

## *Know Your History, Know Your Water*

Special Molokai Water Edition – Part I

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***“Those who cannot remember the past are condemned to repeat it.”***

*George Santayana, The Life of Reason, 1905*

In ancient times, it was the *Ali'i* or kings who assigned lesser chiefs control over *Ahupua'a* or land sections for the benefit of all. *Konohiki* were delegated to manage the movement of water through each valley, and the coordinated movement of water from one source in a valley throughout the valley was a major engineering feat requiring an army of laborers to create waterways or *auwai*.



***A taro lo'i system managed by Hui Maka'ainana O Makana in Haena, Kauai***

The goal was to keep water flowing from its source, in and out of lo'i or taro wetland patches, and into the ocean. Water distribution not only required ongoing maintenance and repair, especially during storms, but also deliberating in water allocation and disputes. Water belonged to no one, and was a gift from the Gods, and man's

responsibility as stewards was to manage the movement and preservation of water for all.

The river system connected the mountain to the sea, and native species such as *o'opu* and *hihiwai* required a clear navigable path from the water source, including waterfalls and the base of mountains, all the way to the ocean in order to complete their life cycle.

These species could climb sheer cliffs with special suction cups that allowed them to navigate through the entire river system. If any part of the river were devoid of water, these native species couldn't complete their life cycle, and their relative populations were indicators or 'the canary in the coal mine' of a healthy river system.

Along the coast, specialized fishponds served many functions in raising and capturing ocean species. In a combined fishpond-taro lo'i system near the shore called *loko i'a kalo*, fish such as *aholehole* coexisted with taro. Some fishponds were fish traps used to *paipai* or chase fish into them for consumption. In other fishponds such *loko kuapa*, *limu* or algae thrived from nitrogen-rich water

produced by land-based activities and acted as a water purifier or sewage processing system.

Algae also served as a starting point in a food chain that included herbivores, carnivores, and crustaceans. Sluice gates allowed smaller fish to move in and out of ponds, while larger ones would be trapped inside after reaching a certain size, and could be harvested at will. Konohiki and others were mediators of the fishpond system, harvesting an array of ocean food while maintaining an ecological balance in the pond.

Although fishing and the cultivation of fish in fishpond systems were important in securing protein, especially during winter months when the ocean was rough and hazardous for fishing, the cultivation of food on the land was of far greater importance to *kanaka maoli* or people of the land requiring the *laulima* or helping hands of the majority of residents in an *ahupua'a*. An *aha* or council of community leaders, including elders and respected artisans would set priorities and plan public works projects for the community.

The arrival of Tahitians around 1000 AD brought about the first upheaval in a bottom-up system, replaced with a top-down caste system, with the chiefly and priestly class calling the shots and creating a stringent system of resource and people management called the Kapu System.

Good or bad, a shift from a community-based management to the Kapu System

was seen as a way to manage a large population of people even between islands which included a consistent set of rules and regulations whose violation included death. A whole issue could be dedicated to this system, but for brevity I mention it in passing as I focus on water.



***Without water, the land will struggle to support life. A dry lo'i in Hanalei, Kauai***

Without the Kapu System, a system of coordination and management to keep the whole system functioning through a work force of subservient families in an *ahupua'a*, everything would crumble, and crumble it did when the Kapu System was abolished in 1819 by Kamehameha II or Liholiho, Ka'ahumanu, and Keopuolani, among others

Soon, a new model of resource management based on western ownership and capitalism emerged, overwhelming the land and confusing *kanaka maoli* or the native people since it was so foreign to *ka wa kahiko* or the ways of old, and they didn't understand and couldn't function in this new system of documents and 'pieces of *kapa*.'

In ancient times, water or *wai* was a resource that you couldn't put a value on because it was immeasurable. In Hawaii today, few things can be as critical to our survival as water, and is only second to air, yet we don't pay enough attention to it. Water is so politicized today that what is right and wrong doesn't matter, so it comes down to a fight that doesn't end easily and can go on for decades or more.



State Taro Security and Purity Task Force members visit taro farmers in Hanalei, Kauai - 2013

Its prominence in the western U.S. is captured in the phrase, 'whiskey is for drinking and water is for fighting.' Water also goes hand-in-hand with land, and one without the other doesn't create livable and productive lands especially in arid areas of Hawaii. Those who have control over land and water seem to control many things.

