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Water Curtailment

Climate Change Obstructing the Federal Mission



By Ms. India Nicholson, Lieutenant Colonel Aimee Haney and Technical Sergeant Nicole Nazareno

This article highlights a potentially underutilized source of water rights—federal reserved water rights—that may protect water resources for installations.

Water Restrictions

Tumbleweeds blow across a dusty road. Suburb residents drive two-hour roundtrips to fill water tanks for survival. These are the realities for an Arizona suburb in January 2023. The City of Scottsdale recently notified a suburb that it would no longer receive water service due to extreme drought because Scottsdale is preserving its water for only those within city limits.^[1] This extreme drought is not just restricted to Arizona; drought is widespread throughout the Western United States, affecting 40 million people living in the Colorado River Basin. This year, as a result of the 23-year drought on the Colorado River, the Department of the Interior reduced Arizona, Nevada, and Mexico's water withdrawal amounts by up to 21% from Lake Powell to protect the Glen Canyon Dam's ability to generate electricity.^[2] The Department also called on Wyoming, Colorado, Utah, and New Mexico to implement additional drought restrictions to

preserve water.^[3] Increased temperatures, especially in areas with warmer or dry climates, leads to drier soil conditions and increased water evaporation resulting in what is known as aridification. Over time, aridification reduces agricultural production, river flow, and precipitation.^[4] Climate change, combined with population increase, significantly decreases water availability. In response to aridification, the federal government and states have implemented water reductions and curtailed many users' ability to divert water from rivers. For example, due to the extreme drought on the Tuolumne River in June 2022, California's State Water Resources Control Board suspended over 4,500 user's claims for water, including claims for drinking water supplies for San Francisco and area farmers.^[5] Tensions within and between states are rising over competition for water supplies for drinking, agriculture, and electricity.

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What role, then, do the states play in allocating available water? Who makes cuts during a time of drought? In the Western United States, the state holds the water in trust for the benefit of its citizens, but the water is available for citizens' diversion and use; those citizens who appropriated the water first have a stronger right to use the water.^[6] Thus, subject to caveats discussed below, a state controls surface water allocations within its borders. In California's case, the 4,500 curtailed users acquired water rights later in time; those with senior rights consumed the limited available water before those with junior water rights could fulfill their water needs. While Congress regularly deferred to the states the authority to allocate water rights, federal courts also upheld the federal government's authority to reserve certain waters and exempt them from appropriation under state laws.^[7] As the population continues to grow in the West, state-acquired water rights holders and the federal government increasingly collide. Although water-rich areas are also threatened by climate change, the urban and rural western parts of the United States are particularly vulnerable to the adverse consequences of climate change.

Even though the DoD has decreased its water consumption over time, respective military departments continue to rely on significant water usage at installations to conduct and support the missions.

The Department of Defense (DoD) recognizes the value of water resources in meeting mission requirements and must protect and preserve its water to maintain mission viability into the future. The United States Government Accountability Office (GAO) conducted a study after the DoD reported 19 installations were at risk of not having sufficient water to meet their mission needs.^[8] Overall, the DoD used approximately 84 billion gallons of water in 2018.^[9] Military installations rely on water for a multitude of reasons: sanitation, drinking water, weapons testing, research, cooling agents, and even rocket launches. For example, Vandenberg Space Force Base uses between 60,000 to 100,000 gallons of water for a single rocket launch.^[10]

Even though the DoD has decreased its water consumption over time, respective military departments continue to rely on significant water usage at installations to conduct and support the missions.^[11] Installations, particularly those located in the Western United States will need to reinvigorate efforts to protect water rights and maximize water conservation to preserve sufficient water for future missions. This article highlights a potentially underutilized source of water rights—federal reserved water rights—that may protect water resources for installations. This article also provides an overview of the legal mechanisms available to protect installation water rights, upgrade leaking water infrastructure, conserve water, and protect watersheds. Finally, this article lends practical advice to legal offices helping protect an installation's water to overcome mission obstructions due to drought.

