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COLLABORATIVE PROBLEM-SOLVING FOR ENVIRONMENTAL JUSTICE

By

SOPHIE CLAIRE WOLFRAM

Bachelor of Arts, Yale University, New Haven, Connecticut, 2006

Thesis

presented in partial fulfillment of the requirements
for the degree of

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Approved by:

Scott Whittenburg, Dean of The Graduate School
Graduate School

Neva Hassanein, Chair
Environmental Studies, College of Humanities and Sciences

Robin Saha
Environmental Studies, College of Humanities and Sciences

Jill Belsky
Society and Conservation, College of Forestry and Conservation

ABSTRACT

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Environmental Studies

Recognition, Participation, and Distributive Justice: Community-Based Environmental Problem-Solving in Southeast San Francisco and Imperial County, California

Chairperson: Neva Hassanein

An extensive body of environmental justice literature has demonstrated repeatedly what impacted communities have long known from experience, that environmental pollution including groundwater threats, diesel particulate matter, toxic releases, pesticide use, and hazardous waste sites, disproportionately burdens people of color and low-income communities. The environmental justice movement seeks to bring about equal protection of all people from environmental hazards, including equal enforcement of environmental laws and regulations. Advocacy within the movement has frequently adopted oppositional framings with respect to the state; however, collaborative approaches to environmental justice problem-solving have become more common, especially as states increasingly recognize environmental justice in policy. This thesis investigates a California community-based environmental reporting network called Identifying Violations Affecting Neighborhoods (IVAN) through interviews and participant observation in two sites: the Bayview Hunters Point neighborhood of San Francisco, and the Imperial Valley in Southern California. The paper argues that IVAN functions to build relationships and trust between community members and government bodies, impose accountability on regulatory agencies, foster social learning that benefits all stakeholders, and solve pollution problems that affect public health, quality of life, and the physical environment. By creating and sustaining a forum that addresses community concerns related to the environment, IVAN acknowledges the validity of residents' experiences, invites meaningful participation in the process of enforcement of environmental regulations, and, to a limited degree, reduces the pollution burden in low-income communities of color. I argue that in this way, IVAN's collaborative approach to problem-solving is effective in bridging multiple dimensions of environmental justice.

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Finally, I would like to thank my cohort in the Environmental Studies Program for their friendship and my family for all their support and encouragement.

LIST OF ACRONYMS USED

APCD: Air Pollution Control District

CalEPA: California Environmental Protection Agency

CARB: California Air Resources Board

CCDV: Comité Cívico Del Valle

CUPA: Certified Unified Program Agency

DPR: Department of Pesticide Regulation

DTSC: Department of Toxic Substances Control

ECV: Eastern Coachella Valley

IVAN: Identifying Violations Affecting Neighborhoods

MOU: Memorandum of Understanding

U.S. EPA: United States Environmental Protection Agency

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INTRODUCTION

I was a victim of pesticide poisoning my first days in Imperial County. That's why I live out in Ocotillo, because I had to escape. I could not live in a place where I was getting sick from pesticides. It really scares me what people there in the county are being exposed to. There's no justification for some of this stuff.

-Edie, Imperial Valley resident

The first time I met Edie, we were seated on opposite ends of a conference room table under the fluorescent lights of a meeting room in the El Centro branch of the California Department of Toxic Substances Control (DTSC). Like so many of the people I spoke with as this project developed, Edie's primary concern with regards to environmental health is not for herself; she worries mostly about those who are more vulnerable than herself, and she works doggedly to improve environmental conditions for them. That day, in November 2016, we were participating in a monthly meeting of the Imperial Valley Environmental Justice Task Force, and we were joined by representatives of federal, state, and regional government bodies; staff members from a community-based organization located in Brawley, California; and Ray, a resident of Mexicali, Mexico. Over the course of two hours, I listened as the group discussed a series of reports residents of the Imperial Valley – a border region of California one hundred miles or so east of San Diego and sixty miles west of Yuma, Arizona – had filed online through a website called IVAN.

