but rather an attempt from the standpoint of an educated researcher to find accessible resources.

To locate the collections defined, searching began with bibliographic databases. These included Archive Finder, Prospector, WorldCat, and the Colorado Virtual Library.²⁷ Further, selected major repositories in Colorado were searched specifically, though many overlapped with the previous list. However, redundancy in searching can be helpful as various interfaces perform differently. The chosen repositories included Denver Public Library Western History and Genealogy, Colorado State Archives, Colorado Historical Society, Colorado State University, Colorado State University-Pueblo, University of Colorado-Boulder, University of Denver, Fort Lewis College Center for Southwest Research, University of Northern Colorado, Boulder Public Library, and Douglas County Public Library, along with the University of Wyoming’s American Heritage Center.

Western consortial finding aid databases were also searched, as aggregations of full text finding aids appeared to provide an excellent, efficient opportunity for finding the collections sought. These databases included the Rocky Mountain Online Archive, Northwest Digital Archive, Western Waters Digital Library, Online Archive of California, Mountain West Digital Library, and Arizona Archives Online.²⁸

26. Kate Lee Kienast, “Historic Irrigation Ditches & Canals in the Denver Metro Area: New Concepts for Old Waterways: An Illustrated Thesis” (M.U.R.P., University of Colorado at Denver, 1996), 6, local use only (Denver Public).
27. Archive Finder is a subscription database; the rest are publicly available. Prospector is a consortium mainly of Colorado and Wyoming academic library and large public library catalogs. WorldCat is a union database that stretches around the world, and the Colorado Virtual Library brings together public library and academic library catalogs from across the state.
28. See Rocky Mountain Online Archive, <http://rmoa.unm.edu/index.php> (accessed July 23, 2011); Northwest Digital Archive, <http://nwda.orbiscascade.org/index.shtml> (accessed July 23, 2011); Western Waters Digital Library, <http://www.westernwaters.org/> (accessed July 23, 2011); Online Archive of California, <http://www.oac.cdlib.org/> (accessed July 23, 2011); Mountain West Digital Library, <http://mwdl.org/> (accessed July 23, 2011); and Arizona Archives Online, <http://www.azarchivesonline.org/> (accessed July 23, 2011).

Admittedly, this searching excluded small repositories which may not join consortial databases, may not contribute cataloging records to any central bibliographic database, and indeed may not even have websites. In an attempt to overcome this exclusion, Colorado and Wyoming archival professionals were queried through the Society of Rocky Mountain Archivists listserv about ditch company collections in their repositories. This uncovered some materials in Colorado museums that had not been found through searching databases. Though this is a step beyond what a researcher might do, it shows that not everything is discoverable online and additional steps need to be taken.

Library of Congress subject headings used to search bibliographic databases included: ditches, canals, acequias, irrigation canals and flumes, irrigation water, irrigation districts, irrigation, reservoirs, and water districts. In some cases the geographic qualifier Colorado was added to limit results. Keywords used in searching finding aid databases included: ditch company, mutual ditch, irrigation, reservoir, acequia, and canal. Words were truncated and/or combined as necessary. General Internet searching was not utilized as a brief trial only turned up a few collections already found through bibliographic searching. Researchers starting with Internet searches would, however, be led in the right direction through that method. They should certainly not stop there though.

The expectation was to find named ditch company collections, such as “Records of the Godfrey Ditch Company.” However, all records or finding aids listed in search results were examined, even if not named as expected. The focus was on ditch companies formed for the purposes of moving water for irrigation, not mining.²⁹

It was not expected that personal papers would contain records of ditch companies, but any listed in search results were examined in order to be thorough. Records such as those sought could end up with families or individuals, and one relevant personal collection as well as some related caches were discovered. Most of what was described in other personal papers appeared to be documentation of individual shareholder transactions rather than business records of officers. However, it is possible that full descriptions of ditch company records in personal collections are inadvertently omitted, so personal papers should not be entirely dispatched when seeking ditch company information.