Background

To obtain necessary water in the drought-prone western states, the law of prior appropriation prevails, where the first person to apply water to a beneficial use is first in right against later appropriators.^[12] Under this principle, the one who first appropriates water and puts it to beneficial use thereby acquires a vested right to continue to divert and use that quantity of water against all claimants junior to them in point of time. "First in time, first in right" is the shorthand expression of this legal principle."^[13] The doctrine of prior appropriation also limits water diversions to a specific amount and only for a defined purpose.^[14] When there is not enough water to accommodate all appropriators (as may be the case in times of drought), those appropriators with priority (i.e. those whose right was established earlier than others) prevail over those who established rights later.

For the federal government, courts have consistently held that when the federal government withdraws lands from the public domain,^[15] it implicitly reserves enough water to fulfill the purposes for which the reservation was created.^[16] Application of this Federal Reserved Water Rights Doctrine is generally restricted to the western states, where the federal government was the original owner of most land when it was acquired by the United States.^[17] The Supreme Court first judicially recognized this Doctrine in 1908 in

Winters v. United States in the context of a Native American reservations.[18] In *Winters*, the Court expressly articulated that the federal government has authority to claim water apart from state law and that the federal government implicitly had reserved water for lands withdrawn from the public domain for Native American use.[19] *Winters* involved a statute that reserved federal land for Native Americans to farm, but did not expressly provide for water to irrigate the reserved lands. The Court found that when Congress created the reservation, it meant to reserve water for Native American use.[20] Despite Westerners' concerns, the Supreme Court in *Arizona v. California* asserted that it had no doubt about the power of the United States [under the commerce and property clauses] to reserve water rights for its reservations and its property.”[21] The Court applied this principle of reservation of water rights beyond Native American reservations to all congressional reservations of land like military installations.[22] Further, federal reserved water rights are often superior to those of persons subsequently appropriating water under state law.[23]

The Supreme Court's conservative approach in *Cappaert v. United States* recognized the Federal Reserved Water Rights Doctrine, but construed it narrowly, holding that the doctrine applies to the minimal amount of water needed and “reserves only that amount of water necessary to fulfill the purposes of the reservation, no more.”[24] Ultimately, courts have found an implied federal reserved water right only after carefully scrutinizing the federal government's asserted water right and specific purposes for which the land was reserved and conclude that “without the water the purposes of the reservation would be entirely defeated.”[25] Under this strict test, if the Court does not find an implied reservation of water, the United States must acquire water “in the same manner as any other public or private appropriator.”[26] In other words, if a Court does not find a federal reserved water right exists, the federal agency must acquire water under state programs.

Ultimately, while federal reserved water rights may be untouchable by state law, the Doctrine, if not further scrutinized through caselaw, will most likely face curtailment as a result of climate change. For example, courts have yet

to address whether future missions exceed the purpose for which reservations were initially created, which could limit federal reserved water rights on military installations as missions change over time. The reality of climate change underscores that action by military installations is paramount for meeting future missions. Without serious water conservation efforts, climate change will ultimately become the priority appropriator interest in water allocation, depriving the military of its future operations.

In the face of water scarcity, installations will likely become involved in more frequent water disputes.

Preserving Water Rights and Conserving Water at Military Installations

In the face of water scarcity, installations will likely become involved in more frequent water disputes. Thus, installations must know the scope of their water rights, protect those rights, and take steps to conserve water for mission needs. Not only is water important for mission needs, such as launching rockets or firefighting, but it is also important for personnel requirements, such as flushing toilets or refilling water buffalos during training. Adjudicating water rights and implementing water conservation measures require legal acuity—attorneys should be involved in protecting and conserving essential mission needs. This section covers adjudicating water rights and legal constructs for upgrading infrastructure to prevent leaks, reusing water, and protecting watersheds. Finally, this section discusses utility rebates that offset costs of conservation methods.

