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### Symposium-The Human Right to Water: Turning Principles Into Action Introduction

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# ***Symposium—The Human Right to Water: Turning Principles Into Action***

## **Introduction**

*Jennifer L. Harder\**

On November 3, 2017, McGeorge School of Law gathered scholars and experts to discuss the critical issue of the human right to water, exploring the nature and status of the right across the globe. The all-day symposium, “The Human Right to Water: Turning Principles Into Action,” focused on the legal and social history of the right of every human to a safe, clean, affordable, and accessible water supply. The discussion focused on implementation of the human right to water supply and sanitation on a global scale, bringing together key scholars, practitioners, and agency staff. Panelists described key authorities that recognize a human right to water in international, U.S., and California spheres; assessed the status of implementation efforts; and recommended directions for future action.

### I. SYMPOSIUM INTRODUCTION & OVERVIEW: PROFESSOR STEPHEN C. MCCAFFREY, MCGEORGE SCHOOL OF LAW

Professor Stephen C. McCaffrey, McGeorge School of Law, opened the proceedings with a discussion of the history of the human right to water. Professor McCaffrey noted the strange and incoherent silence of early human rights instruments on the issue of water supply and sanitation, despite the basic truth that without water supply and sanitation, all other human rights are meaningless. Professor McCaffrey underscored the importance of water in human history by noting that some scholars have suggested that human society originally organized to facilitate supply of water.<sup>1</sup> At the least, Professor McCaffrey noted, it is indisputable that life cannot exist without water. And yet it was not until the late 20th century that the international community clearly identified a right to water as among the essential human rights.<sup>2</sup> In describing this history, Professor McCaffrey

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1. *See generally, e.g.*, KARL A. WITTFOGEL, *ORIENTAL DESPOTISM* (1957).

2. Comm. on Economic, Social and Cultural Rights, Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights: General Comment No. 15 ¶ 2 (2002), U.N. Doc. E/C.12/2002/11 (Jan. 20, 2003), *available at* [http://www2.ohchr.org/english/issues/water/docs/CESCR\\_GC\\_15.pdf](http://www2.ohchr.org/english/issues/water/docs/CESCR_GC_15.pdf) [hereinafter Economic, Social and Cultural Rights Covenant](on file with *The University of the Pacific*

described his own pioneering research in the early 1990s and noted that although various jurisdictions have adopted a human right to water, one question that has not been answered is whether the human right to water should be recognized as “customary law” that would bind even countries that have not formally declared the right or signed a treaty declaring the right.

Professor McCaffrey suggested that the manner in which this question is answered in any given forum, and the strength of the right, may depend in part on whether water is conceived as a public good or a private good. He noted that jurisdictions like California that recognize private rights in water have been challenged to recognize the character of water as a public good. This question, he noted, is squarely in front of California given the state’s adoption of Assembly Bill 685 (“AB 685”), later codified in the state Water Code, which declares that every person in the state has a right to a clean, accessible, and affordable supply of water.<sup>3</sup> Professor McCaffrey suggested that although AB 685 is narrow in scope and by its terms not legally enforceable, it is a positive step forward, and offers the opportunity for meaningful analysis of fundamental questions such as the public nature of water.

## II. INTERNATIONAL PERSPECTIVES ON THE HUMAN RIGHT TO WATER

Following Professor McCaffrey’s introduction, the first panel focused on implementation of the human right to water at the international scale, exploring the evolution of the right to water from its early scholarly foundations to recognition by the United Nations. The panel was moderated by Professor Karrigan Bork, Visiting Assistant Professor, University of the Pacific and McGeorge School of Law.

Professor Ved Nanda, University of Denver, Sturm College of Law, surveyed the history of recognition of the right to water across the globe, and described key international instruments. Professor Nanda recommended several measures to facilitate implementation of the right, such as legislative adoption of objectives for service delivery, indicators to measure progress, benchmarks, and accountability at the national level. Professor Nanda noted that all of these actions require accurate data, which in turn requires institutional and technical capacity as well as financial resources. When indicators are adopted, Professor Nanda asserted, they should address the different components of adequate water (such as sufficiency, safety and acceptability, affordability and physical accessibility), be disaggregated to prohibit discrimination, cover all persons in a State’s jurisdiction or control, and include monitoring.<sup>4</sup> Professor Nanda concluded that key challenges of finance

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*Law Review*) (“The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygienic requirements.”).

