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Mutual Water Companies and Local Conservation: The Pomona Valley Protective Association

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Benjamin Hackenberger Pomona College

Reflective Essay

Mutual Water Companies and Local Conservation: The Pomona Valley Protective Association

Ben Hackenberger

When I first found myself in Honnold-Mudd Library's Special Collections work last spring during a design research practicum on Route 66 taught at Pitzer College by Professor and Architect John Bohn, I had no idea how critical the library's collection of documents on local water would prove to unraveling a story of modern development in Claremont and the Pomona Valley. Although my initial research interest in Route 66 brought me to Special Collections for the library's Claremontiana file of local-related media and memorabilia, my exposure to the collection inspired a series of connected research projects that have attempted to connect the history of development in the San Antonio Wash to the development decisions the region faces today. The culmination of this work is my Environmental Analysis thesis, "The Wash: Reclaiming the Gap Between Claremont and Upland," which combines the little-studied case of land and water rights resolutions along the San Antonio Creek in the early 20th century with an analysis of recent Claremont University Consortium expansion efforts in a single survey and critique of local conservation and development efforts. The depth and diversity of primary source documents capturing local development and water rights histories inspired my research by allowing me to explore the unique and historically relevant case of development in the San Antonio Wash.

The piece I have chosen to submit here is the product of a much closer investigation into the circumstances surrounding the creation of the Pomona Valley Protective Association (PVPA)—a collaborative effort of local mutual water companies whose benefits to its stakeholders were rare in two ways. First, the Association was built upon allegedly local breakthroughs in scientific understandings of hydrogeology that allowed the PVPA to make conceptual connections between confined aquifers and water from San Antonio Creek that supported the group's legal claims over groundwater across the Pomona Valley. Second, although I accessed the water collection with the intention of understanding how dam-building efforts in the San Antonio Wash shaped development, the documents I found in Special Collections revealed these important connections between water rights and development in Southern California's foothills—

discoveries that are relevant to contemporary debates in environmental history, landscape architecture, sustainable planning theory, and design practice.

Throughout the research process, I worked closely with librarians Lisa Crane and Tanya Kato, whose assistance in scouring the extensive collection for relevant maps and documents gave me a sense of control over my research. While my investigations were at first guided by my knowledge of the BLAIS catalog, Lisa Crane helped me understand not only how to access primary source documents through the Online Archive of California but also how to use these search tools as an active part of my research. Tanya Kato helped me navigate the library's collection for specific maps and resources hidden in unexpected places. With these new research tools, I delved into the library's massive local water history records. I followed the idea of the PVPA through scientific notes on local hydrological systems, founding documents, construction updates, and annual reports to members. My developing understanding of Claremont and improving skill in locating historical documents allowed me to trace ideas and positions through critical individuals and draw concrete connections between early Claremont society and influence over shaping the area's built landscape.

Reflecting on my notes from the research process—which included discussions with librarians, with my professor Char Miller, and time spent scouring and analyzing documents—reveals a tangible improvement in my understandings of historiographical methods and primary source analysis. Having access to documents and narratives written by Claremont residents themselves added character and depth to my research that allowed me to understand how Claremont's early influencers conceptualized the San Antonio Wash landscape and their control over its natural processes. While I initially intended to use the water collection primarily for infrastructural data, exploring the various narratives established by individual documents and sets of sources encourage me to use these stories to draw connections between cultural contexts and the built environment.

As I continued to develop my sketch of the PVPA, the context of local land and water rights, and the landscape of early development in the Pomona Valley, I was able to build a case for re-centering the area's largest hydrological ecology as a first step toward developing ecological restoration as a strategy for sustainable development. The level of detail captured in the library's extensive water rights documents, combined with the

breadth of this collection and the research skills support I received at Honnold-Mudd inspired me to pursue work that uses intensive primary research to draw connections between environmental histories, historiographical conceptions of the landscapes of the American West, and the creation of ecologically problematic infrastructures. In the library's Special Collections, I found not only the factual information I was looking for—but also the inspiration to pursue challenging analytical work that attempts to reintroduce local histories in sustainable development decisionmaking.

