The call for a new source of municipal water for Durango, 1883-1924:

Providing an adequate supply of safe drinking water for the people of Durango has been one of the highest priorities of City Council for well over a century. It has always been a question of both quality and quantity, and it has always drawn the attention of City Engineers from the north Animas Valley watershed to the more pristine and more plentiful waters coming down through the remote Weminuche Wilderness (the largest wilderness area in Colorado, at nearly a half a million acres) about 15 miles northeast of Durango. From early on, pulling the municipal water from the Animas River posed a serious risk to personal health. The Durango Reservoir Land Grant was a solution to a problem that Durango had addressed as early as July 21, 1883 by Ordinance No. 63, An Ordinance for the Protection of Streams above the Town's Source of Water Supply and of the Town's Reservoir from Nuisance.¹ The 1883 ordinance marked an attempt to regulate harmful output from meat packing businesses, candle- and soap-making factories, tanneries,

¹ This was updated by Ordinance No. 41 in 1887 and renumbered as Ordinance No. 42 when the Town became a City and the Board of Trustees became the City Council) and was reiterated and perhaps updated by Ordinance No. 359 on 1/10/1901.
pigsties, sewers, distilleries, breweries, mineral processing plants, etc. It forbade throwing or otherwise leaving “any putrid or unsound meat or fish, or any hides or pelts of any kind or any filth, offal, dung, dead animals or other unsound, unwholesome or offensive matter whatever, or anything or substance likely to become offensive or unwholesome” into or upon the banks of the Animas River or of Junction Creek “within 5 miles above said dam.” Here is an excerpt:

In about 1924 the Colorado and New Mexico state boards of health released a fascinating illustrated 98-page “Joint report on pollution of Las Animas River” report that was conducted “due to the endemic prevalence of typhoid fever for some years past.” Ninety-one years before the 2015 EPA Gold King Mine Spill temporarily turned the river’s water orange, this survey of pollution of the Animas River from Silverton all the way to Shiprock found that the release of mine waste (tailings) above Silverton was turning it gray. The report documented the release of “mine waste or tails” directly into the Animas River at the rate of approximately 200 gallons per minute from the Little Nation Mine’s mill at Howardsville alone. As shown here, page 29 of the report noted that people in and around Durango were seeing the mine waste in the River where they had to use it.
The report of the 1923/1924 investigations also documented the emptying of raw sewage into the river at Silverton and in Durango (which had no sewage treatment plant until about 1959). The Sunnyside Mine was the largest in the Silverton vicinity, employing 300 men; their sewage was released “through surface privies with openings directly over the South Animas River.” Here is the first page (nowadays it would be called the Executive Summary) of this report, typed on the back of City letterhead (also shown here) on acidic onionskin paper that has now turned yellow:
Here are three photos from the 1924 report. The middle photo is of a railroad bridge in the vicinity of the base of Smelter Mountain, where the survey project was collecting water samples for laboratory testing (the description of the location of that sampling site is from page 50). On the bottom of the page is a view of a sewage outlet in south Durango; the smelters and their smokestacks are visible to the northwest.

Among the photos of raw sewage in the river at Silverton etc. is this one on the right (according to the caption) of the carcass of a hog on the riverbank at Durango.
This view (site of the Doubletree Hotel today) is from the final page of the 1924 report:

**Durango City Council deliberations re: obtaining water via the Florida River, 1900-1919:**

Having provided that overview of the need for an improved water source for Durango, we will now take a foray into the voluminous mentions of the word “reservoir” in the regular meeting minutes of City Council (hundreds of them). From 1883 through 1915 and beyond, City reservoir work was one of the most frequent topics of Council. Around the turn of the 20th century it was often a weekly topic. The City’s subject indexing of the minutes will allow the reader to delve into these records more deeply; for now we will attempt to document the highlights of the Council’s decision-making in regard to the new reservoir far up in the mountains, feeding into the Florida River (as opposed to the Animas River watershed, which draws water from areas in proximity to mines and population centers). This foray into the records will reveal how challenging, costly and recurring are the perennial (24/7/365—and, we might add the condition of 139 years and counting) needs of the City’s utilities systems and will add to our respect for the dedicated individuals who spent so much of their careers working to improve them.

The earliest minutes relating to the Durango Reservoir Grant may have been on August 21, 1900 when Council heard the report from Alderman Sloan (Council members were called Aldermen in those days) of his investigation (along with the City Engineer) of a route for a proposed 10-mile pipeline for a future water municipal water supply, which would require a series of storage reservoirs as the water flowed downhill to and through the city of Durango, all by the sheer force of gravity.
Two years later, at the regular Council meeting on July 15, 1902, Charles Newman recommending pulling the water from the Animas River, but Mr. Van Cott with the Colorado Springs firm of Thurlow, Hutton William “endeavored to show the advisability of taking water from the Florida through the reservoirs[,] either by purchasing so much water or buying their improvements.” Mr. Newman mentioned that he was part of a committee Council had “appointed to look into the matter of tailings or sluice being dumped into the Animas River by residents and mill owners of San Juan County”—which may have been enough to impel Council to consider the Florida water source instead.
A week later, at the regular meeting on July 15, 1902, Council heard a positive report on the prospect of obtaining “unlimited” water from the Upper Florida using a dam and a reservoir for 220 million cubic feet of water storage. Possibilities in addition to Reservoir No. 1 included Lake Lilly (spelled Lillie by the U.S. Geological Survey), Lake Santa Maria, and Upper Park Reservoir, as neatly recorded here on page 298 of Book 5 of the City Council minutes.

