

CLIMAS Environment and Society Fellowship

Final Report

**Rights and resistance: Historical and contemporary struggles for water and sovereignty
in Owens Valley, California**

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Executive Summary

As cities across the United States look to distant rural watersheds to meet the needs of their growing populations, they are met with resistance from rural communities who point to the dangers of becoming “another Owens Valley” (James 2017; Roessler 2006). Yet, the emblematic ranchers-versus-city narrative of the Owens Valley water conflict (Reisner 1993) that remains influential in these water policy debates obscures crucial dimensions of the case. Though often described as a lawless act of theft, Los Angeles’ acquisition of 95% of the land and water in Owens Valley was in fact authorized under the law and justified by the federal government as promoting “the greatest good for the greatest number in the long run.” And these decisions in favor of the public interest affected more than just ranchers. The water rights of the Owens Valley Paiute (Nüümü) remain legally disputed to this day since the federal government withdrew, sold, and traded tribal lands to the Los Angeles Department of Water and Power (LADWP).

This project examines how public, private, and tribal interests have been weighed and reconciled in decisions about Owens Valley land and water allocation over more than a century of shifting laws, policies, and environmental conditions. Ethnographic, legal, and archival research are used to ask, 1) How has LADWP asserted, maintained, and justified its control over land and water resources in the Owens Valley? 2) In decisions about land and water in Owens Valley, how have federal actions on behalf of the public interest intersected with the federal government’s obligations as trustee for tribal interests? 3) How does the indigenous struggle for water, land, and sovereignty articulate with the efforts of other valley actors challenging LADWP’s resource control and its impacts?

This research advances knowledge about the relationships between water, law, and political power, with contributions to theory, policy, and practice. Empirically, this project addresses questions of indigenous rights, government authority, and stakeholder alliances that have long been overlooked in studies of the Owens Valley (Libecap 2007; Kahr 1983; Walton 1992; Hoffman 1992), with implications for water policy debates across the American West. Theoretically, it contributes to the literature on the political ecology of the American West (Robbins et al. 2009) by drawing on state theory (Harris 2017), settler colonial studies (Inwood and Bonds 2017), and legal geography (Cantor 2016) to examine how the history of indigenous removal and dispossession continues to shape natural resource conflicts into the present day (Inwood and Bonds 2017; Krakoff 2013).

Methodologically, the project design ‘reverses the gaze’ of the research (Brown and Strega 2015) to address the concerns of indigenous communities and engage community actors throughout the research process. Reflection on researcher positionality in the collaborative research process will undergird contributions to the growing literature about decolonizing methodologies (Smith 1999) and public political ecology (Osborne 2017). The CLIMAS Environment and Society Fellowship has supported the initial phases of this participatory research and outreach process, supporting my efforts to produce results relevant to local community struggles and regional policy-making as well as scholarly debates.

Offering a critical reassessment of the emblematic Owens Valley case, this research aims to produce broader impacts at various levels through engagement with community actors, students, and policy-makers. Working in partnership with the Owens Valley Indian Water Commission, the project employs participatory workshops to engage the community in discussion about the research and results, as well as to foster dialogue among indigenous and non-indigenous actors about land and water management. In response to requests for increased access to historical information, the results of archival research have been compiled into 1) a digital database of historical documents, 2) an online timeline synthesizing the history of federal agency action on tribal land and water rights in the Owens Valley, and 3) are now being developed into a historical video and educational materials for local schools and tribal programs.

The next steps for this project involve wrapping up data collection and transitioning to data analysis and writing. Participatory workshops will be used throughout this process to share and discuss findings, incorporate feedback into the written dissertation, and hone materials for dissemination and outreach. As I get the chance to visit additional archives, I will be adding to the archival database and updating timelines and outreach materials. I will continue to publish findings in popular media, such as the article I wrote for CLIMAS’ *Southern Oscillations* blog, “*Beyond the ranchers-versus-city narrative of the Owens Valley*

water conflict” about the recent controversy over LADWP’s plans to cut irrigation water to ranch leases. In addition to sharing results locally and in academic forums, I plan to produce policy briefs for government agencies and NGOs upon completing the dissertation. The Owens Valley case is broadly relevant to water policy across the American West, as it is regularly invoked in debates about rural-to-urban water transfers such as those unfolding in Eastern Nevada, the headwaters of the California State Water Project, and the San Francisco Bay Delta.

Introduction

Across the Western United States, cities are looking to distant rural watersheds to meet the needs of growing populations amidst increasingly frequent drought. However, large-scale purchases of land and water rights for urban supply have sparked resistance from rural communities, who point to the dangers of becoming “another Owens Valley” (Roessler 2006; James 2017). But are we gleaning the right lessons from this reference? For many, it invokes Reisner’s (1993) narrative about a beautiful valley laid to waste after the city of Los Angeles cheated ranchers out of their land and water rights more than a century ago. This narrative has long captivated policymakers and the public but has obscured crucial dimensions of the water conflict that hold important implications for current water policy debates, as well as for the study of the relationships between water, law, and political power.

Though often described as a lawless act of theft (Reisner 1993), Los Angeles’ acquisition of 95% of the valley’s land and water was in fact authorized under the law and justified by the federal government as promoting “the greatest good for the greatest number in the long run” (Kahrl 1983; Walton 1992). And these decisions in favor of the public interest affected more than just ranchers. They also had dramatic and lasting impacts for the Owens Valley Paiute (Nüümü) people, whose water rights remain legally disputed to this day since the federal government withdrew, sold, and traded tribal lands to the Los Angeles Department of Water and Power (LADWP) for “watershed protection.” Yet, the dispossession of the Paiute has been almost entirely ignored in the prominent histories and studies of the Owens Valley (Libecap 2007; Reisner 1993; Kahrl 1983; Walton 1992; Hoffman 1992). And the few studies that have focused on the Owens Valley Paiute (Walker 2014; Walter 1986) have failed to consider how the ongoing struggle over tribal land and water rights articulates with the broader water conflicts in the valley.