The Task Force brainstormed better ways to apply gypsum to agricultural fields so that nearby communities would not be affected by fine particulates, they clarified the jurisdictions of the Air Pollution Control District (APCD) versus the state Air Resources Board (CARB), and they discussed the increased incidence of valley fever in the region, which Edie suggested might be attributable to the amount of desert land being disturbed

to install utility-scale solar arrays to meet California's aggressive mandate of 50 percent renewable energy by 2030. They discussed illegal dumping by contractors who come to the desert to avoid disposal fees as they off-load construction equipment and lab waste (including explosives such as picric acid), and they talked about the challenges of local politics and the lack of participation of county officials in Task Force meetings. After the meeting, Edie and Ray shared their phone numbers and email addresses with me and invited me to join members of the Task Force for dinner across the street.



The burdens of environmental pollution are not shared evenly across the population, and all people do not have equal access to the decision-making processes that result in the uneven distribution of hazards. In California, a state with one of the most extensive environmental regulatory apparatuses in the nation, the correlation between exposure to pollution and population characteristics such as race and income level remains pronounced (Office of Environmental Health Hazard Assessment 2017). This paper tells the story of a program operating in low-income communities of color across California that is attempting to affect systemic change in how environmental protection works and in who benefits from the operations of the state regulatory apparatus. The Identifying Violations Affecting Neighborhoods (IVAN) program is a community-based environmental reporting network that works like a one-stop shop for residents who want to report anything from an acrid odor coming from an industrial facility to trash heaps in an alleyway to diesel trucks idling in front of their homes or schools. When community members witness any incident in their community that affects their health, quality of life, or harms the environment where they live, they can report to IVAN, a program run by the

community with participation from local, state, regional, and federal government bodies. IVAN includes a Task Force that meets each month to discuss the reports filed and the follow-up, if any, from agencies.

I examine the structure and the function of IVAN through two case studies selected from the program's seven locations: the Bayview Hunters Point neighborhood in San Francisco, and the Imperial Valley. I argue that in those sites, IVAN functions as a unique forum for sustained communication among area residents, government agency staff, and community-based organizations. Whereas environmental protection is typically fragmented among many government entities with very specific jurisdictions, and public participation in environmental decision-making is usually limited to engagement on discrete issues at particular moments in time, IVAN is designed to involve the community itself on an ongoing basis. The program organically integrates many facets of environmental protection into a forum designed by and controlled by communities impacted by the pollution the program addresses. This comprehensive, community-based approach to environmental protection, I argue, creates the potential for IVAN to function as a place for residents to experience recognition of the validity of their concerns, participate meaningfully in problem-solving, and experience improvements in environmental quality as a result.

In the background section that follows, I describe the history of IVAN in California and show how residents, community-based organizations, and government agency staff interact with the program. The section concludes with an overview of the environmental hazards the populations of IVAN's seven regions encounter. The literature review explores the historical origins and theoretical dimensions of environmental

justice. It provides an overview of the environmental enforcement apparatus in the United States and in California and makes the case that low-income communities of color experience weaker enforcement of environmental regulations than less socially vulnerable populations do. The final section of the literature review frames the work IVAN does by addressing the benefits and challenges of lay participation in environmental decision-making and of collaborative versus oppositional approaches to environmental justice advocacy. The methods section describes how and why I chose the two case study sites for this project; the process of gathering data through semi-structured interviews, participant observation, and document review; limitations of the methods, and the methods used for data analysis. In the discussion section, I share key findings related to IVAN's function in both Bayview Hunters Point and the Imperial Valley and draw connections between the role the program plays and theoretical dimensions of environmental justice. The conclusion offers a final synthesis of the findings and offers directions for future research.

IVAN: HISTORY, STRUCTURE, AND GEOGRAPHY

In the 2008 Enforcement Report of the California Department of Toxic Substances Control (DTSC), its Acting Director acknowledged that communities facing environmental injustice had long demanded “transparency and regular communication about what’s being done to keep them safe from toxic dangers” (DTSC 2008: 3). In response to that ongoing pressure, in 2007 DTSC began its Environmental Justice Enforcement Initiative, a key component of which were day-long tours of sites local residents suspected to be hazardous to the environment and to public health (DTSC 2008). After each bus tour, community residents, activists, and government staff attended workshops to discuss what they had seen that day and collectively “set strategy and priorities for enforcement efforts in true democratic style” (DTSC 2008: 12). Despite DTSC’s attempts to engage meaningfully with communities, however, many activists and some DTSC staff members felt that the Environmental Justice Enforcement Initiative did not go far enough to develop ongoing dialogue with those most burdened by multiple sources of pollution (Jatkar and London 2015).