3. CAL. WATER CODE § 106 (West 2017).

4. *See id.*

and capacity-building must be addressed through collaboration between states and international organizations. Toward this end, Professor Nanda highlighted international agreements that require parties to progressively achieve full realization of the human right to water, to the maximum of their available resources,<sup>5</sup> and underscored the key role of political will in ensuring that nations invest resources consistent with this obligation.

Professor David Takacs, UC Hastings School of Law, explored the development of rights in water through the lens of the progressive approach adopted by South Africa after liberation from apartheid in 1996.<sup>6</sup> Takacs praised South Africa's post-apartheid Constitution for recognizing not only a basic human right to water but also a basic ecological right to water, which Takacs connected to the public trust doctrine, an ancient common law principle that requires government to safeguard natural resources for the common good. But Takacs criticized implementation of the constitutional standards, citing South Africa's adoption of poor policies, such as unacceptably low allocation of water for basic human needs (*e.g.*, two toilet flushes per day) and practices of regularly shutting off water without notice. Takacs noted, however, several recent South African planning efforts that recognize the interdependency of ecology and economics.<sup>7</sup>

Professor McCaffrey closed the panel by noting that international organizations and international states have not interpreted the right to require immediate implementation. Instead, international instruments only require countries to take action where such action is consistent with available resources.<sup>8</sup> Professor McCaffrey opined that this approach was inconsistent with the fundamental nature of the human right to water, and contrasted this "feasibility" standard with other types of rights such as non-discrimination and equal treatment that require immediate implementation.<sup>9</sup> Professor McCaffrey proposed that the right to water, like civil and political rights, should be considered a "core obligation" that must be implemented immediately, without qualification by a feasibility standard.<sup>10</sup> He further supported a recommendation by some international bodies that the world's wealthier countries be obligated to provide technological and economic assistance to countries that require such resources to fulfill the right to water.<sup>11</sup>

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5. Economic, Social and Cultural Rights Covenant, *supra* note 2, ¶ 26.

6. David Takacs, *South Africa and the Human Right to Water: Equity, Ecology and the Public Trust Doctrine*, 34 BERKELEY J. INT'L LAW 55 (2016).

7. See Kennedy Nmutamvuni, *New Partnership Project for Water Security Launched*, S. AFR. NAT. BIODIVERSITY INST. (Jun. 19, 2018), <https://www.sanbi.org/news/new-partnership-project-for-water-security-launched/> (on file with *The University of the Pacific Law Review*).

8. Economic, Social and Cultural Rights Covenant, *supra* note 2, ¶ 26.

9. G.A. Res. 2200A (XXI), International Covenant on Civil and Political Rights (Dec. 16, 1966), art. 2, available at <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx> (on file with *The University of the Pacific Law Review*) ("respect and . . . ensure"); Economic, Social and Cultural Rights Covenant, *supra* note 2, ¶ 13 (non-discrimination and equal treatment).

10. Economic, Social and Cultural Rights Covenant, *supra* note 2.

11. *Id.* ¶ 38.

III. KEYNOTE DISCUSSION BY DR. PETER H. GLEICK, PRESIDENT EMERITUS,  
PACIFIC INSTITUTE, MCARTHUR GENIUS FELLOWSHIP, U.S. NATIONAL  
ACADEMY OF SCIENCES

Following the first panel, Dr. Peter Gleick provided a luncheon keynote address that surveyed the nature and status of the human right to water, and suggested recommendations for action. Dr. Gleick described the evolution of the right to water at an international scale, noting that as a result of World War II, the human rights conversation in the 1940s was focused on political rights, and only subsequently evolved to include water. A human right to water was increasingly recognized between the mid-1970s through 1990, but Dr. Gleick characterized the right as still largely aspirational and without solid legal mooring until the early 1990s, when Professor Stephen McCaffrey wrote the first substantive paper fleshing out the legal framework for a right to water. This scholarship was followed by Dr. Gleick's own papers, with both experts concluding that close examination of the international legal framework reveals that the law does, in fact, encompass a right to water sufficient in quantity and quality to meet basic human needs. Dr. Gleick suggested that early silence on the matter may have meant that the right was implicit, so fundamental that it was assumed; after all, he noted, human rights instruments do not identify a right to air, and yet it is indisputable that air is necessary to achieving all other human rights. The same is true with water, explained Dr. Gleick. Consistent with this interpretation, he noted, in 2010, the United Nations expressly recognized that water is essential to the realization of other human rights.