These conflicts in Owens Valley emerge from underlying tensions among property law, water law, public lands law, environmental law, and federal Indian law, all of which have changed significantly over the century since Los Angeles began extracting water from the valley. Within that context, this project examines the socio-political and legal processes through which public, private, and tribal interests have been weighed and reconciled over time in the allocation and management of water and land. The project uses ethnographic, legal, and archival research, guided by the following questions:

RQ1: How has the Los Angeles Department of Water and Power (LADWP) asserted, maintained, and justified its control over land and water resources in the Owens Valley?

RQ2: In decisions about land and water in Owens Valley, how have federal actions on behalf of the public interest intersected with the federal government’s obligations as trustee for tribal interests?

RQ3: How does the indigenous struggle for water, land, and sovereignty articulate with the efforts of other valley actors challenging LADWP’s resource control and its impacts?

This first question is aimed at documenting the methods by which LADWP exercises political power over resources and territory in the Owens Valley. Study of how this municipal water utility has asserted near monopoly control over a rural watershed for more than a century is highly relevant to the literature on the relationship between water control and political power (Wittfogel 1957; Worster 1985; Banister

2014; Meehan and Molden 2015). Of particular interest are the discourses used to justify that authority when confronted by the environmental regulations, legal challenges, and climate change pressures that have transformed Owens Valley water politics over the past three decades.

The second question addresses the role of the federal government in land and water allocation in the valley, particularly as the Department of the Interior navigates its legal responsibilities to oversee both public and tribal lands. These roles have often come into conflict, particularly in public lands policy, as tribal interests become subordinated to the general public interest (Tsosie 2003; Royster 1995; Wood 1994). However, both federal Indian policy and notions of public interest in environmental and public lands policy have changed dramatically over time. This question is aimed at understanding how these dynamic strands of policy intersect in practice in Owens Valley resource allocation and management.

The third question focuses on the tensions and synergies among different groups seeking to challenge the methods and impacts of LADWP's resource control. Many valley residents characterize this control as "colonial rule" (OVC 2015), though often with little consideration of indigenous people's longstanding struggle against colonialism. Despite these tensions, new alliances appear to be forming among ranchers, environmentalists, and tribes. This question zeros in on how these actors articulate grievances, claims, and goals in different arenas and how that shapes the process of finding common ground. Preliminary analysis suggests that the shifting alliances among valley stakeholders are often motivated by legal claims, such as ranchers allying with environmentalists to leverage endangered species protections against cutting irrigation to pasturelands, or environmentalists allying with tribes in hopes that recognition of tribal water rights claims could mean more water for ecosystem health.

These three dimensions of water politics in Owens Valley push beyond the famous "ranchers-versus-city" narrative to consider the other actors and processes at play in land and water politics. This is a shift that needs to happen more broadly in the way we study the political ecology of the American West. This literature has tended to focus on the shift from the "old West" of ranchers and miners to the "new West" of environmentalists and recreationalists (Sheridan 2007; Brogden and Greenberg 2003; Sayre 2002; Walker 2003; McCarthy 2002), while giving little attention to the role of native nations and the context of settler colonialism (Inwood and Bonds 2017; Bryan 2017). By examining the intersections of these different interests, this research aims to inform water policy decisions that can address increasing urban demands, environmental degradation, and climate change impacts without sacrificing commitments to respect tribal sovereignty and honor tribal water rights (McCool 2002; Tsosie 2010; Wood 1995).

Intellectual Merit

This project advances knowledge about the complex human relationship with water and the institutions that govern it. In particular, it examines how the legal system reconciles conflicts between public, private, and tribal rights in the context of environmental and regulatory change. The project brings policy relevant analysis, methodological rigor, and theoretical innovation to this urgent topic.

Empirically, this project fills several important gaps in the scholarly and popular narratives about one of the most famous water conflicts in the West. It addresses questions of indigenous dispossession, legal struggle, and resistance that have been overlooked in studies that focus on ranchers and simplify LADWP's acquisition of land as either theft (Reisner 1993) or market transactions (Libecap 2007). Amid recent changes in LADWP policy and mounting demands to address tribal water rights, Owens Valley water politics stand at a crucial juncture. This research is positioned to document these changes and their implications for regional water policy. Because the Owens Valley case is regularly invoked in debates about rural-to-urban water transfers across the West, the project is well situated to produce policy-relevant results that can inform efforts to find more sustainable and just solutions to urban water scarcity.