As the saying goes, possession is 9/10s of the law; ownership is easier to maintain if you already have possession of it, and therein lay the problem. So who owns the water? The ones who own the land? As my father, who had the bloodlines of all the players, including English, Irish, Portuguese, and Hawaiian used to say, "The missionaries

told the Hawaiians to look up, and when they looked down, the land was gone."

From the mid to late 1800's into the late 1900's, it was the Big Five plantation owners, including Theo H. Davies, C. Brewer, Castle & Cooke, Amfac, and Alexander & Baldwin who wrested control of the land and water, instigated by the Committee on Public Safety led by sugar barons, of whom most were members. With the monarchy out of the way, capitalism and ownership of land and water could thrive.

At the time of 'discovery' by Captain James Cook, it was estimated that there somewhere between 500,000 and 1 million inhabitants here, but by 1870, less than 70,000 *kanaka maoli* were left, brought on by the introduction of Western diseases such as Small Pox and Influenza combined with other maladies, including a decline in living conditions, a broken native food production system, and subjugation such as the forced harvesting of sandalwood to support the balance of trade and the payment of debts for *ali'i*.

The Hawaiian Homes Act of 1920 was a last-ditch attempt to repatriate a dying race to their land, and there were many compromises along the way to even get it passed through the US Congress on the second try, including surrendering the good lands to the sugar companies and giving Hawaiians the spoils, many of which lacked water to inhabit the land. Against all odds, over 200,000 acres were set aside through the vision and persistence of Prince Jonah Kuhio Kalaniana'ole.

Add to this a loss of native wisdom in growing food and an inability to fully adjust to the capitalist system of survival, and you create a situation in which many survive hand to mouth, and this is where we are today.

We have an unhealthy food system where the cost of food is more important than the quality, imposed on those who have no choice but to buy cheap and unhealthy. The end result is major health issues facing *kanaka maoli* from obesity to hypertension to diabetes, and the cumulative effect resulting in early death.



***Waikolu Valley on North Molokai, water source of the Molokai Irrigation System, and identified in the Hawaiian Homes Act as the source of water for the homesteading on Molokai***

Water is vital to the habitation of Hawaiian Home Lands, yet only two areas of the state are mentioned in the Hawaiian Homes Act as having rights to water, Molokai and Waimea on Kauai. Luckily, our decision makers had the vision in the 1978 Constitutional Convention and also in the enactment of

the 1987 State Water Code to reaffirm Hawaiian Homesteaders and taro grower's first rights to water in a new water hierarchy fashioned in part after the ancient system of water management.

But just because rights are in black and white is not enough. If you don't use it, you lose it to others who can mobilize faster and stick their straw into the aquifer or dam the rivers faster than you can.

Some of the Big Five still exist, while others have morphed into smaller forms of land control and ownership. The ones who exist still wield a lot of power and influence, and it's evident in two Maui water cases, Na Wai 'Eha and East Maui Irrigation.

Although land and water use laws are in place to protect water, jurisdictional disputes between County and State, as well as miniscule changes to laws have continued to chip away and weaken water and land protections. The end result is rampant urban development on some of the best agricultural lands in the state, and with it goes precious water to feed these thirsty developments.

On the predominantly arid island of Molokai, our water is limited compared to most of the major islands both in quantity and also access to the water. Water is critical not only to land based activities, but also the fisheries systems along the southern shore in a large fringing reef system covering over 15,000 acres and extending almost a half mile from shore, fed by artisan



water bubbling up along the coast, as well as a few perennial streams, mostly on the North and East Shores.

The North Valleys are a treasure trove of water, but would be almost impossible to withdraw due to exorbitant costs, conservation efforts, regulatory controls, and community outcry. Solutions aren't always economic or politically expedient.

History keeps repeating itself even today, so we have to start from the beginning to understand what we're dealing with. The lesson for today is *'Know your History, Know your water!'* Two important pieces of legislation that have codified water rights include the Hawaiian Home Act and the State Water Code.