The search found but did not consider isolated items, such as maps, reports, court documents, engineering studies, photographs, oral histories, scrapbooks, government documents, minute books, articles of incorporation, and bylaws. Neither did it look at small collections containing just a few items. The focus of the search was to find accumulated bodies of records that could be used for substantial historical research. While a single map or annual report can be valuable for research

29. One mining ditch company collection was found: Consolidated Ditch Company Records (1859-1868) at the University of Colorado at Boulder Libraries, Archives Department.

purposes, especially when ditch company documents can be hard to find, they were not the focus of this investigation. It is possible that a company's entire documentary record vanished, through disposal, natural disaster, or neglect, and that a single item here or there is all that remains.

Some municipalities, water conservancy districts, and businesses (as diverse as energy companies and breweries) have ditch company records, acquired when water rights or entire systems were taken over. This is akin to ditch companies retaining their own records, so information about these collections was not sought as part of this research. However, interested researchers may want to pursue these avenues.

Results

“Every drop of water entering a ditch, every drop escaping at the end of a canal, is a matter of public concern.”—Elwood Mead, *Irrigation Institutions*³⁰

Listings below include each collection's title and date span along with repository name and location. Also given as available are the extent of the collection (either linear feet or number of boxes, sometimes both), whether or not a finding aid is available and if it is online, and the collection's identifier and general contents. Concerning the ditch company, its location and related stream are given, as well as a founding date if known.

First listed, alphabetically, are ditch company collections that fit the criteria of this research. Following are related collections that a serious researcher should not neglect. Less detail is given on these, as they were not the focus of the research; however, they were so closely connected they could not be ignored.

Note that the closure of the Colorado Historical Society, now called History Colorado, from late 2010 through all of 2011 while its new building was being constructed, impeded this research. A staff member was able to email some requested finding aids, but others were inaccessible, along with all of their collections. If unclear whether a collection would fit the criteria of this research, it was omitted.

Ditch Company Collections

Cache la Poudre Irrigation Collection, 1870-1990. Colorado Historical Society, Denver, Colorado. This collection (MSS #1232) is 19 boxes along with bound volumes on two shelves. An inventory is available upon request. The collection contains records of the Cache la Poudre Irrigating Company (incorporated in 1878), New Cache la Poudre Irrigating Company (1898), Cache la Poudre Reservoir Company (1892), and North Side Lateral Company (1902). These all draw from the Cache la

30. Mead, 369.

Poudre River in Larimer County. Because the collection is unorganized, it is difficult to determine the completeness of the records, especially among the different companies. However, substantial, if not complete, runs exist of meeting minutes, stock ledgers and indices, audit reports, and correspondence. There are a number of engineering reports from the 1970s. There appears to be a limited amount of legal files, but there are a handful of cassette tapes, which may be oral history interviews. There are also two copies of William Kelly's "The New Cache la Poudre Irrigating Company and the Cache la Poudre Reservoir Company: Some History for the Past 88 Years."

City of Greeley Museums Permanent Collection. Greeley History Museum, Greeley, Colorado. This is a broad collection, containing a variety of accumulated materials. Included is a set of receipts, annual reports, assessment ledgers, and stockholder information for the Greeley Irrigation Company. The material covers the years 1905 to 1954 and totals 2 linear feet (seven bound volumes). The company oversees Greeley Ditch No. 3, which was constructed beginning in 1870 from the Cache la Poudre River in Greeley (Weld County). The collection also contains a ledger of meeting minutes and stockholder information for the Carpenter Lateral Company for 1883 to 1966. This company was incorporated in 1883 by four men, one of them being Leroy Carpenter. The lateral is off of the Greeley Ditch No. 2 in Weld County.

Huerfano Valley Ditch and Reservoir Company Collection, 1888-1930. Special Collections and University Archives, Wichita State University Libraries, Wichita, Kansas. This is a processed collection (MS 87-34) with an online finding aid. The collection is 0.5 linear feet (1 box) and documents the Huerfano Valley Ditch and Reservoir Company, formed in 1888. The collection contains three record books and one account book along with some correspondence. The record books contain a complete set of board meeting minutes from 1888 to 1917. The ditch draws from the Huerfano River in Pueblo County.

North Fork Mutual Orchard Irrigation Company Collection, 1909-1991 (bulk 1909-1912). Colorado Historical Society, Denver, Colorado. The collection (MSS #968) contains 0.25 linear feet of minutes and stock transactions of the company, which had water rights from the North Fork of the Gunnison River in Delta County. The company went defunct in 1915, so the 1991 date is questionable. It may be a typographical error or could represent a modern document.