Here is a view of a section of the Needle Mountains Quadrangle USGS map, showing these features (but not Lake Santa Maria – unless it was also called Castillena Lake?) as of 1900.
This 1941 drawing of the 1909 grant map shows the details of the legal description:
Mr. Van Cott also spoke at that July 15th meeting in 1902, suggesting that “the best plan would be to purchase all four reservoirs outright”—as recorded in the minutes book thus:
A month later, on August 18, 1902, aldermen Davis, Hanno and McEwen, a Special Committee appointed by Council, reported on their recent inspection of the flume and Upper Reservoir No. 1 “on a fork of the Florida River about 40 miles from the city of Durango at an altitude of 10,500’.” They found Reservoir No. 1 full to overflowing—and its earthen dam had a bit of a leak. They concluded that the region was almost inaccessible and lacked the natural materials for constructing a solid dam. Further, the estimated cost, $80,000, seemed prohibitive.

Their report occupies most of pages 530-534 of Minutes Book 5 and includes a mention that the City Council members had staked a claim to one of the little reservoirs up there, in the name of the City. We have provided this much of their report to Council because beginnings of projects often reveal so much that is useful over time.
The leaves and fruits, and that nature has provided
a bitter, stronger than man can do, in the form of
snow and ice, which does not melt until late in the season when most needed, and
froze corn in early in the fall, remaining for the
winter. Lake Folly might have an outlet
channel cut with a gate fitted so the water could
be drawn off as need. But this is unsound with
which to refill the cistern without getting a little
dirt and mud; this would be quite difficult but
not absolutely impossible.

Here in some areas yet but here is only a small
stream of water coming from any of the lakes now.

D. Davis says this branch of the Florida on which
the reservoir is located goes dry in the fall and
that if the gates were opened now the reservoir
could not be filled again this season.

Deductions.—To consider the reservoir eight
foot deep at a rate twelve feet, in an almost un-
reachable region away from material and where
labor must cost many times more than here,
without material drainage at the toe of the
mountains where the snow lies late, wholly in-

A second foot of water covers 50 acres of land two
feet deep flowing during the irrigating season and
is considered sufficient to irrigate 80 acres. If
the reservoir covers 40 acres, which we think due
average theory but done, which we doubt, it holds
enough water to irrigate four 40 acre tracts
of land, provided there was no loss by seepage
or evaporation; if it covers 60 to 70 acres, which
we have found some people guess, then it would
hold enough to irrigate 4-70 or 70 acre tracts
without allowing for seepage or evaporation.

It forgot to mention that the dam is consid-
ered a temporary structure and is 40 or 50
feet all on the permanent dam site. Why it was
built here on the ridge two hundred feet
longer dam and at a sacrifice great for from one
foot of the reservoir, especially when there is a
natural granite dam that found it built, we
are unable to say.

I understand the Engineer estimates that
the permanent store dam will cost $80,000.
Two months later, on October 21, 1902, Mr. Van Cott, “Manager, ...as an agent for willing sellers,” was back before Council proposing that the City purchase the reservoirs and water rights on the Florida River for $60,000 [i.e., $1.8M in 2020 dollars]. Next, Mr. John Harper told Council he had estimated it would cost an additional $40,000 to run a water main flume from the Florida River to Durango.

Over the next half a year during the wintertime, Council and the City Attorney were considering the details of such a plan, investigating the validity of the current owners’ title, and the possibility of issuing $150,000 in gravity system water bonds. Mr. Forsyth agreed to sell his land and water for $15,000; Mr. McClure’s price was $14,000. On March 13, 1903 Council agreed to both purchases. City Engineer Wigglesworth estimated the City would need 936,144 linear feet of lumber for the flume and for the in-town terminal reservoir (all the details are on page 418 of Book 5, viewable online).

The project’s accomplishments began on January 20, 1903 with City Council’s adoption of Ordinance No. 391 [they were numbered in one sequence through the years, until 1982] to Contract an Indebtedness by
the Issuance of $150,000 in bonds “for the Purchase of Water and Water Rights and the Construction of Certain Conduits.” That was a huge sum for the City in 1903—the equivalent of $4.42M in 2020 dollars. The Ordinance specified that the funding was for a system of “Pipes and Pipe Lines and Reservoirs, for the Purpose of Increasing and Improving the Water Supply of the City of Durango by a Gravity System.”

