Our Collective Responsibility to the Human Right to Water in California: An Ethical Dilemma

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Abstract

California is the first state to legally recognize the human right to water (AB 685) in the US. Nevertheless, in the Central Valley (CV), where 25% of our nation's food supply is grown[1], excessive modern agricultural practices (e.g., fertilizers, Concentrated Animal Feeding Operations, and pesticides) contaminate the groundwater, resulting in over **100,000 residents, dependent on domestic wells**, experiencing **unsafe drinking water[2]**. In these rural regions, disadvantaged communities (DACs) predominantly identifying as Hispanic[3], face an increased risk of long-term health consequences (i.e., digestive cancers)[4]. Despite this longstanding issue, the **ethical dimensions** surrounding this right have **been insufficiently addressed by the state and industry stakeholders**. To **promote the incorporation of ethics** into these decision-making processes and to advocate protecting our human rights and natural resources, we will design our own ethical framework using the 1) Rights, 2) Justice, 3) Common Good, 4) Virtue, and 5) Care Ethics lenses.

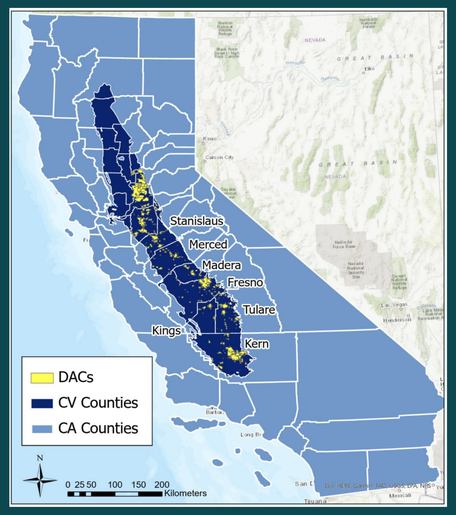

Figure 1. Disadvantaged Communities in CA's CV

Research Questions

1. Which specific contaminants pose the greatest risk to disadvantaged communities in the CV?
2. What are the current ethical lenses used to address and promote equitable access to clean drinking water?
3. For communities with disproportionate access to clean drinking water in the CV, what ethical obligations and responsibilities do stakeholders have to ensure the human right to safe water?

Methodology

1. Literature review identifying five contaminants of greatest concern: nitrates, pesticides, arsenic, uranium, and hexavalent chromium using GAMA/CalEnviroScreen4.0 data
2. Multiple rounds of review for databases intersecting environmental ethics frameworks, drinking water accessibility, and CV groundwater contamination.
3. Research and compare California's history of ethical arguments to implement the human right to clean water among successful countries.