### ***Hawaiian Homes Act of 1920***

The Hawaiian Homes Act of 1920 set aside over 200,000 acres statewide for the resettlement and repatriation of Hawaiians with 50% or more native blood. In Section 221 (d) of the Act, two areas in the state are identified as having first rights to water:

*"The commission is authorized, for the purpose of adequately irrigating any tract, to use, free of all charge, Government-owned water upon the island of Molokai and Government-owned surplus water tributary to the Waimea River upon the island of Kauai, not covered by a water license after the passage of the Act. Any such water license issues after the passage of this Act and covering any such Government-*

*owned surplus water shall be deemed subject to the condition, whether or not stipulated therein..."*

### ***The Water Code***

The State Water Code, created by the 1978 Constitutional Convention, and enacted in 1987, set aside water rights and hierarchies in the event of water conflicts. The State Water Code held in place prior rights to water and these rights *"shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai Irrigation System."*

A responsibility of the Commission on Water Resource Management is to *"incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands as set forth in section 221 of the Hawaiian Homes Commission Act."* Commissioners are selected by the Governor, and also Senate and House of Representative leaders.

Sounds all good and well, but there's trouble in paradise and a continued trend toward convoluting the laws. The track record by the State Commission on Water Resource Management (CWRM) in its short life is dismal at best. It seems that their strategy has been to make the wrong decision in order to tie it up in court for 10 years in some cases until it's overturned in the highest court of the land, than to do the right thing.

This happened twice in two landmark Molokai water cases, Waiola and Kukui, when both CWRM decisions were overturned in the State Supreme Court. The inability to enforce water laws by those delegated with this authority is at the crux of a failure to adequately enforce, manage, and make *pono* or righteous decisions related to water allocations, creating public frustration and loss of confidence in those anointed to uphold our water rights.

Water is a very emotional issue on Molokai and for very good reason. History has shown that if you don't keep your eye on the water, it has a tendency to flow away from where it's supposed to be. Water is vital to the existence and survival of Hawaiian homesteaders, many who connect their lineage to the original pioneers on Hawaiian Home Lands.

Everybody wants the water, and they have the ability to move faster than the Department of Hawaiian Homes in getting to it, so homesteaders find ourselves behind the eight-ball in trying to protect what they have, and not getting to proactive mode in planning for future needs, and actually securing water for existing homesteads and also to over the 150,000 Hawaiians presently represented on the Hawaiian Home Lands waiting list.

The responsibility of homesteaders, and also those on the Hawaiian Home Lands waiting list is to be *maka'ala* or vigilant of these threats, and start to cultivate their knowledge and understanding of these water rights, being ready to fight

to protect them. Many already know, but many don't. If they lead, the Department of Hawaiian Home Lands has no other option than to follow, and also to support their efforts.

On Molokai, we spend a lot of time fighting for water on this arid island for good reason. We actually scare people who come here and who have to deal with a lot of passion, and sometimes anger, as the Commission on Water Resource Management learned soon after implementation of the State Water Code.

When only 25-50 people turned out for the first State Water Code meetings on other islands, over 450 residents turned out for the first meeting in Kaunakakai. I remember Commission Chairman William Paty asking me why so many people were present at this meeting. I told him that water is a very emotional issue and we take it very seriously. This was by design as the community was



*The first Hawaiian Homesteads in Kalamaula, Molokai clearing land for habitation – Circa 1920's*

educated on their water rights through a day-long water concert a few weeks earlier.

## **The Pioneers**

Many of the original Hawaiian homesteaders arrived on Molokai in the early and mid- 1920's to find their awarded homesteads covered with Kiawe in Kalamaula, and Lantana and more in Hoolehua. Moving to Molokai was a leap of faith, and many had to struggle to establish and build their homesteads and to survive. Before they could make their lands livable, and be able to grow their food, they had to clear the land.

Many of the original homesteaders came from Maui, and were taro growers and fisherman in the most productive strip of taro land along the eastern base of the West Maui mountains. Water was plentiful, as they relied on Na Wai Eha, the four waters of Waikapu, Wailuku, Waiehu, and Waihe'e rivers for the production of their food. This was a fat land, with a perfect combination of sun and cold water producing some of the best taro on Maui.

For over 150 years now, in order to facilitate the growing of large tracts of sugar, water from their kuleana lands were diverted from Na Wai Eha to the Central Plains. The plantation was the law, and before long, these families had insufficient water to grow their taro and their food, and were forced to vacate their kuleana lands. Many abandoned their lands, and moved closer to the city, which at that time was Lahaina and adjacent communities.