Dr. Gleick then stated that declaring a right and making the right a reality are two different things, and therein lies complexity. The first problem is definitional and even scientific, albeit science that depends heavily on policy determinations: How much water do people need? Dr. Gleick proposed a basic quantity of 50 liters per person per day in the home as an appropriate minimum amount; this number does not include virtual water embedded in the food and consumer goods used in everyday life. He then noted that although this basic quantity may seem minimal and thus, on its face, relatively achievable, the problem of distribution becomes exponentially more complex in societies like California that have reached their resource limitations. Where water resources are already overappropriated, reallocation thus faces significant economic and political constraints that may render even minimal quantities difficult to guarantee. In addition to quantity, Dr. Gleick also highlighted other definitional questions such as quality and affordability standards, and queried whether the human right to water includes derivative rights such as a right to food or a right to farm.

Dr. Gleick next commented on the status of implementation of the right. He noted that a number of nations and political subdivisions have declared a human right to water, such as Mauritania, post-apartheid South Africa, Algeria, India, and in 2012, the U.S. State of California. Despite these declarations, however, as of 2017 over two billion people still lacked adequate sanitation and safe, clean,

accessible, and affordable water. Dr. Gleick noted that many people still die from preventable disease and suffer miserable poverty related to water scarcity, and that these factors create conflict around the world. Dr. Gleick pointed to case studies available on the Pacific Institute's Water Conflict chronology which tracks water-related violence around the world.<sup>12</sup> In this regard, Dr. Gleick noted that a strong economy does not by itself guarantee that the right will be satisfied, and that failures in meeting basic water needs are not found only in the developing world.

Dr. Gleick posited that a formal declaration of a right to water is a good first step, but means little without enforceable standards. He criticized California's human right to water statute as being riddled with loopholes: the act does not expand the state's obligation to provide water or develop infrastructure; does not apply to water supplies for new development; and does not infringe on rights or responsibilities of any public water system. He underscored the state's failure to comprehensively test school drinking fountains. Dr. Gleick also emphasized the intersection of water stress with patterns of racial discrimination, as belied by cases such as contamination in Flint, Michigan, and failing water taps in California's Central Valley during that state's extended drought, which caused disproportionate suffering in disadvantaged communities. Dr. Gleick encouraged California to interpret its human right to water law by aggressively identifying populations without access, prioritizing those communities, and addressing underlying causes. He also queried the role of corporations in realizing the human right to water, and proposed a need for corporate social responsibility.

Dr. Gleick underscored that the failure to achieve the human right to water is not, at bottom, a problem of technology or even funding, but one of institutions. The question raises a complex mix of issues related to hydrological sciences, political science, morality, ethics, and economics which, Dr. Gleick stated, make the human right to water a difficult problem to solve. In this regard, Dr. Gleick observed that although the concept of a human right to water sounds inherently correct and almost simple, the reality of implementing the right is not at all simple. Dr. Gleick noted that when talking about things that should be doable, people often say: "it's not rocket science." And yet, Dr. Gleick noted, from his own perspective as a scientist, "rocket science is easy. Water is not easy."

#### IV. THE HUMAN RIGHT TO WATER IN THE U.S.: NEXUS TO RACE, SOCIAL JUSTICE, AND WATER RIGHTS

Professor Tom Romero, University of Denver, Sturm College of Law, talked about the social construct of race and its relationship to water, with a focus on the intersection of race and power in the racialized landscape of the American West in history and today. He brought a critical race perspective to the question of water, challenging the myth of a non-racialized west, describing a color-conscious society

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12. *Issues We Work On: Water and Conflict*, PAC. INST., <http://pacinst.org/issues/water-and-conflict/> (last visited Oct. 10, 2018) (on file with *The University of the Pacific Law Review*).

that is the natural consequence of early discriminatory settlement policies and practices represented by Jim Crow and Jose Cuervo laws. Professor Romero suggested that manifest destiny itself, and its notion of an empty West, ignored the presence of tribes and imposed inherently racist removal policies. He described the dichotomy between urban and rural in the West as stemming from a race-conscious society, and read a poem written by himself that reflected the racialized landscape of water, citing examples such as the drowning of indigenous communities under municipal waterworks. Professor Romero closed by describing three current cases that revolve around questions at the intersection of race and water, including the controversy at Standing Rock, the connection between racism and water contamination in Flint, Michigan, including segregation through racial covenants and housing polices, and discriminatory water access policies in La Grange, Georgia.<sup>13</sup> To positively affect these problems, he offered, the governance of water institutions must become multi-racial. Professor Romero encouraged lawyers and students to bring their race experiences into the profession, and to seek to shape water law and policy to further racial justice.