Adjudicate Rights

Because climate change may spur more water rights disputes, installations should be prepared for water rights adjudications. Although the Federal Reserved Water Rights Doctrine generally secures water rights sufficient for the primary purpose of the reservation, Congress waived sovereign immunity of the United States for “general stream adjudications” in state courts under the McCarron Amendment.[27] Pursuant to the McCarron Amendment, a state will issue the United

States a notice to clearly establish and quantify federal water rights within a particular stream or watershed in a court adjudication. As a part of the adjudication, federal agencies must produce proof of the source and amount of the water rights. Frequently, multiple federal agencies may be involved in a watershed or basin adjudication, including the Forest Service, National Park Service, and Bureau of Land Management. Following adjudication, the state fixes amounts and priority of rights for all water usage on the specific water source.[28] States typically provide short response times for joining these adjudications, so installations should forward notices to the Major or Field Command and AF/JAOE rapidly so the Department of Justice can assert rights on behalf of the installation.

Military installations are part of the drinking water infrastructure across the United States that constitutes over 2.2 million miles of pipe and loses six billion gallons of water daily due to leaks and breaks.

Upgrade Infrastructure

In addition to adjudicating water rights, installations should maximize water conservation methods, including upgrading leaking infrastructure. Military installations are part of the drinking water infrastructure across the United States that constitutes over 2.2 million miles of pipe and loses six billion gallons of water daily due to leaks and breaks.[29] While infrastructure is often overlooked in facility upgrades, updating water infrastructure can help conserve 14-18% of potable water each year.[30] Updating infrastructure can range from replacing end-user devices to rehabilitating underground pipes. On the simple end, off-the-shelf high-efficiency faucets, toilets, and shower heads can yield 17-24% water reduction per year.[31] Upgrading heating and air conditioning units, which account for up to half a building's water consumption, can save hundreds of thousands of gallons of water annually.[32] Additionally, replacing or relining water pipes and lines can mitigate

water lost through leaks or breaks. Upgrading infrastructure, however, can become costly.

Several legal options can help installations reduce costs of infrastructure improvements through contracts with other entities, including Energy Savings Performance Contracts (ESPCs) and Utilities Privatization. With an ESPC, an installation enters into a fixed-time agreement for up to 25 years with an energy service company.[33] The service company agrees to install facility improvements and/or water conservation measures which, in turn, generate cost savings to pay for the improvements. The installation pays up to the current annual utility costs to cover upgrades over the contract term. The Air Force manages ESPCs through the Air Force Civil Engineer Center and prefers ESPCs for financing upgrades over direct funding.[34] Installations could also pursue utilities privatization to upgrade infrastructure via the contracting process. Exercising caution is advised as, under privatization, the installation conveys its utility infrastructure in exchange for improvements, which may affect the ability to maintain federal water rights.[35] Ultimately, water rights, even wastewater rights, are valuable current and future assets to the installation. When reviewing ESPC or Utilities Privatization contracts, ensure the installation retains its water rights.

Reusing Water

In addition to upgrading infrastructure to limit water loss, installations should continue to reduce potable water usage to strengthen mission resilience through reusing water or keeping more precipitation runoff on the installation.[36] Using recycled water for irrigation is one method of reducing the use of potable water. "Recycled" water is treated wastewater that has undergone secondary or tertiary treatment at a wastewater treatment facility and is an increasingly valuable commodity. Using recycled water for landscaping reduces the need for fertilizer because of the nutrients derived from the water and recharges groundwater basins. This is consistent with the DoD policy that requires installations to reduce or eliminate use of water for landscape architecture.[37] The DoD's policy further directs installations to avoid using potable water for new landscaping beyond establishing plants; instead, installations should use alternative water

sources, such as recycled water, on golf courses and where possible.[38] Because recycled wastewater systems are costly and can trigger other environmental issues where water contains other contaminants of concern, use caution when installing these systems. The Air Force Civil Engineer Center advises installations on recycled water systems.

In addition to using recycled water, installations should also install native plants or sustainable landscaping that need less supplemental watering.