Relocating to Molokai was a major adjustment for many, as they weren't

accustomed to the extreme environment with strong winds, and hot and dusty conditions, and limited rainfall and water, but many were skilled in farming, fishing, and also working together. Many were related by blood and shared their bounties so all could survive.

Kalamaula homesteaders enjoyed early success in growing food with a well to feed their crops, but soon were forced to abandon their farms when their well near Ooloo Road was over-pumped and turned salty.



*Wallace and Makaiwi families, the first generation of Ho'olehua homesteaders, celebrating their harvest with Governor Wallace R. Farrington's wife, Catherine - 1929*

Access to water in Hoolehua was limited. Water for Hoolehua originated from Waihanau Valley, in the mountains above Kalaupapa, and was piped down to Hoolehua. Waihanau means 'birth of the water or where the water is born'. Water was only available to sections of Hoolehua on certain days of the week due to the need to distribute the water throughout Hoolehua, and to assure that everyone had enough to survive.

Carrying water for crops and homestead needs was a regular and vital

undertaking. My mother-in-law, Tilden Makaiwi Han, recalled carrying water in buckets as a regular chore. There were journal accounts of the first Hoolehua homesteaders fasting and praying for rain in order to save the ‘Great Experiment’, that native Hawaiians could be productive on their homesteads. They had to prove to the state and federal government that they could survive and thrive, or the Hawaiian Homes Act would be rescinded.

At the close of their fast, a large cloud hovered over Hoolehua, and it started to rain, breaking a long-term drought. Homesteaders immediately planted their crops, and when the time came for Federal and state officials to inspect homesteader’s progress in Hoolehua, they were able to show officials the crops they had grown, and contributed to saving the Hawaiian Homes Act, along with Kalamaula homesteaders.

Most homesteaders in the state don’t know this history, and it’s through the resilience and perseverance of these first homesteaders on Molokai that they were able to preserve the Hawaiian Homes Act so many native Hawaiian to have a land base to raise their families today.

Five generations later, homesteaders haven’t forgotten the stories of their kupuna, and the struggles they endured. Homesteaders had horse-driven plows to prepare their fields. Today, the horses are gone and we use tractors to farm.

These original pioneers and their posterity waited almost 40 years before the Molokai Irrigation System was completed. Since water was in short supply, some families would grow pumpkins, a well-adapted crop in Hoolehua, and mix it with taro to make pumpkin poi. This tradition is still practiced in some families today. Watermelon also has a long tradition in Kalamaula, Hoolehua, and even Pala’au.



Today, some homesteaders, such as David Bush (left) are fifth-generation homestead farmers with traditions passed down through their kupuna, including his great-grandfather Kuamu Pelekai

Makaiwi, and also his father, the late Leiff Bush.

They understood the seasons, the special planting days, water needs, soil fertility, and pests. Some of them even planted enough seedlings for all the creatures to share in the feast, including insects, rats, and feral animals. They used their wits to protect melons from melon flies by covering them with hay or even dirt. They endured drought and pestilence, and it developed their character.

Some of these kupuna had dreams of a better future for all homesteaders, and pursued their dreams against all odds. Their dreams weren’t selfish; they saw a healthy community in control of its



destiny, and not dependent on anyone outside of the homestead.

They organized cooperatives, and dreamed of affordable food that all homesteaders could barter or buy to create a healthy community, and still keep the farmers thriving. These unselfish dreams are hard to find today, as we're driven by western ways with bills to pay, and a dependence on banks and stores so farmers can survive economically.



*Homesteaders Bush and Pua'a with an agricultural specialist – 1930's*

### ***Molokai Water History 101***

There's so much history related to water on Molokai, and non-homestead interests have always attempted to devise ways of wresting water rights away from Hawaiian Homesteaders, and this tug-of-war continues to this day. Basic water rights afforded homesteaders have been diluted, and continue to be challenged, but the story continues to be written and there's still hope that homesteaders will prevail if they're vigilant, informed, and continue to keep their eye on the water.