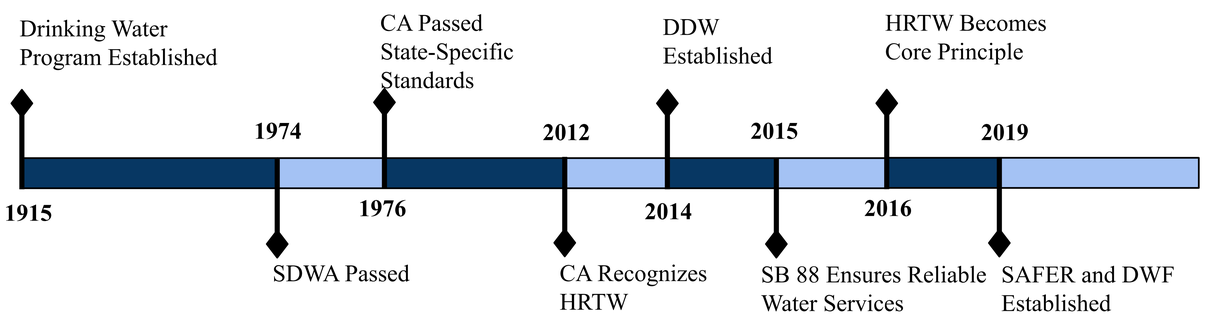

Figure 2. Timeline of California's Clean Water-Related Rights and Programs

Results

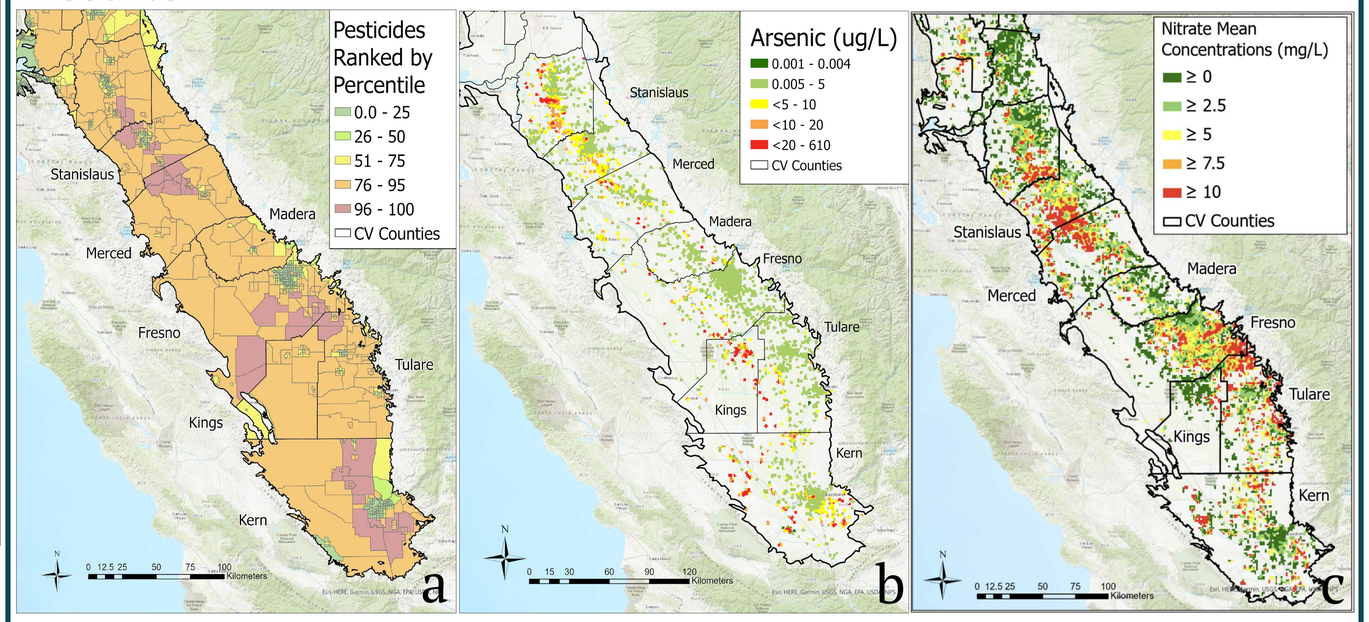

Figure 3. Contaminant Concentrations Across Central Valley Counties. (a) Pesticides by Percentile. (b) Interpolation of Arsenic Concentrations. (c) Interpolation of Nitrate Concentrations

Table 1. Comparison and Contrast of Five Ethical Frameworks Amongst Each Other

Framework	Overlapping Frameworks	Disagreeing Frameworks
Moral Responsibility: Responsibility to contribution of aggregate harm, to act (creation of beneficial habits), and to dismantle harmful institutions.	➢ Care Ethics ➢ 5 Types of (In)justice	➢ Comprehensive Account of Water Ethics ➢ 6 Ethical Lenses
Care Ethics: Moral agents are embedded in networks of ethically significant connections. Caring as exercising virtues that support flourishing relationships.	➢ Moral Responsibility ➢ 6 Ethical Lenses ➢ 5 Types of (In)justice	➢ Comprehensive Account of Water Ethics
6 Ethical Lenses: Rights, justice, utilitarian, common good, virtue, and care ethics lenses.	➢ Comprehensive Account of Water Ethics ➢ Care Ethics	➢ 5 Types of (In)justice ➢ Moral Responsibility
Comprehensive Account of Water Ethics: Water as a risk, scarce resource, and service; Type of good; Human right to water; transboundary flow of water, values of water.	➢ 6 Ethical Lenses ➢ 5 Types of (In)justice	➢ Moral Responsibility ➢ Care Ethics
5 Types of (In)justice: Distributive, occupational, recognitional, procedural, and corrective (in)justice. Not mutually exclusive, enable one another in multidirectional relationships compounding issues	➢ Moral Responsibility ➢ Care Ethics ➢ Comprehensive Account of Water Ethics	➢ 6 Ethical Lenses

Analysis

1. **Overall widespread** groundwater contamination in CV wells across all contaminants.
   a. Overlaid **Hot spots in Stanislaus, Kings, and Fresno counties**.
2. Current frameworks **lack** sufficient emphasis on persisting inequality.
   a. Need to illustrate our **interconnected relationship** and responsibility **to nature and our larger community**.
3. CA's state government focuses on the **rights lens** towards safe drinking water equality.
   a. Legislation and arguments made **lack appropriate binding wording** compared to other countries.

Conclusion and Key Takeaways

1. Widespread and persistent groundwater contamination of heavy metals (e.g. arsenic, hexavalent chromium, and uranium), nitrates, and pesticides
2. We recommend an integrated approach rooted in three frameworks: 5 types of (in)justice, care ethics, and moral responsibility.
3. California's current legislation behind the Human Right to Water lacks teeth to hold more polluters accountable. We must all, as stakeholders of our larger community, adopt a conscious mindset to promote water equity.

Figure 4. Photos from CV field visit. (a) 30 ft Cow Manure Pile. (b) Meeting with Angie (center).

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References