The State Water Resources Control Board's Mandatory Consolidation Authority: Recommendations for Modification and Improvement

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I. INTRODUCTION

From 2012 through 2016 California suffered from severe, historic drought, that was felt most prominently in California's low income and disadvantaged communities.[1]

1. *2012–2016 California Drought: Historical Perspective*, U.S. GEOLOGICAL SERV., https://ca.water.usgs.gov/california-drought/california-drought-comparisons.html (last visited Dec. 21, 2017) (on file with *The University of the Pacific Law Review*); Stephen Stock, Michael Bott, Jeremy Carroll and Felipe Escamilla, *'A Tragedy': Hundreds of Thousands of California Residents Exposed to Contaminated Water*, NBC BAY AREA (Mar. 2017), https://www.nbcbayarea.com/investigations/A-Tragedy-Hundreds-of-Thousands-of-California-Residents-Exposed-to-Contaminated-Water-415136393.html (on file with *The*

To address this issue, California enacted Senate Bill 88 (SB 88), which permits the California State Water Resources Control Board (State Water Board) to order consolidation of public water systems[2] and facilitate mandatory consolidation.[3] Water systems serving disadvantaged communities are more likely to be underfunded, poorly maintained, and inadequately staffed, leading to a lack of resources and expertise to address water supply and quality problems.[4] SB 88 could potentially impact hundreds of California communities and thousands of California residents by helping ensure they receive safe, clean, and reliable drinking water.[5]

This article reviews SB 88's consolidation power and recommends changes that would make the mandatory consolidation authority more effective and efficient. Section II describes why California created the mandatory consolidation authority. Section III provides details on the mandatory consolidation authority as laid out in SB 88. Section IV explores consolidation

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University of the Pacific Law Review); Caitrin Chappelle and Ellen Hanak, *California's Water Quality Challenges*, PUB. POL'Y INST. CAL. (Oct. 2015), http://www.ppic.org/publication/californias-water-quality-challenges/ (on file with *The University of the Pacific Law Review*).

2. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); *Mandatory Consolidation or Extension of Services for Disadvantaged Communities*, CAL. STATE WATER RES. CONTROL BD., https://www.waterboards.ca.gov/drinking_water/programs/compliance/ (last visited Dec. 27, 2017) [hereinafter *Mandatory Consolidation or Extension of Services*] (on file with *The University of the Pacific Law Review*); CAL. NAT. RES. AGENCY ET AL., CALIFORNIA WATER ACTION PLAN: 2016 UPDATE 17 (2016), *available at* http://resources.ca.gov/docs/california_water_action_plan/Final_California_Water_Action_Plan.pdf [hereinafter ACTION PLAN] (on file with *The University of the Pacific Law Review*); *Water System Partnership and Voluntary Consolidation*, CAL. STATE WATER RES. CONTROL BD., https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/waterpartnership.shtml (last visited Dec. 11, 2017) (on file with *The University of the Pacific Law Review*).

3. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); *Mandatory Consolidation or Extension of Services*, *supra* note 2; ACTION PLAN, *supra* note 2, at 17–18; STEFAN CAJINA, CAL. STATE WATER RES. CONTROL BD., CALIFORNIA DRINKING WATER PROGRAM REGULATORY UPDATE 8 (2015), *available at* http://sfwater.org/cfapps/wholesale/uploadedFiles/2015%20Workshop%20%202%20Cajina%20CA%20DWP%20Regulatory%20Update%2020151104.pdf (on file with *The University of the Pacific Law Review*).

4. SAFE WATER ALL. ET AL., BARRIERS TO ACCESS TO SAFE AND AFFORDABLE WATER FOR DISADVANTAGED COMMUNITIES IN CALIFORNIA 1 (2015), *available at* https://www.law.berkeley.edu/wp-content/uploads/2015/04/Shadow-Report-on-Right-to-Water-JS25-150511-1.pdf [hereinafter BARRIERS TO ACCESS] (on file with *The University of the Pacific Law Review*); ACTION PLAN, *supra* note 2, at 17, 18; *see also Water Quality*, CMTY. WATER CTR. (2016), http://www.communitywatercenter.org/contamination (on file with *The University of the Pacific Law Review*) (providing an overview of the prevalence and types of water contaminants in the San Joaquin Valley); Camille Pannu, *Drinking Water and Exclusion: A Case Study from California's Central Valley*, 100 CAL. L. REV. 223, 235–37 (2012) (discussing the impacts of lack of access to water).

5. Stock, *supra* note 1; ACTION PLAN, *supra* note 2, at 17–18; Jeremy B. White & David Siders, *California Legislature Passes Drought Bill Imposing Fines, Water System Consolidation*, SAC. BEE (June 19, 2015), http://www.sacbee.com/news/politics-government/capitol-alert/article24999385.html (on file with *The University of the Pacific Law Review*) (describing SB's consolidation authority); LARRY LAI, U. CAL. L.A.: LUSKIN CTR. FOR INNOVATION, ADOPTING COUNTY POLICIES WHICH LIMIT PUBLIC WATER SYSTEM SPRAWL AND PROMOTE SMALL SYSTEM CONSOLIDATION 4 (May 2017), *available at* https://www.waterboards.ca.gov/water_issues/programs/grants_loans/sustainable_water_solutions/docs/jan17_osws_newsletter_english.pdf [hereinafter PROMOTE SMALL SYSTEM CONSOLIDATION] (on file with *The University of the Pacific Law Review*) (finding that two percent of PWSs serving disadvantaged communities are severely underperforming).

orders the State Water Board has issued since SB 88 was passed. Section V provides examples of consolidation strategies in other states. Finally, Section VI concludes by recommending that certain changes be made to the mandatory consolidation authority, including: specifying the types of costs that should be considered when determining whether mandatory consolidation should be ordered; creating specific goals to gauge success; including privately owned water systems as eligible for mandatory consolidation; requiring that consolidated systems have a minimum number of staff with specific types of expertise; and expanding the authority to include communities that do not meet the legal definition of disadvantaged.

II. BACKGROUND: WHY CREATE MANDATORY CONSOLIDATION AUTHORITY?

Consolidating public water systems is not a new idea.[6] In some situations, consolidation can be the "most effective long-term" solution for Public Water Systems (PWSs) that struggle to meet the compliance standards for drinking water to provide their service areas with safe, clean, and reliable drinking water.[7] In the past two decades, over 140 consolidations were completed, most of which occurred prior to the passage of SB 88.[8] Many of these pre-SB 88 consolidations were voluntary rather than mandatory.[9] Despite some successes, significant institutional/political, technical, and financial barriers prevented many PWSs from negotiating a voluntary consolidation or reaching an agreement through

6. *See* CAL. PUB. UTIL. CODE § 2718 (West 2017) (demonstrating the long-term nature of this issue); CAL. DEP'T OF PUB. HEALTH, GUIDELINES FOR CONSOLIDATION PROJECTS (PROPOSITION 84 VERSION) (Mar. 8, 2011), *available at* https://www.waterboards.ca.gov/drinking_water/services/funding/documents/prop84/Section%2075022%20Application%20Materials/(12)%20Guidelines%20for%20Consolidation%20Projects%20(P84)%203-8-2011%20FINAL.pdf [hereinafter GUIDELINES] (on file with *The University of the Pacific Law Review*) (showing that consolidation guidelines were in place long before SB 88 was enacted).

7. CAL. STATE WATER RES. CONTROL BD., FREQUENTLY ASKED QUESTIONS ON MANDATORY CONSOLIDATION OR EXTENSION OF SERVICES FOR WATER SYSTEMS (2016), *available at* https://www.waterboards.ca.gov/drinking_water/programs/compliance/docs/fs082415_mand_consolid_faq.pdf [hereinafter FREQUENTLY ASKED QUESTIONS] (on file with *The University of the Pacific Law Review*); CAL. STATE WATER RES. CONTROL BD., COMMUNITIES THAT RELY ON A CONTAMINATED GROUNDWATER SOURCE FOR DRINKING WATER 89–90 (2013), *available at* https://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf [hereinafter CONTAMINATED GROUNDWATER] (on file with *The University of the Pacific Law Review*); CAL. STATE WATER RES. CONTROL BD., SAFE DRINKING WATER PLAN FOR CALIFORNIA 86 (2015), *available at* https://www.waterboards.ca.gov/publications_forms/publications/legislative/docs/2015/sdwp.pdf [hereinafter WATER PLAN] (on file with *The University of the Pacific Law Review*) (finding that many small PWSs have consolidated with larger PWSs to meet drinking water standards).

8. THE STATE BAR OF CAL. ENVTL. SEC., HOW BLUE IS YOUR VALLEY? YOUR VOICE, YOUR FUTURE: A COMMUNITY CONFERENCE ON WATER IN THE SAN JOAQUIN VALLEY–THE HUMAN RIGHT TO WATER: PROVIDING SAFE DRINKING WATER FOR DISADVANTAGED COMMUNITIES 4 (2015), *available at* https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/tehipite-chapter/fact-sheets/Fracking%20in%20the%20San%20Joaquin%20Valley%20-%20What%20Does%20It%20Mean%20to%20You%20and%20Your%20Water%20Supply.pdf [hereinafter HOW BLUE IS YOUR VALLEY] (on file with *The University of the Pacific Law Review*).

9. *Id.*; FREQUENTLY ASKED QUESTIONS, *supra* note 7.

negotiation prior to SB 88.[10]

Consolidation is complex, time consuming, and requires a lot of expertise, all of which necessitate significant financial investment.[11] These difficulties were often a barrier to voluntary consolidation.[12] Prior to SB 88, voluntary consolidations could be funded by the California Drinking Water State Revolving Fund (DWRF) Program and from the proceeds gained from the sale of state bonds permitted under Proposition 84.[13] In addition, the California Department of Public Health was able to provide some technical assistance for voluntary consolidation.[14] But these resources were not sufficient to support consolidation at the scale necessary to ensure clean drinking water in all disadvantaged communities. Moreover, disadvantaged communities frequently lacked representation to effectively communicate and implement such opportunities.[15]

For public water suppliers on either side of the issue—those with water and infrastructure, and those without—institutional and political barriers prevented consolidations that were necessary to assure efficient and effective water service.[16] Taking on the challenges of another's system can be difficult to sell to constituents, and organizations famously seek to preserve, rather than destroy, their own institutional structures.[17] To overcome such barriers, a regulatory

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10. FREQUENTLY ASKED QUESTIONS, *supra* note 7; PROMOTE SMALL SYSTEM CONSOLIDATION, *supra* note 5, at 1, 4–5; WATER PLAN, *supra* note 7, at 86.

11. PROMOTE SMALL SYSTEM CONSOLIDATION, *supra* note 5, at 1, 4–5; FREQUENTLY ASKED QUESTIONS, *supra* note 7.

12. BARRIERS TO ACCESS, *supra* note 4; WATER PLAN, *supra* note 7, at 86.

13. GUIDELINES, *supra* note 6, at 1; FREQUENTLY ASKED QUESTIONS, *supra* note 7; CONTAMINATED GROUNDWATER, *supra* note 7, at 22; WATER PLAN, *supra* note 7, at 86.

14. GUIDELINES, *supra* note 6, at 4, 5.

15. BARRIERS TO ACCESS, *supra* note 4, at 2; JONATHAN LONDON, AMANDA FENCI, SARA WATTERSON, JENNIFER JARIN, ALFONSO ARANDA, AARON KING, CAMILLE PANNU, PHOEBE SEATON, LAUREL FIRESTONE, AND PETER NGUYEN, THE STRUGGLE FOR WATER JUSTICE IN CALIFORNIA'S SAN JOAQUIN VALLEY: A FOCUS ON DISADVANTAGED UNINCORPORATED COMMUNITIES, UNIV. OF CAL., DAVIS, 43–44, *available at* https://regionalchange.ucdavis.edu/sites/g/files/dgvnsk986/files/inlinefiles/The%20Struggle%20for%20Water%20Justice%20FULL%20REPORT.pdf [hereinafter DISADVANTAGED UNINCORPORATED COMMUNITIES] (on file with *The University of the Pacific Law Review*); ALYSSA GALIK, PEPPERDINE UNIV., WATER POVERTY IN CALIFORNIA'S RURAL DISADVANTAGED COMMUNITIES 36 (2015), *available at* https://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1090&context=sturesearch (on file with *The University of the Pacific Law Review*)

16. NAT'L RESEARCH COUNCIL ET AL., PRIVATIZATION OF WATER SERVICES IN THE UNITED STATES AN ASSESSMENT OF ISSUES AND EXPERIENCES 90 (2002), *available at* http://nap.edu/10135 [hereinafter PRIVATIZATION OF WATER SERVICES] (on file with *The University of the Pacific Law Review*); GALIK, *supra* note 15, at 11, 14, 22, 36.

17. CAL. LOCAL AGENCY FORMATION COMM'N, SB 88 CASE STUDY – CITY OF TULARE/PRATT MUTUAL WATER COMPANY 2 (2017), *available at* https://calafco.org/sites/default/files/resources/2017_Staff_Workshop/Water%20System%20Consolidations_Tulare.pdf [hereinafter SB 88 CASE STUDY] (on file with *The University of the Pacific Law Review*) (demonstrating the difficulties of arranging voluntary consolidation between non-failing and failing systems); Morgan Cook, *Is the End of Small Water Districts Coming?*, SAN DIEGO UNION-TRIB. (June 21, 2015), http://www.sandiegouniontribune.com/news/politics/sdut-the-end-of-small-water-districts-2015jun21-story.html (on file with *The University of the Pacific Law Review*) (demonstrating attempts to preserve existing institutional structures impacts PWS consolidation).

mandate from a supervisory authority with a broader public interest mandate, such as a state agency, is often needed.[18] Prior to the passage of SB 88, as explained below, such authority either was not exercised or did not exist.[19]

Prior to SB 88, county-based agencies called "Local Agency Formation Commissions" (LAFCOs) had the power to review the services provided by public water suppliers and order dissolution or consolidation of those suppliers if services were determined to be ineffective or inefficient.[20] But LAFCOs rarely issued such orders, as a result of crowded agendas, political influences, and inability to solve the financial and technical complexities posed by consolidation.[21] Similarly, the California Department of Public Health (DPH) was required to consider consolidating public water systems to scale economies "in the operation of public water systems."[22] However, consolidation did not occur often because DPH had no power to force consolidation. As noted above, institutional factors prevented many public water systems from choosing to voluntarily consolidate, even with DPH recommendations and assistance.[23]

Regarding private, investor-owned water systems, the California Public Utilities Commission (CPUC) promotes consolidation under the Public Water System Investment and Consolidation Act of 1997.[24] Of the 135 existing investor-owned water systems, as of 2007, 34 have been consolidated.[25] These private systems have not been consolidated at a higher rate because the CPUC's

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18. DISADVANTAGED UNINCORPORATED COMMUNITIES, *supra* note 15, at 9, 44; Cook, *supra* note 17; *see* SB 88 CASE STUDY, *supra* note 17 (describing events that led to the first mandatory PWS consolidation).

19. White, *supra* note 5; *see* SB 88 CASE STUDY, *supra* note 17; Cook, *supra* note 17 (describing PWS consolidation that was negotiated for years but did not come to fruition until the State Water Board mandated consolidation).

20. Cook, *supra* note 17 (describing a PWS consolidation that was approved by a LAFCO).

21. *Id.* (consolidation of water systems by a LAFCO is rare because the process is complicated, taking many different factors into consideration that prevent many consolidations, as evidenced by the fact that between 2006 and 2015 only 1 consolidation through the LAFCO process took place); *LAFCO and Special Districts: A Special Relationship Between Two Unique Entities*, CAL. SPECIAL DIST. ASS'N (July 11, 2017), http://www.csda.net/lafco-special-districts-special-relationship-two-unique-entities/ (on file with *The University of the Pacific Law Review*).