In 1943, the Molokai Water Board was formed to oversee development of the Molokai Irrigation System (MIS), and membership was composed exclusively of Hawaiian Homes Commissioners. From there, everything gets fuzzy as the Molokai Water Authority was transferred to the Hawaii Irrigation Authority in 1953.

In 1957, their name was changed to the Hawaii Water Authority. In 1961, the Department of Land and Natural Resources was charged with administering the Molokai Irrigation and Water Utilization Project to develop the MIS, which was completed in 1968. And in 1989, DLNR transferred management of the MIS to the Department of Agriculture (DOA).

According to the original Hawaiian Homes Act, all government-owned water from Waikolu Valley was available to homesteaders *'free of charge'*. However, in order to construct the Molokai Irrigation System, the federal government felt that the water system needed to generate money to repay the loan to the federal government for construction of the distribution system.

Also it was felt that federal funds couldn't be used to bring water down just for Hawaiians, and there needed to be some benefits to non-Hawaiians. As a result, Sections 220 and 221 of the Hawaiian Homes Act were amended, changing important sections of the Act, and removing *"government owned water, free of charge"*, while adding *"2/3's prior rights to water from Waikolu Valley"*.



*The 124-acre Molokai Irrigation System Reservoir in Kualapu'u*

The State Department of Land and Natural Resources and the U.S. Department of the Interior, Bureau of Reclamation collaborated to amend the Act. Reports from the State Territorial Legislature in 1956 stated that (1) *“the intent of the original Molokai irrigation and water utilization was to develop and furnish all the water to lessees of Hawaiian Homes Commission lands”* and (2) the purpose of the 2/3’s allocation was to *“reduce acreage assessments and to make it feasible as a self-sustaining project.”*

In order to create farm lands for non-homesteaders, 1000 acres of Hawaiian Home Lands below the Molokai Airport was swapped with 300+ acres of State ceded lands in Waianae, which was considered an even trade. The 1000-acre parcel was transferred to the State Department of Land and Natural Resources to create the Molokai Agricultural Park, with the 1/3 allocation of water from the Waikolu Valley to be utilized by these farmers. Although homesteaders have 2/3’s prior right to water *‘upon actual need shown’* from the

Waikolu source, they have no control of the Molokai Irrigation System.

### ***Trouble in Paradise***

Today, the Molokai Irrigation System (MIS) is used to subsidize the other State Irrigation Systems, including Waimanalo, Waimea (Hawaii), Hamakua, and Kahuku, since it generates over 50% of all revenues from the sales of water statewide. All proposed water rate increases have been based on the fact that the other state irrigation systems are not self-sustaining.

Rate increases further handicap homesteaders to the point where many have not been able to pay their water bills, while others have refused to pay in defiance to Hawaiian Homes Act amendments, and in reaction to decades of mismanagement of the system.

The Molokai Irrigation System has gone so far away from the original intent of rehabilitating native Hawaiians by returning them to their agrarian roots. What was envisioned as a strategy to rehabilitate native Hawaiian families has instead turned into a millstone around their necks.

The state, through former Governor Ben Cayetano, forgave Kukui Molokai over \$330,000 owed toward their water transmission fees to transport water through the MIS to Kaluakoi when they were in arrears, and also facing major Department of Health violations of the Clean Water Act. Coffees of Hawaii was

forgiven \$150,000 after filing for bankruptcy, and reappeared as another entity presently utilizing water from the MIS.

Now, the DOA is investigating options of collecting unpaid water bills from Hawaiian Homesteaders. The issue is complex and involves elderly homesteaders, those with limited income, and others frustrated with the poor and corrupt management of the system that has taken rights to 'their' water away from them. Many believe that any amendment to the Hawaiian Homes Act is unlawful, and refuse to pay their water bill.

One strategy employed by DOA to rectify debts has been to ask homesteaders to surrender their water meters in exchange for forgiving their water bill payments. By doing so, DOA has frustrated the rehabilitation scheme of *'cultivating their lands on their behalf'* as called for in the Act.

There are instances of mismanagement of the MIS whereby rights to the Hawaii Homes Act were violated. One instance was in 2004 when homesteaders were mandated to cut back on water use by 40% when their 2/3's allotment of water had not been exhausted.