In addition to using recycled water, installations should also install native plants or sustainable landscaping that need less supplemental watering.[39] Akin to sustainable landscaping, Low Impact Development (LID) projects also serve numerous water conservation benefits. LID is the antithesis of cement storm drain systems which channel rainfall and pollutants to oceans or streams. Instead, LID designs yield numerous benefits such as encouraging runoff to infiltrate the ground, reducing pollutants in local waters, recharging groundwater sources, and reducing irrigation needs.[40] LID encompasses permeable pavement, vegetated rooftops, rain gardens, stormwater planters, or swales (gently sloped drainage channels). These design features also mitigate climate change by increasing the carbon capture in the newly planted areas.[41] In the Air Force, LID can qualify for Sustainment, Maintenance and Restoration funds,[42] which may increase the likelihood of securing project monies. In a time of water scarcity, focusing on reducing potable water use and water retention preserves more water for mission needs.

Protect Watersheds

Not only is it important for installations to invest in on-base water conservation, but it is also important for installations to protect the entire watershed, or the land area that channels precipitation to oceans or streams.[43] Installing native plants, avoiding over-application of fertilizers, composting, and picking up waste improve a watershed's health. Watershed protection reduces the pollutants and sediments reaching the waters and provides numerous

benefits.[44] For example, a healthy watershed can reduce water treatment facility costs by improving water quality through natural filtration and can reduce the impacts of floods and extreme weather.[45] Because watersheds often extend beyond installation boundaries, programs that help installations partner with private conservation groups or local governments can synergize watershed protection efforts. Both the Readiness and Environmental Protection Integration (REPI) program and the Sentinel Landscapes program improve installation resilience through funding to protect natural resources on or near the installation.[46] For example, in the 2022 Camp Bullis Sentinel Landscape project in San Antonio, Texas, 40 partner organizations worked on several projects to protect the area's natural resources and watershed health.[47] The Landscape projects include land stewardship programs focused on improving water quality and quantity above the underlying aquifer used for drinking water and agriculture.[48] Also, the 2023 REPI program is providing \$40 million towards projects advancing installation and range resilience against climate change. Both REPI and Sentinel Landscapes can help an installation maintain healthy watersheds to protect local water resources from contamination.

Utilize Utility Rebates

Water conservation requires planning and financial investment. Installations, however, can take advantage of utility incentives or rebate programs offered by utility companies to help offset some costs.[49] Utilities provide rebate programs to commercial or business customers in good standing to encourage water conservation. While each utility offers unique programs, western states often offer turf or lawn replacement incentives to install water-wise landscaping.[50] Other landscaping incentives cover the cost of purchasing or maintaining trees that reduce water loss due to evaporation.[51] Similarly, utilities offer rebates for implementing smart irrigation control panels or rain sensors that can limit outdoor watering based on the weather.[52] In addition, some utilities offer rebates for replacing older equipment with higher efficiency products, such as HVAC systems and toilets.[53] Researching utility rebate programs could yield significant returns for the installation. Be alert: incentives offered through third parties do not meet the

statutory requirements for use by the installation; utilities must fund the rebate program directly.^[54]

Practical Steps

Water scarcity due to climate change presents formidable challenges to military installations and missions. Attorney engagement at the installation level can help prepare installations for the inevitable water right challenges or reductions.

Know Your Installation's Water Rights

Attorneys should be involved in understanding and tracking an installation's water rights. Review your installation's water rights, usages, and overall water assessment on the Installation "Water Dashboard" tool.^[55] Notably, the Regional Water Picture tab provides the projected water availability and overall risk assessment regarding future water supply per installation. If needed, work with the Civil Engineer Squadron to collect and maintain water right records, including records on the acquisition and history of each right. Look for executive orders, decrees, or statutes regarding the formation or withdrawal of the land for military purposes to identify the existence of federal reserved water rights. Find permits or licenses regarding state water right's dates and rates of diversion and uses of water. The U.S. Army Corps of Engineers or State Engineer's office may have data on your installation's water rights, too. Knowing the details of the installation's water rights and collecting pertinent records can best position the installation for any future water rights adjudications.