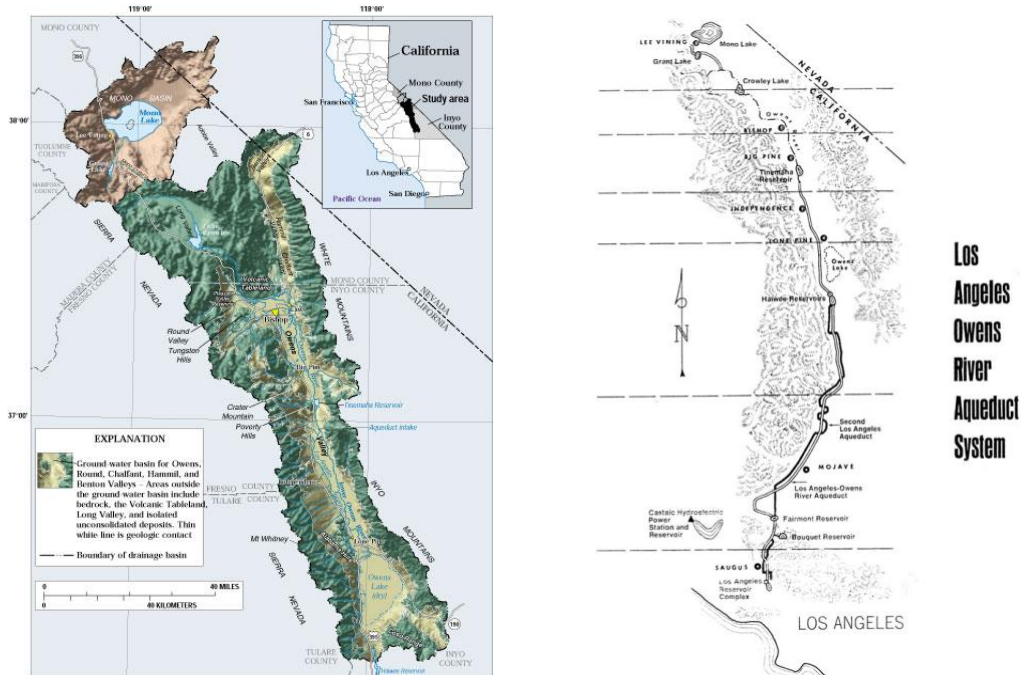
Methodologically, the project utilizes a unique combination of methods to collect archival, legal, and policy information and analyze it in relationship with ethnographic data. This research is grounded by participatory methods that engage local actors in iterative discussion about the direction and dimensions of the research to ensure it is relevant, respectful, and useful. The research 'reverses the gaze' (Brown and Strega 2015) to address the concerns of community actors, particularly the indigenous communities of the

valley, about the political and legal system that has facilitated Los Angeles' monopoly control over land and water resources in the valley. This approach emphasizes relationships and reciprocity, making the results of archival and legal research accessible for use by tribes and other stakeholder groups. Through intentional reflection on researcher positionality and praxis in the process of working with indigenous communities, stakeholder groups, and policymakers, the project contributes insights to the growing literature on decolonizing methodologies (Smith 1999; Kovach 2009; Leeuw et al. 2012) and public political ecology (Osborne 2017; Rocheleau 2008; Jarosz 2004).

Theoretically, this project draws together political geography and legal geography in order to integrate questions of indigenous rights into the growing literature on the political ecology of the American West. This approach addresses long-standing calls for more attention to state power in political ecology (Harris 2017; Robertson 2015; Meehan and Molden 2015; Robbins 2003, 2008), while also recognizing that in the American West this requires an understanding of how land and water policy emerged from the settler colonial project of indigenous removal and dispossession (Krakoff 2013) and how that history continues to shape natural resource conflicts into the present day (Inwood and Bonds 2017). Legal geography grounds these theoretical insights in the study of legal struggle, elucidating how the overlapping legal doctrines and policies governing public, private, and tribal lands and waters play out in practice over time (Bauer 2015; Borgias and Bauer 2018; Blomley 2008; Cantor 2016). These questions of the relationship between land and water rights, territorial claims, and political power are a crucial area for cross-pollination between geography and law, an interdisciplinary lens that can examine the complexity of water policy and politics within the settler colonial context.

Research Design

This project was designed as in-depth case study of the Owens Valley water conflict, utilizing ethnographic and participatory methods triangulated with archival, legal, and policy research. The project design is informed by an ongoing partnership with the Owens Valley Indian Water Commission, with whom I have worked since summer 2017 to ensure the research is useful and respectful. The research has been approved by the Bishop Paiute, Big Pine Paiute, and Lone Pine Paiute-Shoshone tribal governments, with permission to engage tribal members in the research process.



Left: Owens River watershed (green) and Mono basin (brown). Right: The Aqueduct System that connects them with Los Angeles.

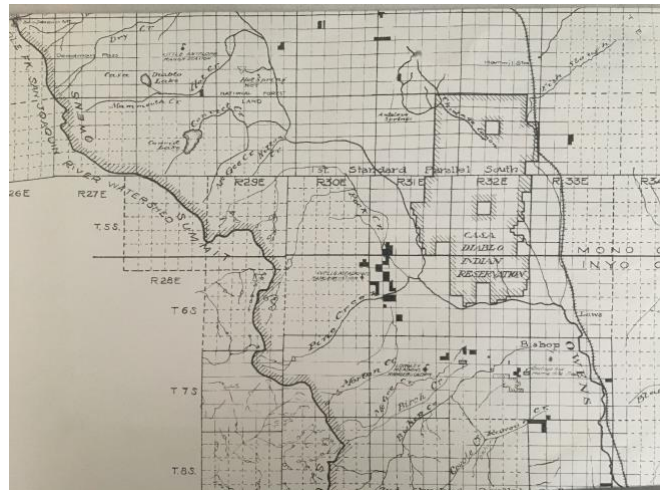
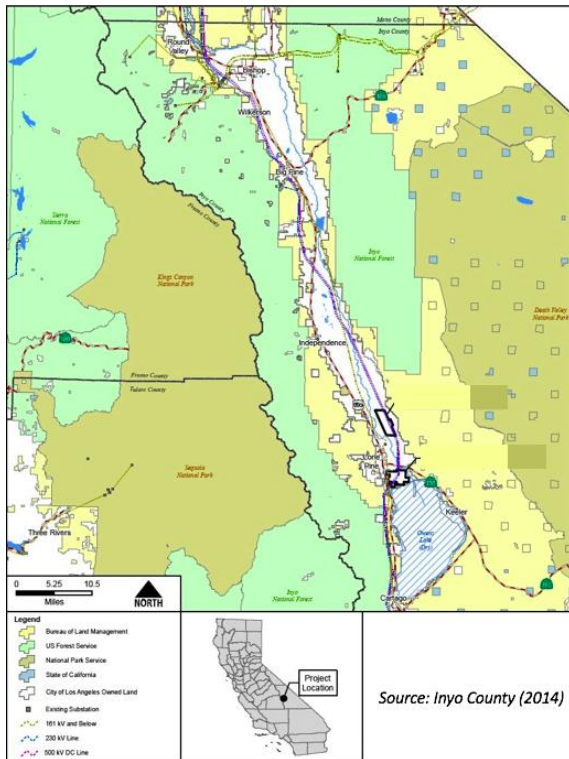
Site and Context

The Owens Valley was selected as the site for this study because of its policy importance as one of the earliest and most famous rural-to-urban water transfers in the American West, and because there are important aspects of the case, particularly the tribal water rights dimension, that have yet to be examined. The Owens Valley is a semi-arid valley bounded by the Sierra Nevada to the west and the Inyo-White Mountains to the east. The Owens River, fed by snowmelt that runs off of the east side of the Sierra Nevada, flows from just southwest of Mono Lake to Owens Lake.

