

# Big Ag Is Draining New Mexico Dry

The American West is facing a water crisis, compounded by climate change, a history of bad policy, and a refusal to stand up to Big Agribusiness. Despite a wet winter in early 2023 providing a short-term respite, a long-term megadrought persists across the region, as groundwater storage is being depleted after decades of over-withdrawals.<sup>1</sup> Corporate farms remain unphased by this fact, continuing to drain New Mexico's dwindling water supplies to prop up factory farms that, in turn, worsen the climate crisis and associated drought. The West is ground zero for Big Ag's assault on our water and climate future, and states must halt the expansion of these mega-farms and reallocate water for truly beneficial uses.

## Bad Policy Threatens Colorado River Supplies

The Colorado River is one of the most regulated rivers in the world, due in no small part to its famous interstate water agreement: the Colorado River Compact.<sup>2</sup> Established in 1922, the Compact theoretically distributes 16 million acre-feet of water annually to seven states and Mexico. The Upper Basin states of Colorado, New Mexico, Utah, and Wyoming are obligated to deliver 7.5 million acre-feet to the Lower Basin states of Arizona, California, and Nevada, and the Upper Basin can only take its shares from what remains.<sup>3</sup> New Mexico receives under 6 percent of the Colorado River's allocations, equivalent to around 800,000 acre-feet.<sup>4</sup>

The Colorado River Compact formed during a period of abnormally wet rainfall, resulting in an agreement that allocated 15 million acre-feet annually between the states. Yet in recent decades, only 12 to 13 million acre-feet have flowed through the river each year, further exacerbated by a treaty guaranteeing Mexico 1.5 million acre-feet.<sup>5</sup> The Compact relies on fixed numbers, leaving little room for declining supplies and potentially leaving Upper Basin states unable to fulfil their obligations to the Lower Basin.<sup>6</sup> Reservoirs along the Colorado River have reached record lows in the past few years, forcing the U.S. Bureau of Reclamation to begin curbing supplies to Lower Basin states.<sup>7</sup>

Following months of dispute, Lower Basin states came to a tentative agreement in May 2023, promising voluntary reductions of 3 million acre-feet by 2026.<sup>8</sup> While sparing New Mexico for now, solutions to this crisis will require all states' participation. The Lower Basin's proposal is insufficient for long-term security, cutting nowhere near enough water to restore water levels along the river.<sup>9</sup>

## Growing Water Scarcity in New Mexico

New Mexico's present state and future water projections are harrowing. A 2018 report found that all planning regions in New Mexico will have less than 75 percent of the necessary supply to meet

2060 water demands.<sup>10</sup> Crop production has already fallen because of water shortages, and, in part because of increased temperatures, the production of forage crops has fallen since the 1960s.<sup>11</sup> Drought has also reduced the state's grazing capacity by around 20 percent over the past century.<sup>12</sup>

New Mexico diverts a portion of its Colorado River allocation to supply drinking water to cities;<sup>13</sup> a mixture of Rio Grande and Colorado river waters supply Albuquerque with 15 billion gallons annually.<sup>14</sup> As shortages continue, these supplies are becoming smaller and smaller. The state has released water from several reservoirs to buoy Arizona's Lake Powell in recent years, and this looks likely to continue, putting New Mexico's own water security at risk.<sup>15</sup>

## **Alfalfa Production Abuses New Mexico's Dwindling Supplies**

While cities are struggling to figure out ways to conserve water, agriculture consumes a staggering amount of New Mexico's freshwater usage — over 80 percent, or more than 774 billion gallons annually.<sup>16</sup> By comparison, public water supply and domestic wells account for 10 percent of water withdrawals.<sup>17</sup>