Among the agreements in the City’s OnBase electronic records database is one dated June 12, 1903 with Thomas L. Loftus for the construction of two reservoirs for the City of Durango. He posted surety bond that by the end of December of that year he would clear the ground, excavate, dig trench and make embankments for Reservoirs 1 and 2. The weather-permitting time span was short, and he could be docked 15 percent if he did not finish the work in time.
Things were moving along. That summer’s Council meetings were full of progress reports. On June 16, 1903 Council instructed Alex Davis, keeper of Reservoir No. 1, to proceed there immediately and to be prepared to fill the reservoir. On June 29, 1903 W. U. Wheaton and George McGregor, doing business as Wheaton and McGregor, signed an agreement with the City to construct a water pipe line, made from wooden staves that the City would provide, to cover the distance of approximately ten miles at the city end of things--from the Florida River to the City Reservoir in Durango.

Included in the six-page contract is this statement that the contractor would be paid by City Council at its first regular meeting of each month. As shown in the following excerpt below that, there was an even tighter time frame for the completion of the pipeline project.
By August 4, 1903 Council had organized a committee to go see the Florida water headwaters and to decide on the work that would still be necessary that year. Pumps were running 24/7 but had been unable to keep the in-town reservoir full during the dry summer with heavy irrigation demands. The flume contractor had been making slow progress and would have to lay a thousand feet a day to finish on time. With the soon arrival of winter up at the high reservoir, Council on November 3rd heard that Mr. Davis had emptied Reservoir No. 1 in ten days and had left everything in first class shape.

Apparently he was also a resourceful man, suggesting how the City could obtain tools at a good price for maintaining the reservoirs. How pleasing that must be for this man’s heirs, to have his good work immortalized in City Council meeting minutes. His details regarding the tools is recorded in the minutes of the March 15, 1904 meeting, on page 14 of Book 6.
Just before the end of the year, on December 8, 1903, urgency – or, perhaps, better described as crisis, given the timing – took hold as it became apparent that some of the trestles supporting the wooden flume were not stable. Council instructed the Water Superintendent to make the necessary repairs and told City Engineer Wigglesworth to immediately begin building a pipeline to connect the upper reservoir with the pipe for the lower reservoir, and to fill the upper reservoir “as rapidly as it could be safely done.”

At the March 15, 1904 meeting, Council heard a report that the banks of Reservoir No. 1 were being washed away, and that “there need be no fear of a water famine this year as there was 2 ½ feet of snow on the level and from 3 to 18 feet of snow and ice in the canyons.” At that meeting Council decided to draft a letter to U.S. Congressman Hogg regarding the preservation of forests [a topic that is still current today, by the way]; City Attorney Spickard cautioned the aldermen to take great care not to antagonize him, as he had introduced a bill “to have our reservoir sights [sic] set apart for the City.” A prudent City Attorney (as the City has been fortunate to have over time), he also gave these instructions about what to write the Congressman regarding the legal description of the territory and a suggestion to ask for a small grant rather than a large one, as it was expected that the City would have to pay a portion of the cost.

At the end of its August 2, 1904 regular meeting, Council agreed to have the reservoirs at the headwaters of the Florida River re-surveyed. Near the close of its September 6th meeting Council received the field notes and maps from that survey and ordered them filed. In the October 4th meeting Council “instructed Water Superintendent Schaller to notify Division Water Commissioner A. A. Hill to empty [the] city reservoir at [the] head of [the] Florida River.” (No explanation was included in these minutes; presumably it was to facilitate work on the dam, which presumably was not even as sturdy as shown in the half-a-century-later photos on the following pages.) The next apparent mention of all this in the Council meeting minutes was on June 6, 1905, when the Councilors who comprised “the Committee on Fire and Water reported inspection of pipeline and headgate and found same to be in good shape” (the minutes did not clarify the
On August 1st Council heard a communication from the City Attorney regarding the City’s title to reservoirs at the head of the Florida River; on October 3rd it “empowered” the Committee to have the reservoir’s headgate raised. The allocation of labor was skimpy in those years; on April 3 of 1906 the Council appointed Mr. T. F. Starr to be the year ‘round keeper of the reservoirs at the rate of $15/month. The June 18, 1907 minutes clarify that the reference to the Upper Reservoir meant the one “on the mesa above Durango” (i.e., the one that was named Rogers Reservoir on February 21, 2012 after retiring long-time Public Works Director Otha “Jack” Rogers. The May 21, 1907 minutes referred to this as Reservoir No. 1. These early minutes also contain references to the 40-Mile Reservoir, which, in its July 2, 1907 meeting, Council asked the Water Superintendent to have filled “at his convenience.” Other contemporary references to that one confirm that it is the remote reservoir that is the subject of this history.

In October of 1907 the Upper Reservoir was emptied, and on July 7 of 1908 Council heard about the clearing of a trail to reach it, and plans for repairing it. A week later (7/14/1908) Council was making plans for a visit to it, and was authorizing purchases to accommodate those who would make the trek.