22. CAL. PUB. UTIL. CODE §§ 701, 2120 (West 2017); *Announcement: Joint Public Workshop: CPUC and State Water Board: Providing Safe Drinking Water Through Consolidation of Water Systems*, MAVEN'S NOTEBOOK (Aug. 7, 2017), https://mavensnotebook.com/2017/08/07/announcement-joint-public-workshop-cpuc-and-state-water-board-providing-safe-drinking-water-through-consolidation-of-water-systems/ [hereinafter *Announcement*] (on file with *The University of the Pacific Law Review*).

23. CAL. WAT. CODE § 106.3 (West 2017); WASH. REV. CODE ANN. § 70.119A.170 (West 2017); *Water System Partnerships and Voluntary Consolidation*, CAL. WATER BDS. (Mar. 2018), http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/waterpartnership.shtml (on file with *The University of the Pacific Law Review*).

24. CAL. PUB. UTIL. CODE §§ 2718–2720 (West 1997); *Announcement*, *supra* note 22.

25. *California American Water Highlights IOWC Leadership On State's Consolidation Policy*, CAL. WATER ASS'N (Sept. 5, 2017), http://www.calwaterassn.com/california-american-water-highlights-iowc-leadership-on-states-consolidation-policy/ [hereinafter *IOWC Leadership*] (on file with *The University of the Pacific Law Review*); RAMI KAHLON, CAL. STATE WATER RES. CONTROL BD., PUBLIC WORKSHOP – R. 17-06-024 WATER SYSTEM CONSOLIDATION AND SB 623 3 (2017).

guidelines and requirements make consolidation difficult and complex to arrange.[26]

SB 88 was ultimately passed due to the coalescence of three factors: water quality legal mandates, increased attention to the human right to water, and elevated media attention to the problem of disadvantaged communities running out of water during California's long and severe drought. Many public water systems do not meet federal and state water quality standards.[27] The Clean Water Act governs federal water quality standards, and the Porter-Cologne Water Quality Control Act governs California's water quality standards.[28] The Clean Water Act and the 1974 Safe Drinking Water Act establish federal water quality standards, enforcement authority, and principles of cooperative federalism as demonstrated in the National Pollution Discharge Elimination System and the Public Water System Supervision Program.[29] California is one of the many states that cooperates with the federal government to enforce water quality control, and California has been delegated implementation authority under many federal water quality programs.[30] Importantly, California has also established its own water quality standards and enforcement authority through the state Porter-Cologne Water Quality Control Act.[31] Federal and state water quality standards existed prior to SB 88 and should have motivated consolidation to take place at a higher rate. However, these standards sometimes had the opposite effect of deterring consolidations because subsuming a non-compliant system may cause a previously-compliant system to become noncompliant, resulting in legal liability.[32]

SB 88's mandatory consolidation authority became a legislative possibility because California's severe drought heightened water quality problems and brought significant public attention to those problems, particularly with respect to

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26. CAL. PUB. UTIL. CODE §§ 2718–2720 (West 1997); *IOWC Leadership*, *supra* note 25; CAL. PUB. UTIL. COMM'N, ORDER INSTITUTING RULEMAKING ON THE COMMISSION'S OWN MOTION TO SET RULES AND TO PROVIDE GUIDELINES FOR THE ACQUISITION AND MERGERS OF WATER COMPANIES (1999), *available at* http://docs.cpuc.ca.gov/published/Graphics/98848.PDF (on file with *The University of the Pacific Law Review*).

27. *Facility Search Results, Enforcement and Compliance History Online*, U.S. ENVTL. PROT. AGENCY (2018), https://echo.epa.gov/facilities/facility-search/results (on file with *The University of the Pacific Law Review*).

28. 33 U.S.C.A. § 1251 (West 2017); CAL. WAT. CODE § 13000 (West 2017).

29. 33 U.S.C.A. § 1342(b) (West 2017); 42 U.S.C.A. §§ 300g, 300g-2 (West 2017).

30. CAL. STATE WATER RES. CONTROL BD., 2016 ANNUAL COMPLIANCE REPORT 32 (2017), *available at* https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/2016/2016_acr_fnl070717.pdf (on file with *The University of the Pacific Law Review*).

31. CAL. WATER CODE § 13140; CAL. WATER CODE § 13000–13365 (West 2017); MARY TIEMANN, SAFE DRINKING WATER ACT (SDWA): A SUMMARY OF THE ACT AND ITS MAJOR REQUIREMENTS 1 (2017), *available at* https://fas.org/sgp/crs/misc/RL31243.pdf (on file with *The University of the Pacific Law Review*).

32. COMM. ON SMALL WATER SUPPLY SYS. ET AL., SAFE WATER FROM EVERY TAP IMPROVING WATER SERVICE TO SMALL COMMUNITIES 183, 185 (1997), *available at* https://www.nap.edu/read/5291/chapter/7#185 (on file with *The University of the Pacific Law Review*); Jim Miller, *Gov. Jerry Brown Pushes Budget Measure to Consolidate Water Agencies*, SAC. BEE (June 13, 2015), http://www.sacbee.com/news/politics-government/capitol-alert/article24297055.html (on file with *The University of the Pacific Law Review*).

contaminated and failing systems in disadvantaged communities.[33] The drought increased the number of PWSs not meeting water quality standards, and resulted in significant amounts of media coverage reporting on the lack of clean, safe, and reliable drinking water.[34] "Throughout California's severe drought, small communities suffered the most. Very small rural towns and even smaller neighborhood water systems were more likely to run out of water, and least able to solve those problems on their own."[35] This new attention was brought into laser focus at the political level due to California's recently-enacted law establishing a human right to water.[36]

California water rights law has always recognized the importance of safe drinking water,[37] but it did not formally recognize a "human right to water" until 2012.[38] Introduced as Assembly Bill 685, signed into law by Governor Jerry Brown on September 25, 2012, and codified as California Water Code section 106.3,[39] the human right to water declares that it is "[the] policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."[40]

This new human right to water had an indirect, but important, impact on the push to authorize the State Water Board to require mandatory consolidation.[41] Section 106.3's language might be interpreted broadly to require affirmative protection of the right; however, the same code provision also contains limiting language.[42] It provides that the human right to water legislation did "not expand any obligation of the state to provide water or to require the expenditure of additional resources to develop water infrastructure."[43] Despite these limitations,

33. Bridget O'Grady, *California Takes on Mandatory Water System Consolidation*, CAPCERT CONNECTIONS (Oct. 7, 2015), https://capcertconnections.asdwa.org/2015/10/07/california-takes-on-mandatory-water-system-consolidation/ (on file with *The University of the Pacific Law Review*).

34. O'Grady, *supra* note 33; Stock, *supra* note 1.

35. Matt Weiser, *Study Finds Two Groups Hardest Hit by California's Drought*, NEWS DEEPLY (Jan. 25, 2017), https://www.newsdeeply.com/water/community/2017/01/25/study-finds-two-groups-hardest-hit-by-californias-drought (on file with *The University of the Pacific Law Review*).

36. O'Grady, *supra* note 33; HOW BLUE IS YOUR VALLEY, *supra* note 8, at 4, 5; Jacques Leslie, *California's Water Crisis is Dangerous, Just Like Flint's. Will the State Clean it Up Once and For All?*, L.A. TIMES (May 4, 2017), http://www.latimes.com/opinion/op-ed/la-oe-leslie-californias-contaminated-water-20170504-story.html (on file with *The University of the Pacific Law Review*).

37. For example, Article 10, section 2 of California's Constitution requires all water resources to be put to reasonable and beneficial use, a standard that has always prioritized domestic use. CAL. CONST., art. X, § 2 (West 2017); CAL. WAT. CODE § 106 (West 2017).

38. CAL. WAT. CODE § 106 (West 2017); *Human Right to Water Portal*, CAL. ST. WATER RES. CONTROL BD., https://www.waterboards.ca.gov/water_issues/programs/hr2w/ (last visited Nov. 1, 2017) [hereinafter *Water Portal*] (on file with *The University of the Pacific Law Review*).

39. CAL. WAT. CODE § 106 (West 2017); *Water Portal*, *supra* note 38.

40. *Id.*

41. *See Water Portal*, *supra* note 38 ("On February 16, 2016 . . . the State Water Board . . . adopted a resolution identifying the human right to water as a top priority and core value.").

42. CAL. WAT. CODE § 106.3(c) (West 2017).

43. *Id.*

the State Water Board, the Department of Water Resources, and the DPH must consider the human right to water when they revise, adopt, or establish policies, regulations, or funding criteria.[44]

Both the legislature and the State Water Board were motivated to honor this important mandate. In 2014, drinking water authority was moved from the DPH to the State Water Board's new Division of Drinking Water—creating new enforcement opportunities.[45] The State Water Board subsequently developed a series of initiatives to ensure that the human right to water would be a core value and guide the Board in implementing programs and activities.[46] Non-profit human right to water advocacy organizations and state agencies such as the State Water Board opened a dialogue and built coalitions.[47] Thus, indirectly, the human right to water legislation of 2012 was a factor in spurring the legislative energy behind mandatory consolidation, and created the coalitions necessary to enact SB 88 and promote the goal that all California's communities, including disadvantaged communities, have access to clean, safe, and reliable drinking water.[48]

III. SB 88: STATE WATER BOARD IS AUTHORITY TO COMPEL CONSOLIDATION

SB 88 had a broad scope, with provisions addressing a variety of water topics such as water diversion reporting and measurement, as well as consolidation.[49] SB 88's consolidation provisions created sections 116680 through 116684 in the California Public Health and Safety Code.[50] The State Water Board's Division of Drinking Water is vested with the authority to compel mandatory consolidation.[51] The federal government plays only an indirect role in consolidations by supervising certain water quality standards and permitting California to manage

44. CAL. WAT. CODE § 106.3(b) (West 2017); *Water Portal*, *supra* note 38.

45. CAL. ST. WATER RES. CONTROL BD., DRINKING WATER REORGANIZATION 1 (2013), *available at* https://www.waterboards.ca.gov/drinkingwater/docs/dwreorg_wp072413.pdf (on file with *The University of the Pacific Law Review*) (The transfer occurred because Governor Brown's administration believed that it created a more sound organizational structure of water quality programs, putting them in the best position possible to "meet the future demands on water resulting from climate change, increasing population, and economic growth.").

46. CAL. ST. WATER RES. CONTROL BD., STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2016-0010 ADOPTING THE HUMAN RIGHT TO WATER AS A CORE VALUE AND DIRECTING ITS IMPLEMENTATION IN WATER BOARD PROGRAMS AND ACTIVITIES 1–5 (Feb. 16, 2016), *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/rs2016_0010.pdf [hereinafter ADOPTING THE HUMAN RIGHT TO WATER] (on file with *The University of the Pacific Law Review*); Leslie, *supra* note 36; *State Water Board Launches Human Right to Water Web Portal*, YUBA NET (Feb. 14, 2017), https://yubanet.com/california/state-water-board-launches-human-right-to-water-web-portal/ (on file with *The University of the Pacific Law Review*).

47. *Water Portal*, *supra* note 38; ADOPTING THE HUMAN RIGHT TO WATER, *supra* note 46, at 1, 5.

48. ADOPTING THE HUMAN RIGHT TO WATER, *supra* note 46, at 1, 5.

49. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); Leslie, *supra* note 36.

50. CAL. HEALTH AND SAFETY CODE §§ 116680–116684 (West 2017).

51. Leslie, *supra* note 36; TIEMANN, *supra* note 31, at 1.

the Public Water System Supervision Program under the federal Safe Drinking Water Act.[52]

The State Water Board's mandatory consolidation power better serves disadvantaged communities by allowing itself to merge a public water system that consistently fails to provide clean, safe, and reliable water with a nearby public water system that does.[53] The power is limited in scope and application because it can only be applied to public water systems in disadvantaged communities with PWSs that consistently fail to provide clean, safe, and reliable drinking water, and the State Water Board must meet several requirements before ordering a consolidation.[54] Before a consolidation can take place, the State Water Board must consider factors that include "analyses of the capacity of the neighboring system; geographical separation; infrastructure improvement costs; costs and benefits to both systems; and access to financing for the resulting consolidated entity."[55] Before the State Water Board can order mandatory consolidation, the involved systems must create an approved consolidation plan within six-months; however, if one cannot be developed, the State Water Board can order consolidation under terms it dictates to the PWSs.[56] The mandatory consolidation power is a valuable tool for the State Water Board but, as described in Sections III, IV, and V infra, it also has limitations and room for improvement.[57]

Although SB 88's mandatory consolidation power was created as a response to drought, the power is not limited to periods of drought or when water supply is a statewide concern.[58] Permitting mandatory consolidation is an important part of preparing for future droughts and water supply shortage.[59] Consolidations will allow disadvantaged communities to be served by larger more efficient PWSs that are more prepared and able to handle drought conditions and water supply shortages when they arise.[60]

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52. The United States Environmental Protection Agency sets national limits on drinking water contamination levels under the Safe Drinking Water Act through the establishment of maximum contaminant levels. ENVTL. PROT. AGENCY, INTRODUCTION TO THE PUBLIC WATER SYSTEM SUPERVISION PROGRAM 71, 87 (2003), *available at* https://cfpub.epa.gov/watertrain/pdf/modules/pwss.pdf (on file with *The University of the Pacific Law Review*); TIEMANN, *supra* note 31, at 1.

53. CAL. HEALTH & SAFETY CODE § 116682(a) (West 2017).

54. *Id.*

55. CAL. HEALTH & SAFETY CODE § 116682(d) (West 2017); O'Grady, *supra* note 33.

56. CAL. HEALTH AND SAFETY CODE § 116682(b)(7)(A) (West 2017); O'Grady, *supra* note 33.

57. Interview with Caitlin Juarez, Water Resources Control Engineer Southern California Consolidation Coordinator, State Water Res. Control Bd. Div. of Drinking Water, in Fresno, Cal. (Oct. 12, 2017 and Dec. 5, 2017) [hereinafter Interview with Caitlin Juarez] (notes on file with *The University of the Pacific Law Review*).

58. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); ACTION PLAN, *supra* note 2, at 17–18.

59. *See* PRIVATIZATION OF WATER SERVICES, *supra* note 16, at 89, 90 (explaining that despite consolidation being a viable alternative, institutional and political factors frequently act as barriers to consolidating).

60. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); ACTION PLAN, *supra* note 2, at 17, 18.

A. SB 88 Applies to Public Water Systems and State Small Water Systems

SB 88's mandatory consolidation authority applies only to PWSs, not privately owned water systems.[61] A PWS is defined as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections, or regularly serves at least 25 individuals daily at least 60 days out of the year."[62] PWSs include all facilities used primarily for water collection, treatment, storage, and distribution that connect to provide water to consumers.[63] Similarly, the U.S. Environmental Protection Agency defines a PWS as those that have "at least fifteen service connections or regularly serves at least twenty-five individuals."[64] State Small Water Systems (SSW) are defined as water systems "for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not [provide drinking water on a regular basis to] more than an average of 25 individuals daily for more than 60 days out of the year."[65] Despite PWSs being the dominant form of water system in California and the focus of this thesis, the recommendation made in Section IV is directed at both forms of water systems.

As of December 18, 2017, state records listed 8,419 active PWSs, and each is classified into one of three categories: community water systems (CWS); transient non-community water systems (TNCWS); or non-transient non-community water systems (NTNCWS).[66] A CWS is a PWS that serves at least 15 service connections or 25 residents year-round.[67] CWSs are the most important form of PWSs that supply drinking water to California's communities.[68] PWSs can also be "transient non-community water systems,"[69] which provide water in locations where people visit but do not live, such as a motels, campgrounds, small wineries, and other non-residential areas.[70] PWSs can also be non-transient, non-community water systems which regularly service the same 25 or more persons at least six months out of each year.[71] This typically includes rural

61. *See* S.B. 88 (specifying SB 88 applies only to PWSs).

62. CAL. HEALTH & SAFETY CODE § 116275(h) (West 2017).

63. *Id.*

64. 42 U.S.C.A. § 300f(4)(A) (West 2017).