The overtaxed Colorado River supplies a portion of this irrigation water,<sup>18</sup> flowing to alfalfa fields in northwestern New Mexico.<sup>19</sup> In fact, alfalfa is the state's dominant crop, harvested on 125,000 acres.<sup>20</sup> Food & Water Watch estimates that the state's 2022 alfalfa production required 104 billion gallons of water in consumptive use — enough to supply the entire population of New Mexico with its average water use for more than three years.<sup>21</sup> Consumptive use defines water that is lost through evaporation or transpiration and unavailable for future reuse, as opposed to withdrawals that may flow back into the ecosystem through runoff from irrigation.<sup>22</sup>

The popular use of flood irrigation plays a role in alfalfa's water consumption. Flood irrigation has been practiced in the region for over 100 years, but its continued use during shortage and drought is a serious misuse of water resources.<sup>23</sup> In 2015, flood irrigation was used on nearly half of all acres irrigated in New Mexico — 340,000 acres in total.<sup>24</sup> These systems are very difficult to manage efficiently, as much of the water pools on the surface, out of farmer control.<sup>25</sup> Flood irrigation may be put to widespread use despite its inefficiencies due to the simple fact that it is cheap and simple.<sup>26</sup> However, wasting water like this is not something New Mexico can afford to do.

## **Pecan Trees Suck Up New Mexico's Water**

New Mexico is the second largest pecan-producing state, responsible for a third of the nation's pecans.<sup>27</sup> The state produced 79 million pounds in 2022, bringing in more than \$132 million in annual sales.<sup>28</sup> But pecans are another extremely water-intensive crop. Food & Water Watch estimates that in 2022, pecans guzzled 95 billion gallons of water. This could supply the entire population of Albuquerque with their average indoor water needs for 11 years.<sup>29</sup>

Pecans are not native to New Mexico, needing significant irrigation to supplement the state's sparse rainfall.<sup>30</sup> Peak water use can be as much as 13,000 gallons per acre per day.<sup>31</sup> Many pecan orchards are flood-irrigated, as with alfalfa.<sup>32</sup> And despite prolonged drought over the past 20 years, pecan production in New Mexico is on the rise. Since 2002, the acreage harvested for pecan production increased by 11,000 acres (34 percent).<sup>33</sup>

## Mega-Dairies Threaten New Mexico's Water Security

Dairy is New Mexico's largest agricultural sector.<sup>34</sup> Food & Water Watch estimates that it takes 32 million gallons of water each day to maintain the dairy cows on New Mexico's factory farms,<sup>a</sup> or 11.5 billion gallons annually.<sup>35</sup> This could supply 289,000 households with their indoor water needs for a year.<sup>36</sup> Together, these mega-dairy cows produce enough manure to overflow nine Olympic-sized swimming pools *each day*. That is 11 times as much sewage as is produced by the Albuquerque metropolitan area.<sup>37</sup> Manure runoff from storage systems and field applications contaminate nearby water supplies.<sup>38</sup>

The U.S. dairy industry has undergone changes in recent decades, as farms became fewer but larger, and cooperatives consolidated across larger regions. Most of the industry's growth occurred in Western states such as New Mexico, where a favorable climate and affordable land allowed dairies to raise ever-increasing herds on factory farms.<sup>39</sup> Today, the state has around half as many small dairies (under 500 head) compared to 20 years ago. New Mexico also now touts some of the largest herd sizes in the country, with the average mega-dairy confining more than 3,000 cows.<sup>40</sup> Continuing growth of this magnitude would severely deplete water supplies and is at odds with the need to conserve.

## Conclusion

Big Ag's water abuses are endangering communities and ecosystems across New Mexico, creating scarcity and crisis in its wake. The state must radically transform how it thinks about industrial agriculture's water use and rapidly scale back alfalfa, pecan, and mega-dairy operations. One way to achieve this goal is to strip alfalfa of its protected beneficial use status, thereby removing much of its water allocations.<sup>41</sup> New Mexico is beyond easy solutions and must be willing to take bold action to secure a safe and livable future.

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a In this piece, mega-dairies refer to operations with 500 or more cows, as this corresponds with data categories in the 2017 U.S. Department of Agriculture Census of Agriculture, which does not provide information on confinement and waste management.

## Endnotes

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