On August 4 of 1908 it was being stocked with fish, the government surveyors had established the boundaries, and the plans for the visit were being formed.
The appropriateness of scheduling an on-site visit to this remote location was related to the July 25, 1907 Council meeting minutes, which mark a banner point in this history: adoption of a resolution to accept the grant and land granted to the City by an Act of Congress “for certain lands therein described for water reservoirs.”

On August 18, 1908, Council decided to ask U.S. Examiner of Surveys William B. Douglass “to use his influence to have the Department of the Interior to have the corners of the reserve at the 40-Mile Reservoir established as surveyed and set by him,” and also voted to express its thanks for his “valuable services rendered the City in locating the boundary lines of the reserve for the City reservoirs” ... “that the government surveyors had established.”
The work on the remote reservoir and the long wooden pipeline from it towards Durango must have tested the fortitude of the City’s staff and officials. At a Special Meeting on November 9, 1908 (always an inopportune time to hear such news, for a project in the high mountains near the Continental Divide), Council heard Alderman Scouton's report on condition of the pipeline. About 500' of pipe had slipped out of place on the mountain side and had been cribbed up, blocked up and pipe hung with cables fastened to trees, to be held until both reservoirs could be filled. The City was keeping two men on the project at this time. City Engineer Henderson advised laying new pipeline around the present line, “along the north side of and across Nelson's field to the river, about 3,690’,” and Council adopted this new route, and turned to the challenge of how to fund the unanticipated expenses. Proceeds of the sale of City ranches would be placed in the Gravity Water Fund, rescinding Council’s prior decision to place them in the Sinking Fund for payment of water bonds. Council authorized its Mayor and Finance Committee to arrange terms with Mr. Nelson for a right of way through his ranch, telegraph National Wood Pipe Co. of Salt Lake City as to prices of pipe and how soon it could be delivered. All other business was dispensed with, and Council adjourned.

The April 20, 1909 minutes reported a need for immediate repairs of the pipeline and reservoir dam (presumably this one). By the 4th of the next month 800 linear feet of Oregon fir pipe was on order from the National Wood Pipe Co., and by June 1st the repairs were nearly complete. June 15th was a sad day (presumably) for fishermen: fishing in City reservoirs would no longer be allowed, even though (per the bimonthly approval of bills on August 3rd, the City paid $50 to defray the expenses of having already stocked trout in its upper reservoirs (one of the Aldermen voted nay on that motion), “and that fish be transported to reservoir at proper time.” (The August 16, 1910 minutes report that there were too many fish in the City reservoirs—but by September 6th the report was that there were too few.) At that same meeting, Council decided to send the aforementioned U.S. Examiner of Surveys William B. Douglass a gold watch charm as a further expression of his thanks (he had already thanked them for their thanks, per the minutes of January 5, 1909). Here is the excerpt from the minutes of August 3, 1909:

The saga continued on October 22, 1909 (and further, three days later) in reports by the Pipe Line Investigation Committee, which had traveled all over the state for three weeks, investigating the different kinds of pipe in use in other cities as flow pipe. Demonstrating the gravity (pun intended) of this issue, they visited Pueblo, Trinidad, Denver, Golden, Boulder, Longmont, Greeley, Colorado Springs, Canon City, Leadville, Montrose, Ouray, and Silverton (which had two miles of inactive banded redwood stave pipe with iron collars that has been in use for six years and was yet in excellent condition). They found that the lap welded steel pipe had been in use for 23 years for some city mains and was still in good condition. City
Engineer W. H. Wigglesworth recommended no machine bonded stave or light riveted steel pipe be used, but use lap welded steel pipe in some places and (re-)build portions of the pipeline of continuous stave pipe of Oregon fir 18" wide with 3/8" bands, using tiling in places where there is no pressure. After hearing a proposition for a tunnel and individual reports and recommendations, Council instructed Mr. Schalles to empty (yet again) and caulk the 40-Mile Reservoir with oakum and deal with the fish.

Meeting again just three days later, Mr. Wigglesworth advised reconstruction of the present line from the headgate to Station 87 to connect with machine bonded pipe that had been installed in 1908, using continuous Oregon fir stave pipe “which lasts at least as long as lap welded steel pipe and costs less,” using steel only for the short distance from the headgate due to the pressure being too great for vitrified tiling and not sufficient for wood stave. A few days later. On November 5th, 1) Mayor Goodman was on the defensive, reporting by the Evening Herald and the Durango Wage Earner regarding the water pipe line question as “not at all fair.” It was noted that the dam would need repairs the following spring. Intense discussions on the problem continued on November 22nd, including a report from a Denver contractor who was in Durango. Engineer H. T. Henderson asked whether City wished to take chances on experimental methods that could cause serious break(s) that would cut off the water supply. The December 7th meeting included a failed motion to declare the office of the City Engineer vacant due to the absence of Wigglesworth, and a note that the November salary was being withheld. It also included the mention of a $16.50 charge to record the map and field notes of the Reservoir Grant, and discussion of amendments to the federal Durango Reservoir Act. Further discussion of that matter on February 1, 1910 included a mention of the risk of asking U.S. Congress to amend the Act that created the Durango Reservoir Grant.