65. CAL. HEALTH & SAFETY Code § 116275(n) (West 2017). Although PWSs and SSWs are different for the purposes of this paper, the abbreviation PWS will be used to describe both forms of water systems.

66. CAL. CODE REGS. tit. 22, §§ 64400.10, 64400.80, 6441.85 (West 2017); *Water Systems*, DRINKING WATER DIV., https://sdwis.waterboards.ca.gov/PDWW/JSP/SearchDispatch?number=&name=&county=&WaterSystemType=All&WaterSystemStatus=A&SourceWaterType=All&action=Search+For+Water+Systems (last visited Dec. 18, 2017) (on file with *The University of the Pacific Law Review*).

67. CAL. CODE REGS. tit. 22, § 64400.10 (West 2017).

68. *Water Systems*, *supra* note 66 (listing California's PWS, including CWS, and the CWS location).

69. CAL. CODE REGS. tit. 22, § 64401.85 (West 2017).

70. STATE WATER RES. CONTROL BD., INTRODUCTION TO REGULATORY REQUIREMENTS FOR PUBLIC WATER SYSTEMS 1 (2014); CONTAMINATED GROUNDWATER, *supra* note 7, at 10, 26, 31.

71. CAL. CODE REGS. tit. 22, § 64400.80 (West 2017).

schools, offices, and factories.[72]

Mandatory consolidation may apply to any of the foregoing PWSs because each of the three systems plays a vital role in providing drinking water to California's disadvantaged communities.[73] The majority of Californians receive their drinking water from PWSs operated and managed in their local area and, as of 2016, over 95% of California's population, or roughly 38 million people, received drinking water from one or more of the three forms of PWSs that operate in California.[74] PWSs operate in areas throughout the state, serving affluent and disadvantaged communities. Despite this commonality, the water quality problems facing Californian PWSs tend to much more severely impact disadvantaged communities because of a history of lacking resources, lagging infrastructure development, and poor system maintenance.[75]

B. SB 88 Only Applies To "Disadvantaged Communities"

SB 88 can only be used to mandate the consolidation of PWSs that are located in disadvantaged communities.[76] A disadvantaged community is statutorily defined as "the entire service area of a community water system, or a community therein, in which the median household income is less than 80 percent of the statewide average."[77] Disadvantaged communities are often located in the unincorporated areas of California's counties, beyond the boundaries of incorporated cities.[78] Unincorporated towns and cities typically rely on county governments, nearby incorporated cities, or their own locally run

72. ENVTL. PROT. AGENCY, NON-TRANSIENT, NON-COMMUNITY WATER SYSTEMS 1 (1995), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/20001RBY.PDF?Dockey=20001RBY.PDF (on file with *The University of the Pacific Law Review*); CONTAMINATED GROUNDWATER, *supra* note 7, at 26.

73. *See* S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted) (SB 88 applies to PWSs, without regard for type); CAL. CODE REGS. tit. 22, §§ 64400.10, 64400.80, 64401.85 (West 2017); *Water Systems*, *supra* note 66 (listing each of California's public water systems and the type of public water system).

74. CONTAMINATED GROUNDWATER, *supra* note 7, at 5.

75. Ellen Hanak et al., *What if California's Drought Continues*, PUB. POLICY INST. CAL. (Aug. 2015), http://www.ppic.org/publication/what-if-californias-drought-continues/ (on file with *The University of the Pacific Law Review*).

76. CAL. HEALTH & SAFETY CODE §§ 116680–116682 (West 2017).

77. S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted); CAL. HEALTH & SAFETY CODE § 116275(aa) (West 2017).

78. Darryl T. Cohen, *Population Distribution Inside and Outside of Incorporated Places: 2000* 2 (U.S. Census Bureau, Population Div., Working Paper No. 82), https://www.census.gov/population/www/documentation/twps0082/twps0082.html (on file with *The University of the Pacific Law Review*); CHIONE FLEGAL ET AL., CALIFORNIA UNINCORPORATED: MAPPING DISADVANTAGED COMMUNITIES IN THE SAN JOAQUIN VALLEY 3 (2013), *available at* http://www.policylink.org/sites/default/files/CA%20UNINCORPORATED_FINAL.pdf (on file with *The University of the Pacific Law Review*); Pannu, *supra* note 4, at 231; *Disadvantaged Communities – Sacramento to San Diego*, ARCGIS, http://www.arcgis.com/home/webmap/viewer.html?webmap=06334e7e74314aeca2cbd7af8268eeef (last visited Dec. 20, 2017) (on file with *The University of the Pacific Law Review*).

systems to provide basic services like drinking water.[79] The lack of formal local governments in these areas often leaves them incapable of effectively and efficiently structuring and managing the supply of basic services or maintaining the supply of these services, including drinking water.[80] Whereas, counties and incorporated cities have governments capable of such structuring and managing basic services, including drinking water.[81]

California has many communities that meet the definition of a disadvantaged community.[82] In the San Joaquin Valley alone, there are 525 disadvantaged communities in unincorporated territory, with a population of approximately 310,230, the vast majority of which are rural, agricultural communities.[83] The number of Californians that live in disadvantaged communities in unincorporated areas varies by county because some counties have more unincorporated territory than others, or have fewer habitable areas in their unincorporated territory.[84]

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79. Alvin D. Sokolow, *Caring for Unincorporated Communities*, SAN LORENZO EXPRESS (Mar./Apr. 2000), *available at* www.sanlorenzoexpress.com/unincorp.htm (last visited Jun. 15, 2018) (on file with *The University of the Pacific Law Review*).

80. *Id.*; BARRIERS TO ACCESS, *supra* note 4, at 1, 8, 9.

81. Cohen, *supra* note 78; FLEGAL, *supra* note 78, at 3; Pannu, *supra* note 4, at 231; *Disadvantaged Communities – Sacramento to San Diego*, *supra* note 78.

82. Pannu, *supra* note 4, at 231; FLEGAL, *supra* note 78, at 3; VICTOR RUBIN ET AL., CAL. RURAL LEGAL ASSISTANCE & POLICY LINK, UNINCORPORATED COMMUNITIES IN SAN JOAQUIN VALLEY: NEW RESPONSES TO POVERTY, INEQUALITY, AND A SYSTEM OF UNRESPONSIVE GOVERNMENT 2 (2007), *available at* http://technologylink.typepad.com/files/colonias_crla_-policylink-framing-paper.pdf (on file with *The University of the Pacific Law Review*); *Disadvantaged Communities – Sacramento to San Diego*, *supra* note 78; *SB 535 Disadvantaged Communities (2017)*, ARCGIS, http://oehha.maps.arcgis.com/apps/View/index.html?appid=c3e4e4e1d115468390cf61d9db83efc4 (last visited Dec. 20, 2017) (on file with *The University of the Pacific Law Review*).

83. Pannu, *supra* note 4, at 231; FLEGAL, *supra* note 78, at 3; RUBIN ET AL., *supra* note 82; *Disadvantaged Communities – Sacramento to San Diego*, *supra* note 78; *SB 535 Disadvantaged Communities (2017)*, *supra* note 82.

84. *See, e.g.*, FLEGAL, *supra* note 78, at 29–43 (detailing disadvantaged communities in the San Joaquin Valley); *Unincorporated Los Angeles County*, L.A. CTY. DEP'T REG'L PLANNING, http://planning.lacounty.gov/view/unincorporated_los_angeles_county/ (last visited Dec. 30, 2017) (on file with *The University of the Pacific Law Review*) (providing details of Los Angeles County's unincorporated areas); SAC. CTY., UNINCORPORATED AREAS (2014), *available at* http://www.saccounty.net/Documents/sac_025812.pdf (on file with *The University of the Pacific Law Review*) (mapping Sacramento County's unincorporated area); *Cities within San Joaquin County Map*, ARCGIS, https://www.arcgis.com/home/item.html?id=ea94d757ba02487bb7a7ca2aab3aef7c (last visited Dec. 30, 2017) (on file with *The University of the Pacific law Review*) (mapping San Joaquin Valley and disadvantaged communities); *Orange County, CA Map*, RON DENHAAN REAL EST., http://www.ronforhomes.com/ocmap.htm (last visited Dec. 30, 2017) (on file with *The University of the Pacific Law Review*) (mapping Orange County's unincorporated areas); DEP'T OF CONSERVATION AND DEV., CONTRA COSTA COUNTY DRAFT – 2011 SUPERVISORIAL DISTRICT – PROPOSAL 17 D (2011), *available at* http://contracostaca.org/DocumentCenter/Home/View/6283 (on file with *The University of the Pacific Law Review*) (detailing Contra Costa County's population living in unincorporated areas); S. CAL. ASS'N OF GOV'TS' REG'L COUNCIL, PROFILE OF THE UNINCORPORATED AREA OF SAN BERNARDINO COUNTY (2017), *available at* https://www.scag.ca.gov/Documents/UnIncAreaSanBernardinoCounty.pdf (on file with *The University of the Pacific Law Review*) (providing details on San Bernardino County's unincorporated areas); S. CAL. ASS'N OF GOV'TS' REG'L COUNCIL, PROFILE OF THE UNINCORPORATED AREA OF IMPERIAL COUNTY (2017), *available at* https://www.scag.ca.gov/Documents/UnIncAreaImperialCounty.pdf (on file with *The University of the Pacific Law Review*) (providing details on Imperial County's unincorporated areas); S. CAL.

Unincorporated areas have smaller populations, no formal local government, and usually receive less services provided than incorporated communities, despite the many thousands of people who have taken up residence in unincorporated places throughout California.[85]

According to an analysis of the 2000 United States Census, San Joaquin County, Kings County, Stanislaus County, and several other California counties have a substantial percentage of their population living in disadvantaged unincorporated areas.[86] Specifically, the percentage of the population living in disadvantaged communities in unincorporated areas is 61% in San Joaquin County, 39% in Kings County, and 26% in Stanislaus County.[87] Many households in disadvantaged communities meet the definition of low-income as defined by the census; however, not every household in a disadvantaged community meets the definition of a disadvantaged low-income household, because some residents in disadvantaged communities are more financially secure than others.[88] For example, in San Joaquin County, Kings County, Stanislaus County, Fresno County, Kern County, Madera County, Merced County, and Tulare County, somewhere between 58 and 67% of the households meet the definition of disadvantaged low-income households.[89]

PWSs serving disadvantaged communities face a diverse array of water-related issues, including limited water resources that can be put to use for water supply; inadequate water quality due to contaminants in the water supply; limited and often temporary staffing, less public participation in water resources

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ASS'N OF GOV'TS' REG'L COUNCIL, PROFILE OF THE UNINCORPORATED AREA OF RIVERSIDE COUNTY (2017), *available at* https://www.scag.ca.gov/Documents/UnIncAreaRiversideCounty.pdf (on file with *The University of the Pacific Law Review*) (providing details on Riverside County's unincorporated areas); SAN DIEGO CTY., UNINCORPORATED SAN DIEGO COUNTY (2006), *available at* http://www.sandiegocounty.gov/content/dam/sdc/common_components/images/dpw/recyclingpdfs/UnincorporatedMapCommunities.pdf (on file with *The University of the Pacific Law Review*) (mapping unincorporated areas in San Diego County); ALAMEDA CTY., ALAMEDA COUNTY UNINCORPORATED COMMUNITIES AND NEIGHBORHOODS (2010), *available at* https://www.acgov.org/cda/planning/ordinance/documents/FinalUnincCommunities_Neigh.pdf (on file with *The University of the Pacific Law Review*) (mapping Alameda County's unincorporated areas); NAT'L FLOOD INS. PROGRAM, FIRM FLOOD INSURANCE RATE MAP BUTTE COUNTY, CALIFORNIA AND INCORPORATED AREAS (2010), *available at* http://www.buttecounty.net/publicworksdocs/Division/LandDevelopment/FIRM/06007CIND0A_2011_01_06.pdf (on file with *The University of the Pacific Law Review*) (mapping Butte County's unincorporated areas); *Map of Unincorporated Areas in California*, GOOGLE, https://www.google.com/search (click on "images" tab, type into search bar "map of unincorporated areas in California") (last visited Dec. 30, 2017) (on file with *The University of the Pacific Law Review*); *Zoning General Plan Lookup Marin County Community Development*, MARIN PUB., http://gis.marinpublic.com/Html5Viewer/Index.html?viewer=zonelookup (last visited Dec. 30, 2017) (on file with *The University of the Pacific Law Review*) (mapping Marin County's unincorporated areas).

85. Cohen, *supra* note 78; Pannu, *supra* note 4, at 231; *Disadvantaged Communities – Sacramento to San Diego*, *supra* note 78.

86. FLEGAL, *supra* note 78, at 29.

87. *Id.*

88. CYNTHIA C. COOK ET AL., ASSESSING THE IMPACT OF TRANSPORT AND ENERGY INFRASTRUCTURE ON POVERTY REDUCTION xxv (2005).

89. FLEGAL, *supra* note 78, at 30.

decision-making; and inadequate generation of revenue for technological upgrades and infrastructure development, improvement, and maintenance.[90] PWSs serving disadvantaged communities are considerably more likely to suffer from some or all of these issues than those that serve affluent communities.[91] Residents in disadvantaged communities have less financial capital to contribute to water resources development, they are usually located next to agricultural areas where contaminants leach into the water supply, have less attractive employment opportunities for PWS staff, and lack the structure and education necessary to effectively participate in community decision-making related to water resources.[92] Each of these areas where disadvantaged communities experience water supply and water quality problems could be analyzed individually, because they are all important; however, the majority of water-related problems facing disadvantaged communities stem from one common issue that is the most important to remedy: the inability to raise adequate revenue from the residents of disadvantaged communities to properly fund and maintain their PWSs.[93]

Without financial stability PWSs cannot properly invest in developing new water resources, necessary updates, improvements, and maintenance needed in their water quality control and distribution systems, or permit the level of public participation necessary to provide water at the quality required by California or federal law.[94] PWSs that lack the ability to raise sufficient revenue from customers in their service area are likely to fail that service area by not being able to provide safe, clean, and reliable drinking water over the long-term.[95] Furthermore, the inability to invest in new water resources, infrastructure development, new technology, and sufficient staff are problems that can be exacerbated in times of emergency, such as during or after a natural disaster, because financial constraints limit the ability for PWSs to respond effectively and efficiently.[96]

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90. Symposium, *Environmental Justice: Access to Clean Drinking Water*, 57 HASTINGS L.J. 1367, 1377 (2006); BARRIERS TO ACCESS, *supra* note 4, at 1, 2, 6, 8–9; INT'L HUMAN RIGHTS LAW CLINIC, UNIV. OF CAL., BERKLEY, SCH. OF LAW, THE HUMAN RIGHT TO WATER BILL IN CALIFORNIA: AN IMPLEMENTATION FRAMEWORK FOR STATE AGENCIES 3–5 (2013), *available at* https://www.law.berkeley.edu/files/Water_Report_2013_Interactive_FINAL.pdf (on file with *The University of the Pacific law Review*); DR. KARL LONGLY, BRIAN HADDIX & SARGE GREEN, CAL. WATER INST., PROPOSED CENTER FOR DISADVANTAGED COMMUNITIES WATER ASSISTANCE 3–4 (2010), *available at* https://www.calstate.edu/water/documents/DACWP.pdf (on file with *The University of the Pacific Law Review*); RAFAEL MAESTU, CAL. STATE WATER RES. CONTROL BD., WATER QUALITY ISSUES IN DISADVANTAGED COMMUNITIES: ANOTHER REGULATORY PERSPECTIVE, OFFICE OF RESEARCH, PLANNING, AND PERFORMANCE 3 (2011), *available at* https://www.calstate.edu/water/conference/documents/2011/13153.pdf (on file with *The University of the Pacific Law Review*).

91. LONGLY, *surpa* note 90, at 3–4.

92. *Id.*

93. *Id.*; MAESTU, *supra* note 90, at 3.

94. *Water System Partnership and Voluntary Consolidation*, *supra* note 2.