Among those who remained concerned that the severity of the problems facing California’s poor communities of color warranted more than a one-off bus tour and a check-in with the community after 100 days were then-DTSC enforcement staff member Ryan Atencio and Luis Olmedo. Olmedo is the Executive Director of Comité Cívico Del Valle (CCDV), an organization focused on environmental justice, health services, and community services programs in Imperial County (Comité Cívico Del Valle 2016). Atencio successfully appealed to DTSC for more staff time to be allotted to department collaboration with community environmental justice organizations, and in 2009, DTSC and CCDV, along with other community-based organizations, established the Imperial County Environmental Justice Task

Force (Jatkar and London 2015). At monthly Task Force meetings, residents reported environmental problems facing their communities. Atencio made sure that the reports reached the appropriate agencies, and he also began mapping where violations were occurring. The program eventually changed its name to Identifying Violations Affecting Neighborhoods (IVAN). IVAN's intent is to improve health outcomes, increase visibility of environmental problems in the communities where it works, and facilitate greater transparency and accountability in public agency responses to reports of environmental violations (Jatkar and London 2015).

Today, IVAN is active in seven sites across California: Imperial, Kern, Fresno, and Kings counties; Eastern Coachella Valley (a section of Riverside County); and the Wilmington and Bayview Hunters Point neighborhoods in Los Angeles and San Francisco, respectively. At the heart of each IVAN site are an online system and an Environmental Justice Task Force. The online system allows residents to report potential environmental violations using their computer or phone. The IVAN website and application allow residents to type a description and post photos and/or videos documenting the problem about which they are filing their report. For example, if a resident were to report illegal dumping, he or she would write a brief note about what how much trash has been dumped and where, and might also upload a photo or video documenting details of the site. In addition, residents can indicate the geographic location of the subject of their report both by typing the approximate address and also by dropping a pin using a feature enabled by Google Maps (IVAN 2016). Those without access to the technology needed to submit a report online can attend the monthly IVAN Task Force meetings that take place in each IVAN site.

The IVAN Task Force meetings are co-convened by public agency staff and non-profit organizations. They are open to the public and are attended by community members, government agency staff, and community-based organizations. At the Task Force meetings, participants discuss the reports filed online during the preceding month; any participant is free to share technical expertise, firsthand knowledge about the report, questions, or concerns. At many meetings, a government agency delivers a presentation about an issue relevant to the community. In each region, one person, usually a government agency employee, takes the role of problem-solver. The problem-solver is responsible for checking the online reporting system and ensuring that a staff member at the relevant agencies receive and address the complaint. Not every complaint is a violation, so addressing the complaint does not always mean launching an investigation or taking enforcement action. As I describe in the Discussion section of this paper, there is significant variation between the structure and function of the Task Forces in the two regions investigated in this study. In all regions, however, the Task Force is a forum where anyone can bring health and quality of life concerns to the attention of residents of the region, government agencies, and community-based organizations.

In California, rural inland valleys that are home to largely low-income populations with a high percentage of Latino residents endure the greatest proportion of environmental health hazards and are the most socially vulnerable (Office of Environmental Health Hazard Assessment 2016). For instance, the San Joaquin Valley comprises the southern half of California's Central Valley. It includes Kings, Merced, Fresno, and Kern counties; IVAN operates in all but Merced. The Valley is known for its enormous agricultural productivity, but residents in the region also face environmental health hazards, including severe air pollution, unsafe drinking water, poor infrastructure, and a disproportionate share of California's toxic

waste sites (CRPE 2011). The sources of pollution in the Valley include nitrates from synthetic fertilizers and pesticides that have degraded the quality of groundwater; particulate matter and smog from mega-dairies; oil refineries; and diesel trucks and other vehicles on Interstate-5. Poverty and a lack of public participation compound the problem of environmental pollution (CRPE 2011). Many residents depend on very low-wage jobs in polluting industries, and the political process often remains inaccessible to the residents who do not have access to the internet to receive notification of public meetings; who lack transportation to the county seat or Sacramento to attend meeting; and who speak only Spanish and cannot understand the English in which most meetings are conducted (CRPE 2011).