Pipeline problems persisted: on June 21, 1910, Council heard the dismaying report that it was “in very bad condition in many places”, requiring 20,000 to 30,000 bands, and the 40-Mile Reservoir was full. On August 10th Council agreed to open its headgate to allow 40 cubic feet of water per second to come down Florida River for benefit of farmers taking water from River (they had made it into the minutes several times previously, with this request).

Achieving success in the political and documentary realm was proving as challenging as the physical calamities. On July 13, 1910, the City Clerk wrote the U.S. Land Office, asking for a status update.

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2 Not found 8/12/2020 in a visual online search of the 63 documents recorded by the La Plata County Clerk and Recorder between 11/22/1909 and 12/7/1909 (documents from that area are handwritten and have not been indexed online by the County).
On July 27, 1910 the City received this notification that the survey was approved – but to obtain title to the land, the City would still have to submit a “proper application.”
On August 4, 1910, John McPhaul, Assistant Commissioner for Legal Affairs within the General Land Office of the U.S. Department of the Interior, mailed further instructions to the Land Office’s Register and Receiver in Durango:

In reply please refer to T. S. 2-241 "E" D.W.

DEPARTMENT OF THE INTERIOR
General Land Office

Durango Water Supply Site. Instructions.

Register and Receiver,
Durango, Colorado.

Sir:

Under the Act of March 1, 1867, (34 Stat., 1881), a survey of the lands by said act authorized to be entered by the City of Durango, Colorado, for a water supply site, was ordered and made, and the plat thereof was approved on November 1, 1899.

Said plat shows the existence thereon of improvements known as "Logtown" and a cabin located in the north part and one in the south part of the land.

You will therefore notify the corporate authorities of said city that you are ready to receive their application for a patent to the land under said act; that with said application they should file the usual notice of intention to make proof as in other cases and that thereupon you will issue the customary notice of publication for making such proof to be published the length of time, at the expense of the applicant, as provided in other proof notices.

Said notice should contain a special citation to all occupants of the land and be served upon them either personally or by registered letter as required in the case of Reno vs Cole (15 L.R., 174).

On the day fixed for submitting proof record evidence must be filed of the due publication and service of said notice and of the incorporation of said city, together with testimony by two of the advertised witnesses that the land at the date of the approval of said act was public land, unappropriated by any valid claim thereto.

Upon the production of such proof, satisfactory to you, and upon the payment of the purchase price required by said act, you will issue cash entry to the city in its corporate name for said land.

Very respectfully,
(Signed) John McPhaul,
Acting Assistant Commissioner

Board of Law Review
by Julius Andres.
Four days later, William B. Douglass, U.S. Examiner of Surveys of the General Land Office, informed the City Clerk that “the only thing necessary to perfect title or get patent” would be for the City to apply for the land in accordance with the terms of the original Act.
At the August 19, 1910 City Council regular meeting the councilors heard about the status of procuring the patent on the federal grant for Durango Reservoir. On May 16 of 1911 they heard that there was a time limit for the City to accept the 3,050-acre grant. On June 20th they learned that 300 feet of pipe was out and was being replaced as fast as possible with spiral wound pipe; also, the City Attorney gave an update on the Reservoir Grant—but the minutes contain no details and unfortunately the document itself (along with all other such reports mentioned in early City Council minutes) has not survived/was not preserved for our use today.

On June 14, 1911, City Attorney George Moody wrote Herman Hanno, Chairman of the City of Durango Finance Committee, informing him that the City still had to take certain steps to secure the title by obtaining the patent for the City Reservoir site that was granted to the City by the U.S. Government by Act of Congress on March 1, 1907. He advised haste, “in view of the vital necessity of securing a permanent and inexhaustible water supply for the use of the City, and in view of the fact that the Government is continually withdrawing reservoirs and power sites.”

On January 16 of the following year (1912), U.S. Surveyor W. B. Douglass offered his services to secure the patent. The minutes of October 15, 1912 note the receipt of a letter from the U.S. Assistant Secretary of Interior, informing them that patent issuance was suspended until Congress could pass remedial legislation making the Act correspond with the amended survey. Council directed the City Attorney to take the necessary steps to secure the patent and to perfect the entry of the Reservoir Site before the Department of the Interior. Skipping ahead two years to June 16 of 1914, Council was discussing the possibility of working with the U.S. Forest Service to improve the condition of the trail connecting the wagon road with the 40-Mile Reservoir, heard from U.S. Congressman Edward Taylor regarding the Grant and the amendment to the original U.S. Act necessary to correct the matter and secure the patent, and received a report that the pipeline was “now in unsafe and dangerous condition and may at any time fail to supply the necessary supply of water for the inhabitants of the city.” Here is a color scan of most of that...
The October 5 letter of suspension from Mr. McPhaul is shown here (the original is in the correspondence in the City Archives):

The act approved March 1, 1907 (34 Stat., 1063), granted to the city of Durango, Colorado, the right to enter, under certain conditions, for a water supply site, the lands therein described by metes and bounds in the townships 36 N., ranges 6 and 7 W.