95. *Id.*

96. *Id.*

Financial instability for PWSs serving disadvantaged communities has a direct impact on the staffing capacities of these PWSs, as evidenced by the fact that these PWSs often have a small staff, usually much smaller than would be ideal for the systems' effective and efficient operation.[97] Staffing constraints are a problem for these PWSs, because not only do they restrain the ability for PWSs to successfully comply with regulatory changes, but they also affect the ability for the PWSs to meet current water quality standards required by state and federal law.[98] Understaffed PWSs have difficulties completing the necessary water supply testing required by law, and less staff impacts the ability for the PWSs to properly analyze their overall performance, resulting in less confident and motivated service area customers.[99]

Additionally, PWSs that lack the ability to raise sufficient revenue are more likely than financially secure PWSs to have difficulties complying with regulatory changes when they occur.[100] Compliance with new regulations can result in significant costs to PWSs, and those with limitations on revenue generation face difficulties in conforming with new regulations.[101] Compliance with regulatory changes is important for PWSs because non-compliance can result in penalties or enforcement actions against the PWSs.[102] However, compliance is not always possible or practicable for PWSs serving disadvantaged communities because the compliance costs can add to the economic instability for the PWSs or cause devastating rate hikes for customers of the PWSs.[103] For these reasons, the State Water Board's mandatory consolidation power is necessary for PWSs serving disadvantaged communities to become more likely to provide their service areas with safe, clean, and reliable drinking water.

C. Forms of Mandatory Consolidation

Mandatory consolidation can take the form of a physical or managerial merger between PWSs with the PWS that is consolidated into another PWS known as a "subsumed" PWS and the PWS that provides services to the subsumed system's service area after consolidation takes place known as a "receiving" PWS.[104] After consolidation, the PWS that provides water to the receiving and subsumed PWSs' service areas becomes known as a consolidated PWS.[105]

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97. *Id.*
98. *Id.*
99. *Id.*
100. *Id.*
101. *Id.*
102. *Id.*
103. *Id.*
104. CAL. HEALTH & SAFETY CODE §§ 116681(a), 116682(h), 116682(j) (West 2017).
105. CAL. HEALTH & SAFETY CODE §§ 116681(d) (West 2017).

1. Traditional Physical Consolidation

Traditional physical consolidation is the "joining of two or more" PWSs into a single operating PWS.[106] Physical consolidation occurs when the PWSs being merged are connected to one another through an interconnection of their water distribution systems.[107] Such consolidation typically involves a relatively large PWS that has less difficulty complying with drinking water standards and can absorb a smaller PWS that has significant difficulties complying with such standards.[108] Physical consolidation is the most common way for consolidation to occur, because usually it is the most effective method for ensuring that service areas of the smaller, less compliant PWSs receive drinking water that meets federal and state minimum drinking water standards.[109]

When physical consolidation occurs, subsumed PWSs usually dissolve because the area is no longer needed for water supply distribution in the former service areas, and the remaining PWSs are then referred to as consolidated PWSs.[110] Physical consolidation of PWSs raises several concerns including the technical complexity of establishing an interconnection. Additionally, it brings concerns that contamination will continue to occur in the new service area(s) due to the distribution system in that area(s) being contaminated and the impacts that such contamination in the new service area(s) may have on the drinking water supplied in the original distribution systems managed by the receiving PWSs.[111] The consolidated PWSs distribution systems are usually not of the same quality, despite the fact that the PWSs are usually fairly close together.[112] For example, receiving PWSs that become responsible for providing drinking water to the service areas of subsumed PWSs often have many concerns about the effects the connection will have, not only in the new service areas, but also the effects the connection will have on their original service areas through potential interconnection contamination.[113]

2. Regional Consolidation

Regional consolidation (regionalization) is a form of physical consolidation that can occur in certain situations where there are several PWSs that negotiate and arrange a consolidation between all the PWSs, or are ordered to consolidate

106. *Water System Partnership and Voluntary Consolidation*, *supra* note 2.
107. *Id.*
108. *Id.*
109. *Id.*
110. *Id.*
111. *Id.*
112. *Id.*
113. *Id.*

by the State Water Board.[114] Although more complicated and costly than a physical consolidation, regionalization can be very effective in areas where there are several independently operated PWSs in close proximity.[115] Regionalization allows for the PWSs to combine resources and management expertise that will result in better water supply and quality outcomes for people in the service areas of those PWSs due to benefits of scale.[116]

3. Managerial Consolidation

In managerial consolidation, a small PWS becomes part of a larger PWS for management purposes, although the two systems are not physically connected.[117] Managerial consolidation is less common than physical consolidation because it is not as effective or efficient for improving drinking water quality.[118] However, the State Water Board's goal to improve drinking water quality for disadvantaged communities is better achieved under managerial consolidation, especially where physical consolidation is impractical.[119]

Managerial consolidation allows for receiving PWSs to take over legal management of the subsumed PWSs without the costs of building interconnections between the existing distribution systems.[120] Without a physical interconnection between the PWSs involved in the managerial consolidation, the possibility of contamination in the receiving PWSs distribution system is eliminated.[121] However, managerial consolidation does not eradicate concerns regarding the subsumed PWS's potentially less maintained and contamination causing distribution system, because it is still used in its original and historic service area, which eliminates the benefits of infrastructure upgrades or improved maintenance.[122] Upgrading and maintaining subsumed PWSs distribution systems infrastructure under managerial consolidations takes planning, time, and finances, all of which are usually in short supply before and after managerial consolidations take place.[123]

Like physical consolidation, subsumed PWSs are dissolved when managerial consolidation occurs because the subsumed PWSs are no longer responsible for providing drinking water to their former service areas.[124] However, the receiving

114. *Id.*
115. *Id.*
116. *Id.*
117. *Id.*
118. *Id.*
119. *Id.*
120. *Id.*
121. *Id.*
122. *Id.*
123. *Id.*
124. *Id.*

PWSs that take over control and responsibility of the subsumed PWSs service areas may have concerns about the consolidation, especially related to issues such as "regulatory reporting, billing, operations, etc."[125] Managerial consolidation is a solution that works well for small PWSs that operate with limited staff or volunteer staff, because these PWSs typically cannot afford the managerial expertise required to effectively supply safe, clean, and reliable drinking water to their service areas.[126] While the loss of local control resulting from managerial consolidation is generally not a concern, it sometimes becomes a major concern because of the change in the manner in which the water supply is managed after consolidation.[127] For example, the water use priorities that exist in the receiving PWS's service area are unlike those in the subsumed PWS's service area, and having different priorities can become especially problematic during water shortages when cuts to supply must be made based on the PWS's water priorities.[128]

D. State Water Board Consolidation Process

Consolidation orders are permitted only if the State Water Board completes the following required steps established in section 116682(b) of the California Public Health and Safety Code: (1) the deadline has passed for consolidation to be arranged voluntarily under terms approved by the State Water Board; and (2) the State Water Board additionally ensures that mandatory consolidation is the best option to ensure PWSs deliver safe, clean, and reliable drinking water to disadvantaged communities.[129] The State Water Board is permitted to send out a consolidation order providing a six-month deadline for voluntary consolidation that can lead to a mandatory consolidation under terms the State Water Board dictates if six requirements are met.[130]

The first requirement is that the State Water Board must encourage consolidation be completed voluntarily by the applicable PWSs.[131] The second is that the State Water Board must consider other methods that could be used to address the problems facing the PWS not providing a safe, clean, and reliable water supply.[132] The third requirement is that the State Water Board must consult with and consider advice from the relevant LAFCO, the California Public Utilities Commission (CPUC) if the CPUC has jurisdiction over the water

125. *Id.*
126. *Id.*
127. *Id.*
128. *Id.*
129. CAL. HEALTH & SAFETY CODE §§ 116682(b)–(c) (West 2017).
130. CAL. HEALTH & SAFETY CODE §§ 116682(b)(1)–(8) (West 2017).
131. CAL. HEALTH & SAFETY CODE § 116682(b)(1) (West 2017).
132. CAL. HEALTH & SAFETY CODE § 116682(b)(2) (West 2017).

system, and the local government and land use planning authority.[133] The fourth requirement is that the State Water Board must provide notification to the PWSs that will be consolidated, and allow a minimum of six-months for a consolidation to be arranged.[134] The fifth requirement is that the State Water Board must receive written permission from domestic well owners impacted by the consolidation to determine whether their well will be part of the consolidation.[135] Under the sixth and final requirement, the State Water Board must hold a minimum of one public meeting on the consolidation process before consolidation terms are finalized.[136] These six steps are required to assist the State Water Board in its determination that consolidation is the best—and sometimes only—way to guarantee residents in disadvantaged communities receive safe, clean, and reliable drinking water.[137]

After these requirements are complete and the six-month deadline for voluntary consolidation is passed, the State Water Board must fulfill several other steps before dictating the terms of a mandatory consolidation.[138] These steps are outlined in Sections 116682(c)–(d) of the California Health and Safety Code and include: consulting with the PWSs being consolidated; conducting a public hearing; and determining that the subsumed PWS "has consistently failed to provide an adequate supply of safe drinking water."[139] The various steps in Sections 116682(c)–(d) are required to ensure that the mandatory consolidation is the best way to address the drinking water issues in the communities in which consolidation takes place.[140]

The State Water Board's Division of Drinking Water (DDW) can provide technical assistance for voluntary consolidation[141] related to certain legal, engineering, and consulting services; community outreach; rate setting; preparing grant and bond applications; operational issues; financial asset management; and troubleshooting.[142] The DDW approves, among others, the following technical

133. CAL. HEALTH & SAFETY CODE §§ 116682(b)(3)–(5) (West 2017).

134. CAL. HEALTH & SAFETY CODE § 116682(b)(6) (West 2017).

135. CAL. HEALTH & SAFETY CODE § 116682(b)(7) (West 2017).

136. CAL. HEALTH & SAFETY CODE § 116682(b)(8) (West 2017); S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted).

137. O'Grady, *supra* note 33; Press Release, *Tulare County Focus of First State Water Board Mandatory Water Company Consolidation: Division of Drinking Water Orders Consolidation between the City of Tulare, Pratt Mutual Water Company*, CAL. WATER BDS. (Apr. 1, 2016), *available at* https://www.waterboards.ca.gov/press_room/press_releases/2016/pr4116_tulare_consolidation.pdf [hereinafter Tulare County Focus] (on file with *The University of the Pacific Law Review*).

138. CAL. HEALTH & SAFETY CODE § 116682(c) (West 2017).

139. CAL. HEALTH & SAFETY CODE § 116682(c)–(d) (West 2017).

140. CAL. HEALTH & SAFETY CODE § 116682 (West 2017); O'Grady, *supra* note 33.

141. WATER PLAN, *supra* note 7, at 37, 38; GUIDELINES, *supra* note 6, at 1.

142. Cal. Water Bds., Proposition 1 (Prop 1) Technical Assistance (TA) Funding Program Q&A For DDW, LPA, and DFA Staff 2 (Apr. 8, 2016), https://www.waterboards.ca.gov/drinking_water/tacd/docs/dw_ta_faq.pdf [hereinafter Funding Program Q&A] (on file with *The University of the Pacific Law Review*); Cal. Water Bds., State Water Resources Control Board TMF Assessment Form (Nov. 2014) [hereinafter TMF

assistance providers: the Community Water Center, the Environmental Justice Coalition for Water; the University of California at Davis; and California Rural Water Association.[143] Technical assistance is very important and heavily relied upon, as evidenced by the amount of PWSs that seek assistance when engaging in the voluntary consolidation process.[144] Without the DDW and other technical assistance providers voluntary consolidations are significantly more difficult to arrange; however, with them the delivery of safe, clean, and reliable water through a consolidation is significantly more probable.[145]

E. Benefits of Physical, Regional, and Managerial Consolidations

Physical, regional, and managerial consolidations offer safer, cleaner, and more reliable drinking water for local residents.[146] Costs of management, routine maintenance, and new water resource development all have the potential to decrease after a consolidation, because the consolidated PWS is able to invest in infrastructure upgrades and necessary maintenance that the subsumed PWS could not afford before the consolidation.[147] Additionally, physical consolidation can result in lower water quality monitoring costs, because monitoring is not needed throughout the consolidated service area and is only required in one portion of the service area. Thus, this benefit is only realized when there is a traditional consolidation or a regional consolidation, because a managerial consolidation does not eliminate distinct service areas.[148] For example, separated PWSs are required to sample water quality through bacteriological tests in each system; but consolidated PWSs are only required to perform a single test for the entire system. This immediately results in a savings related to water quality testing costs.[149] Consolidation allows for water supply resources to be shared between the receiving and subsumed PWSs, which can decrease the costs associated with gaining access to additional water supply resources for the systems to meet the water supply demands in both the receiving and subsumed PWSs' service

Assessment Form] (on file with *The University of the Pacific Law Review*); Cal. Water Bds., Proposition 1 Technical Assistance (TA): Summary of Providers and TA Types, https://www.waterboards.ca.gov/water_issues/programs/grants_loans/proposition1/docs/summary_of_providers_and_ta_types.pdf (last visited Jan. 4, 2018) [hereinafter Summary of Providers and TA Types] (on file with *The University of the Pacific Law Review*).

143. Funding Program Q&A, *supra* note 142; Summary of Providers and TA Types, *supra* note 142.

144. *Proposition 1 (Prop 1) Technical Assistance (TA) Funding Program*, ST. WATER RESOURCES CONTROL BD., https://www.waterboards.ca.gov/water_issues/programs/grants_loans/proposition1/tech_asst_funding.shtml (last visited Jan. 4, 2018) (on file with *The University of the Pacific Law Review*).

145. *Id.*; TMF Assessment Form, *supra* note 142.

146. GUIDELINES, *supra* note 6, at 1.

147. *Id.*; *Proposition 1 (Prop 1) Technical Assistance (TA) Funding Program*, *supra* note 144.

148. GUIDELINES, *supra* note 6, at 1; *Proposition 1 (Prop 1) Technical Assistance (TA) Funding Program*, *supra* note 144.

149. *Id.*

areas.[150]

The Pacific Institute released a report explaining, "water utilities are more than twice as capital-intensive as the second-most capital-intensive utility sector evaluated (electricity) and nearly three times as capital-intensive as the least capital-intensive utility evaluated (natural gas);" however, water supplied to a particular area is likely to be one of lowest priced utility services provided to consumers.[151] More often than not, water users in small PWSs pay rates for their drinking water supply that are lower than the costs of supplying the water used.[152] This creates a financial imbalance that results in an inability to develop and invest in future needs the PWSs may require—especially needs related to infrastructure development, necessary maintenance, and regulatory compliance.[153] Because PWSs do not charge consumers the true cost of water service, PWSs lack financial accountability, which causes these PWSs to operate in an economically unstable manner.[154] Thus, consolidation benefits both water users and PWSs by allowing the PWSs to operate in a more financially sustainable manner.[155]

The State Water Board's power to order mandatory consolidations is made possible, in large part, because SB 88 releases consolidated systems from liability from "past or existing customers or those who consumed water provided through the subsumed water system concerning the operation and supply of water from the subsumed water system during the interim operation period."[156] The release of liability also encompasses any "claims by past or existing customers or by those who consumed water provided through the subsumed water system for any injury that occurred prior to the commencement of the interim operation period."[157] To ensure that the release of liability sufficiently protects consolidated PWSs, the interim period lasts "until permanent replacement facilities are accepted by the consolidated water system with the concurrence of the . . . [State Water Board] . . . and the facilities and water supply meet drinking water and water quality standards."[158] The release of liability for consolidated PWSs applies to voluntary and mandatory consolidations and protects a receiving PWS from liability for former practices of the subsumed PWS.[159]

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150. *Id.*

151. GARY WOLF & ERIC HALLSTEIN, PACIFIC INSTITUTE, BEYOND PRIVATIZATION: RESTRUCTURING WATER SYSTEMS TO IMPROVE PERFORMANCE 34 (2015), *available at* http://www.pacinst.org/wp-content/uploads/sites/21/2013/02/Beyond_Privatization3.pdf (on file with *The University of the Pacific Law Review*); *Water System Partnership and Voluntary Consolidation*, *supra* note 2.