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Research Project

"Mutual Water Companies and Local Conservation: The Pomona Valley Protective Association"

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Since the San Gabriel Mission was established in 1771, white settlers' relationship to land in the Pomona Valley has been defined in large part by their attempts to control the region's water, which along with fertile soils and a mild climate facilitated the Southland's transformation into seemingly endless expanses of citrus groves. But when Ygnacio Palomares and Ricardo Vejar received the Rancho San Jose by grant in 1837 from the governor ad interim of California, water rights were an assumed part of the allotment. The Rancho lay to the west of the San Antonio Wash² and, the owners would argue, included rights to half of the water flowing out of the canvon. In the early days of the Rancho, these claims would have seemed trivial—natural springs, including the self-named Palomares cienega by which the family built a home, were relatively abundant in the area. The Palomares' rights were legally recognized in 1871 when the family successfully sued to protect a ditch they had built from the mouth of the canyon to the northeast corner of the Rancho and were awarded a half-share of surface runoff based on the original Spanish land grant.³ The other half of the creek's water was claimed in the plat of the Rancho Cucamonga, on the east side of the Wash. As the gentle slopes of the lower foothills were converted into citrus groves and housing developments, this original division of the rights to surface flow in the canyon would create a complex and—in the existing literature on water rights in California—unique scenario involving bitter conflict and regional cooperation. This cooperation would lead to the establishment of an association with the specific goal of protecting watershed rights and pursuing conservation initiatives. The San Antonio Water Company (SAWC) and the Pomona Valley Protective Association (PVPA) were able to use the configuration of property-based water rights in the San Antonio Canyon to protect the flow of water coming out of the canyon, and in turn, preserve large stretches of open land in the Canyon and the lower foothills north of Claremont.

Early Conservationists and Watershed Protection

From the beginning of agricultural and residential development in the foothills at the turn of the century, land speculators were preoccupied with securing sufficient water rights to allow these cities to grow into the Eden-like communities and agricultural centers they had advertised. These early events paralleled a growing conservation movement that drew on contemporary European methods of forestry and positioned the newly acquired forests of the American West at the center of the growing nation's essential natural resources. Conservationists advocated for forest management not only to preserve natural beauty, timber, and mining resources in the forests, but also to protect the relationship between forests and the watersheds—a relationship intuited by early observations of ecological relationships by white scientists. George Grinnell, an explorer, scientist, and sportsman, became one of the first men to articulate the connection between deforestation and reduced stream runoff to the American public. Writing in *Forest and*

¹ Maynard, Glyde. "A History of the Development of San Antonio Canyon California." Undergraduate? University of Southern California, 1935. Print. 20.

² A wash, or arroyo, is a dry creek bed in which periodic flooding "washes out" the landscape, making early development in this landscape difficult.

³ Maynard 21

⁴ Gifford Pinchot, who would go on to heavily influence the Forest Service's creation and serve as its first Chief Forester, was heavily influenced by an early (for Europeans and Americans) and intuitive sense of ecological knowledge promoted by both Grinnell and his mentor, George Perkins Marsh. Writing in 1908, Pinchot elaborated

Stream in 1882, Grinnell argued that "the streams of such a country will thus shrink when the mountains, where the snows lie latest and the feeding springs are, and the swamps, which dole out their slow but steady tribute, are bereft of shade." In the 1890s Grinnell would become a friend and informal advisor to Theodore Roosevelt, a relationship which historian John Reiger points out would be "influential in giving the future President a more sophisticated, broader grasp of 'conservation' that included both aesthetic and ecological components as well as the obvious utilitarian one." While a growing understanding of and interest in the relationship between forests and watershed health on a national level was quickly popularized through magazines like Forest and Stream, the movement's political advocates also emphasized the value of local knowledge in managing resources. In many cases, conservationists' knowledge came from personal experiences or commissioned expeditions that aimed to tap into knowledge of local ecosystems and harnessed landowners for the cause of conserving the nation's lands. Still, most of the United States' early conservation policies in the West emphasized federal land ownership and governance. The San Gabriel Timberland Reserve was established in 1892, parts of which became the Angeles National Forest and the San Bernardino National Forest. In the case of the San Antonio Canyon, however, private interests played a central role in conserving the lower watershed—both where threats fell outside of the federal government's sphere of influence and where Forest Service's multiple use doctrine allowed for ecologically harmful