Professor Jennifer Harder, McGeorge School of Law, discussed the relationship between water rights principles and the human right to water, describing the utilitarian principles that are typically said to govern western water law, including beneficial use, the core standard of western water law. Although the concept of beneficial use is often discussed as if it inherently imposes a system of private rights in water, Professor Harder disagreed. She noted that some accounts, including recent scholarship, contradict this myth by demonstrating that distributive principles were significantly present in some of the earliest appropriative rights systems in the western U.S., such as in California and Colorado.<sup>14</sup> She noted that the beneficial use requirement itself fundamentally seeks to prevent hoarding of water, and was in part imposed to ensure that riparian users did not claim all water to themselves, and to allow all miners and farmers to realize their fair share of water's benefits. Professor Harder also described her research into the ancient duty to serve, a common law principle applicable to all water suppliers that exercise delegated governmental powers such as eminent domain and taxation. In exchange for such powers, Professor Harder argued, water suppliers are under a fundamental "duty to serve" which establishes distributive principles as the basis for water allocation. She made the case that this requirement continues to apply today as a foundational common law principle that survives more specific standards imposed by statute.

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13. Complaint, Ga. State Conf. of the NAACP et al. v. City of LaGrange, Ga. (N.D. Ga. May 18, 2017) (No. 1:17-mi-99999-UNA), available at <https://www.nilc.org/wp-content/uploads/2017/05/Georgia-NAACP-v-LaGrange-complaint-2017-05-18.pdf> (on file with *The University of the Pacific Law Review*) (challenging utility billing practices under the Fair Housing Act). The case was subsequently dismissed in December 2017 for failure to state a claim under the Fair Housing Act.

14. See MARK KANAZAWA, GOLDEN RULES: ORIGINS OF CALIFORNIA WATER LAW IN THE GOLD RUSH 173–74 (Univ. of Chi. Press 2015); see generally DAVID SCHORR, THE COLORADO DOCTRINE: WATER RIGHTS, CORPORATIONS, AND DISTRIBUTIVE JUSTICE ON THE AMERICAN FRONTIER (Univ. of Colo. Press 2012).

V. REALIZING THE HUMAN RIGHT TO WATER IN REAL-TIME: THE CALIFORNIA  
EXAMPLE

The final panel focused on implementation of the human right to water in California, the first U.S. state to expressly recognize the right by statute. The panel was moderated by Britton Schwartz, an attorney and Fellow with the Environmental Law Clinic and the Center for Law, Energy & the Environment at Berkeley Law.

Laurel Firestone, co-founder and Executive Director of the non-profit Community Water Center,<sup>15</sup> described the lack of access to water within California's disadvantaged communities. Firestone noted that in the drought, 12,000 Californians ran out of water, and as of November 2017, more than 300 communities still did not meet drinking water standards. Further, she noted, neither of these statistics include private wells among them, which may significantly fail by going dry or not meeting drinking water standards. Firestone emphasized that these failures have disproportionately affected communities of color in California. Firestone highlighted the need for improved data around the question of water access, and praised the introduction of a relatively new informational tool provided by the State Water Resources Control Board, the Human Right to Water Portal, which maps and tracks water systems and well failures across the state.<sup>16</sup>

Firestone described California's human right to water law, AB 685, as a significant step forward and suggested that the law has provided a foundation for change. Importantly, it has shifted the paradigm around safe drinking water, which was once considered a privilege, but post-AB 685 is acknowledged as a right. Firestone outlined various policy tools that have been developed to try to implement California's human right to water, including statewide water bonds and new powers given to the State Water Resources Control Board to consolidate water supply systems in disadvantaged communities. Firestone's key take-way message was that realization of the human right to water requires long-term, reliable funding. She emphasized that depending on budget appropriations from year-to-year is insufficient to create the institutional framework and infrastructure that will ensure safe, affordable water. Water supply requires ongoing funding for operations and maintenance, and not just a one-time infusion of funding for capital improvements. Firestone highlighted recent efforts to enact legislation to ensure long-term, reliable funding for water supply improvements, and the need to improve data, tracking, governance, and representation through diversity in elected offices. She underscored that long-term, reliable funding is imperative to successful implementation of the human right to water.