Since 1913, LADWP has diverted the flow of the Owens River more than 200 miles south by way of the Los Angeles Aqueduct, leaving Owens Lake dry. Over the course of a century, the system was expanded to capture additional surface water from the tributaries that feed Mono Lake and supplement the surface water with groundwater pumping throughout the valley. LADWP controls more than 95% of the valley floor, leasing some land to ranchers, business owners, and Inyo County services around the towns of Bishop, Big Pine, Independence, and Lone Pine. LADWP land ownership restricts development in the valley and plays a central and often-controversial role in day-to-day decisions about land and water management. These decisions bring LADWP into varying levels of cooperation and conflict with environmental, agricultural, tribal, commercial, and recreational stakeholders in the valley as they try to reconcile these various rural interests with the urban interest in water export from the valley.

LADWP lands in Owens Valley are surrounded by vast tracts of federal public lands, most of them established in the early 20th century as watershed protection for the city of Los Angeles (Karhl 1983). Preliminary archival research has revealed the consequences these early decisions had for indigenous communities in the valley. In the 1930s, upon LADWP request, the federal government withdrew more than 60,000 acres held in trust for the Owens Valley Paiute. Then, in 1939, it traded remaining tribal lands

for city-owned lands in order to consolidate the Paiute onto small reservations, promising to transfer water rights at a later date. This promise remains unfulfilled despite repeated appeals to the federal government and LADWP to uphold their legal obligations to the tribes. In the meantime, the tribes remain dependent upon LADWP for irrigation delivery, which has often been curtailed or delayed (Wei 2017).



Left: Map of land ownership in Inyo County, with LADWP ownership shown in white and federal public lands in yellow, green and brown (Inyo County 2014). Right: 1919 map showing the Casa Diablo Indian Reservation, later revoked by President Hoover in 1932 (map from National Archives in San Francisco)

Researcher Positionality

Reflection on my role as a non-indigenous researcher has shaped the way I approach working with indigenous communities, recognizing the need for relationships based in reciprocity and respect (Kovach 2009; Smith 1999). Over summer 2017, I spent 8 weeks in the valley focused on building relationships, learning about what type of research would be useful and respectful, and getting direction about how I could give back to the community.

In seeking to design the research to address community concerns, I draw on insights from action research scholars who suggest that “it is only when we reverse the gaze and investigate and problematize the other side of the equation—that is, the behaviors, discourses, and perceptions of the dominant—that we create possibilities for change that are transformative rather than incremental” (Brown and Strega 2015, 6). Reversing the gaze of the research opens space for the community to engage in and guide the process of inquiry rather than being objects of it (Kindon et al. 2007). Through iterative reflection about my own positionality in this work, I aim to contribute to the rich literature about the challenges and transformative potential of applied and collaborative research methods (Austin 2004; Hale 2006).

Over summer 2017, I volunteered with the Owens Valley Indian Water Commission (OVIWC), a tribal entity that coordinates land and water rights work for the Bishop Paiute, Big Pine Paiute, and Lone Pine Paiute-Shoshone tribes. I was tasked with creating an archival database and organizing a participatory workshop about water issues. We designed the workshop not with my research in mind, but rather with generating a collective vision and work plan for the OVIWC to help implement through its work on water and land issues with the tribes throughout the valley. Tribal leaders offered feedback on the agenda, suggesting, for example, that we integrate more *nüümü* into the process, which prompted our meeting with the tribal language revitalization program to find appropriate language for the title and intentions of the workshop, which was called *tei-paya tsawu huu-dü*, ‘may the water always flow well.’

At the workshop, more than 40 tribal leaders, environmental staff, and water activists participated in identifying issues of concern, priorities, and next steps regarding tribal land and water. Several key issues that were raised in the workshop included questions and concerns about the role of federal government and LADWP in decisions about water allocation in the valley, opportunities and constraints of using the legal system to assert indigenous rights, and hopes for building broader stakeholder alliances. By facilitating the process and synthesizing the results for the OVIWC, I was able to identify ways my research could help to answer some of the broader questions raised in the discussion. This process naturally shifted the “gaze” of my research away from these communities themselves to the processes, institutions, and relationships that shape their everyday struggles. My three central research questions are framed to understand how these issues – LADWP’s resource control, the federal-tribal trust relationship, and stakeholder relations – have played out in Owens Valley over time. Through iterative discussions with community members and ongoing collaborations with the Owens Valley Indian Water Commission, I hope to be able to provide information that the tribes can use in their educational, legal, and outreach efforts.



Over Summer 2018, I helped the Owens Valley Indian Water Commission plan the 2018 Payahuunadü Land and Water Summit, which built upon the goals and next steps identified in the August 2017 workshop. At that meeting, participants identified four main strategic directions and formed teams to pursue the specific action plans for each. I have been coordinating with the Telling Our Story group to ensure that my work aligns with and contributes to their goals of developing communication resources, sharing information, and empowering and connecting storytellers. This includes my ongoing work compiling the archival databased and distilling its contents into useful outreach tools. The Telling Our Story group meets regularly, and there are quarterly Summit meetings, providing great opportunities for me to report my progress, get feedback, and coordinate with others working on complementary projects.