In 1909, a survey was made of the land, but the survey did not conform in all respects to the metes and bounds given in the act, especially on the east and south sides of the tract, thereby including some lands not granted and excluding other lands granted by the act. The reasons given for such variation were that the survey conformed to the summit of the ridges inclosing the drainage basin desired, while the description in the act did not; that the city desired the change made; and that the variations only covered land of from 18,000 to 14,000 feet elevation, and all but two of the lines were above the timber line. The land as
As with subsequent acquisitions of responsibility for large tracts of land (Lake Nighthorse comes to mind, in recent years; annexation was necessary for providing police protection there), the City was facing the need to protect its reservoir areas. On July 20, 1915 Council heard the Durango National Forest Service’s request for no trespass signs for the 40-Mile Reservoir (the color photo above is from the summer of 2020). The year before (5/15/1914) it had refused a petition to allow the grazing of sheep there. On March 10, 1942, a much later Council approved a federal request to allow grazing.
Here, from the City’s historical artifacts and memorabilia, is the U.S. Forest Service’s record of payment to the City for the grazing of sheep within the Durango Reservoir Grant for the 1945 season.

Turning off of the [sheep] trail and back to the project work in 1915: At this point, City officials and staff were making inspections to the remote reservoir. On October 15, 1915, City Manager Hood reported on his recent visit:

Manager Hood reported to the Council of his trip to the Forty Mile Reservoir, stating: That the trail was in bad shape and needed to be repaired and that the head gate had been raised and there was no water in the reservoir and that the premises, called the water shed was free from stock and debris.

The City’s historical artifacts include a typed memorandum of proceedings of City Commissioners at their regular meeting held on October 19, 1915; regarding (among other topics Council covered) securing the City’s right of way to the reservoirs. The text of its third and final page is included on the following page, in part due to the whimsy by the person (presumably the City Clerk, Treasurer AND Police Judge/Magistrate, Ralph Myers) who was typing it.

Note the switch to typewritten minutes; Council had heard the request for a typewriter on August 3 of that year. A year later, on December 19, 1916, Council authorized buying an 18”-wide carriage typewriter for $119.25 [$2,835 in 2020 dollars] for use of the City Clerk’s and City Manager’s offices. This was a huge technological advancement, like the introduction to using email 70 years later.
The next four years of City Council minutes grew quiet regarding the Durango Reservoir and the federal grant. On August 8, 1919, Council heard a report that the 40-Mile Reservoir was full; water was running out of spill-way. The dam was in good condition, but the flow was washing some ground at the headgate, which would need the work of two men sent there to clean it out.

Before concluding this brief history, we must reference an important document relating to the Weminuche reservoirs (in the City’s executive correspondence from the early 1980s): an undated later reporting on an inspection visit on August 27-29, 1980, by Henry Benjes, Jr., of Culp/Wesner/Culp, a Denver engineering firm. Here are excerpts from his report:

The purpose of the trip was to evaluate the feasibility of developing the upper Florida reservoirs for added water supply. I had the opportunity to visit the City Reservoir (Durango Reservoir No. 1), Lake Marie (Durango Reservoir No. 2), and Castilleja Lake (Durango Reservoir No. 4). Lillie Lake (Durango Reservoir No. 3) was visited by others.

From 1933 USGS mapping and from viewing the reservoirs, the following approximate physical description may be made:

<table>
<thead>
<tr>
<th>City Reservoir</th>
<th>Durango Reservoir No.</th>
<th>Area-Acres</th>
<th>Average Depth-FT.</th>
<th>Approximate Volume-Acre Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Marie</td>
<td>2</td>
<td>10</td>
<td>3 e</td>
<td>30</td>
</tr>
<tr>
<td>Lillie Lake</td>
<td>3</td>
<td>5.5</td>
<td>9 e</td>
<td>50</td>
</tr>
<tr>
<td>Castilleja Lake</td>
<td>4</td>
<td>8.7</td>
<td>12 e</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>e - estimated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

The estimates of lake area have been made based upon USGS mapping and estimates of depths made from ground slopes in the direction of stream flow. These may be subject to error, but are believed to be more accurate than the estimates shown on the land grant mapping filed in 1905.

Each of the smaller reservoirs (2, 3, and 4) are tributary to the City Reservoir and have no means to control releases or vary stored water volume. The City Reservoir has a timber control structure at the rock-fill dam, however it has been destroyed and is no longer serviceable.