In the same year Grinnell published in *Forest and Stream*, Reverend Cyrus T. Mills, a man from Oakland, and M.L. Wicks, from Los Angeles, bought a tract of the Rancho San Jose and set about establishing and subdividing a development that would become the city of Pomona. The two men also bought the Palomares' diversion ditch (and its associated rights) and began consolidating area water rights to create the Pomona Land and Water Company (PLWC).⁸ On the east side of the Wash, two brothers, William and George Chaffey, had similar aspirations for their Ontario Colony. ⁹ The Chaffeys established the San Antonio Water Company (SAWC) in October 1882 to hold their collective water rights in a similar scheme of a mutual water company. 10 Wicks and Mills and the Chaffey brothers sought to buy the land from Dunlap, but Garcia, who was "acquainted" with the Chaffey Brothers of Ontario, sold the lands to the Chaffeys. Dunlap and Garcia thus delayed the creation of a unified watershed interest in the San Antonio Canyon for 30 years, allowing for dueling private interests to arise: the PLWC and the SAWC. Shortly thereafter, Charles French constructed a dam that would allow Pomona and Ontario to measure and divide the creek's flow between them. 11 This dam allowed the two water

on the connection between forests and streams, establishing himself solidly in support of forest conservation for successful watershed management. Pinchot, Gifford. "The Relation of Forests to Stream Control" Annals of the American Academy of Political and Social Science, Vol. 31, American Waterways (Jan., 1908), pp. 219-227 ⁵ Grinnell, George. "Spare the Trees." Forest and Stream 18 Apr. 1882: 1. Print. in Forest History Today. 19

⁶ Further research is required to understand exactly how local interests in the Pomona Valley were influenced by the connection between Forestry and watershed management that was playing out in national conservation discussions at this time. Reiger, John. "Pathbreaking Conservationist: George Bird Grinnell." Forest History Today. Forest History Society, Spring/Fall 2005. p. 16. Print.

⁷ "Angeles National Forest – History & Culture." United States Forest Service. *United States Department of* Agriculture. N.d. Web. Dec 8 2014.

⁸ Maynard, 22-23.

⁸ Gentilcore, R. Lewis. "Ontario California and the agricultural boom of the 1880s" *Agricultural History* April 1960. Print.

¹⁰ Maynard, 28.

¹¹ Ibid. 44.

companies to continue operating, at least temporarily, under a system of equally divided water rights.

The mutual water company was a development model unique in its mix of private speculation and democratic allotment of water rights to settlers. A company would, as in other private development schemes, pursue water rights via private property ownership, but these rights would be transferred to individual landowners along with a share in the interest of the water company. As historian Norris Hundley notes, the mutual water company built on a "popular passion for free enterprise and localism" that he identifies as a major motif in the development of the American West. 12 While the rights were distributed to each individual land owner, the motivating logic of the mutual water company was driven primarily by market-based strategies typical of private land and water rights—that is, the implicit goal of each company was to maximize and solidify claims with land holdings. The development of mutual water companies in the Pomona Valley was complicated by shared water rights between two major companies in the region—a piece of the story that escapes Hundley's account of the Chaffey's developments at the Ontario Colony. Hundley maintains that the Chaffeys bought all conflicting water claims in the area. 13 In fact, the legacy of the Rancho period division of water rights in the San Antonio Canyon would persist through the 20th and into the 21st century, with the claims of the SAWC and PLWC serving as the basis for water allotments today.