Records of Davidson Dry Creek Ditch Company, 1897-1910. Carnegie Branch Library for Local History, Boulder Public Library, Boulder, Colorado. This collection is four folders, containing financial documents, stock information, and a minute book. The company was established in 1863, and the ditch is in Boulder County, drawing from South Boulder Creek.

Records of the Godfrey Ditch Company, 1870-1996. Water Resources Archive, Colorado State University, Fort Collins, Colorado. This is a processed collection (WGOD) with an online finding aid and digitized items. The Godfrey Ditch

Company was originally called the Section No. 3 Ditch Company, which was incorporated in 1870 in Weld County, drawing from the South Platte River. It was reincorporated as the Godfrey in 1910. The collection is 0.75 linear feet (2 boxes) and contains primarily minute books and financial information with a small amount of legal documents. The complete run of minutes from 1870 to 1986 is digitized and online.

Records of the Iliff and Platte Valley Ditch Company, 1884-1997 (bulk 1884-1945 and 1987-1997). Water Resources Archive, Colorado State University, Fort Collins, Colorado. This is a processed collection (WIPV) with an online finding aid. The company was incorporated in Logan County in 1884 and draws from the South Platte River. Also partially documented in the collection is the nearby Proctor Water Company, a shareholder and user of the Iliff and Platte Valley Ditch. The collection is 8.25+ linear feet (17 boxes plus some oversized materials) and primarily contains financial information, along with some meeting minutes, stock ledgers, legal documents, and maps.

Records of the Plumb and Dailey Ditch Company, 1889-1991. Water Resources Archive, Colorado State University, Fort Collins, Colorado. This is an unprocessed collection (WPDD), acquired in 2010. It is 3 linear feet (2 boxes). The Plumb and Dailey Ditch Company was established in 1889 in Longmont (Boulder County), drawing from Boulder Creek. The collection contains the minutes of annual stockholders meetings, financial information, and some legal documents.

Records of the Reorganized Farmers Ditch Company, 1881-2009. Water Resources Archive, Colorado State University, Fort Collins, Colorado. This is an unprocessed collection (WRFDD), acquired in 2011. It is 39 linear feet (26 boxes) and is closed until processed. The company was created in 1983 from the Farmers Irrigating Ditch and Reservoir Company (1878) in the aftermath of the 1982 Lawn Lake flood. Its water is drawn from the Big Thompson River, and the company is based in Loveland (Larimer County). The collection contains records of both companies in the form of minutes as well as financial, legal, and water records.

Records, Fulton Irrigation Ditch Company, 1884-1968. Western History and Genealogy Department, Denver Public Library, Denver, Colorado. This collection is 1.5 linear feet (2 boxes) and contains the company's minutes. The company, formed in 1876, is located in Adams County and diverts water from the South Platte River.

Smith Canal and Ditch Company Collection, 1870-1881. Colorado Historical Society, Denver, Colorado. This collection (MSS #579) consists of bylaws, minutes, and a hand-drawn map. The company diverted water from the South Platte River in Arapahoe County near Denver. The collection is 0.25 linear feet.

Walter Rice Collection, 1892-1938. Colorado Historical Society, Denver, Colorado. This collection (MSS #1714) has an inventory available upon request, but no biographical information on Mr. Rice is given. The collection, which is 0.75 linear

feet, contains about a dozen folders (out of 58) of correspondence, business files, and financial information on the Simonton Ditch Company, primarily in the 1920 to 1936 timeframe. The company was established in 1915 with an office in Denver, with the ditch drawing from Bear Creek in Jefferson County.

Related Collections

Arkansas Valley Ditch Association Collection, 1885-1958. Colorado Historical Society, Denver, Colorado. This collection (MSS #16) has a finding aid available upon request. The collection is 10 linear feet. The Association was formed in 1901 to protect local interests when Kansas sued Colorado over equitable distribution of water in the Arkansas River; members were many of the region's major ditch companies. The collection documents ditch companies organizing to protect their interests.

Ditch Company Photographs, 1907-1909. Carnegie Branch Library for Local History, Boulder Public Library, Boulder, Colorado. This collection consists of four photo albums in one oversize box. The majority of photographs are labeled with locations, indicating over thirty different ditches, mainly in the Boulder area, as well as about a dozen local lakes. The catalog record reveals the albums were purchased at a household sale and donated to the library.