In August 2018, I presented preliminary findings from the archival research, collaborating with Anna Hohag, who is a lawyer, alumna of UA, and member of the Bishop Paiute Tribe. Together, we presented local land and water rights history and situated it within the context of broader shifts in federal policy. We had great discussion with the audience and got lots of suggestions about directions for further research and ideas for how to share the information. In particular, there were requests for a video version of the presentation, an interactive timeline for use online, and materials for educators. I have been pursuing these ideas, such as a web-based timeline that synthesizes what we presented, a draft of which is shown below in the outcomes section.

Tracing tribal lands and waters through time:
a journey through local history and shifting federal policy

Presentation & discussion
with researcher Sophia Borgias & attorney Anna Hohag

Hear about preliminary findings from ongoing research, ask questions, and help guide the future directions of the project!

Thursday, August 30th
5:30pm-7:30pm
Bishop Tribal Community Center,
405 N. Barlow Lane

Wednesday, September 5th
5:30pm-7:30pm
Lone Pine Tribal Community Center,
975 Teya Road

Owens Valley Indian Water Commission
44 Tule Lane, Bishop, CA 93514 760-870-0000 870-0000 FAX

← Please note the change of date for the Lone Pine event!



Contacts and Access

In addition to my relationships with the Owens Valley Indian Water Commission, tribal leaders, and staff within the Big Pine Paiute, Bishop Paiute, and Lone Pine Paiute-Shoshone tribes, I have also established contacts in the Inyo County Water Department, the ranching community, federal and state agencies, and environmental groups that are active in local water politics. These informants have put me in contact with other interviewees, allowing me to continue to build on my network of contacts through snowball sampling (Berg 2007). I have also gained access to LADWP representatives in their Bishop office and am currently petitioning to be able to interview LADWP Commissioners in Los Angeles. Aside from these interviews, all of which must go through various levels of formal approval within LADWP, I rely on statements made in LADWP Board and Standing Committee meetings, which are recorded and provided online for the public. Archives of these public meetings allow me to analyze changes in LADWP policy and discourse over time.

Key actors and stakeholders in Owens Valley land and water management

<u>Federal Agencies</u>	<u>Tribal Governments</u>	<u>Environmental Groups</u>
◇ Department of Interior	◇ Bishop Paiute	◇ Owens Valley Committee
◇ Bureau of Indian Affairs	◇ Big Pine Paiute	◇ Mono Lake Committee
◇ Bureau of Land Management	◇ Fort Independence	◇ Friends of the Inyo
◇ Forest Service	◇ Lone Pine Paiute-	◇ Eastern Sierra Land Trust
◇ Department of Fish and Wildlife	Shoshone	◇ Sierra Club
	◇ Utu Utu Gwaitu Paiute	◇ Audubon Society
	◇ Mono Lake Kuzadika	◇ Trout Unlimited
	◇ Timbisha Shoshone	◇ Inyo 350
<u>State of California Agencies</u>	<u>Local Government</u>	<u>Agricultural & Commercial</u>
◇ Department of Water Resources	◇ Inyo and Mono	◇ Ranchers
◇ Water Resources Control Board	counties	◇ Inyo-Mono Cattleman's
◇ State Lands Commission	◇ Inyo County Water	Association
◇ Department of Fish and Wildlife	Department	◇ LADWP Lessees
◇ Great Basin Air Pollution Control District	◇ Inyo County Water	◇ Tourism and Recreation
◇ Native American Heritage Commission	Commission	◇ South. California Edison
	◇ Groundwater Authority	◇ Crystal Geysir
<u>L.A. Municipal Entities</u>		
◇ LADWP		
◇ Board of Water & Power Commissioners		
◇ Inyo-L.A. Standing Committee		

Methods for Data Collection and Analysis

Data Collection: I have been using the following combination of ethnographic, participatory, legal/policy, and archival methods to collect data in order to answer my three core research questions using a combination of legal analysis and narrative analysis, as detailed in the table that follows.

Interviews: I have been conducting interviews with a broad range of stakeholders (n=60) involved in water and land management issues in the valley. I have used the semi-structured format in the majority of interviews in order to ensure coverage of a set of core questions while also allowing flexibility to explore insights that emerge in the moment (Berg 2007). With tribal elders, I have occasionally used an unstructured format as a sign of respect, deferring to them to guide the conversation (Kovach 2009).