Mr. Benjes noted that the rockfill dam was leaking, and evaluated the possibilities in terms of making physical enhancements to regulate the outflow—and the pros and cons of taking any action.
After estimating the annual runoff at 2,900 to 6,500 acre feet, Mr. Benjes gave the following rather sober evaluation:

At this time there is not sufficient information to judge whether the development of the storage rights on the upstream reservoirs is worthwhile or not. The approach to the resolution of whether these waters should be developed or abandoned is very much confused by the location of the reservoirs. Being surrounded by wilderness areas, special studies and permissions must be gained in order to access these reservoirs to make improvements. Even with these permissions the access is difficult and would entail major expense in moving equipment, materials and men to the site.

This concludes our foray into the early City Council minutes regarding the Durango Reservoir and the federal grant. The next phase of that municipal water source would be the construction of Lemon Reservoir in the early 1940s; water from the 40-Mile Reservoir would flow through Lemon on its way to Durango. On August 20 of 1940 Council turned down an offer from the U.S. Bureau of Reclamation for the City to purchase 500 acre feet of water in Lemon for $100,000 ($1.85M in 2020 dollars).

Mr. Harrah next presented to the Council a letter from the Bureau of Reclamation concerning the proposed reservoir for flood waters at the Lemon site on the Florida River. The Bureau offered the City 500 acre-feet of water for $100,000. Mr. Pederson, of the Bureau of Reclamation, appeared before the Council to answer any questions which might arise in the discussion of the proposed project. After discussion, the Council decided that inasmuch as the project does not affect priorities, the high cost would make it impossible for the City to enter in this project. The Council suggested that Mr. Harrah write a letter to the Council to that effect.

Asked again on February 4, 1950, Council again demurred. (Lemon Dam was not completed until 1963.)
The Council minutes of July 19, 1966 mention an upcoming trip to the Reservoir July 29-31 for a US Forest Service inspection and to consider possible development of the area into a park.

**The City’s title to the 40-Mile Reservoir, et al.:**

The Durango Reservoir Land Grant may be one of only two real estate tracts the U.S. Government gave the City of Durango. Here is the text of the Act of Congress dated March 1, 1907 for the Durango reservoir land grant, in the Congressional Record of the 59th Congress:

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4 The February 4, 1910 City Council minutes describe the text of U.S. House Bill 19703 “to grant public land to the City of Durango for public park purposes, 1,000 acres along Junction Creek about 4.5 miles from Durango, reserving to the United States all lands that may be found suitable for water-power and all oil, coal and other mineral rights, and City must conserve and care for all standing timber upon said land.” Subsequent minutes do not mention of it; apparently the grant never materialized.
These scans are of the best quality possible, because our “originals” are old browned photocopies a century old; also, the Congressional Record is not available online that far back. The following are the pages of the amended Durango Reservoir Land Grant Act that Congress approved on May 8, 1916 following the years of clarification of the acreage, etc.
That the following-described tract of land situate in suspended township thirty-eight north, range seven west, New Mexico principal meridian, in La Plata County, Colorado, within the San Juan Forest Reserve, to wit: A tract described by metes and bounds as per special survey approved by the Commissioner of the General Land Office on November first, nineteen hundred and nine: Beginning at corner numbered one, a cross at exact point on top of rock ‘D. R. G.’ on the northeast and ‘P. L.’ on the southwest face from which a bassalt bowlder fifty-four by thirty-six by thirty-three inches bears north thirty-nine degrees east forty-three links distant, marked ‘B. I. O.’; a spruce nine inches in diameter bears north forty-five degrees ten minutes east eighty-eight and one-half links distant, marked ‘Cor. No. 1, D. R. G., B. T.’; a spruce ten inches in diameter bears east eighty-eight links distant, marked ‘Cor. No. 1, D. R. G., B. T.’; a spruce twelve inches in diameter bears south nineteen degrees forty-five minutes east eight-four links distant, marked ‘Cor. No. 1, P. L., B. T.’; a spruce ten inches in diameter bears north twenty degrees forty minutes west two hundred and forty-seven and one-half links distant, marked ‘Cor. No. 1, P. L., B. T.’; thence north twenty degrees seven minutes east seventy-four and twenty-four one-hundredths chains to station numbered two; thence north seventy-seven degrees two minutes east sixteen and six one-hundredths chains to station numbered three; thence north eight degrees twenty-four minutes east thirty-six and thirty-six one-hundredths chains to station numbered four, whence United States location monument Mount Valoys bears north thirty-eight degrees twenty-three minutes east seventy-six and thirty-one one-hundredths chains; thence north seven degrees twenty-eight minutes west sixty-eight and eighty-three one-hundredths chains to station numbered five; thence north ten degrees twenty-three minutes east seventy-seven and nineteen one-hundredths chains to station numbered six, whence United States location monument Mount Bullion bears north sixty-two degrees sixteen minutes west thirty-five and sixty-two one-hundredths chains; thence north eighty-seven degrees thirty-one minutes east nineteen and fifty-two one-hundredths chains to station numbered seven, whence United States location monument Tempest bears south four degrees twenty-four minutes west seventy and sixty-nine one-hundredths chains; thence south thirty-eight degrees thirty-seven minutes east fifty-three and twelve one-hundredths chains to station numbered eight; thence south eighty-five degrees thirty-one minutes east twenty-four and forty-five one-hundredths chains to station numbered nine; thence south eleven degrees fifty minutes east fifty-eight and thirty-two one-hundredths chains to station numbered ten; thence south fifty-six degrees eighteen minutes east fifty-nine and thirty-two one-hundredths chains to station numbered eleven; thence south twenty-eight degrees forty-six minutes east seventy and forty-six one-hundredths chains to station numbered twelve, Sheep Mountain; thence south sixty-five degrees thirty-two minutes west one hundred and thirty-one and ninety-two one-hundredths chains to station numbered thirteen, United States location monument Mount Sheridan; thence south fifty-two degrees thirty-two minutes west fourteen and fifty-one one-hundredths chains to station numbered fourteen; thence north eighty-seven degrees seven minutes west ninety-two and fifty-three one-hundredths chains to station numbered one, point of beginning, containing three thousand and forty-nine and eighty-seven one-hundredths acres, more or less, situate in township thirty-eight north, range seven west, New Mexico meridian, including those four certain reservoirs claimed or occupied by said city of Durango, known as Reservoir Numbered One, or Upper Park Reser-
Next we see the cover of the 82-page title search report dated 11/13/1911 regarding the municipal water rights on the Florida River, ditch rights, and the City’s ownership of its reservoirs, including Reservoir No. 1.5