Grand Valley, Colorado Water Project Records, 1907-1914. Western Americana Collection, Beinecke Rare Book and Manuscript Library, Yale University, New Haven, Connecticut. Arthur Havemeyer (twice graduated from Yale) was the manager of the Willcox Canal Company and the Grand River Irrigation and Development Company, as well as president of the Grand Valley Irrigation District, all located in Garfield County, Colorado. The four volumes in this collection (MSS S-1831) are presumably a compilation of documents created and/or collected by him in these roles. Two of the volumes contain letters, reports, legal documents, and blueprints documenting the renovation of the Willcox Canal and the creation of an irrigation district. The other two volumes contain photographs of construction and other Grand Valley locations and activities.

Henry Covert Allen Collection, 1884-1916. Colorado Historical Society, Denver, Colorado. Henry Allen was a Denver lawyer, specializing in water law, from about 1909 to 1939. He was involved in cases with several ditch companies, and some of his surviving papers relate to those cases, including those for the Northern Colorado Irrigation Company, the Platte Water Company, and the City Ditch in Denver. The collection (MSS #7) is 1.25 linear feet and has a finding aid available upon request. The files include some correspondence, financial documents, and legal documents.

José A. Rivera Papers, 1867-1994 (bulk 1982-1994). Center for Southwest Research, University Libraries, University of New Mexico, Albuquerque, New Mexico. Professor Rivera's research interests extend to rural Latino communities in

the United States, and he has written books on the topic. This collection contains the documentation of the “Acequias y Sangrias” (ditches and laterals) project he conducted along with others. The main focus of that project was New Mexico acequias, but the geographic coverage extended to southern Colorado, where these communities exist as well. The collection contains several recorded interviews with Colorado irrigators, in addition to substantial information on New Mexico irrigation. An online finding aid is available for this collection, which is contained in 9 boxes and one oversize folder (6.48 cubic feet).

North Poudre Irrigation Company Oral History Collection, 1992-1994. Water Resources Archive, Colorado State University, Fort Collins, Colorado. This collection (WNPI) is primarily comprised of oral histories in one box (0.5 linear feet) and has an online finding aid. Though there are no transcripts accompanying the recordings, there are two other historical documents about the company, which, incorporated in 1901, began as a conglomerate of several earlier irrigation companies. It draws water from a variety of sources, including the Colorado-Big Thompson Project.

Paul D. Harrison Collection, 1860-1973. Western Historical Collections, University of Colorado Libraries, Boulder, Colorado. The collection has a finding aid available which covers the 2 linear feet. The third notebook in the collection concerns ditch companies, giving names and background information for companies in Colorado and other states. Harrison was a newspaper reporter, businessman, and state government employee.

Pine River Irrigation District Records, 1930-1989. Center of Southwest Studies, Fort Lewis College, Durango, Colorado. This collection (M 103 and I 052) is comprised of papers extending 5 linear feet (10 boxes) and 3 rolls of microfilm. The microfilm consists of documents loaned by the District for reproduction, including brochures, correspondence, clippings, reports, legal documents, and meeting minutes, all covering a forty to fifty year span. The printed records primarily relate to the construction and operation of Vallecito Reservoir in Bayfield, Colorado (La Plata County). There is an online finding aid for this collection.

Records of DARCA, 2001-2007. Water Resources Archive, Colorado State University, Fort Collins, Colorado. The Ditch and Reservoir Company Alliance (DARCA) was founded in 2001 as an organization dedicated to bringing together these types of companies across Colorado for educational and networking opportunities. The collection (WDAR), which is one box (0.25 linear feet) with an online finding aid, consists primarily of the organization’s meeting minutes, convention programs, and newsletters.

Records of the Ditch Project, 2008-2009. Water Resources Archive, Colorado State University, Fort Collins, Colorado. In 2009, Boulder, Colorado, celebrated the 150th anniversary of irrigation ditches in its community. The Ditch Project created three extensive exhibits featuring artwork, photo essays, and educational materials about ditches, as well as a public symposium and a website.

The collection (WDIT) is comprised of 9GB of electronic documents, maps, and photographs, some of which go beyond what is maintained on the website. A portion of the items relates to ditch companies.