152. *Water System Partnership and Voluntary Consolidation*, *supra* note 2.

153. *Id.*

154. *Id.*

155. *Id.*

156. CAL. HEALTH & SAFETY CODE § 116684(b)(1) (West 2017).

157. CAL. HEALTH & SAFETY CODE § 116684(b)(2) (West 2017).

158. CAL. HEALTH & SAFETY CODE § 116684(c)(2)(A) (West 2017).

159. CAL. HEALTH & SAFETY CODE § 116684 (West 2017).

Releasing consolidated PWSs of liability is necessary for the future success of both voluntary and mandatory consolidations because without a release of liability, consolidated PWSs would be liable for issues the PWS did not cause and seeks to resolve through the consolidation process.[160] The release of liability for consolidated PWSs removes a major barrier in the future consolidation of PWSs because without the release of liability, PWSs would be much more hesitant to arrange voluntary consolidations or accept the terms of mandatory consolidations.[161] The scope of the release of liability is important to understand because it protects consolidated PWSs and not consumers; applies only during the interim management period; pertains solely to the original service area of the subsumed PWS; and applies whether problems with the water supply or quality existed before or after the consolidation takes place.[162]

IV. CONSOLIDATION ORDERS ISSUED BY THE STATE WATER BOARD (AUGUST 18, 2015–NOVEMBER 16, 2017)

A. Orders Requiring Voluntary Consolidation

1. Black Rascal Water Company PWS and City of Merced

On September 22, 2016, the State Water Board sent Black Rascal Water Company PWS (Black Rascal) and the City of Merced a consolidation order requesting that the systems voluntarily consolidate or face a mandatory consolidation.[163] The State Water Board sent the consolidation order because Black Rascal consistently failed to meet the water supply demands of the water users it serves, and received three MCL violations for nitrate and chromium hexavalent between 2014 and 2015.[164] Additionally, Black Rascal violated its water supply permit because it failed to respond to Division of Drinking Water's (DDW) requests for information regarding the PWS's status and the State Water Board denied its permit for a new well.[165] The State Water Board determined that the City of Merced's PWS was the best system to arrange a consolidation with Black Rascal because the water supply infrastructures of Black Rascal and the

160. FREQUENTLY ASKED QUESTIONS, *supra* note 7.

161. *Id.*

162. *Id.*; *Water System Partnership and Voluntary Consolidation*, *supra* note 2.

163. CAL. WATER BDS., STATE WATER RESOURCES CONTROL BOARD NOTICE REGARDING MANDATORY CONSOLIDATION 1 (2016), *available a*t https://www.waterboards.ca.gov/drinking_water/programs/compliance/docs/black_rascal_consolidation_letter.pdf (on file with *The University of the Pacific Law Review*).

164. *Id.*; *CA Drinking Water Watch*, ST. DRINKING WATER INFO. SYS. CAL. WATER BDS., https://sdwis.waterboards.ca.gov/PDWW/JSP/Violations.jsp?tinwsys_is_number=7157&tinwsys_st_code=CA (last visited Jan. 3, 2018) (on file with *The University of the Pacific Law Review*).

165. Letter from Carl Carlucci, Supervising Sanitary Eng'r, to Board of Directors, Black Rascal Water Co. (Sept. 22, 2016) [hereinafter Letter to Black Rascal] (on file with *The University of the Pacific Law Review*).

City of Merced were within 25 feet.[166]

On May 5, 2016, the City of Merced responded to the consolidation order favorably; however, Black Rascal made no response as to whether it was willing to participate in a voluntary consolidation process with the City of Merced.[167] Since May 2016, Black Rascal has conveyed a willingness to engage in negotiations for a voluntary consolidation, and the State Water Board is currently working with Black Rascal and the City of Merced to arrange a consolidation.[168] If the two PWSs cannot agree on terms, the State Water Board has the authority to issue a mandatory consolidation order because the six-month deadline to arrange a voluntary consolidation passed on March 22, 2017.[169] The State Water Board did not issue a mandatory consolidation, but it held public meetings, and it is analyzing the median household income in the community served by Black Rascal to ensure the community meets the definition of a disadvantaged community.[170]

2. Ceres West Mobile Park Water System and City of Ceres

The State Water Board sent a consolidation order to Ceres West Mobile Park Water System (Ceres West) and the City of Ceres on June 13, 2017, requesting the systems arrange a voluntary consolidation or face a mandatory consolidation.[171] The State Water Board sent the consolidation order because Ceres West received 11 MCL violations between 2014 and 2016 when it consistently failed to provide safe, clean, and reliable drinking water to residents in its service area, because the water it supplied suffered from elevated levels of arsenic that exceeded levels MCLs set for arsenic. The State Water Board chose the City of Ceres as the best PWS for consolidation with Ceres West for two reasons: the Ceres West service area is within the City of Ceres general plan's study area, and the shortest distance between the two PWSs infrastructure is no more than 1,000 yards.[172] The systems have until February 23, 2018, to arrange a voluntary consolidation under terms approved by the State Water Board; however, if the systems fail to consolidate by the six-month deadline, the State Water Board will have the authority to issue a mandatory consolidation order dictating the terms of the consolidation pursuant to SB 88.[173]

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166. *Id.*

167. *Id.*

168. Interview with Caitlin Juarez, *supra* note 57.

169. Letter to Black Rascal, *supra* note 165; *Mandatory Consolidation or Extension of Services*, *supra* note 2.

170. Interview with Caitlin Juarez, *supra* note 57.

171. Letter from Bhupinder S. Sahota, Senior Sanitary Manager, to Ken Mattson, KS Mattson Partners LP 1 [hereinafter Letter to Ken Mattson] (June 13, 2016) (on file with *The University of the Pacific Law Review*).

172. *Id.*

173. Letter from Richard L. Hinrichs, P.E., Chief, to Toby Wells, City Manager (Aug. 23, 2017) (on file

3. Lakeside Public Schools Water System and City of Bakersfield

The State Water Board sent a consolidation order to Lakeside Public Schools (Lakeside) and the City of Bakersfield on June 15, 2016, requesting that the two PWSs arrange a voluntary consolidation or be subject to a mandatory consolidation.[174] Before sending the consolidation letter, the State Water Board sent a pre-consolidation letter on November 10, 2015, which informed the PWSs that mandatory consolidation was a potential option to address the water quality problems facing Lakeside if no voluntary consolidation was arranged.[175] The State Water Board ordered consolidation because Lakeside had committed eight MCL violations between 2014 and 2016 for failing to provide safe, clean, and reliable drinking water.[176] The water Lakeside delivered to people in its service area violated MCL standards because it contained elevated levels of arsenic.[177] The State Water Board required the PWSs to consolidate by December 15, 2016, to meet the six-month deadline to voluntarily consolidate.[178] However, because the December 15, 2016 deadline passed and the PWSs did not agree to a voluntary consolidation, the State Water Board has the authority to order a mandatory consolidation under terms it dictates to the two PWSs.[179] The State Water Board held public meetings and hearings for a mandatory consolidation, and the PWSs are currently heading down the path for mandatory consolidation.[180] As of December 3, 2017, the State Water Board has not issued a mandatory consolidation order, but is drafting an order and will likely issue it in the near future, based on the authority granted to the State Water Board under SB 88.[181]

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with *The University of the Pacific Law Review*) (listing the six-month deadline date for voluntary consolidation).

174. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Ty Bryson, Superintendent, Lakeside Sch. [hereinafter Letter to Lakeside School] (June 15, 2016) (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Art Chianello, Water Res. Manager, City of Bakersfield (June 15, 2016) [hereinafter Letter to City of Bakersfield] (on file with *The University of the Pacific Law Review*).

175. Letter to Lakeside School, *supra* note 174.

176. *Id.*

177. *Id.*; Letter to City of Bakersfield, *supra* note 174; STATE WATER RES. CONTROL BD.: DIV. OF DRINKING WATER, 2014 ANNUAL COMPLIANCE REPORT 28 (2016), *available at* https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/2014/2014_acr_final.pdf (on file with *The University of the Pacific Law Review*); STATE WATER RES. CONTROL BD.: DIV. OF DRINKING WATER, 2015 ANNUAL COMPLIANCE REPORT 28 (2016), *available at* https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/2015/2015_acr.pdf (on file with *The University of the Pacific Law Review*); 2016 ANNUAL COMPLIANCE REPORT, *supra* note 30, at 32.

178. Letter to Lakeside School, *supra* note 174; Letter to City of Bakersfield, *supra* note 174.

179. *Id.*

180. *Id.*; Interview with Caitlin Juarez, *supra* note 57.

181. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to David Tooley, City Adm'r, City of Madera (June 15, 2016) [hereinafter Letter to David Tooley] (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Board of Supervisors, Cty. of Madera

4. County of Madera and City of Madera

The State Water Board sent consolidation orders to Madera County Maintenance District No. 19 Parkwood PWS (Madera County) and the City of Madera on June 15, 2016, requesting the PWSs arrange a voluntary consolidation or face a mandatory consolidation.[182] Previously, the State Water Board sent pre-consolidation letters to the PWSs on December 7, 2015; however, the PWSs failed to arrange a voluntary consolidation.[183] The State Water Board ordered Madera County and the City of Madera to consolidate because it has failed to consistently meet the system's supply demands and has violated the MCL for manganese.[184] The State Water Board required voluntary consolidation to be complete by December 15, 2016, to meet the six-month deadline; however, the PWSs did not consolidate under voluntary terms.[185] Although the PWSs did not complete the voluntary consolidation process on time, negotiations for voluntary consolidation are currently underway with the State Water Board to complete consolidation before a mandatory consolidation order is issued under SB 88.[186]

5. Old River Mutual Water Company PWS and City of Bakersfield

The State Water Board sent pre-consolidation letters requesting Old River Mutual Water Company PWS (Old River) and the City of Bakersfield to voluntarily arrange a consolidation on November 10, 2015.[187] The systems failed to consolidate after receiving the pre-consolidation letters; thus, the State Water Board sent a consolidation order to the systems on June 15, 2016, requiring the PWSs engage in a voluntary consolidation within the six-month deadline.[188] The State Water Board ordered consolidation because Old River suffers from elevated levels of uranium in its water supply, and is unable to provide safe, clean, and reliable drinking water within its service area.[189] The State Water Board chose the City of Bakersfield as the best PWS for Old River to consolidate with because the distribution systems of the two PWSs are within 100 feet of each other.[190] The State Water Board required the PWSs to consolidate voluntarily by

(June 15, 2016) [hereinafter Letter to Cty. Of Madera] (on file with *The University of the Pacific Law Review*).

182. *Id.*

183. *Id.*

184. *Id.*

185. *Id.*; Interview with Caitlin Juarez, *supra* note 57.

186. *Id.*

187. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Kylie Moore, Accounts Manager, Old River Mut. Water Co. (June 15, 2016) [hereinafter Letter to Old River Mut.] (on file with *The University of the Pacific Law Review*); Letter to City of Bakersfield, *supra* note 174.

188. *Id.*

189. *Id.*

190. *Id.*

December 15, 2016.[191] However, the PWSs did not consolidate by the six-month deadline, and the State Water Board has the authority to order consolidation under terms it dictates to the PWSs.[192] The two systems will likely consolidate in the near future as the State Water Board has held its public meeting and hearing for mandatory consolidation and is currently drafting a consolidation order under SB 88.[193]

6. Soults Mutual Water Company PWS and City of Tulare

On August 18, 2015, the State Water Board sent a consolidation order to Soults Mutual Water Company PWS (Soults) and the City of Tulare requesting the PWSs arrange a voluntary consolidation or face a mandatory consolidation.[194] The State Water Board ordered to arrange terms for a voluntary consolidation by February 18, 2016; however, terms were not agreed to and no consolidation occurred within the six-month deadline.[195] The State Water Board ordered Soults to consolidate with the City of Tulare because Soults caused six MCL violations between 2014 and 2016 for providing its service area drinking water contaminated with elevated levels of nitrate.[196] The State Water Board has the authority to order mandatory consolidation because the six-month deadline has passed; thus, the State Water Board held both a public meeting and hearing regarding the potential for issuing an order requiring mandatory consolidation.[197] The State Water Board's mandatory consolidation order is likely imminent because there is no sign the systems will be able to arrange a voluntary consolidation.[198]

7. South Kern Mutual Water PWS and City of Bakersfield

On November 10, 2015, the State Water Board sent South Kern Mutual Water PWS (South Kern) and the City of Bakersfield a pre-consolidation letter which was followed by a consolidation order on November 15, 2016.[199] The State

191. *Id.*

192. Interview with Caitlin Juarez, *supra* note 57.

193. *Id.*

194. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Board of Directors, Soults Mut. Water Co. (Aug. 18, 2015) [hereinafter Letter to Soults Mut.] (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Don Dorman, City Manager, City of Tulare (Aug. 18, 2015) [hereinafter Letter to City of Tulare] (on file with *The University of the Pacific Law Review*).

195. *Id.*; Interview with Caitlin Juarez, *supra* note 57.

196. Letter to Soults Mut., *supra* note 194; Letter to City of Tulare, *supra* note 194; 2014 ANNUAL COMPLIANCE REPORT, *supra* note 177, at 34; 2015 ANNUAL COMPLIANCE REPORT, *supra* note 177; 2016 ANNUAL COMPLIANCE REPORT, *supra* note 30, at 36.

197. Interview with Caitlin Juarez, *supra* note 57.

198. *Id.*

199. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Sherry Settlemoir, President, S. Kern

Water Board sent consolidation letters to South Kern because it violated the MCL for providing its service area drinking water contaminated with elevated levels of uranium.[200] The City of Bakersfield was chosen as the best system to consolidate with South Kern because the PWSs have connections that are within one mile of each other.[201] The State Water Board required voluntary consolidation by May 15, 2017, to meet the six-month deadline.[202] However, as of December 4, 2017, voluntary consolidation has not occurred, and the State Water Board has begun the process of mandatory consolidation.[203] The State Water Board held a public meeting and hearing regarding mandatory consolidation, and the State Water Board is currently drafting a mandatory consolidation order pursuant to SB 88.[204]

8. Yosemite Unified School District - Yosemite High School's PWS and Hillview Water Company

On October 24, 2017, the State Water Board sent Yosemite Unified School District—Yosemite High School's PWS (Yosemite High School)—and Hillview Water Company a consolidation order requiring the systems arrange a voluntary consolidation or be subject to mandatory consolidation.[205] The State Water Board sent the consolidation order because Yosemite High School violated MCL seven times in 2012 for providing its service area drinking water contaminated with elevated levels of arsenic.[206] These federal and state MCL violations likely stemmed from pesticide residue runoff from nearby agricultural areas, likely due to the runoff of pesticide residue used in nearby agricultural areas.[207]

Mut. Water Co. (Nov. 15, 2016) [hereinafter Letter to S. Kern Mut.] (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Art Chianello, Water Res. Manager, City of Bakersfield (Nov. 15, 2016) [hereinafter Letter to City of Bakersfield] (on file with *The University of the Pacific Law Review*).

200. *Id.*

201. *Id.*

202. *Id.*

203. *Id.*; Interview with Caitlin Juarez, *supra* note 57.

204. Interview with Caitlin Juarez, *supra* note 57.

205. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Dr. Cecilia Greenberg, Superintendent, Yosemite Unified Sch. Dist. (Oct. 24, 2017) [hereinafter Letter to Yosemite Unified Sch. Dist.] (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to James Foster, Manager, Hillview Water Co. (Oct. 24, 2017) [hereinafter Letter to Hillview Water Co.] (on file with *The University of the Pacific Law Review*).

206. *Id.*; STATE WATER RES. CONTROL BD.: DIV. OF DRINKING WATER, 2012 ANNUAL COMPLIANCE REPORT app. C (2013), *available a*t https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/2012/2012acr_appendicesbthruf.pdf (on file with *The University of the Pacific Law Review*).