Review Your Installation's Energy and Water Plan

Each installation is required to develop an Energy and Water Plan to understand the quantity and quality of water needed for the mission.^[56] Discuss whether the current water supply is adequate for future mission needs. Review the plan to ensure that the installation is using the type of water—potable or recycled—for the intended purpose. If your installation uses recycled water or LID, inquire about the other pollutants that may be present in the water. Pollutants in recycled water or runoff, such as per- and poly-fluoroalkyl substances (PFAS) from firefighting foam,

can create other concerns. Discuss concerning pollutant-loads with AF/JAOE! Knowing about water types, water usages, and pollutant concerns can help protect water resources for mission needs.

Installations should be active stakeholders in the state and local activities involving water supply, drought planning, and emergency water planning.

Be Engaged

Installations should be active stakeholders in the state and local activities involving water supply, drought planning, and emergency water planning. Understanding how the state manages water and knowing about the water concerns for the community are keys to resolving conflicts between state and federal water usage and preventing encroachment on installation water rights. Be aware that each state approaches water planning differently—through Water Initiatives, Water Resources Committees, and State Water Plans—but each state provides opportunity for stakeholder engagement. Additionally, installation legal offices can help track how states are responding to water scarcity concerns. For example, California introduced a new legislative requirement that small water suppliers add drought-planning requirements to each supplier's emergency plan.^[57] Colorado and Wyoming are currently considering broader-sweeping Demand Management plans to encourage users to reduce consumption.^[58] Be on the lookout for public comment or participation opportunities to learn more about local or state efforts impacting water. Coordinate public comments with AF/JAOE.

Legal offices can also partner with Civil Engineer Squadrons and the finance office to research and advise on opportunities for state and utility rebates or incentives. Involve paralegals: To find options in your area, search for "water conservation incentives" and pair those search terms with your installation's water service provider. The Utility Law Field Support Center can help answer questions about qualifying rebates.

Conclusion

Water scarcity is reshaping the West. With water scarcity resulting from climate change, continued water curtailment may leave the Air Force unable to support future mission requirements. The Air Force can best position itself for the future water picture by better understanding its water rights and maximizing conservation. Legal offices can engage with Civil Engineer Squadrons to fully understand the installation's water rights. Installations should prepare for adjudicating federal reserved water rights where possible, lest that avenue closes. Reviewing the installation's Energy and Water Plan can help further discussions of updating infrastructure to prevent water loss through leaks along with other water conservation and watershed protection measures. Even though some water conservation methods may require extensive planning and budgeting, installations in water scarce regions should prioritize these actions. Researching and understanding the environmental legal issues surrounding water rights and water conservation can pay dividends for continued operational and mission capacity. Installation legal offices are encouraged to reach out to AF/JAOE for assistance!

Glossary

- **DoD:** Department of Defense
- **ESPC:** Energy Savings Performance Contract
- **GAO:** Government Accountability Office
- **JAG:** judge advocate general
- **LID:** Low Impact Development
- **PFAS:** poly-fluoroalkyl substances
- **REPI:** Readiness and Environmental Protection Integration

EXPAND YOUR KNOWLEDGE

External Links to Additional Resource

- **Low-Impact Development (LID):** <https://www.wpafb.af.mil/News/Article-Display/Article/3234197/wpafb-reduces-stormwater-flow-through-low-impact-development-strategies/>
- **Water Conservation:** <https://www.schriever.spaceforce.mil/News/Article-Display/Article/276576/schriever-setting-water-conservation-example/>
- **Water Recycling:** <https://www.epa.gov/waterreuse/basic-information-about-water-reuse>
- **Watersheds:** <https://www.usgs.gov/special-topics/water-science-school/science/watersheds-and-drainage-basins>