At that time, Molokai Ranch's Well 17 pump was broken for an extended period of time. It appeared that homesteaders had to give their first rights to water to Kualapuu, Maunaloa, and Kaluakoi residents, while these residents were not be asked to conserve water.

Adding insult to injury, DOA had attempted to downplay this incident by stating that it never happened. During this period, homesteaders suffered crop losses from insufficient water. One farmer had commented that when they cut back on their water use by 40%, they also suffered 40% in crop loss.

One of the main underlying problems in the management of the MIS is that DOA doesn't understand their obligations and responsibilities to the Hawaiian Homes Act, and treats the system as a resource and revenue-generating vehicle. When asked by homesteaders, "If the water belongs to us, what are we paying you folks for?" The response from DOA has been, "You're paying for the transmission of the water."

That's not true because the MIS has generated income annually in most years since it was built, and these funds are thrown into the State Irrigation Special Fund. The State Irrigation Special Fund, managed by the DOA, is intended to assist in the operation and maintenance of all state irrigation systems. Once funds are put into this system, its identity is lost in terms of the source of funds.

In most years, the MIS generates a profit, some as high as 240% in the late 1980's, and these revenues are used to assist the other irrigation systems. No funds are carried over from the year before to create a more realistic picture of the economic health of the Molokai Irrigation System.

The use of funds for upkeep and maintenance of other irrigation systems is inconsistent with the purpose and intent of the Hawaiian Homes Act of which the MIS was constructed. The State Legislature has appropriated approximately \$300,000 funds annually to the State Special Irrigation Fund, and the MIS rarely uses these funds since it has been self-sufficient 8 out of 10 years.

When the first water rate increase was proposed by DLNR in the mid-1980's, the MIS was generating about 140% of the cost of operation, based on an analyses by farmer-users of the MIS. From there, profits increased in the early 1990's when farm production was at an all-time high.

At that time, pressure from neighbor island farmers grumbling that Molokai farmers had an unfair advantage of cheap water politically influenced DLNR, and prompted them to raise water rates under the guise of 'equity', failing to evaluate the true costs of farming on Molokai, including high energy and fuel costs, high cost of living, high wind conditions affecting crop loss, and the lack of a local market for commercial farmers to sell their produce.

When DOA raised water rates in the early 2000's, the MIS was generating a profit of \$150,000 annually. At the same time, Waimea farmers paid around 65% of their costs, and Waimanalo farmers paid only 26%. The true water delivery costs for the Kahuku system amounted to about \$12 per thousand gallons.

DOA has also taken the position that it's OK for Molokai farmers to subsidize the other system, failing to understand the purpose and intent of the Molokai Irrigation System is to rehabilitate native Hawaiians and return them to their agrarian roots in order to provide economic security for their families.

For now, the MIS is the cash cow that the DOA couldn't live without. The argument by DOA and others that the state irrigation systems should be self-sufficient will never happen unless farmers in each system are charged the true cost of managing each system, and that's not politically feasible.

A better strategy would be to subsidize all water systems to keep rates within reason, with the outcome of creating jobs and increasing food production with a goal toward increased food security. This strategy would be an investment in food stability if properly managed, and not a subsidy, but this can happen only if the state manages its lands for agricultural production, and not to support the proliferation of gentlemen's estates, especially in the other irrigation system districts.

DOA may also need to look at the possibility of charging higher rates for those who are not contributing to the food security of the state, such as seed crops and other non-food crops. Whatever happens, the MIS needs to be treated as a peculiar system with different purposes and goals, and managed by an entity that understands the purpose and intent of this system.



A two-tiered water rate should be considered for the MIS, so non-homestead farmers can pay their share for the construction of the system. The system was never intended for non-DHHL users outside the Molokai Agricultural Park.

The issue of governance of the MIS is at the crux of the issue due to mismanagement and rightful authority. The true managers of the MIS should be the Department of Hawaiian Home Lands whose lessees are the beneficiaries of this water. Homesteaders have been fed up with the mismanagement of the MIS for decades and the non-payment of their water bill is one manifestation of this frustration.

Within the last ten years, Hawaiian Homesteaders introduced a resolution to the State Legislature to conduct an audit of the DOA in the management of the MIS. The audit showed that the DOA could not produce even three years of records on the sales of water, and also profit and loss statements.

***TO BE CONTINUED...***

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