Water Supply and Storage Company Collection, 1907-1991. Water Resources Archive, Colorado State University, Fort Collins, Colorado. This collection (WWSS) is primarily comprised of oral history tapes and transcripts. It also contains a few historical documents concerning the company, maps, and a photograph. The collection is 2 boxes and one oversize folder (1+ linear feet) and has an online finding aid. The company was incorporated in 1891 and has expanded numerous times. It originally drew water from the Cache la Poudre River, and later a transmountain diversion was built to bring water over from the Colorado River via the Grand Ditch.

Analysis

“Research is greatly needed on the operation and management of mutual irrigation companies, to understand ways in which their role in water management can be expanded. This research will involve cultivating a degree of trust and considerable sensitivity to the social values and patterns of interaction represented by this tradition.”—John Wilkins-Wells and David Freeman, *Mutual Irrigation Company Monitoring of Main Canal Nitrogen Levels: A Case Study on the Role of Mutual Irrigation Companies in Water Quality Management*³¹

The results show twelve collections were found that match the defined criteria of Colorado ditch company collections in publicly accessible archival repositories. Eleven related collections are listed as well. For the ditch company collections being sought, they were located at six different repositories. Two repositories hold four ditch company collections each: the Colorado Historical Society and the Water Resources Archive at Colorado State University. The other four institutions include two public libraries, one museum, and one academic archive in Kansas. When the related collections are added in, the same two repositories top the list. Added are more academic archives: two in Colorado, one in New Mexico, and one in Connecticut. These results show that researchers need to look both across a variety of institutions and beyond Colorado’s borders for ditch company and related collections.

Not all archival repositories create finding aids, and it shows. Of the twelve ditch company collections, only five have available finding aids, but three of those are

31. John Wilkins-Wells and David M. Freeman, *Mutual Irrigation Company Monitoring of Main Canal Nitrogen Levels: A Case Study on the Role of Mutual Irrigation Companies in Water Quality Management* (Fort Collins: Colorado Water Resources Research Institute, Colorado State University, 1992), 33, <http://cospl.coalliance.org/fez/eserv/co:3909/ucsu61410166internet.pdf>.

online. Only one of the twelve collections has been partially digitized. One collection is not discoverable online at all.

Ditch company collections tend to be small. Half of those found are less than one linear foot. Only three of them are more than 15 boxes, with the rest falling in between. Material types predominating in these collections are meeting minutes, with a smattering of financial and legal documents. Maps, photographs, and water records are rare.

These results show that it is mostly large, research-oriented repositories that hold Colorado ditch company collections. It could be that other institutions have such materials but are not putting information about them online, or it could be that the larger institutions have more staff, money, and expertise to work with these companies and their collections. Conversely, it could be that ditch companies know or trust the larger repositories for various reasons more than smaller ones.

As far as geographic coverage of the ditch companies themselves, a modicum of diversity is shown. Of the twelve collections, all but two draw from streams in the South Platte River Basin. The two exceptions draw from the Huerfano River in the Arkansas River Basin and the Gunnison River in the Colorado River Basin. In the South Platte Basin, four companies draw directly from the mainstem, and others draw from the Cache la Poudre River (2), Boulder Creek (2), the Big Thompson River, and Bear Creek. Counties show the geographic spread of the South Platte companies: Boulder, Larimer, and Weld are represented by two companies each; the others are Adams, Arapahoe, Jefferson, and Logan counties. Apart from the South Platte counties, the other two represented are Pueblo and Delta.

With hundreds of ditch companies creating the state's history, a mere dozen with substantial collections in archival repositories is just the beginning of preserving that history. Those in the South Platte Basin predominate, possibly because of the close proximity to the major archival repositories.