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Endnotes

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- [3] *Id.*
- [4] See U.S. Global Change Research Program, Fourth National Climate Assessment, Volume II (Nov. 2018).
- [5] Ian James & Sean Green, *California Farms and Bay Area Cities Ordered to Stop Diverting Water From Rivers*, L.A. TIMES (Jun. 9, 2022, 05:00 AM), <https://www.latimes.com/california/story/2022-06-09/california-cities-farms-ordered-to-stop-diverting-water-from-rivers-san-francisco>.
- [6] Scott L. Campbell et al., *Examination of Title to Western Water Rights*, ROCKY MOUNTAIN MIN. L. INST. 9-1 (Feb. 1992).
- [7] *Id.*
- [8] U.S. Gov't Accountability Office, GAO-20-90, Water Scarcity 5 (2019), <https://www.gao.gov/assets/gao-20-98.pdf>.
- [9] *Id.*
- [10] *Id.* at 10.
- [11] *Id.* at 11.
- [12] *Arizona v. California*, 373 U.S. 546, 556 (1963); W. HUTCHINS, THE CALIFORNIA LAW OF WATER RIGHTS 55 (1956) (explaining “[t]he time of accrual of an appropriate right is the date of priority”).
- [13] *Arizona v. California*, 373 U.S. at 555.
- [14] *Id.*
- [15] *In re Water of Hallett Creek Stream Sys.*, 749 P.2d 324, 327 n.5 (Cal. 1988) (“‘Public domain’ lands are lands open to settlement, sale, or disposition under the federal public land laws.”).

- [16] *See, e.g.*, *Cappaert v. United States*, 426 U.S. 128, 138 (1976) (“[The Supreme Court] has long held that when the Federal Government withdraws its land from the public domain . . . by implication [it] reserves appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation.”).
- [17] A key differentiation is that the Federal Reserved Water Rights Doctrine does not apply to lands acquired by purchase, gift, or by eminent domain. *See id.*
- [18] *Winters v. United States*, 207 U.S. 564 (1908).
- [19] *Id.* at 577 (“The power of the [Federal] Government to reserve the waters and exempt them from appropriation under the state laws is not denied, and could not be” (citing *United States v. Rio Grand Ditch & Irrigation Co.*, 174 U.S. 690, 702 (1899); *United States v. Winans*, 198 U.S. 371 (1905)).
- [20] *Winters*, 207 U.S. at 577.
- [21] *Id.* at 598.
- [22] *Id.* at 601 (“[T]he United States intended to reserve water sufficient for the future requirements of the Lake Mead National Recreation Area, the Havasu Lake National Wildlife Refuge, the Imperial National Wildlife Refuge, and the Gila National Forest.”); Frank J. Trelease, *Uneasy Federalism—State Water Laws and National Water Users*, 55 WASH. L. REV. 751, 757 (1980).
- [23] *Cappaert*, 426 U.S. at 138 (holding that “[reserved water rights] vest on the date of the reservation and [are] superior to the rights of future appropriators”).
- [24] *Id.* at 141. The Court addressed whether the reservation of the Devil’s Hole Cavern, as a national monument, reserved correlative water rights as the proclamation that created the monument suggested that a pool in the cavern should be protected, the Court concluded that a reserved right was necessary to maintain the level of the pool. *Id.* at 139-40.
- [25] *United States v. New Mexico*, 438 U.S. 696, 700 (1978).
- [26] *Id.* at 702.
- [27] 43 U.S.C. § 666 (2022).
- [28] *Id.* Additional adjudication may be needed if federal water rights do not trump state rights.
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- [33] 10 U.S.C. § 2688(c)(1) (2022); 48 C.F.R. § 23.205 (2023); Dep’t of Def. Instr. 7000.14-R, *Department of Defense Financial Management Regulation*, Vol. 12, Chapter 11 (Jul. 2022).
- [34] Dep’t of Def. Instr. 4170.11, *Installation Energy Management*, Enclosure 3, ¶ 3 (Dec. 11, 2009); Dep’t of Air Force Instr. 90-1701, *Installation Energy and Water Management* ¶¶ 6.4, 6.4.4.3 (Dec. 17, 2020).
- [35] 10 U.S.C. § 2688 (2022).
- [36] Under Sec’y of Defense for Acquisition and Sustainment: Improving Water Security and Efficiency on Installations Report to Congress 8 (Apr. 2019).
- [37] Dep’t of Def. Instr. 4715.03, *Natural Resources Conservation Program*, Enclosure 3 ¶ 4(d) (Mar. 18, 2011); Memorandum from the Under Secretary of Defense for Acquisition and Sustainment, *Water Use for Landscape Architecture on DoD Installations/Sites* (Mar. 10, 2017) [hereinafter DoD Water Use for Landscape Policy], <https://www.acq.osd.mil/eie/Downloads/IE/Water%20Use%20for%20Landscape%20Architecture%203.10.17.pdf>.
- [38] DoD Water Use for Landscape Policy, *supra* note 37.
- [39] Dep’t of Def. Instr. 4715.03, *supra* note 37 at Enclosure 3, ¶ 4(d); *see generally* U.S. ENV’T PROTECTION AGENCY, WATER-SMART LANDSCAPES 4 (Oct. 2021), <https://www.epa.gov/system/files/documents/2021-12/ws-outdoor-water-smart-landscapes.pdf>.
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- [41] *Id.*
- [42] Dep’t of Air Force Instr. 32-1020, *Planning and Programing Built Infrastructure Projects*, Enclosure 4 (Dec. 18, 2019).
- [43] Dep’t of Def. Instr. 4715.03, *supra* note 37 at Enclosure 3, ¶ 4(b).
- [44] U.S. Env’t Protection Agency, *Healthy Watersheds Protection: Benefits of Healthy Watersheds*, <https://www.epa.gov/hwp/benefits-healthy-watersheds> (last visited Jan. 17, 2023).