5 Certified abstract of title no. 3535, vol. 1, made from the books of the La Plata County Abstract of Title Company, to the title of the City of Durango in and to the waters of the Florida River and the rights of way and reservoir sites thereto belonging in La Plata County, Colorado (48 entries, on front-and-back sheets numbered 1-48; total of 82 scanned pages)
The City is noted as having become a participant in these rights on the 7th of the 48 entries, as shown here:

On May 13, 1918, the long-awaited patent was issued. Here is the start of it, from an early, browned, fragile photostatic copy in the City’s archive of historical memorabilia:
Below, related to the patent document, is the City’s affidavit dated April 4, 1918, affirming that the City had paid for the patent but had lost the receipt:

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
United States Land Office
Durango, Colorado.

In the matter of the
application of the City of Durango for a patent. Cash Entry
No. 03778.

Ralph E. Myers of lawful age, being first duly sworn
according to law, on his oath says that he is City Clerk
and City Treasurer of the City of Durango, in the County
of La Plata, and State of Colorado, owner of real estate herein-
after described, and that as such officer he has the charge
and custody of all the records, documents, paper and em-
nents of title belonging to said City; that there has been in
the possession of this affiant as such officer a Certificate
of the Register of the United States Land Office at Durango,
Colorado, showing the payment by said City of the purchase
price of the real estate hereinafter described but that said
Certificate is now lost and cannot be found; that the affiant
has made diligent and thorough search through the records and
documents of said offices and cannot find the said Certificate
and that this affidavit is made for the purpose of obtain-
ing the patent for said real estate. That said real estate is
described as follows:- A tract of land situate in Township
Thirtyeight (38) North of Range Seven (7) West of the New
Mexico Meridian, Colorado more particularly bounded and
described as follows:- Beginning at Cor. No. 1, a rock marked with
cross on top at corner point and D. R. C. and P. L. thence N.

The City’s archives also include two typed pages, circa 1953, of an “Overview of the abstract of title of ‘Two Volumes 1 and 2 # 3535’ of the title of the City of Durango in and to the waters of the Florida River and the rights of way and reservoir sites thereto belonging.” They include the following summary data about
Reservoir No. 1, noted here as also referred to as the Upper Park Reservoir (as was labeled on the photos from around that time period). 6

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6 As we have noted, the same reservoir numbers have been seen in City records, assigned to these remote ones in the Weminuche wilderness and the two in town (Reservoir No. 2 in Durango was filled in and became the City’s softball field complex on the campus of Fort Lewis College, on the mesa known since the 1950s as College Mesa but previously as Reservoir Hill.
A photographic survey—then and now:

Below are two historical aerial photos of the City Reservoir and Florida River Canyon from the City Archives, looking north, taken on July 22, 1935 by Frank Will and J. A. Clay; the pilot was Lt. Vaughan. The upper view is from an altitude of 12,500 feet; the lower vista is from 13,000 feet. On the following pages are five undated historical photos of the Upper Park Reservoir and its rockfill-and-timber dam circa the mid-1950s, including one of a horseman leading a pack horse across the dam. For the conclusion of this eBook, Assistant City Manager Kevin Hall has shared photos he took while camping there in July of 2020.
This is how the area – including the dam and the outflow into the Florida River-- looks, in color, half a century later (photos courtesy of Assistant City Manager Kevin Hall, who took them in July of 2020.
The campsite photo on the back cover is in Missouri Gulch, slightly to the west of the Durango Reservoir Land Grant area, but east of the no trespassing sign photo by Kevin Hall on page 22.