The Eastern Coachella Valley (ECV) and the Imperial Valley, two other regions where IVAN operates, lie immediately north and south of the Salton Sea, respectively, in southeastern California. The ECV is in Riverside County, south of much more affluent Palm Springs, and the Imperial Valley, in Imperial County, stretches from the Salton Sea to the north to the border city of Calexico on its southern end. A predominantly rural and agricultural region, Imperial County consistently ranks within the top ten agriculturally productive counties in the nation (Imperial County 2014). Environmental pollution from multiple sources poses significant health risks to both Imperial Valley and ECV residents. Industrial agriculture contributes to water and air pollution; the Salton Sea, California's largest lake, is receding and causing contaminants such as mercury, lead, and arsenic to become airborne; and the transportation of goods along Interstate-8 and idling trucks at the border crossing in Calexico lead to high levels of particulate matter in the air (California Environmental Health Tracking Program 2015). One in five children in Imperial County have been diagnosed with asthma, and asthma hospitalization rates there are the highest in the state; the link between asthma and pollution is well-established (Bacon 2012). Meanwhile,

many ECV residents live in substandard housing with inadequate infrastructure, including lack of access to safe drinking water and failing septic systems (London et al. 2013).

IVAN also operates in two urban communities: Bayview Hunters Point in San Francisco and Wilmington in Los Angeles. Bayview Hunters Point, historically the industrial hub of the city, is a low-income neighborhood in the southeastern corner of San Francisco. Residents in that community face toxic contamination from the former PG&E Hunters Point power plant, the Southeast Sewage Treatment plant, pollution from diesel freight transport, two freeways, and over 150 brownfield sites (Greenaction 2016). Wilmington is one of several neighborhoods in central and southern Los Angeles that encounter “foul odors, noise and dirt from oil operations that are practically in their backyards” (Boxall and Mozingo 2016). A ConocoPhillips Oil Refinery in Wilmington poses quality-of-life challenges in the form of flaring, toxic releases, and particulate matter pollution (Coalition for a Safe Environment 2014).

In each of the seven communities where it is active, IVAN occupies a small niche in a long history both of environmental injustice and of advocacy to stem the tide of pollution adversely affecting the health and quality of life of residents. The following section explores the theoretical and historical context in which IVAN is situated and introduces questions about the efficacy of environmental justice problem-solving approaches that, as IVAN does, invite some measure of partnership or collaboration with government entities.

LITERATURE REVIEW

The literature on environmental justice offers myriad examples of how low-income communities of color shoulder a disproportionate burden of environmental hazards while enjoying less than their share of benefits. In this section, I first trace the origins of the environmental justice movement in the United States. The next portion of the literature review introduces dimensions of environmental justice – distributive, procedural, and recognition justice – and describes the ways they intersect and interact. After providing a theoretical overview, I hone in on the topic of enforcement of environmental regulations and address quantitative and qualitative evidence of disparities in the degree to which enforcement is pursued in low-income communities of color compared with more affluent, predominantly white communities. The section concludes with a discussion of benefits and challenges of meaningful public participation environmental justice problem-solving.

Launching the U.S. Environmental Justice Movement

In 1982, protests erupted in a predominantly African American community in Warren County, North Carolina, over the decision to dump over 6,000 truckloads of soils contaminated with polychlorinated biphenyl (PCB), a highly toxic industrial chemical that was banned in the 1970s, into a landfill in that county (Geiser and Waneck 1994). The campaign against the landfill, led by veterans of the civil rights movement, drew national attention to the intersecting issues of race, poverty, and pollution. Although communities had previously protested the siting of polluting facilities near where they lived, worked, and played, the protests in Warren County are widely recognized as marking the beginning of the environmental justice movement (Bullard and Johnson 2000; Sandweiss 1998).

The protests and subsequent arrests in Warren County prompted the 1983 U.S. General Accounting Office study, *Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities*, which revealed that off-site hazardous waste landfills in the South were disproportionately sited in African American communities. The events also led the United Church of Christ Commission for Racial Justice to produce *Toxic Wastes and Race in the United States* (1987), which found that race was the most powerful predictor of the location of toxic waste sites nationally (Bullard and Johnson 2000). The environmental justice movement soon expanded its antitoxics focus to include “public health, worker safety, land use, transportation, housing, resource allocation, and community empowerment” (Bullard and Johnson 2000: 556-7).