Colin Bailey, Executive Director of the non-profit Environmental Justice

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15. CMTY. WATER CTR., <https://www.communitywatercenter.org/> (last visited Oct. 10, 2018) (on file with *The University of the Pacific Law Review*).

16. *Human Right to Water Portal*, CAL. ST. WATER RES. CONTROL BD., [https://www.waterboards.ca.gov/water\\_issues/programs/hr2w/](https://www.waterboards.ca.gov/water_issues/programs/hr2w/) (last visited Oct. 10, 2018) (on file with *The University of the Pacific Law Review*).



Coalition for Water,<sup>17</sup> observed that the stories being told by the panelists in the symposium tend to parallel each other: whether in South Africa, the U.S., or in California, impacts of water stress and scarcity are felt disproportionately by low-income communities. Bailey agreed with Professors Takacs and Romero that this phenomenon is grounded in racialized past, and also agreed with other panelists that more, urgent action is needed to realize the human right to water, and that the problem requires a paradigm shift to whole system thinking, under which water supply, quality, and affordability are treated as interdependent and symbiotic elements. Bailey noted that climate change will increase cost and complexity, and highlighted the need for infrastructure improvements, headwater and forest protection, and improved land use policies.

Bailey described the path of California's human right to water through the legislature, and noted that in some respects, the movement was fortunate to achieve the bill's passage. Although there are gaps in the legislation, he also underscored the impact that the bill has had, particularly at the California State Water Resources Control Board. Bailey noted that the Board adopted a resolution that requires integration of the human right to water into all Board activities, and an annual status review. Bailey praised the first report which assessed the role of various agency staff in implementing the right and served as guidepost for training, hiring, and reorganizing the work of the Board. He noted that some regional water quality boards have followed suit, and recommended that all regional boards invest staff and resources in a similar process. Bailey also noted that public health was an allocation driver in State Water Board proceedings imposing curtailments during the recent drought, partly in response to AB 685, and that in that same period, the Environmental Justice Coalition for Water became the first California organization in history to become a formal party to a water rights proceeding for the purpose of representing the interests of disadvantaged communities. Bailey closed by offering suggestions for improved enforcement, including expanding the purview of the Board's Office of Enforcement, and emphasized the need to address tribal and indigenous communities within the disadvantaged community purview.

The final symposium speaker was Max Gomberg, Water Conservation & Climate Manager at the State Water Board. Gomberg described the Water Board's initiatives to implement the human right to water, focusing particularly on the element of affordability. Gomberg noted that California has 7,500 drinking water systems, of which 3,000 are community water systems; of those, approximately 400 serve 90% of the population, and it is the other 2,600 that are small, serve relatively few people, and have the most challenges in providing affordable water. Gomberg noted that the State Water Board is obligated to define affordability not only under AB 685 but also under Assembly Bill 401, a recent law which directs the State Water Board to prepare a plan in collaboration with the State Board of

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17. ENVTL. JUST. COAL. FOR WATER, <https://ejcw.org/> (last visited Oct. 10, 2018) (on file with *The University of the Pacific Law Review*).

Equalization to fund and implement a low-income water rate assistance program.<sup>18</sup> Gomberg suggested that due to lack of data and local variations, the basis for the current metrics used to discuss affordability under AB 401 are weak, and noted that as matter of data, it is unclear how much people pay for water relative to their income or the degree of vulnerability in many systems. Gomberg reiterated the utility of the state's new Human Right to Water Portal with respect to future data collection. Gomberg surveyed practical and policy questions that arise with respect to affordability and rate assistance. He opined that investment needed to create resilient systems could rank in the single-digit billions; in this regard, Gomberg noted, California currently spends approximately \$2 billion on rate assistance in the electrical utility sphere. He suggested that implementing similar programs in water may ultimately depend on political will.

Finally, Gomberg addressed the role of non-state actors in realizing the human right to water. With respect to local government, Gomberg noted that despite the significant local role in establishing land use patterns and approving water users, AB 685 does not impose an affirmative obligation on these agencies. He suggested that land use agencies and water suppliers fill this gap by developing and adopting best practices to ensure affordability and accessibility. With respect to the federal government, Gomberg explained that, at present, the federal role is limited to availability of federal funding for revolving loan funds, which presents challenges not only due to the need for repayment but also because these funds could be spent only on capital investments, when operation and maintenance funding is essential to ensuring water for all persons. With respect to the private sector, Gomberg suggested that the private sector could serve the human right to water best by paying their fair share into the tax system, to support government efforts, although there is perhaps a larger role for investor-owned utilities that provide 15% of water delivered in California. In this regard, Gomberg noted, the State Water Board had begun coordinating with the California Public Utility Commission to address this issue. In closing, Gomberg stressed that there is a very real and important opportunity available to private organizations and foundations to engage on the issue of the human right to water by providing funding and support. He also urged the academic community to contribute through assessment of what is working and what is not working, and to explore potential solutions.