In the years leading up to the California Supreme Court's foundational decree on the two companies' rights in 1915, however, the water rights scenario follows Hundley's observation of a trend toward monopolization of riparian water rights. The SAWC held an advantage over the riparian rights-based monopolies that Hundley describes in that the company was diverting water primarily for domestic use. ¹⁴ The scramble for water rights in the San Antonio Canyon around the turn of the century yielded a monopoly by the SAWC that allowed the company to successfully seek legal protection of the canyon's watershed from pollution by mining and overuse by a growing tourism industry.

During the mid-1890s, the Company noticed the impact that mining in the canyon could have on water quality in the valley below and moved to protect its interests. The major target... was the Hocumac Company, a mining venture that, according to Southern California historian Muir Dawson, had by this point acquired nearly every active mining claim in the canyon. In the summer of 1895, San Bernardino County's Superior Court awarded an injunction to the San Antonio Water Company that "prohibit[ed] the Hocumac Company from polluting or discoloring the water of the San Antonio Creek in any way." Hocumac revised its mining operations to avoid muddying the waters of the creek, but as Dawson points out, the extent to which the injunction contributed to the mine's inability to turn a profit is unclear. In 1900 the Hocumac Company mortgaged its major holdings for the value of the equipment on the land. Eventually the San Antonio Water Company, which according to Dawson sought to remove the possibility of further water pollution in the canyon and to use pipe infrastructure from the mines in projects in the valley below, acquired the title to the Hocumac Company's Land. The SAWC's efforts to consolidate and defend its right to the water in the canyon played the lead role in the early

¹⁶ Dawson, 8.

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¹² Hundley, Norris. *The Great Thirst: Californians and Water: a History*. Rev. ed. Berkeley: University of California Press, 2001. Print. 103.

¹³ Hundley 107

¹⁴ Ibid. 84.

Dawson, Muir. Mining in Upper San Antonio Canyon. Pasadena, CA: Castle Press, 1958. (Special Collections at the Claremont Colleges, Honnold-Mudd Library, Claremont, CA.) Print. 1-6.

fight to protect the canyon's watershed. While mining ventures in the canyon were far less successful than in other areas of the state and even elsewhere in the San Gabriels, the legal protection successfully pursued by the SAWC allowed the company to purchase—and therefore control—a majority of developable claims in the canyon.

The SAWC continued to consolidate land and water rights in the San Antonio Canyon above its mouth and French's measuring dam in an effort to protect water quality for the valley below. By 1897 the SAWC had acquired all of the PLWC's land and water rights above the mouth of the canyon, and had begun to use its property rights to restrict entrance into the canyon from 1906. Reasoning that the company owned the only road into the canyon since it had had rebuilt with SAWC funds in 1891, the SAWC began tolling the growing flood of motorists attempting to access Mt. Baldy's new resorts and what was then the San Gabriel Timberland Reserve. ¹⁷ Maynard writes that the 1906 closure was in response to a 40 acre lease of federal land to a private resort development during the same year. ¹⁸ A sign placed along the road into the canyon read, "CANYON PARK – Private property of the San Antonio Water Co. and the Ontario Power Co. cutting of live yucca or other plants or trees is prohibited." The phrasing of this sign suggests that the SAWC were thinking in the mode of the federal conservationists, who were at that time rapidly expanding the national park system. Tolling in the area would continue through 1922, when the company sold the road back to San Bernardino County, ending the era of privatized access to San Antonio Canyon that sought to control the number of people entering the watershed.¹⁹