The concept of environmental racism lies at the heart of the environmental justice movement. We can understand environmental racism as a specific form of institutional, or systemic, racism. The anti-toxics movement in the late 1970s understood toxic assaults as part of an economic structure in which certain communities will inevitably be polluted. The civil rights activists who participated in the environmental justice movement recognized the unfair distributive outcomes of that economic structure as resulting from a social structure that isolated and marginalized people of color (Cole and Foster 2000). In other words, the disproportionate pollution burden experienced by people of color is yet another consequence of institutional racism; manifestations of institutional racism pertaining to environmental effects are termed environmental racism. Specifically, environmental racism “refers to any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color” (Bullard 1990: 98). The grassroots

activism that has fueled the environmental justice movement represents the convergence of the economic analysis of the anti-toxics movement and the recognition of environmental racism.

While the environmental justice movement emerged in the South and shared key actors, an interpretive frame, and organizing tactics with the Civil Rights movement (Cole and Foster 2000, Sandweiss 1998), it also has a distinct history in California. Many environmental justice activists in California can trace their activism back to involvement with the United Farm Workers, and the environmental justice movement remains deeply connected to the struggles of farmworkers for decent pay and safe working and living conditions in the state (Center on Race, Poverty, and the Environment 2011). Activists decry the fact that many rural, largely Hispanic communities across the state produce a large share of the nation's food yet serve as a dumping ground for vast quantities of toxic waste (Huang and London 2012).

For many grassroots activists, a report published in 1984 confirmed their suspicions that industry and regulators were intentionally targeting low-income communities and communities of color when siting polluting facilities. The Cerrell Report, commissioned by the California Integrated Waste Management Board (now CalRecycle) to identify communities that would be the least likely to resist the siting of waste incinerators, recommended looking for communities where many residents were Catholic, had limited education and low socioeconomic status, and were employed in resource extractive industries (Cole and Foster 2001; CRPE 2014). In reaction, through community organizations and regional networks, grassroots activists in California address the siting of polluting facilities in vulnerable communities, the harmful effects of industrial agriculture, the disproportionate effect of climate change on low-income people and communities of color, and, through Identifying Violations Affecting Neighborhoods (IVAN), unequal enforcement of environmental laws and regulations (CRPE 2016).

Partially in response to grassroots activism, federal and state policies have increasingly addressed environmental justice issues (Targ 2005). California's state government takes a comprehensive approach, integrating environmental justice broadly into the work of state government (Targ 2005). The state's Environmental Justice Act of 1999 defined environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (California Code Section 65040.12). That statute made the Office of Planning and Research (OPR) the coordinating agency in the California state government for all environmental justice programs (Office of Planning and Research 2003). OPR serves the Governor as the state's comprehensive planning agency; it has a broad mandate to develop, evaluate, and update policies that shape statewide growth, development, and environmental quality (California Code Section 65040). Under the 1999 Act, the California Environmental Protection Agency (CalEPA) is required to integrate environmental justice into its mission and the mission statements of its divisions.

Dimensions of Environmental Justice

Definitions of environmental justice, including the one used by the State of California, often emphasize its distributive dimension, which refers to the demand for equitable distribution of environmental burdens and benefits (Schlosberg 2004). The early landmark reports on environmental justice, for example, by the U.S. General Accounting Office and the Commission for Racial Justice, demonstrated the disproportionate siting of hazardous waste facilities in minority communities (Bullard and Johnson 2000). Activists calling for environmental justice demand more, however, than equal distribution of harms. Questions about *who* gets to make decisions regarding issues such as the siting of hazardous waste facilities and the prioritization of

enforcement activities, and how those decision-making processes work, are of great concern for environmental justice activists (Schlosberg 2004, Shrader-Frechette 2002). In other words, certain power structures and processes have led to inequitable distribution in the first place, and environmental justice advocacy must address *how* environmental governance decisions are made. This dimension of environmental justice is called procedural justice. The third key dimension, in addition to distributive and procedural, is recognition justice, which refers to a right to recognition and respect for cultural norms and ways of knowing that differ from the dominant or mainstream culture (Fraser 1998).

The cultural injustices that deny recognition and the economic injustices that lead to inequitable distribution are intertwined; therefore, all three key dimensions must be in place for justice to be achieved (Fraser 1998; Figueroa 2004). The demand for procedural justice appears in the “Principles of Environmental Justice” drafted and adopted at the 1991 People of Color Environmental Leadership Summit in Washington, D.C. The seventh principle states, “Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation” (reprinted in Hofrichter 1993: 238). Procedural justice, often used interchangeably with the term ‘meaningful participation,’ may, under certain conditions, contribute to distributive justice, or the call for substantive rights (Sandweiss 1998). Meaningful public participation in decision-making processes can only occur when the perspectives of ethnically and culturally diverse groups are recognized by those in positions of power.