207. Letter to Yosemite Unified Sch. Dist., *supra* note 205; Letter to Hillview Water Co., *supra* note 205; CMTY. WATER CENTER, ARE WE PROVIDING OUR SCHOOL KIDS SAFE DRINKING WATER? – AN ANALYSIS OF CALIFORNIA'S SCHOOLS IMPACTED BY UNSAFE DRINKING WATER 17 (2016) [hereinafter SCHOOLS IMPACTED BY UNSAFE DRINKING WATER].

The State Water Board chose Hillview Water Company as Yosemite High School's consolidation partner because the PWSs have water supply distribution infrastructures within one and a half miles of each other, and Hillview Water Company already supplies water to Yosemite High.[208] Yosemite High School received Proposition 84 funding in April 2012 to analyze possible methods for bringing its water supply within state and federal standards for arsenic contamination, and part of that funding was used to analyze whether consolidation with Hillview Water Company was appropriate and possible.[209] However, the PWSs did not agree to consolidate despite Hillview Water Company's willingness to consolidate and supply drinking water to Yosemite High School.[210] The State Water Board expects that consolidation terms can be arranged due to the previous consolidation negotiations that occurred, but if no consolidation takes place by April 24, 2018, the State Water Board will have the authority to order a mandatory consolidation pursuant to SB 88.[211]

9. Chawanakee Unified School District—North Fork Elementary School's PWS and Madera County Maintenance District 8A—North Fork's (MD8A)

On November 16, 2017, the State Water Board sent Chawanakee Unified School District—North Fork Elementary School's PWS (North Fork) and Madera County Maintenance District 8A—North Fork Water System (MD8A) a consolidation order requiring the PWSs to arrange a voluntary consolidation or be subject to mandatory consolidation.[212] The State Water Board sent a consolidation order because North Fork consistently provided its service area drinking water contaminated with elevated levels of arsenic.[213] These federal and state MCL violations likely stemmed from pesticide residue runoff from nearby agricultural areas.[214] Between 2011 and 2015, North Fork's water supply averaged 12.4 parts per billion, and between 2014 and 2015, it averaged 12.9 parts per billion.[215] These levels exceeded the federal limit of 10 parts per billion

208. Letter to Yosemite Unified Sch. Dist., *supra* note 205; Letter to Hillview Water Co., *supra* note 205.

209. *Id.*

210. *Id.*

211. *Id.*

212. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Darren Sylvia, Superintendent, Chawanakee Unified Sch. Dist. (Nov. 16, 2017) [hereinafter Letter to Chawanakee] (on file with *The University of the Pacific Law Review*); Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Ahmad Alkayhat, Madera Cty. Pub. Works Dir. (Nov. 16, 2017) [hereinafter Letter to Madera Cty.] (on file with *The University of the Pacific Law Review*).

213. *Id.*

214. *Id.*; SCHOOLS IMPACTED BY UNSAFE DRINKING WATER, *supra* note 207.

215. TOM PELTON, COURTNEY BERNHARDT & ERIC SHAEFFER, ENVTL INTEGRITY PROJECT, ARSENIC IN CALIFORNIA DRINKING WATER - THREE YEARS AFTER EPA NOTICE OF NONCOMPLIANCE TO STATE, ARSENIC LEVELS STILL UNSAFE IN DRINKING WATER FOR 55,000 CALIFORNIANS 15 (2016).

by 2.4 and 2.9 parts per billion, respectively, leading to seven MCL violations between 2014 and 2016.[216]

The State Water Board chose MD8A as North Fork's consolidation partner because their service areas are within one mile of each other and MD8A has fewer problems with arsenic contamination.[217] Under these terms, the North Fork PWS is the subsumed water system whereas MD8A is the receiving water system.[218] Voluntary consolidation must be approved and completed by April 16, 2018, or the State Water Board will order mandatory consolidation under its own terms.[219]

B. Orders Mandating Consolidation

1. City of Tulare and Pratt Municipal Water Company PWS (Pratt MWC)

Pratt Municipal Water Company PWS (Pratt MWC) was the water supplier for the Matheny Tract, a disadvantaged community in the unincorporated area near the City of Tulare.[220] Since 2005, the Matheny Tract has unsuccessfully sought the reconstruction of the Pratt MWC distribution and maintenance system under voluntary consolidation terms.[221]

In March 2009, the City of Tulare's Board of Public Utilities approved the connection of the city's water system with Pratt MWC. The City of Tulare's Board of Public Utilities approved the City of Tulare to engage in a water system connection with Pratt MWC in 2009.[222] Subsequently, in November 2009, the City of Tulare submitted an annexation application to the local agency formation commission (LAFCO). Known as the I Street Industrial annexation, the application requested the annexation of 461 acres of land adjacent to and slightly north of the Matheny Tract.[223]

Following the annexation actions, the Division of Drinking Water (DDW) encouraged Pratt MWC to consolidate with the City of Tulare due to elevated levels of arsenic in Pratt MWC's water supply. Consolidation was ordered because Pratt MWC was consistently failing to provide its service area with safe,

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216. *Id.*; 2014 ANNUAL COMPLIANCE REPORT, *supra* note 177, at 29; 2015 ANNUAL COMPLIANCE REPORT, *supra* note 177; 2016 ANNUAL COMPLIANCE REPORT, *supra* note 30, at 31.

217. Letter to Chawanakee, *supra* note 212; Letter to Madera Cty., *supra* note 212.

218. *Id.*

219. *Id.*

220. The Matheny Tract consists of roughly 350 homes and housing units and has a total estimated population of 1,225 people according to the 2010 U.S. Census. Tulare County Focus, *supra* note 137; *SB 88 Case Study*, *supra* note 18, at 1; SB 88 CASE STUDY, *supra* note 17, at 1; Letter from Cindy A. Forbes, Deputy Dir., Div. of Drinking Water, to Don Dorman, City Manager, Tulare CA (Mar. 29, 2016) [hereinafter Letter to Tulare CA] (on file with *The University of the Pacific Law Review*).

221. SB 88 CASE STUDY, *supra* note 17, at 1; Letter to Tulare CA, *supra* note 220.

222. SB 88 CASE STUDY, *supra* note 17, at 1.

223. *Id.* at 2.

clean, and reliable water as the result of elevated levels of arsenic in its water supply.[224] After years of negotiations and debates over voluntary consolidation, in June 2010, the City of Tulare threatened to stop assisting Pratt MWC with the consolidation due to the contentious battle over the I Street Industrial annexation.[225] The following August, the LAFCO approved the I Street Industrial annexation on the condition that the City of Tulare include the Matheny Tract, which the LAFCO believed was the best method to resolve the Tract's water supply and quality issues.[226]

In October 2010, Proposition 84 and SDWRF awarded $490,000 to the City of Tulare and the Matheny Tract for planning and designing a PWS connection to address the Matheny Tract's water issues.[227] In August 2012, $4.9 million of Proposition 84 funding was awarded to Pratt MWC for water system improvements in August 2013.[228] For the first time, a voluntary consolidation between the City of Tulare and Pratt MWC seemed a real possibility.[229] Despite the funding for system improvements, several years passed and no terms of voluntary consolidation were arranged.[230] In 2014, the City of Tulare proposed the creation of a joint powers of authority (JPA) with the County of Tulare so they both could work together to address the water supply and water quality issues plaguing the Matheny Tract.[231] The passage of SB 88 in January 2015, however, eliminated the need for a JPA.[232]

Despite the need for a better drinking water supply for the Matheny Tract residents and the potential willingness of the City of Tulare to extend its services to the area, no consolidation occurred.[233] Finally, on August 18, 2015, the State Water Board, authorized by SB 88, sent a letter requiring voluntary consolidation of Pratt MWC with the City of Tulare.[234] Similar to DDW's letters, the State Water Board sent Pratt MWC an order for providing its service area drinking water contaminated with elevated levels of arsenic.[235] The State Water Board chose the City of Tulare as the best consolidation partner for the Matheny Tract for several reasons, including the State Water Board's belief that there was a water supply connection between Pratt MWC and the City of Tulare when no

224. Letter from Carl L. Carlucci, Supervising Sanitary Eng'r, to Board of Directors, Pratt Mut. Water Co. (Aug. 18, 2015) [hereinafter Letter to Pratt Mut.] (on file with *The University of the Pacific Law Review*); Letter to Tulare CA, *supra* note 220; SB 88 CASE STUDY, *supra* note 17, at 1–2.

225. SB 88 CASE STUDY, *supra* note 17, at 2.

226. *Id.*

227. *Id.*

228. *Id.*

229. *Id.*

230. *Id.* at 1, 2.

231. *Id.* at 2.

232. *Id.*

233. *Id.*; Letter to Tulare CA, *supra* note 220.

234. Letter to Pratt Mut., *supra* note 224; Letter to Tulare CA, *supra* note 220.

235. *Id.*

such connection existed.[236]

Consolidation was to be completed by February 18, 2016, to meet the six-month voluntary consolidation deadline.[237] The City of Tulare and Pratt MWC failed to reach a voluntary consolidation agreement before the deadline and informed the State Water Board of this impasse.[238] The City of Tulare submitted a water system report identifying its concerns related to the recent impacts to the City's water system resulting from the City's growth.[239] As the result of the failure to agree to terms for a voluntary consolidation, in March 2016, the State Water Board held two public hearings regarding the consolidation and decided that the State Water Board's best option was to order mandatory consolidation.[240]

In April 2016, the City of Tulare submitted a consolidation plan compliant with the State Water Board's mandatory consolidation order.[241] The State Water Board's approval of the consolidation plan resulted in the completion of the system connection between the City of Tulare and the Matheny Tract.[242] Construction was completed in May 2016, and in June 2016, the connection was turned on for the first time.[243] The residents of the Matheny Tract finally had safe, clean, reliable, and uncontaminated drinking water.[244]

It took more than a decade of consideration, debate, and government involvement for the City of Tulare and the Matheny Tract to consolidate under terms leading to this result.[245] Without the passage of SB 88, it is very likely that those debates would still be occurring and that the connection would still not be fully constructed or in use.[246] However, SB 88 was the catalyst that allowed the consolidation to be made under the State Water Board's terms.[247] Thus, SB 88 and the State Water Board's use of the mandatory consolidation authority directly resulted in the residents of the Matheny Tract receiving safe, clean, and reliable drinking water on a regular basis for the first time in more than a decade.[248]

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236. *Id.*

237. *Id.*

238. SB 88 CASE STUDY, *supra* note 17.

239. *Id.*

240. Tulare County Focus, *supra* note 137; SB 88 CASE STUDY, *supra* note 17.

241. SB 88 CASE STUDY, *supra* note 17.

242. *Id.*

243. *Id.*

244. Elizabeth Zach, *Matheny Tract Has Access to Water After Struggling for Decades*, RURAL CMTY. ASSISTANCE CORP. (Aug. 24, 2016), http://www.rcac.org/success-stories/matheny-tract-access-water-struggling-decades/ (on file with *The University of the Pacific Law Review*).

245. SB 88 CASE STUDY, *supra* note 17; Letter to Tulare CA, *supra* note 220.

246. *Id.*; Zach, *supra* note 244.

247. *Id.*

248. Zach, *supra* note 244; SB 88 CASE STUDY, *supra* note 17.

IV. CONSOLIDATION IN OTHER U.S. STATES

California is not the only state that promotes, provides funding assistance, and in some circumstances, orders the consolidation of water systems not in compliance with drinking water quality standards.[249] Although many states have a policy related to water system consolidation, each state's policy is slightly different based on the state's water supply and quality issues, and the type and number of water systems operating in the state.[250] A large majority of states promote water system consolidation as a method of improving water supply and quality without statutory or regulatory authority to order mandatory consolidation, which successfully resulted in the reduction of the number of water systems and the improvement of overall water quality in the state.[251] Comparing California's authority to promote and, when needed, order PWS consolidation with policies in other states is helpful in understanding the benefits, problems, and likely success of California's current statutory and regulatory structure addressing PWS consolidation. Since some of the other states' programs have been in effect longer and have experienced their own successes and failures, California can look to these other states in determining whether the scope of authority under SB 88 should be narrowed, expanded, or remain as structured.[252]

1. Delaware

Delaware is one of the many states that promotes consolidation to address water supply quality issues facing communities served by PWSs.[253] Delaware promotes PWS consolidation as a general proposition, but especially where PWSs experience problems with compliance and operations.[254] The Delaware Division of Public Health (DDPH) is the state agency charged with the responsibility of addressing consolidation issues and funding potential consolidations through its Drinking Water State Revolving Fund (DWSRF) loan

249. ENVTL. PROT. AGENCY, OFFICE OF WATER, WATER SYSTEM PARTNERSHIPS STATE PROGRAMS AND POLICIES SUPPORTING COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS (2017), *available at* https://www.epa.gov/sites/production/files/2017-08/documents/water_system_partnerships_guide_0.pdf [hereinafter COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS] (on file with *The University of the Pacific Law Review*); ENVTL. PROT. AGENCY, OFFICE OF WATER, RESTRUCTURING AND CONSOLIDATION OF SMALL DRINKING WATER SYSTEMS: A COMPENDIUM OF STATE AUTHORITIES, STATUTES, AND REGULATIONS (2007), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/60000L09.PDF?Dockey=60000L09.PDF [hereinafter RESTRUCTURING AND CONSOLIDATION] (on file with *The University of the Pacific Law Review*).

250. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249; RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 16.

251. *Id.*

252. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 4; RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 16.

253. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 13.

254. *Id.*

program.[255] DWSRF loans are distributed based on several factors, including whether the PWS has explored consolidation before requesting a loan.[256] A PWS that explores this avenue is more deserving of funding because it shows a consideration to consolidate with other PWSs.[257]

Although Delaware does not have a process for mandatory consolidation, its enacted and publicly funded voluntary consolidation program has been successful.[258] According to the Delaware Water Infrastructure Advisory Council's Drinking Water Needs Assessment from February 2015, Delaware has consolidated 110 PWSs.[259] These consolidations occurred for various reasons including: situations where one or more PWSs failed to comply with water quality standards; water quality problems were created by the use of private wells; and where emergency interconnections were necessary to ensure the delivery of safe, clean, and reliable drinking water to a particular service area.[260] California should learn from Delaware's success because it demonstrates that mandatory consolidation is not always necessary on a large scale basis, as long as PWSs are provided funding and are encouraged to consolidate before they eventually fail.[261]

2. Georgia

Since adoption in the 1970s, the Georgia Environmental Protection Division's (GEPD) Rules for Safe Drinking Water require privately owned community water systems (POCWSs) to provide a mechanism to assure the continuity of service, such as third-party trustees to assist in managing water resources.[262] In some cases, POCWSs enter into trust agreements with the local government in which the system is located to ensure continuity of service.[263] In

255. DEL. CODE ANN. tit. 29, § 7903(14) (West 2017) (establishing a special fund for purposes related to the Federal Safe Drinking Water Act); DEL. HEALTH & SOC. SERVS., DIV. OF PUB. HEALTH, OFFICE OF DRINKING WATER, DRINKING WATER STATE REVOLVING FUND: LOAN APPLICATION 2009 6 (2009), *available at* http://www.dhss.delaware.gov/dph/hsp/files/dwsrffullapp.pdf (on file with *The University of the Pacific Law Review*); COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 13.

256. DEL. HEALTH & SOC. SERVS., DIV. OF PUB. HEALTH, OFFICE OF DRINKING WATER, DRINKING WATER STATE REVOLVING FUND: LOAN APPLICATION 2009 6 (2009), *available at* http://www.dhss.delaware.gov/dph/hsp/files/dwsrffullapp.pdf (on file with *The University of the Pacific Law Review*); COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 13.

257. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 13

258. *Id.*; DEL. HEALTH & SOCIAL SERVS., WATER INFRASTRUCTURE ADVISORY COUNCIL DRINKING WATER NEEDS ASSESSMENT 160 (2015), *available at* http://www.dhss.delaware.gov/dhss/dph/hsp/files/dwsrf wiacassess.pdf (last visited Dec. 3, 2017) (on file with *The University of the Pacific Law Review*).

259. *Id.*

260. *Id.*

261. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 13; WATER INFRASTRUCTURE ADVISORY COUNCIL DRINKING WATER NEEDS ASSESSMENT, *supra* note 258.

262. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 15.

263. *Id.*

other cases, POCWSs use nongovernment trustees to ensure continuity of service.[264] Georgia's Drinking Water State Revolving Fund (DWSRF) establishes continuity of service for POCWSs and promotes and facilitates the restructuring and consolidation of POCWSs that do not possess the technical, managerial, and financial capability for proper maintenance.[265]

Since January 1, 1998 several new rules have been put into effect relating to the permitting of new POCWSs.[266] These rules require, among other things, developing business plans by the applicants which evaluate the potential for interconnection with an existing local government owned and operated PWS, instead of creating a new POCWS.[267] Additionally, the rules require POCWSs certify to the GEPD the reasons why the POCWS cannot connect to an existing system, if such a determination has been made; provide written certification from the local government in which the POCWS is located that the local government is in concurrence with the development of the POCWS; provide a back-up water source that will be used in times of need; and execute a trust indenture or other legal agreement with the local government in which the POCWS is located, unless documentation is provided by the local government certifying that the local government will not act as a trust indenture.[268]

The GEPD encourages consolidation of POCWSs with nearby local government owned water systems or water authorities whenever such a consolidation is feasible and possible.[269] The GEPD has the authority to engage in enforcement actions against non-compliant POCWSs, and may choose to reduce non-compliance penalties if the POCWS in violation agrees to connect to a local government-owned PWS or water authority.[270] Although consolidations must take place within a reasonable period of time, a considerable amount of time is given because local government-owned PWS or water authorities have

264. *Id.*

265. *Id.*; GA. COMP. R. & REGS. 267-13-.05 (2017).

266. GA. CODE ANN. § 12-5-179(h) (West 2017) ("Any privately owned water supplier within this state supplying water to customers who, incidental to the purchase of such water, utilize a waste-water sewer system owned or operated by a county, municipality, or local authority to dispose of or discharge the water purchased shall furnish to such political subdivision the amount of water consumed by each individually metered customer account during each billing period."); COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 15.

267. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 15.

268. *Id.*

269. *Id.*

270. *State of Georgia Department of Natural Resources Environmental Protection Division Public Water System 1996 Compliance Report*, GA. ENVTL PROTECTION DIVISION, https://epd.georgia.gov/state-georgia-department-natural-resources-environmental-protection-division-public-water-system (last visited Dec. 31, 2017) (on file with *The University of the Pacific Law Review*) (explaining that the state may relieve a PWS of MCL compliance if noncompliance means "no reasonable alternative source of drinking water is available to such new systems, management, or restructuring changes cannot reasonably be made that will result in compliance with the SDWA or improvement of water quality, and the exemption will not result in an unreasonable risk to public health"); COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 15.

excellent histories of meeting such standards.[271] In general, local government-owned PWSs and water authorities have the necessary resources to provide clean, safe, and reliable drinking water both to their current and surrounding service areas where consolidation is physically, technically, and economically possible.[272]

The GEPD's consolidation program has been very successful as evidenced by statistical analysis.[273] As of June 30, 2005, a total of 217 POCWSs have consolidated with nearby local government owned PWSs or water authorities.[274] On average, each year between 1998 and 2005, 27 POCWSs successfully consolidated with local government-owned PWSs or water authorities.[275] Despite these results, the GEPD was not complacent because newly enacted water supply and quality regulations resulted in increased managerial and financial burdens, and continued consolidation since 2005.[276]

The GEPD's mandatory consolidation program has been remarkably successful despite their lack of authority to order mandatory consolidation.[277] The GEPD's consolidation approach has been very effective in reducing the number of POCWSs that serve the people of Georgia, directly resulting in a safer, cleaner, and more reliable water supply for residents in communities that have historically faced challenges meeting the federal and state water quality standards.[278] California should learn from Georgia because California limits mandatory consolidation to PWSs; however, Georgia demonstrates that the consolidation programs for privately owned systems can effectively reduce the number of water systems in a state and provide a higher quality water supply to state residents.[279]

3. Kentucky

In the past 40 years, Kentucky has been one of the most active states to encourage PWS consolidation.[280] Kentucky has a statutory and regulatory framework regarding the voluntary and mandatory consolidation of PWSs that has produced effective results in reducing the number of PWSs throughout the state.[281] In 1978, more than 1,700 PWSs existed in the state, but by October

271. COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 15.

272. *Id.*

273. *Id.*

274. *Id.*

275. *Id.*

276. *Id.*

277. *Id.*

278. *Id.*

279. *Id.*

280. *Id.* at 22.

281. *See generally* KY. REV. STAT. ANN. § 74.361 (West 2017) ("[P]ublic policy favors the merger of water districts wherever feasible.").

2017, it had reduced the number of PWSs to 386, equating to around a 75% reduction.[282] This reduction took years to complete, and involved both voluntary and mandatory consolidations as well as limits on new PWS formation.[283] The EPA federal water quality standards promoted consolidation and reduced the number of Kentucky's noncompliant PWSs.[284]

The Kentucky Division of Water (KDOW) is the state entity charged with authority to approve or reject proposed plans for any new water system, based on an assessment of the technical, managerial, and financial capability of the proposed PWS.[285] The assessment includes a determination as to whether the proposed PWS will have the capability of providing water that meets the federal Safe Drinking Water Act (SDWA) requirements.[286] The Kentucky Public Service Commission (KPSC), regulators of water districts and commissions, must approve proposed new PWSs.[287] The KPSC's assessment of whether a new PWS is needed includes whether an existing PWS better serves the area than the proposed PWS, making it unnecessary.[288]

The KPSC has a significant amount of authority over PWSs in Kentucky.[289] The KPSC has the ability to purchase PWSs, require PWSs to make necessary improvements, or mandate the consolidation of two or more PWSs.[290] The KPSC's statutory authority to purchase, order improvements, or mandatorily consolidate PWSs has resulted in a reduction of the number of PWSs in Kentucky.[291] The KPSC is authorized to purchase a PWS when circumstances dictate such a purchase is the most appropriate method for addressing the problems facing the system; however, the KPSC must find that the PWS was properly designed and constructed after an inspection by the KPSC's field

282. KATHY JESPERSON, NAT'L ENVTL SERVS. CTR. W. VA. UNIV., REGIONALIZATION: FORCED, VOLUNTARY, AND SOMEWHERE IN BETWEEN 2 (2004), *available at* http://www.nesc.wvu.edu/ndwc/articles/OT/SP04/Regionalization.pdf (on file with *The University of the Pacific Law Review*); KY. DIV. OF DRINKING WATER, KENTUCKY DIVISION OF DRINKING WATER 2016 ANNUAL REPORT 21 (2016), *available at* http://water.ky.gov/Documents/2016.pdf (last visited Dec. 23, 2017) (on file with *The University of the Pacific Law Review*).

283. JESPERSON, *supra* note 282, at 2.

284. PROMOTE SMALL SYSTEM CONSOLIDATION, *supra* note 5, at 10, 11; *In The Drink: Kentucky*, ENVTL WORKING GROUP (June 1, 1995), https://www.ewg.org/research/state-overviews/kentucky#.WndYHainH4Y (on file with *The University of the Pacific Law Review*).

285. KY. REV. STAT. ANN. §§ 151.630, 151.634 (West 2017).

286. KY. REV. STAT. ANN. §§ 151.630, 151.636 (West 2017).

287. KY. REV. STAT. ANN. § 74.012(1) (West 2017).

288. KY. REV. STAT. ANN. § 74.012(3) (West 2017).

289. KY. REV. STAT. ANN. § 74.012 (West 2017); *Notice – Water Districts: To all Water Districts*, KY. PUB. SERV. COMM'N, https://psc.ky.gov/ (on file with *The University of the Pacific Law Review*).

290. KY. REV. STAT. ANN. §§ 74.100, 74.361 (West 2017).

291. KY. REV. STAT. ANN. § 74.100 (West 2017); MICHELLE FREDERICK & CAITLIN JUAREZ, CAL. STATE WATER RES., CONSOLIDATION AND REGIONALIZATION EFFORTS 24 (2017) *available at* https://calafco.org/sites/default/files/resources/2017_Staff_Workshop/Water%20Consolidations_SWRCB%20presentation.pdf (on file with *The University of the Pacific Law Review*).

experts.[292]

In situations where the purchase of a PWS is inappropriate, the KPSC can order the PWS to complete specific system improvements necessary to assure residents of the PWSs service area are receiving safe, clean, and reliable drinking water.[293] Such a determination requires PWSs undergo investigations that include the gathering of "facts, historical data, and projections" related to the quantity and quality of water provided by the PWS.[294]

In 2001, Kentucky passed Senate Bill (SB 409) requiring every water management planning council (WMPC) formulate a forecast and plan anticipating water needs in every county served by the WMPC.[295] The forecasts and plans must include anticipated water demands on the system at 5, 10, 15, and 20 years.[296] SB 409 also mandates that WMPCs create a strategy for delivering potable water to communities and areas within their territory that are underserved or not served at all.[297] Furthermore, SB 409 encourages PWS consolidation as evidenced by the 2020 Account created to fund consolidation efforts.[298] Specifically, the 2020 Account targets PWSs that have a significant amount of debt, high maintenance costs, old or inadequately maintained treatment works, or a history of violations.[299] Additionally, the 2020 Account targets PWSs that lack sufficient revenue to extend services to unserved or underserved communities or areas.[300] Impact on the customer is always a concern when consolidation occurs, which is why the KPSC is permitted to make rate changes and adjustments to any charges placed on customers by consolidated PWSs.[301]

PWS consolidation in Kentucky can also be voluntary.[302] Voluntary consolidation is permitted through a majority vote by the board members of each PWS that is a potential party to the voluntary consolidation.[303] After consolidation is complete, board members from the subsumed system must maintain a position with the consolidated PWS's board for a minimum of one year to ensure the area formally served is not unrepresented.[304] California can

292. *Id.*; 807 KY. ADMIN. REGS. 5:090 (West 2017).

293. KY. REV. STAT. ANN. § 74.100 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 16.

294. KY. REV. STAT. ANN. § 74.361 (West 2017) (stating that the PSC can purchase it, "and pay for it in the same manner as provided for the original construction and improvement; or may pay for it in whole or in part out of any surplus funds in possession, receipt or anticipation of receipt by the commission").

295. KY. REV. STAT. ANN. § 151.603 (West 2017).

296. *Id.*

297. *Id.*

298. KY. REV. STAT. ANN. § 224A.310 (West 2017).

299. KY. REV. STAT. ANN. § 224A.310(2) (West 2017).

300. *Id.*

301. KY. REV. STAT. ANN. § 74.080 (West 2017).

302. KY. REV. STAT. ANN. § 74.361 (West 2017); COOPERATIVE APPROACHES FOR DRINKING WATER SYSTEMS, *supra* note 249, at 22.

303. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 16.

304. *Id.*

gain from Kentucky's experience because its mandatory and voluntary consolidation programs have benefitted its residents by resulting in the delivery of safer, cleaner, and more reliable drinking water.[305]

4. New Mexico

New Mexico's water consolidation program is similar to California's voluntary consolidation program.[306] The program varies slightly between PWSs and private water systems, because each type of water system is regulated by a different state agency.[307] New Mexico's Drinking Water Bureau (NMDWB) inside the New Mexico Environment Department (NMED) regulates PWSs, while the New Mexico Public Regulation Commission (NMPRC) regulates private water systems.[308]

The NMDWB assists PWSs in consolidation by providing limited levels of technical, managerial, financial assistance, and training, and approves non-government assistance providers PWSs can use to improve or change the way their systems are managed and operated.[309] The NMDWB also requires that potential consolidation and capacity issues of proposed new systems be assessed before a new PWS is approved.[310] Proposed new systems must submit to the NMDWB proof that the PWS will have sufficient technical, managerial, and financial capacity to maintain operations sufficient to meet state water supply and quality standards.[311] The submission must include information about the system's organization, staffing arrangements, ownership accountability, sufficiency of revenue, credit rating, and fiscal management practices.[312] Additionally, the NMED is authorized after holding a public hearing to "intervene in the operation and management [of a PWS], including the power to set and collect assessments . . . to set and collect service charges and [determine] the proper operation and management of the [system]."[313]

The NMPRC has the authority to approve or reject a proposed consolidation if one of the systems is privately owned and the PRC decides the proposed consolidation is in the public's best interests.[314] Additionally, the NMPRC is

305. *Id.* at 28.

306. N.M. STAT. ANN. § 8-8-12 (West 2017); WATER MATTERS!, COMMUNITY WATER SYSTEMS 13–14 (2015), *available at* http://uttoncenter.unm.edu/pdfs/water-matters-2015/13_Community_Water_Systems.pdf (on file with *The University of the Pacific Law Review*); N.M. CODE R. §§ 20.7.10.7(B)(3), 20.7.10.200, 20.7.10.201 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 28.

307. *Id.*

308. *Id.*

309. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 28.

310. *Id.*

311. N.M. CODE R. §§ 20.7.10.201(C), 20.7.10.201(M)(5) (West 2017).

312. N.M. CODE R. § 20.7.10.201(B) (West 2017).

313. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 29.

314. N.M. STAT. ANN. §§ 62-6-12, 62-6-13, 62-6-18, 62-9-2 (West 2017); RESTRUCTURING AND

authorized to engage in a form of mandatory consolidation, because it is permitted to "commence an action in the district court. . . for the appointment of a receiver to assume possession [and operate a] system" if the NMPRC determines that "[the system] is unable or unwilling to adequately service its customers or has been actually or effectively abandoned."[315] The authority given to the NMED and NMPRC are powers of last resort only to be used if the water system fails to meet state or federal water supply and quality standards.[316] California can learn from New Mexico's voluntary and mandatory consolidation programs because they operate slightly differently than California's, but have still produced effective results for the state's water supply infrastructure. California should study New Mexico's successes and failures to determine what portions of New Mexico's consolidation programs should be incorporated into California's consolidation authority.

5. Washington

Washington's State Department of Health recognizes the importance of restructuring and consolidating PWSs.[317] Washington understands how safe, clean, and reliable drinking water contributes to the state's development and success, and believes that restructuring or consolidating an existing system with water quality problems may be the only way to ensure that a system actually reaches and maintains compliance with state and federal drinking water regulations.[318] "Washington incorporated restructuring [and] consolidation of existing PWSs into its overall program with the adoption of the Public Water System Coordination Act (PWSCA) of 1977 [in] . . . chapter 70.116 of Revised Code of Washington."[319] The foundation of the PWSCA "is a process whereby systems identify existing and future service areas" to ensure that the services provided are sufficient for the area.[320]

The PWSCA, by identifying noncompliant PWSs, allows for the state to direct restructuring and consolidation when necessary.[321] The PWSCA helps identify existing PWSs in need of water-related assistance, prevent the creation of new isolated systems within service areas of existing PWSs, and ensure

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CONSOLIDATION, *supra* note 249, at 29.

315. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 29.

316. *Id.*

317. WASH. REV. CODE ANN. § 70.119A.170 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 43.

318. *Id.*

319. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 43; WASH. REV. CODE ANN. §§ 70.116.010–70.119A.170 (West 2017).

320. WASH. REV. CODE ANN. §§ 70.116.050, 70.116.060, 70.116.070 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 43.

321. RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 43; *Water System Partnerships and Voluntary Consolidation*, *supra* note 23.

systems in a specific geographic region adopt consistent minimum design standards to make future restructuring or consolidation efforts more effective.[322]

Washington amended the PWSCA in 1991 to include the satellite management program "to address requests for water service that cannot be accommodated by a direct connection to an existing water system."[323] Specifically, Washington approves Satellite Management Agencies (SMAs) that can be designated to a specific service area used to own or operate one or more PWSs in that service area.[324] "Newly-proposed systems, outside a water system's existing or future service area, must be owned or operated by an approved SMA," but if there is no SMA capable of providing water services the new water system must be open to receiving SMA service if problems with water supply or quality arise in the future.[325]

Funding plays an important part in creating successful consolidation and restructuring efforts in Washington.[326] Similar to many other states, Washington has a DWSRF that provides loans and grants to eligible consolidation and restructuring projects. In addition to the DWSRF, Washington has allocated millions of dollars to a Water System Acquisition and Rehabilitation Program that assists in consolidation and restructuring by providing grants to municipal water agencies that can take over and restructure water systems with "water quality problems that pose a public health risk."[327]

Receivership law provides other options to promote voluntary consolidation that allow for mandatory consolidation through petitions made to state courts allowing for the state "to take temporary control of a failing water system and direct that system to a receiver."[328] Receivers are granted broad authority when they operate and maintain the water systems, including the ability to "make needed system improvements, impose reasonable assessments on water system customers, and receive sensible compensation for the cost of providing service."[329] If a receiver cannot be appointed due to lack of interest or logistical problems, "the local county is the receiver of last resort."[330] Receivership typically lasts for one year, during which time "the receiver assists the state and

322. WASH. REV. CODE ANN. §§ 43.20.050, 70.116.020, 70.116.050 (West 2017); *Water System Partnerships and Voluntary Consolidation*, *supra* note 23.

323. WASH. REV. CODE ANN. § 70.116.134 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 43.

324. *Id.*

325. *Id.; Water System Partnerships and Voluntary Consolidation*, *supra* note 23.

326. WASH. CODE R. § 246-296-010 (West 2017)*;* RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 44.

327. WASH. REV. CODE ANN. § 70.119A.190 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 44.

328. WASH. REV. CODE ANN. § 43.70.195 (West 2017); RESTRUCTURING AND CONSOLIDATION, *supra* note 249, at 44.

329. *Id.*

330. *Id.*

local government in developing a disposition plan for the system that examines the options for long term operation of the system."[331] California can gain from Washington's experience by implementing a receivership program, and by using state court assistance to determine the necessity of mandatory consolidation. California should study Washington's programs and determine what it can use to better its own consolidation programs to provide its residents long-term safe, clean, and reliable drinking water.

VI. RECOMMENDATIONS FOR IMPROVING THE MANDATORY CONSOLIDATION PROCESS

The following subsections offer recommendations based upon California's water system consolidation history, other consolidation approaches, and feedback on any mandatory consolidation issues.

A. Specify the Costs to be Considered by the State Water Board When Determinations Are Made as to Whether Mandatory Consolidations Should be Ordered

SB 88's mandatory consolidation authority should be modified to be more specific as to what costs should be considered when the State Water Board determines whether consolidation is the "most effective and cost-effective means to provide an adequate supply of safe drinking water."[332] Additionally, PWSs should be able to apply for funding to address these costs before and after consolidation occurs, specifically during the interim management period.[333] SB 88 is too complex to fully understand and comply with, because many sections are too vague.[334] For example, the bill requires that consolidation be analyzed to determine if it is the most cost-effective way for a service area to receive a safe, clean, and reliable drinking water supply; but does not specify what types of costs should be considered.[335]

SB 88 should be modified to specify the costs that the State Water Board should consider when making determinations as to whether mandatory consolidation is the best option for dealing with noncompliant PWSs, and funding should be available to deal with these costs when funding is needed to

331. *Id.*

332. CAL. HEALTH & SAFETY CODE § 116682(d)(6) (West 2017).

333. *Id.*

334. CAL. HEALTH & SAFETY CODE §§ 116680–116684 (West 2017); S.B. 88, 2015 Leg., 2015–2016 Sess. (Cal. 2015) (enacted).

335. CAL. HEALTH & SAFETY CODE § 116682(d)(6) (West 2017); Interview with Caitlin Juarez, *supra* note 57; Interview with Michelle Frederick, Water Res. Control Eng'r N. Cal. Consolidation Coordinator, State Water Res. Control Bd. Div. of Drinking Water, in Santa Rosa, Cal. (Oct. 27, 2017 and Dec. 5, 2017) [hereinafter Interview with Michelle Frederick].

complete or comply with a consolidation.[336] The costs should include: costs related to replacing water supply capacity lost due to the consolidation; costs for providing additional capacity to meet the required demands after consolidation occurs; costs for legal fees incurred due to consolidation; costs related to developing the infrastructure needed for consolidation to take place; costs related to the operation and maintenance of the consolidated water system during the interim management period; costs related to regulatory compliance during the interim management period; including the testing of the consolidated water system's water supply; and costs related to the staffing requirements needed to properly maintain and manage the consolidated water system during the interim management period.

Specifying the costs that should be considered before ordering a mandatory consolidation will provide the State Water Board with firm standards for gauging whether a mandatory consolidation is the most cost-effective and efficient method of addressing the water quality problems plaguing a particular PWS. Such guidance will also reduce current complications experienced in consolidation by helping reduce the amount of debate that occurs over the costs.[337] Additionally, PWSs will be able to provide more accurate information to the State Water Board about actual costs associated with the consolidation before a consolidation occurs.[338] Furthermore, specific cost requirements can result in better funding for mandatory consolidations, because the State Water Board will have a better, more complete understanding of the costs needed, resulting in more specific and compelling requests.[339]

B. Provide Specific Goals to Measure the Success of the Mandatory Consolidation Authority

Goals should be developed for determining whether the mandatory consolidation authority is effective at addressing problems with contaminated PWSs, because specific goals can help to measure and predict the benefits and drawbacks of the mandatory consolidation power and determine whether the power should be expanded, narrowed, or remain unchanged. The goals developed should not only include those measuring the performance of each mandatory consolidation but should include state-wide goals for the entire mandatory consolidation authority. Developing and creating both small and large-scale goals to use as guidelines will allow for expert analysis and studies of the impacts that mandatory consolidation is having on California's water supply, its water supply

336. Interview with Caitlin Juarez, *supra* note 57; Interview with Michelle Frederick, *supra* note 335.

337. *Id.*

338. *Id.*

339. *Id.*

distribution and treatment infrastructure, and the quality of drinking water being provided to residents throughout the state.

Some small-scale goals that could be developed are determining whether consolidation is impacting the water rates of water consumers, whether the amount of water supply being used is increasing, decreasing, or staying at the same level, and whether residents in service areas that are consolidated are receiving beneficial health impacts. Large-scale goals that could be developed should include reducing the number of water systems operating in California, determining whether consolidation is having a beneficial or negative impact on California's water supply and water quality infrastructure, measuring the total amount of water resources being put to use and whether the supply is increasing, lowering, or staying at the same level before consolidations took place, and determining whether historically contaminated water resources are able to be properly sanitized or left unused as to avoid negative impacts to human health.

Goals should be established to determine the success of consolidation, because such goals will help the legislature determine whether to expand, narrow, or leave the power unchanged. Additionally, establishing goals will assist the State Water Board and PWSs in determining how the consolidation power should be modified so that it can produce the most effective and efficient results for California's water infrastructure and the millions of California residents who rely upon that infrastructure. Furthermore, establishing goals will provide a way to measure how consolidations are impacting individuals, communities, and California as a whole, resulting in better management of California's limited water supply and complex water supply infrastructure.

C. Include Privately Owned Water Systems as Those Eligible for Mandatory Consolidated

SB 88's mandatory consolidation authority is currently limited to PWSs and does not encompass investor-owned water systems (IOWS).[340] The California Public Utilities Commission (CPUC) has authority over all IOWS and promotes the voluntary consolidation of these systems. However, the CPUC has no authority to order the mandatory consolidation of IOWS, even if they are noncompliant.[341] Providing the State Water Board, the CPUC, or a combination of the two with the authority to order the mandatory consolidation of IOWS will result in California having more control over its water system infrastructure and in better outcomes for water users. The power to consolidate IOWS will allow communities to be served by water quality compliant IWOS, whether public or private, for immediate and long-term benefit. Whether the power to mandatorily

340. CAL. PUB. UTIL. CODE §§ 701, 2120 (West 2017); CAL. HEALTH & SAFETY CODE §§ 116680–116684 (West 2017).

341. *Id.*

consolidate IOWS should be given to the State Water Board, the CPUC, or a combination of both, is something that should be analyzed to ensure that the process for ordering mandatory consolidation of IOWS is the most effective and efficient it can be and will provide the best results for residents served by IOWSs.

D. Require All Consolidated Water Systems to Have a Minimum Number of Staff with Specific Forms of Expertise in Water Supply and Water Quality Management

Staffing constraints are an issue for water systems in disadvantaged communities and in communities that do not meet the definition of a disadvantaged community; thus, modifying the mandatory consolidation authority to include minimum standards related to the staff number required for consolidated water systems and the expertise of that staff could produce more effective results for consolidated water systems.[342] Inadequate staffing is a problem for water systems because it reduces the likelihood that water systems will be able to comply with water supply and water quality standards, current and future regulations, and fulfill water quality testing requirements.[343] Studies should be used to determine the appropriate amount of staff for each consolidation. Additionally, mandating that consolidated water systems maintain expert staff in both water supply and quality management is necessary for the effectiveness and efficiency of mandatory consolidations. The staff's amount and quality of expertise are crucial to the success of a consolidated water system, and as such, SB 88 should be modified to include minimum staffing requirements.

E. Expand the Consolidation Authority to Communities that Are Not Classified as Disadvantaged Communities

SB 88's mandatory consolidation authority only applies to disadvantaged communities because the law was drafted to address water quality problems in communities that are most likely to suffer from water quality problems.[344] However, limiting the scope to communities that meet the definition of a disadvantaged community means that any community not meeting the definition cannot be mandatorily consolidated, even if doing so would benefit the community.[345] Although annual compliance reports "indicate that [the vast

342. Chappelle & Hanak, *supra* note 1; Leon F. Szeptycki & Brian E. Gray, *California's Drought and the Environment: An Introduction*, 23 HASTINGS W. NW. J. ENVTL. L. & POL'Y 51, 54 (2017); Pannu, *supra* note 4, at 235–37; *Water System Partnerships and Voluntary Consolidation*, *supra* note 23; *Announcement*, *supra* note 22.

343. *Id.*

344. CAL. HEALTH & SAFETY CODE § 116682(a) (West 2017).

345. CAL. HEALTH & SAFETY CODE §§ 116681(f), 116682(a) (West 2017).

majority] of [California's] . . . population served by [PWSs]" are receiving "drinking water that meets federal and state drinking water standards," a large number of California communities suffer from water quality problems at one time or another.[346]

Many conditions impact California's drinking water quality, including requirements for water due to population growth; uncertainty in water supplies because of drought and climate change; demands for water for agriculture, industry, and environmental purposes; contaminating activities that threaten surface water and groundwater quality (thereby affecting available quantity); and reduced access to the Colorado River.[347] Additionally, many existing PWSs rely on a single source of water supply, which can be severely harmful over the long-term, because changes to water supply availability can impact the community's water quality and availability.[348] Although "millions of Californians rely, at least in part, on contaminated groundwater for their drinking water," most PWSs are able to sanitize the water to meet public health standards, but many are not.[349]

Expanding application of the mandatory consolidation authority to communities that do not meet the definition of a disadvantaged community will benefit thousands of California residents.[350] Many California communities are served by PWSs that barely comply with state and federal water quality standards and do not receive safe, clean, and reliable drinking water, but nevertheless do not meet the definition of a disadvantaged community.[351] Additionally, eliminating the disadvantaged community requirement would allow the State Water Board to engage in mandatory consolidations without needing to determine whether a community is a "disadvantaged community."

Currently there are "[hundreds of] small rural water systems and schools . . . unable to provide safe drinking water" to the residents they serve, and although many of these will meet the definition of a disadvantaged community, some will not.[352] However, all communities that receive unsafe, unclean, and unreliable drinking water, or whose PWSs are barely able to meet water quality compliance standards, deserve to benefit from mandatory consolidation when mandatory consolidation will provide those communities with safe, clean, and reliable drinking water.[353] One way to accomplish expanding mandatory consolidation authority is to allow members of the public served by noncompliant or barely compliant PWSs to petition the State

346. WATER PLAN, *supra* note 7, at 39.

347. *Id.*

348. *Id.*

349. ACTION PLAN, *supra* note 2, at 17.

350. WATER PLAN, *supra* note 7, at 39; Chappelle & Hanak, *supra* note 1.

351. *Id.*

352. Chappelle & Hanak, *supra* note 1.

353. FREQUENTLY ASKED QUESTIONS, *supra* note 7; *Water System Partnerships and Voluntary Consolidation*, *supra* note 23.

Water Board for the consolidation of their PWSs.[354] Thus, eliminating the disadvantaged community requirement in SB 88 will benefit countless people, many communities, and California as a whole.[355]

VII. CONCLUSION

The mandatory consolidation authority is an effective tool for the State Water Board to accomplish its various goals, especially that of ensuring residents of California receive a safe, clean, and reliable supply of drinking water.[356] Despite the fact that only one mandatory consolidation has been ordered to date, there have been several consolidation orders requesting PWSs to engage in voluntary consolidation before the State Water Board chooses to issue a mandatory consolidation order.[357] To better improve the mandatory consolidation authority, it would be best to modify SB 88, or adopt additional legislation that would create the recommendations identified in this article, because SB 88 needs more specificity and broader authority that can only be implemented by statute.[358] The mandatory consolidation authority should be adjusted as follows. First, the legislature should specify the costs that the State Water Board should consider when determining whether to order mandatory consolidation.[359] Second, the legislature should identify specific goals that can be used to measure the success of the mandatory consolidation authority. Third, the legislature should include privately owned water systems as water systems eligible for mandatorily consolidation.[360] Fourth, the legislature should require that consolidated systems have an experienced minimum staff sufficient to operate and maintain the new system.[361] Fifth, and finally, the legislature should expand the scope of the mandatory consolidation authority beyond disadvantaged communities to any communities serviced by PWSs that are noncompliant or barely compliant with

354. *See* WATER QUALITY PETITIONS, ST. WATER RESOURCES CONTROL BOARD, *available at* https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml (last visited Jun. 12, 2018) (on file with *The University of the Pacific Law Review*) (detailing a petition process used by the State Water Board to address water quality).

355. *See* Dale Kasler, Phillip Reese, and Ryan Sabalow, *360,000 Californians have Unsafe Drinking Water. Are you one of them?*, SAC. BEE (Jun. 1, 2018), http://www.sacbee.com/news/state/california/water-and-drought/article211474679.html (explaining that "[a]t least 6 million Californians are served by water providers that have been in violation of state standards at some point since 2012").

356. *Water System Partnerships and Voluntary Consolidation*, *supra* note 23; FREQUENTLY ASKED QUESTIONS, *supra* note 7.

357. *Mandatory Consolidation or Extension of Services*, *supra* note 2.

358. *See* Interview with Caitlin Juarez, *supra* note 57 (explaining that in some subsections SB 88 is too vague and the limitations on its application limit the ability for mandatory consolidation to be used to assist communities that do not meet the definition of a disadvantaged community).

359. *Id.*

360. *See* CAL. PUB. UTIL. CODE §§ 701, 2120 (West 2017) (IOWS are not subject to the mandatory consolidation authority); CAL. HEALTH & SAFETY CODE §§ 116680–116684 (West 2017) (IOWS are not subject to the mandatory consolidation authority).

361. Chappelle & Hanak, *supra* note 1; Szeptycki, *supra* note 342; Pannu, *supra* note 4, at 235–37; *Water System Partnerships and Voluntary Consolidation*, *supra* note 23; *Announcement*, *supra* note 22.

water quality standards.[362]

362. WATER PLAN, *supra* note 7, at 39; Chappelle & Hanak, *supra* note 1.