The Pomona Valley Protective Association and the Lower Foothills

Three significant developments in understandings of the region's hydrogeology would drastically alter the local water rights landscape at the turn of the century, setting the stage for the incorporation of the Pomona Valley Protective Association (PVPA), its legal battle with the SAWC, and eventually the SAWC's membership in the PVPA. The first was geologist E.W. Hilgard's 1883 discovery that waters from the San Antonio Canvon feed the area's artesian wells, which prompted him to recommend that the Pomona Land and Water Company make an effort to divert the canyon's waters into the west side of the Wash. This realization turned the company's attention toward outside developers across the Pomona Valley, who had been piping groundwater out of the watershed.²⁰ The second was the intuitive observation of a constant overdraft on the region's groundwater, which by the 1890s had caused most of the area's artesian wells to run dry, forcing their owners to install pumps. In 1904, a study by W.C. Mendenhall confirmed that wells in the area were outpacing the San Antonio Creek's capacity to naturally replenish them.²¹ A third development, which occurred in the same year, was Willis S. Jones location of "definite boundaries" of an natural underground reservoir in the area, which prompted a 10 year study to recommend locations for permanent spreading and infiltration infrastructure that would replenish this aguifer.²²

^{17 &}quot;Fighting for Canyon Road: Water Company and County in Legal Battle; In Court Over Title to Thoroughfare in San Antonio Canyon—Old Residents Tell of Use for Forty Years, but Plaintiff Claims It's Private Property." Los Angeles Times: n. pag. Print.

¹⁸ Maynard, 31.

¹⁹ Ibid., 33.

²⁰ Ibid., 45.

²¹ Jones, Willis S. Conservation of the Flood Waters of the San Antonio Wash in the Gravels of the Debris-Cone North East of Pomona Cal. N.p. Print. 2 (and Maynard, 47.)
²² Ibid. 4.

At the end of this study, Jones had created a comprehensive plan for the slowing and diversion of flood waters in the land below the mouth of the canyon. To a new dam at the mouth of the canyon would be added gates and a "sluiceway," also known as a spillway, for handling overflow. As Maynard describes, Jones' initial plan would be realized into a system of "side channels, thirty feet wide; six main laterals covering four hundred acres with hedges and miles of smaller ditches" intended to simultaneously direct and spread floodwaters. At the bottom of this system, one and a half miles southwest of the canyon, lay "a return ditch...to collect any excess water and return it to an old channel that connects to the present stream at the Base Line."²³

Jones' solution for the rapidly falling water table contributed to a regional interest in infiltrating the water of the San Antonio Canyon to replenish the water in the aquifer east of the San Antonio Wash lead by the Pomona Valley Protective Association. Despite the increased land holdings of the SAWC in San Antonio Canyon, the equal division between the two companies of water flowing out of the canyon had been reaffirmed by a 1903 decree of the Superior Court of Los Angeles County. 24 The PLWC goal of slowing and conserving of floodwaters below the mouth of the canyon, however, put the company at odds with the SAWC's goals of retaining water above the dam. Thus, in a series of suits brought against the SAWC, the PLWC and other members of the Protective Association sought establishment of a right to the natural flow of the San Antonio Creek based on the original land grant. ²⁵ This process was complicated by the increasing existence of "tunnels" or underground water channels that intercepted and pumped water before it could sink further into the aquifer. In 1910, for example, the Superior Court of Los Angeles County awarded 17 inches of "salvage water" the Ontario Power Company, a subsidiary of the SAWC that claimed rights to 20 inches produced in this way. Litigation over the implications of disparate water uses—such as for domestic, agricultural, or use in power generation—combined with shifting and competing strategies of water conservation continued throughout the first two decades of the 20th century.

The Association was officially established in 1909 between the PLWC and a collection of other rights holders on the west side of the San Antonio Creek who aimed to protect their confined aquifer from well and tunnel "invasions" by districts outside of the Pomona Valley. Jones, in his 1915 report, notes that at the turn of the century, "The Ontario Water Co. invaded the Indian Hill Basin; the San Antonio Water Co. acquired rights South of Claremont; Covina and San Dimas invaded the Palomares cienega." Upon Willis' discovery of the confined aquifer, leaders of each water company in the basin met at the Pomona Land and Water Company to address these "invasions." The Chino Land and Water Company, which had been drilling wells on lands between Claremont and Pomona and piping it out of the San Antonio Watershed, was identified as a major "invader" in the district. The leaders of these various companies resolved that the President of the Del Monte Irrigation Co. would "notify the Chino Land and Water Co. not to export any more water from this district than they had heretofore acquired a right to divert." The Chino company did not respond, and continued to expand and

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²³ Maynard, 50.