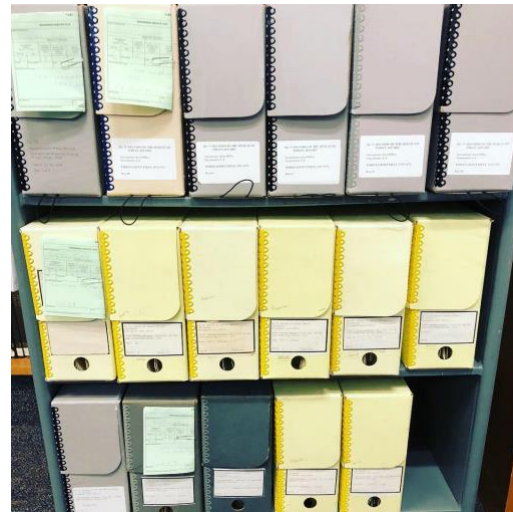
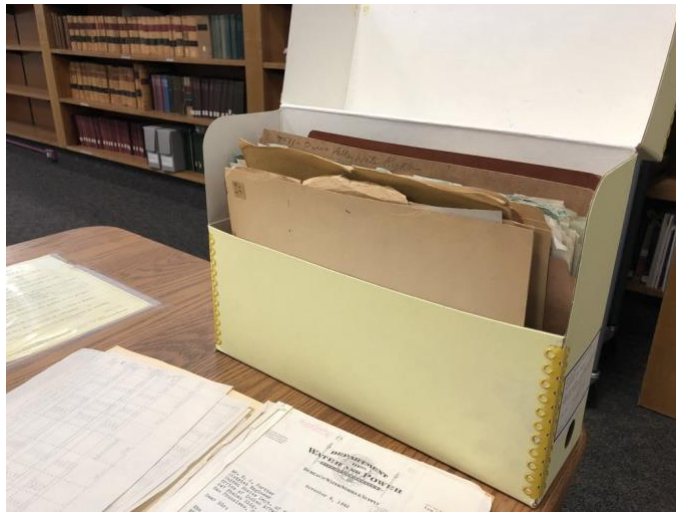
Participant Observation: Living in the valley for an extended period has provided a more in-depth understanding of 1) what Los Angeles ownership of 95% of the valley's land and water looks like on a day-to-day basis, 2) how and where the agency's presence and authority are made known, and 3) how valley residents experience that and respond. For example, seeing the vast L.A.-owned lands, abandoned farmsteads being torn down, and LADWP trucks patrolling the aqueduct, I have gained a better understanding of why people describe the area as a "colony" of L.A. I have also come to see how this framing of the valley as a colony is often used with little regard for the longstanding indigenous struggle against colonialism. Observing LADWP representatives in meetings with valley stakeholders, I have become familiar with the discourses used by both sides in debates over controversial policies. I have also benefitted from conversations with other participants about their interpretation of these experiences. I record my observations in daily field notes, as well as photographs, video, and audio when appropriate.



Analyzing this data in relation with interview data, I compare what people say and do in different settings and track the perspectives represented in different forums.

Legal and Policy Research: Legal and policy research allow me to examine who makes what claims and with what result, as well as how conflicting claims are dealt with through the legal process. I have been collecting court proceedings and policy documents that will be analyzed to discern the rationale underlying decisions about resource allocation among public, private, and tribal interests. Interviews with lawyers, clients, and policy-makers provide an opportunity to assess how policies and court mandates are put into practice.

Archival Research: I have continued to search archives for documentation of water and land struggles in the valley from the 1850s to the current day. Agency reports and correspondence allow me to trace how decision-makers weighed and reconciled conflicting interests over time. I have been work with OVIWC and the tribes to make relevant archival material accessible for use in education and outreach, building upon the archival database that I began compiling over summer 2017.



Archive	Documents of interest	Visit
Eastern California Museum, Independence, CA	LADWP reports; Forest Service files; theses and dissertations; oral histories; photographs	July '17
Owens Valley Indian Water Commission, Bishop, CA	BIA/DOI correspondence; water rights studies and reports; news articles	July '17
National Archives at San Francisco, San Bruno, CA	BIA/DOI correspondence about tribal land and water rights and public domain allotments in Owens Valley	Oct '18
National Archives, Washington, D.C.	Early BIA and DOI correspondence with LADWP	Apr '19
California State Archives, Sacramento, CA	State government and water agency policy documents	June '19
Bancroft Library, UC Berkeley, CA	Early government surveys and reports; ethnographic studies; 1930s Paiute oral histories	Aug '19
LADWP Archives, L.A.	LADWP correspondence, reports, promotional materials	Sept '19

Participatory Workshops: I will continue to facilitate participatory workshops according to requests from participants in workshops I facilitated for OVIWC in August 2017 and September 2018, as outlined below. I will also use participatory workshops to share and discuss findings, incorporate feedback into the written dissertation, and hone materials for dissemination and outreach.



Data Analysis: I use NVivo software to code data for narrative analysis, considering the contexts and perspectives from which each piece of data emerges. Narrative analysis helps me put the stories and opinions that people share within the context of their perspective, their perceived audience, and the socio-historical context of the topic (Hoggart 2002). I situate these contemporary narratives within the broader historical context that emerges from analysis of archival documents, understanding how the reasoning that underpins decision-making about land and water changes over time. This is paired with legal analysis (Halliday and Schmidt 2009) to trace how different perspectives and claims are assessed and given weight within the legal arena, as well as how those decisions are implemented in practice. NVivo qualitative analysis software is a valuable tool in both types of analysis, allowing me to upload and organize my interview transcripts, notes, and other documents in order to then highlight and assign pieces of data to specific codes that group information relevant to certain themes. Codes are used to trace narrative and legal data relevant to understanding the relationship between actors (i.e. between LADWP and ranchers, or between tribes and environmentalists) as well as the overarching themes (i.e. trust obligations, LADWP policy changes, stakeholder tensions and alliances) of the research questions.

Data Collection	Analysis
RQ1: How has LADWP asserted, maintained, and justified its control over land and water resources in the Owens Valley over time?	
<p><i>Interviews:</i> 1) LADWP representatives regarding changes in LADWP policy, agreements and negotiations with valley actors, the role of litigation, and the relationship between Owens Valley water management and broader LADWP water supply strategy, 2) lessees, activists, tribal leaders, and county officials regarding their experiences interfacing with LADWP.</p> <p><i>Observation:</i> Meetings of LADWP Board of Commissioners, Inyo-L.A. Standing Committee, Owens Valley Groundwater Authority. Everyday life.</p> <p><i>Archival:</i> Documentation of 1904-1913 development of the aqueduct, 1920s lands acquisition, and environmental conflicts starting in the 1970s.</p> <p><i>Legal/Policy:</i> Court proceedings, meeting minutes, and agency correspondence from litigation/negotiation regarding legal requirements to protect stream flows for fish, mitigate dust emissions, and assess groundwater pumping impacts.</p>	<p>Interview transcripts, field notes, meeting minutes, archival documents, and court proceedings will be coded for <u>narrative analysis</u> around themes of how LADWP has 1) asserted land and water claims, 2) responded to legal challenges, 3) described and justified its management, and 4) responded to local conflict and contention over time.</p>
RQ2: In decisions about land and water in Owens Valley, how have federal actions on behalf of the public interest intersected with the federal government’s obligations as trustee for tribal interests?	