VI. CLOSING REMARKS: PROFESSOR STEPHEN C. MCCAFFREY, MCGEORGE  
SCHOOL OF LAW

Professor McCaffrey closed the symposium by highlighting a few key points from the discussion. He noted complexity in defining basic standards for a human right to water, and underscored Dr. Gleick's estimate of 50 liters per person per day as a basic standard. Professor McCaffrey described the general symposium

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18. CAL. WATER CODE § 189.5 (West 2016).

consensus that a lack of safe, accessible, affordable water and sanitation disproportionately impacts low-income communities of color, and that this reflects inherent racialization in the U.S. and western water. Professor McCaffrey noted that speakers emphasized the need to focus on institutional framework in implementing the human right to water, and the desirability of addressing basic questions about the water rights system and the extent to which water allocation is governed by distributive principles.

Professor McCaffrey also underscored Dr. Gleick's observation that although the human right to water principle is straightforward in concept, it is complex to implement. Professor McCaffrey highlighted an idea offered by several speakers with respect to the relationship between the human right to water and local leadership, noting that that local leadership is one of the key variables that affect fulfillment of the right. Professor McCaffrey stressed that it is critical to develop this competency within diverse communities, to ensure diversity in government decision-making in the future. Professor McCaffrey closed the symposium by emphasizing the panelists' general consensus on two points: first, although most speakers agreed that existing legal standards are a good start, those standards can and should be strengthened; and second, that creation of a sustainable funding source for water supply improvements is among the most significant factors that should be addressed to realize the human right to water on a global scale.

#### VII. SYMPOSIUM ON THE HUMAN RIGHT TO WATER: THE ARTICLES

McGeorge is very pleased to publish two papers resulting from the work done at The Human Right to Water Symposium which represent a breadth of perspectives on the right to water from international to California. From the international perspective, Professor Ved Nanda, University of Denver, Sturm College of Law, expounds on themes identified during his symposium presentation. Professor Nanda explores the history of the human right to water at an international scale, describes the meaning of key international agreements as they affect the obligations of signatories to implement a right to water, and suggests steps that should be taken to more effectively implement the right. Professor Nanda specifically recommends that states adopt legislation to establish standards for availability and delivery of water service. He also highlights the need to create government capacity sufficient for collection and assessment of data to guide implementation of standards.

From the California perspective, Ryan Mahoney, J.D. '17, LL.M. '17, McGeorge School of Law, explores consolidation of water suppliers as California's response to failing water systems, particularly in disadvantaged communities, during drought. Mahoney's analysis is placed within the framework of Senate Bill 88 ("SB 88"), state legislation enacted in 2015 which gave the California State Water Resources Control Board the power to consolidate small water systems where disadvantaged communities are affected by poor water service and reliability. Mahoney describes the types and forms of consolidation,

and reviews the consolidation orders addressed by the State Water Board in the first two years of SB 88 implementation. Mahoney also explores consolidation efforts in other U.S. states to draw lessons and perspective from these experiences, and ultimately provides five recommendations for improving the consolidation process. These recommendations include clarification of objectives, specification of which costs are relevant, and expansion of consolidation authority beyond disadvantaged communities and to private water systems. Mahoney also underscores the need for the State Water Board to ensure that all consolidated water systems have adequate staff and expertise in order to realize the anticipated benefits of consolidation.

#### VIII. WITH GRATITUDE & LOOKING AHEAD

Basic human dignity requires clean, safe, affordable, and accessible water and adequate sanitation for every person. McGeorge faculty organized The Human Right to Water symposium in the hopes that thought leaders, advocates, and decision-makers would come together to develop specific recommendations for implementing the human right to water across the globe. They delivered beyond our expectations. We are grateful to all of the symposium speakers, our colleagues, and the community members and students who attended the event for their energetic engagement and wisdom, and look forward to working collaboratively to implement their excellent suggestions.

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