- [45] *Id.*
- [46] 10 U.S.C. § 2684a (2022).
- [47] THE SENTINEL LANDSCAPES P'SHIP, CAMP BULLIS SENTINEL LANDSCAPE, <https://sentinellandscapes.org/landscapes/camp-bullis/> (last visited Jan. 17, 2023).
- [48] *Id.*
- [49] 10 U.S.C. § 2866 (2022); Dep't of Def. Instr. 7000.14-R, *supra* note 33 at ¶¶ 1.2.2.1, 1.2.2.2 (noting the installation can utilize rebates or incentives from water conservation projects; while one-half of the amount flows to a DoD conservation project line of funding, the installation can use one-half of the amount for military family housing upgrades, minor construction projects, or Morale, Welfare, and Recreation services.)
- [50] *See, e.g.*, Water Smart Landscapes Rebate, S. NEV. WATER AUTH., <https://www.snwa.com/rebates/wsl/index.html#conditions> (last visited Jan. 23, 2023).
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- [52] Irrigation Rebates, COLO. SPRINGS UTIL., <https://www.csu.org/Pages/BusinessIrrigation.aspx> (last visited Jan. 23, 2023).
- [53] *See e.g., Rebates*, AURORA WATER <https://www.auroragov.org/cms/One.aspx?portalId=16242704&pageId=16599601> (last visited Jan. 23, 2023).
- [54] *See* 10 U.S.C. § 2019 (2022). As an alternative to receiving a rebate check, seek options where the utility credits the rebate amount to the installation's account.
- [55] WATERDASHBOARD, <https://usaf.dps.mil/sites/CE-DASH-Tools/WaterDash/Module/Home.aspx?page=Installations> ([limited access site, requires CAC] last visited Jan. 23 2023).
- [56] Dep't of Air Force Instr. 90-1701, *supra* note 34 at ¶5.1.
- [57] Cal. Water Code Div. 6, Pt. 2.56 (2022).
- [58] *Demand Management Feasibility Investigation*, CO WATER CONSERVATION BD., <https://engagecwcwcb.org/dm> (last visited Jan. 26, 2023).