<p><u>Interviews:</u> 1) policy-makers, lawyers, and scholars regarding changes in public lands policy, public trust doctrine, and federal-tribal trust doctrine, 2) tribal leaders and tribal water activists regarding appeals to BIA trust obligations, 3) public lands managers/advocates about policies and processes of consultation, coordination, and co-management with tribes.</p> <p><u>Archival:</u> Correspondence between Department of Interior, Bureau of Indian Affairs, and LADWP (1905-1940) regarding tribal interests in relation to acquisition of land and water rights by LADWP.</p> <p><u>Legal/Policy:</u> Congressional debate and approval of 1937 Land Exchange Act; court proceedings from 2009 Bishop Paiute water rights case; contemporary tribal consultation policies for federal lands agencies.</p> <p><u>Workshops:</u> Preliminary archival findings were shared with tribal members in a series of workshops in September 2018. Participants identified areas for subsequent research (questions regarding purchases of tribal allotments by LADWP and local resistance to eviction processes). They also articulated visions for using the information for outreach. Subsequent workshops will be used to share, discuss, and analyze findings from the suggested lines of inquiry and to hone outreach materials.</p>	<p>Archival materials, federal policy documents, and court proceedings will be <u>synthesized into a chronological timeline</u> that incorporates shifts in federal Indian policy and public lands policy. <u>Legal analysis</u> of decisions weighing public and tribal interests in Owens Valley will be situated within this historical context and incorporated within an overarching <u>narrative analysis</u> of the reasoning employed by federal agency representatives over time. Interview transcripts will also be included in this narrative analysis, coded around the themes of 1) impacts of historical federal actions, 2) contemporary tribal-federal relationships, and 3) efforts at reconciliation and restitution.</p>
<p>RQ3: How does the indigenous struggle for water, land, and sovereignty articulate with the efforts of other valley actors challenging LADWP’s resource control and its impacts?</p>	
<p><u>Interviews:</u> Tribal members, ranchers, business owners, environmentalists, and Inyo County officials regarding 1) efforts to challenge or mitigate aspects of LADWP management and 2) relationships with other actors.</p> <p><u>Observation:</u> Meetings of Inyo-L.A. Standing Committee, Inyo County Water Commission, Owens Valley Groundwater Authority, Owens Valley Committee, Inyo 350, Keep Long Valley Green Coalition.</p> <p><u>Legal/Policy:</u> Court proceedings and public comments from challenges to LADWP policy based on environmental impacts and tribal sovereignty.</p> <p><u>Workshops:</u> An initial August 2017 workshop engaged more 40 tribal leaders, environmental staff, and water activists in identifying key issues, goals, and strategies related to land and water. Recognizing the importance of building partnerships and collaborations with non-tribal stakeholders, participants requested a subsequent workshop (summer 2019) bringing together diverse stakeholders to identify common ground.</p>	<p>Interview transcripts, field notes, meeting minutes, public comments, and court proceedings will be coded for <u>narrative analysis</u> around the themes of 1) concerns about LADWP policies, 2) strategies for challenging LADWP, 3) visions for the future, 4) tensions and synergies among stakeholders, and 5) understandings of colonialism and sovereignty, and 6) changes in stakeholder relations over time.</p>

Research Timeline

Fieldwork has been ongoing since May 2018. I have primarily been based in Bishop, California, with regular travel to the various towns along the Los Angeles Aqueduct system between Mono Lake and Owens Lake. As of January 2019, I have completed 1) approximately 50 interviews, with another 10-20 remaining, 2) archival research in three archives, with three more remaining, 3) collection of legal and policy documents, with policy interviews in Sacramento and Los Angeles remaining, and 4) participant observation of dozens of water-related events and meetings in the valley. I will begin data analysis and

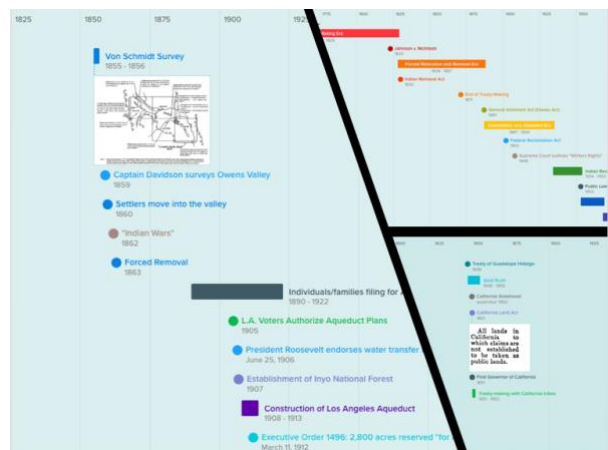
writing in April 2019, while completing remaining archival research and policy interviews. I am currently pursuing additional funding to be able to stay in Owens Valley while I write in order to continue collaborating with OVIWC on the archival projects and facilitating participatory workshops to share and discuss preliminary results before finalizing and defending the dissertation in May 2020.