Recommendations

“...the magnificent canals we constructed at such cost of sore trial and hard toil and deprivation, will convey life-giving streams to thirsty fields when the very records of their origin are lost to mankind.”—J. Max Clark, *Colonial Days*³²

It has been written that irrigated agriculture is “at a watershed divide—a time in history where change is imminent.”³³ Today's ditch companies face a number of

32. As quoted in Norris and Norris, *Written in Water*, vii.

33. *Committee on the Future of Irrigation in the Face of Competing Demands, Water Science and Technology Board, Commission on Geosciences, Environment, and Resources, National Research Council, A New Era for Irrigation* (Washington, D.C.: National Research Council, 1996), 6.

ongoing challenges, including aging infrastructure, emerging technologies, urban growth, changing values, water scarcity and competition, and existing laws and emerging legal decisions. The “magnificent canals” Clark was so sure of may not last, and the “records of their origin” are clearly at risk as well. As ditch companies get taken over and their purposes change, their existing historical records may not be seen as important. Before those records are “lost to mankind,” archival repositories should take action.

The foregoing listing and analysis of Colorado ditch company collections held by archival repositories reveals certain strengths but also many gaps in the documentation. In this present era of cooperation, this information could provide the basis for a statewide or, with additional research, even region-wide movement to address the gaps. One approach would be to develop a documentation strategy, following the archival theory which emerged in the 1980s as a multi-institutional approach to “to assure the adequate documentation of an ongoing issue, activity, function, or subject.”³⁴ While the theory generally proved more viable than actual practice, efforts along these lines have been pursued in recent years.³⁵ To have archivists from institutions where the subject area fits the collection policy working with records creators as well as researchers gives documentation strategy a broader basis than one archivist at one institution collecting haphazardly. In this case, ditch company officers, present or past, representing a variety of companies (large, small, eastern plains, western slope, municipal providers, corporate owners) would all have valuable perspectives to add to a collecting effort, as would historians who have used these types of collections.

Another approach this information could facilitate would be on a state level, using the model of the Arizona Archives Summit, which examined under-documented areas across the state and aimed to promote collaborative collection management policies.³⁶ Such collaboration always must begin with an examination of the current collections and their status before future directions can be determined.

Even if not raised to a formalized cooperative effort, archives across the West should consider examining their collection policies and then expanding as appropriate and feasible their outreach to ditch companies. This should be done in a collaborative spirit, both within the archival community and with the ditch company community. Repositories should not compete against each other, and neither should

34. Larry Hackman and Joan Warnow-Blewett, “The Documentation Strategy Process: A Model and a Case Study,” *American Archivist* 50, no. 1 (1987): 14.

35. For recent re-examination and reflection on documentation strategy, see Elizabeth Johnson, “Our Archives, Our Selves: Documentation Strategy and the Re-Appraisal of Professional Identity,” *American Archivist* 71, no. 1 (2008): 190-202, and Larry Hackman, “The Origins of Documentation Strategies in Context: Recollections and Reflections,” *American Archivist* 72, no. 2 (2009): 436-459.

36. Linda A. Whitaker and Melanie I. Sturgeon, “The Arizona Summit: Tough Times in a Tough Land,” *Journal of Western Archives* 1, no. 1 (2010), <http://digitalcommons.usu.edu/westernarchives/vol1/iss1/3/>.

ditch companies find themselves attacked by archivists wanting to take away their history. Rather, archivists should reach out and get to know ditch companies and their leaders. After a level of trust and understanding is reached on both sides, thereafter can repositories and ditch companies form partnerships to preserve the earliest records first and make plans for ongoing periodic transfers. Repositories should be prepared not only to handle what could be very fragile records, but also to impose restrictions as requested by and negotiated with ditch companies. These restrictions could be set for limited time periods, certain document types, or selected user categories. Archivists should be prepared to work patiently with oft-wary companies and their attorneys in order to preserve these historically significant records. Above all, archivists should approach ditch companies with respect for their historical contributions and an understanding of their importance.

Additionally, repositories holding ditch company collections which may be “hidden” should recognize their significance and work to put some level of description on a website or in a bibliographic catalog. Repositories that are able should move toward digitization and online delivery of materials as permitted by the ditch company.

While this present research is an initial attempt at painting a more comprehensive picture of this important Western water development in Colorado, the research should be expanded to other states, as well as to other types of irrigation institutions to flesh out the picture. Comprehensive examinations by watershed, state, or even the entire western region could reveal what has been documented and where more work needs to be done. Such studies could also help those managing ditch companies see the bigger picture and understand their role not only in their local communities, which is important, but also in the scheme of ongoing western development. Modern historians and archivists should find some guidance in William Smythe’s words and cease neglecting irrigation institutions and the people involved.