²⁴ Los Angeles County, Superior Court, Pomona Land and Water Co. plaintiffs vs. San Antonio Water Co. et al, defendants, <u>Judgement</u>, 1903. in Maynard, 41.

²⁵ LA County, Superior Court: PVLWC et al. plaintiffs vs. San Antonio Water Co. et al. defendants, <u>Judgement</u>, 1910. (and Decree, October 25, 1910) in Maynard, 42.

²⁶ Maynard, 50.

²⁷ Jones, *Conservation*, 1.

subdivide rights to water from the Pomona Valley basin that they intended to export to areas in the Chino basin.²⁸

As the threat of invasion by outside interests and the demand on the local aguifer grew. interest in a unified entity that could protect interests in the Pomona Valley increased as well. Upon its formation, the Association immediately set out securing collective ownership of 650 acres of wash lands below the San Antonio Dam and, over the next ten years through litigation led by the PLWC against the SAWC, "won the right to have all the waters of the canyon except a limited amount to come down to the mouth of the canyon."²⁹ With the land secured, Willis S. Jones and the Pomona Valley Protective Association could begin building diversion dams and spreading grounds in earnest. As Jones argued retrospectively in the PVPA's 1916-17 annual report, "the wisdom of keeping a large acreage of this sage brush covered land in its virgin state will become more and more apparent as time goes on and lands are cleared for cultivation." Jones recalled that in the particularly large flood of that year, the relatively unaltered, sagecovered surfaces were almost perfectly efficient in infiltrating water (50 miners inches out of a total of 9,000 were infiltrated), "every cultivated orchard was discharging large volumes [of water]."³⁰ Thus, the PVPA found itself aligned with the conservationist project of watershed landscape protection, despite the association's focus on maximizing water available for agricultural use. Looking forward to the expansion of his association, Jones also announced plans to pursue ownership of land in the Thompson Creek Watershed, a creek in the canyon just east of the San Antonio Canyon. These holdings would allow the group to expand the total area of watershed volume of water available for infiltration—land that would prove critical to protecting the wilderness immediately north of Claremont from residential development.

The 1915 California Supreme Court Settlement laid the framework for the SAWC and PVWC's joint rights in the newly established system of watershed management. Ultimately, this guideline would help establish a precedent for dividing increasingly larger total amounts of water flowing out of the canyon. In 1915, the court isolated the two companies' claims into the PLWC's claim to the natural flow of the canvon and the specific claims of the SAWC, divided into biannual periods before and after April 1st. The PLWC was awarded an injunction against the SAWC's attempts to capture and store water above the mouth of the canyon and the right to spread water below the Osgoodby Dam—just south of the mouth of the canyon. The SAWC was awarded 914 inches through April 1 and 965 inches throughout the rest of the year, as well as the right to continue pumping from the improvement tunnels at the mouth of the canyon. When over 10,000 inches flowed over the Osgoodby Dam in the main channel of the creek, a further 500 inches could be taken by the SAWC at the division dam, and eligible "salvage water" could be taken by the Ontario Power Company up to 17 percent of the pipeline through the electricity plant. Finally, the division dam was to be operated jointly by the SAWC and the PVPA.³¹ Thus, the originally equally divided rights were translated into a settlement that reconciled the contemporary land holdings of the two companies and an increased capacity of flood management with the water companies' original claims.

²⁸ Annual Report of the Manager of the Pomona Valley Protective Association for 1913. Pomona, CA: Pomona Valley Protective Association, 1913. Print.

²⁹ Jones, *Conservation*, 3.