Timeline of Research and Writing	2019												2020				
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Interviews & participant observation in OV	■	■	■														
Legal research in OV		■	■	■													
Archival research in D.C.				■													
Archival research in Berkeley, Sacramento					■	■											
Policy interviews in Sacramento, L.A.							■	■									
Data analysis									■	■	■	■					
Writing								■	■	■	■	■	■	■	■	■	■
Participatory workshops in OV									■	■	■	■	■	■	■	■	■
Follow-up interviews & meetings in OV									■	■	■	■	■	■	■	■	■
Incorporate stakeholder feedback										■	■	■	■	■	■	■	■
Incorporate committee feedback											■	■	■	■	■	■	■
Finalize dissertation															■	■	■
Conference presentation																■	■
Disseminate policy briefs																	■
Dissertation defense																	■

Products and Outcomes

Addressing conflicts over water resources is a crucial societal challenge. This project addresses questions of competition over increasingly scarce water resources, shifting notions of public interest in environmental policy, unresolved indigenous rights, and movements for more equitable water governance that need to be considered in debates about water allocation in the American West and beyond. As an important source of popular imaginaries about large rural-to-urban water transfers, the Owens Valley case is uniquely positioned to produce findings that are broadly relevant to water policy across the American West, particularly in the water transfer conflicts unfolding in Eastern Nevada, the headwaters of the California State Water Project, and the San Francisco Bay Delta.

This research aims to produce broader impacts at various levels through engagement with community actors, students, and policy-makers. Working in partnership with the Owens Valley Indian Water Commission, the project uses participatory workshops to engage the community in discussion about the research and results, as well as to foster dialogue among indigenous and non-indigenous actors about land and water management. In response to requests for increased access to historical information, the results of archival research have been compiled into 1) a digital database of historical documents, 2) an online timeline synthesizing the history of federal agency action on



tribal land and water rights in the Owens Valley (right), and 3) are now being developed into a historical video and educational materials for local schools and tribal programs. These projects are being developed in collaboration with the Owens Valley Indian Water Commission with oversight from the Bishop Paiute, Big Pine Paiute, and Lone Pine Paiute-Shoshone tribes.

I will continue to publish findings in popular media, such as the article I wrote for CLIMAS' *Southern Oscillations* blog, "*Beyond the ranchers-versus-city narrative of the Owens Valley water conflict.*" There I describe arriving in Owens Valley just as fresh conflict was flaring up among the ranching community in response to the LADWP cutting irrigation to ranch leases. As was expected, there was a flurry of media coverage eager to capture a ranchers-versus-city rerun. I explain that, on the ground in Owens Valley, the debate has been much more complex, with many more actors and issues at play. While LADWP ratepayers have argued against providing public water to ranchers for private gain, diverse stakeholders in Owens Valley have rallied around the idea that the ranch leases are indeed serving the public interest. For generations, flood irrigation has sustained lush meadows and wetlands that few are willing to see dry up. Local stakeholders have raised a range of concerns – climate change, habitat protection, recreational and aesthetic values, tribal sovereignty, and environmental justice – demonstrating that what is at stake is much more than simply weighing urban and agricultural interests.



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Beyond the Ranchers-Versus-City Narrative of the Owens Valley Water Conflict

Tuesday, January 15, 2019
Sophia Borgias

The conflict over the City of Los Angeles' extraction and export of water from California's Owens Valley has long captivated the public and policymakers alike. However, narratives about the Owens Valley water conflict, chronicled in Mark Reisner's Cadillac Desert and sensationalized in the movie Chinatown, have often fixated on the demise of the agricultural economy at the hands of the Los Angeles Department of Water and Power (LADWP) in the early 20th century. Though often described as an act of theft and lawlessness, Los Angeles' acquisition of 95% of the valley's land and water was in fact authorized under the law and facilitated by the federal government in the name of "the greatest good of the greatest number in the long run." But, over the 105 years since the Los Angeles Aqueduct was completed, notions of what constitutes the greatest good – and the long run, for that matter – have shifted, opening plenty of space for contention and debate in what once seemed a simple calculus.

The ongoing conflicts in Owens Valley demonstrate that the "greatest good" is no longer as simple as "the greatest number." LADWP now reckons with decades of environmental regulations and with environmental and indigenous movements advocating for the public interest in environmental protection. With climate change pressures, there is increasing emphasis put on the last, and often forgotten, part of the philosophy of "the greatest good of the greatest number in the long term." As indigenous leaders so often point out, "the long term" can no longer be seen as the next decade or the next 50 years but rather the next seven generations and beyond.

This is the new story of Owens Valley and, in many ways, the West. Far more complex than a ranchers-versus-city battle, it is a story of persistent struggle to reconcile diverse and conflicting interests in water amidst social, political, and environmental change. It is about the delicate balancing act required to meet the needs of the communities at either end of the aqueduct, as well as the needs of the environment, so that all may continue to thrive for many generations to come.

Reflections and Next Steps

The CLIMAS Environment and Society Fellowship has supported the use of participatory research and outreach in this project, allowing me to ensure that the research findings are relevant to local

community struggles and regional policy-making as well as scholarly debates. Though this research is still ongoing and I have only preliminary findings to report, there have been a number of outcomes. At this stage they have been more focused on *process* than *product* (Austin 2004). The process of collaborating with the Owens Valley Indian Water Commission has been immensely beneficial as I endeavor to conduct research in a respectful and reciprocal manner. Engaging community members in workshops and having them guide the way the research is turned into tools such as the archival database and timelines takes a lot of time, but also ensures the end products will be useful. Beyond the practical uses of these gatherings, participants have reported that the process itself is beneficial in terms of bringing people together to discuss water issues and make connections within the community.

The next steps for this project involve wrapping up data collection and transitioning to data analysis and writing. I will continue to use participatory workshops throughout this next stage in order to share and discuss findings, incorporate feedback into the written dissertation, and hone materials for dissemination and outreach. In addition to sharing results locally and in academic forums, I plan to produce policy briefs for government agencies and NGOs upon completing the dissertation. By analyzing how public lands and environmental policy intersects with federal Indian policy in practice over time, this research can inform the work of the many government agencies and advocacy organizations that work on water issues from that juncture.

Throughout my research career, I aim to foster sustained collaborations, contribute to meaningful policy change, and spark creative and interdisciplinary dialogue about water issues both inside and outside of academia. This project is an important first step in that trajectory and I am deeply grateful that there are programs like CLIMAS at the University of Arizona that support this type of use-inspired research.

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