³⁰ Jones, Willis S. "Annual Report of the Manager of the Pomona Valley Protective Association for the Years 1916 and 1917." 17 Sept. 1917: n. pag. Print. 3 Maynard, 43.

After the 1915 litigation, the Association's leaders were leaning toward a wider scope of cooperation in water rights protection for the Pomona Valley. In fact, the first recommendation for future work by the Association, Jones wrote, was "to offer and press...the reorganization of the Association along broader and more equitable lines and securing he cooperation of every well owner and water corporation in this district." Thus, the Supreme Court decision set the stage for the integration of the SAWC into the PVPA membership, allowing the PVPA to represent nearly every primary interest with claims to the water in San Antonio Creek, and many who owned wells on the area's confined aquifer. Jones did, however, remind members of the association that "watch should be kept over every attempt to export water. You cannot too jealously guard your rights." While the conflict over the water in San Antonio Creek was bitter and uniquely complex, the threat of invasion—perhaps even from Los Angeles, which was buying up rural water rights at the time—allowed the mutual water companies a uniform body under which to operate.

The Protective Association Shifts Away from Landscape Conservation

Although the focus of the Pomona Valley Protective Association was on water infiltration rather than flood control, Jones recognized the benefits of the Associations infrastructures in reducing flooding events.³⁴ Still, major floods occurring periodically through the late 1930s fueled a growing demand for a stronger approach to flood management. Claremont's wishes were granted when the federal government passed the Flood Control Act of 1936 as part of the New Deal. The original act authorized surveys of several creeks and their potential for flooding in the area, including the San Antonio Creek. In 1938, the act was amended to create a flood control basin for San Antonio and Chino Creeks and to appropriate \$6,500,000 to fund improvements recommended by the Army Corps' original study. The largest component of this recommendation was a dam that would contain a conservation basin with a capacity for 5,000,000 square vards of debris at the mouth of the canyon.³⁵ Presenting at a public meeting in Ontario, Major Theodore Wyman, Jr. of the Army Corps of Engineers discussed the prominence of concerns over debris management in the canyon's massive and destructive flood events in designing the project's colossal conservation basin, which nevertheless would be limited to the mouth of the canyon. Wyman reported that the Corps' plans were "developed with the cooperation of your engineers and the Los Angeles County Flood Control District, so that the problems and desires of local interests could be met to the extent that economic and engineering constraints allow."³⁶ Wyman's report and the design of the San Antonio Dam³⁷ had two significant implications for the PVPA. First, federal deference to local entities in managing water salvaged from flooding events prompted the San Bernardino County Surveyor, Mr. H.L. Way, to suggest that the Pomona Valley Protective Association Assume control over the operation of the dam's floodgates. Second, when the Army Corps of Engineers completed the San Antonio Dam

³² Jones, Willis S. "Annual Report of the Manager of the Pomona Valley Protective Association for the Years 1916 and 1917." 17 Sept. 1917: n. pag. Print. 12-13

³³ Ibid. 10.

³⁴ Ibid. 10.

³⁵ Wyman, Theodore Jr. "San Antonio and Chino Creeks Improvement." Ontario, CA. 1939. Army Corps of Engineers. 2.

³⁶ Ibid. 2.

³⁷ "San Antonio Dam to Be Dedicated on Saturday: Project Will End Most Dangerous Single Point of Potential Floods in Foothill Area." *Los Angeles Times* 3 May 1956: A2. Print.

in the 1950s, the entire stretch of land between Foothill Boulevard and the mouth of the Canyon was no longer necessary to absorb the force with which water and debris would flow out of the canyon. The PVPA became an interest with vast land holdings no longer relevant to its project of water conservation and infiltration, the focus of which had shifted toward the operation of the San Antonio Dam.

This singular focus on floodwater infiltration would come to undermine the Pomona Valley Protective Association's status as a champion of landscape and watershed conservation in the area. As early as the late-1920s, Los Angeles' massive expansion was putting a significant strain on the region's aggregate rock industry. Writing in 1927, mining engineer and consultant Frederick Bradshaw illustrates the demand that drove the gravel mining industry to expand rapidly into the San Antonio Washlands:

The remarkable growth of the Los Angeles district in the past ten years is continuing and will continue. The programme for new streets and highways in the district is enormous, in all Southern California as well as in the City and County...Building and other engineering work is expanding likewise and the demand for crushed rock products will be increased as much or more than the demand for any other material or commodity.³⁸

The massive expansion of Los Angeles during the first half of the 20th century saw an equally impressive effort to extract aggregate material with which to build. During the mid-1920s, the PVPA, as a major owner of reclaimed lands in the Wash, signed indefinite leases with multiple mining operations, a move that sealed off these open spaces from the public and destroyed hundreds of acres of scrubland.³⁹

Conclusion

The Pomona Valley Protective Association presents a compelling—and unexplored—model of cooperative watershed management involving multiple mutual water companies and private interests rather than a state-run irrigation district. Under the PVPA, water rights were pursued much as they would be in the typical water rights case, but the confined aquifer and the plan to recharge it on behalf of all water companies in the basin presented an interesting challenge to those familiar with water litigation at the time. The preexisting legal division of the waters of the San Antonio Creek meant that although the SAWC owned a majority of the land in the canyon, the PLWC was able to protect its right to the natural flow of the canyon so that their half could be appropriately measured at the San Antonio Dam.

In general, the real estate market in the San Antonio Canyon allowed the mutual water companies—especially the SAWC—to secure the conservation the watershed and, in turn, much of the plant and animal life that resides there. While this conservation was successful in slowing development and ecological damage through the early 20th century and some of these lands are preserved as open space today, the secondary protection of these lands is an achievement due to the opposition of Claremont citizens to mining within the city's sphere of influence rather than the PVPA's goals of conservation.⁴⁰

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³⁸ Bradshaw, Frederick. Report on the San Antonio Canyon Rock and Gravel Project in the Los Angeles District of Southern California; with Plans and Estimates of Crushing Plants. Piedmont, CA: Frederick Bradshaw, Mining Engineer, 1927. Print. 1.

³⁹ Ibid. 3

⁴⁰ Kennedy, Howard. "Proposed Gravel Work Draws Fire: GRAVEL PROPOSAL." Los Angeles Times 9 Nov. 1969: SG1 Print.

As research into this topic continues, we must take a closer look at how the Protective Association influenced the litigation process in the San Antonio Creek case, especially with regard to Jones' discovery of the confined aquifer and the legal precedent of the division of water rights in the creek. In particular, a closer study of the context surrounding the integration of the San Antonio Water Company into the Pomona Valley Protective Association may reveal insights into the factors that influence cooperation in watersheds characterized by conflicting water rights. Finally, and perhaps most importantly, the PVPA and its strategy of groundwater storage served as a model for a series of protective associations across the region that are not represented in the current literature on water development in California.⁴¹ Taking a closer look at how water rights were and are negotiated in the local context of the mutual water company and the protective association reveals a narrative counter to singular narratives of both federal championship of conservation efforts and Hundley's argument about monopolization by mutual water companies. In the very least, it suggests that watersheds may demonstrate a connective capacity that builds on and complicates the narrative of blind property accumulation among private water interests. While local, state, and federal governments provided support to the Pomona Valley Protective Association, the creation of a government-run irrigation district was not a prerequisite for cooperation over watershed management in the Pomona Valley. Still, the story of the PVPA and the gravel pits in the San Antonio Wash suggests that comprehensive watershed conservation requires a greater understanding and value of public land conservation that can supplement the self-serving logic of the water and land market.

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⁴¹ "Kern County Farmers See Pomona Zone: Find Irrigation Methods Inspiration to Work for Own Development Plan." *Los Angeles Times* 3 Feb. 1921: n. pag. Print.

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