For that reason, recognition stands on its own as a critical component of environmental justice, acknowledging that low-income and people of color communities can experience meaningful participation and distributional equity only if those vested with decision-making

power grant those communities the same degree of respect that they offer to more affluent, white communities (Schlosberg 2004). In other words, they must recognize the legitimacy of the experiences and knowledge of less powerful communities. The politics of recognition emphasize the fundamental importance of making cultural perspectives socially and culturally visible and hold that the racism inherent in ignoring those perspectives is what allows for material inequity (Figueroa 2004). Furthermore, Figueroa (2004: 8) argues that according to the politics of recognition, deeply understanding “the complexity of cultural identity” is one route to “identifying and ameliorating the injustice, in this case environmental racism.” The three key dimensions of environmental justice represent three related lenses through which to observe and analyze advocacy efforts. By bringing government, residents, and community organizations together address environmental violations affecting community health, IVAN may offer a path to achieve a greater measure of procedural, recognition, and distributive justice in California communities that have long endured environmental injustices.

Environmental Justice in Monitoring and Enforcement

As great an impact as policy development and individual siting decisions have on progress toward environmental justice, environmental monitoring and enforcement of existing laws and regulations is equally critical to ensure that unequal exposure is not exacerbated by unequal enforcement. Reisinger et al. (2010: 5) note that a “standard set by statute or regulation, if not enforced, acts merely as a recommendation.” While ample evidence supports the claim that people of color are disproportionately burdened by environmental pollution in the United States (Bullard and Johnson 2000; Cole and Foster 2001), fewer quantitative studies confirm whether enforcement of environmental law is delivered equitably. Although many qualitative accounts and case studies demonstrate enforcement disparities between low-income people of color

communities and more affluent, predominantly white communities, quantitative studies are less conclusive.

The United States Environmental Protection Agency (U.S. EPA) grants primacy to state agencies to implement and enforce many federal laws, including the Clean Air Act; the Clean Water Act; the Safe Drinking Water Act; and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (Gray and Shimshack 2011; Reisinger et al. 2010). The U.S. EPA and state agencies primarily rely on a command-and-control system of rules and deterrence to maximize compliance (Gunningham 2011). In recent decades, federal agencies responsible for enforcement have also embraced more cooperative methods such as compliance assistance, mediation and outreach; however, Gray and Shimshack (2011) find that despite the increasing deployment of these alternative methods, deterrence remains the most important factor guiding facilities' compliance decisions. They suggest that because monitoring and enforcement have a more significant impact on environmental performance than do "corporate social responsibility, altruism, or nonregulatory pressures," big increases in environmental quality might be achieved through "small incremental investments in monitoring and enforcement" (2011: 17). While Gray and Shimshack (2011) suggest that policies allocating more resources for enforcement might yield significant benefits, Gunningham (2011: 190) also suggests that efforts to extend the reach of regulators using third parties as "surrogate regulators" to monitor industry merit further study.

In California, the state's Environmental Protection Agency (CalEPA) coordinates enforcement activities through its boards, departments, and offices that are responsible for compliance with regulating toxics, air, pesticides, water, and solid waste and recycling (CalEPA 2014).¹ In addition to its regular enforcement activities, CalEPA has established an

¹ The California Air Resources Board and Air Districts enforce regulations related to mobile and stationary sources of emissions, respectively. The Department of Toxic Substances Control (DTSC) oversees the full range of

Environmental Justice Task Force to address compliance and enforcement in areas of California that “are burdened by multiple sources of pollution and disproportionately vulnerable to its effects” (CalEPA 2016). The Task Force has completed two pilot initiatives in Fresno (2013-2014) and in the Boyle Heights and Pacoima neighborhoods of Los Angeles (2015-2016). The 2016 Budget Act granted the Task Force, which was founded in 2013 as a working group, permanent funding (CalEPA 2013; CalEPA 2016).

The debate surrounding the question of whether enforcement disparities exist erupted after a 1992 study in the *National Law Journal* found that penalties for violations of pollution laws were on average 46 percent higher in white communities than in communities of color, and that communities of color took 20 percent longer to be listed as priority clean-up sites under the Superfund law (Bullard and Johnson 2000; Cole and Foster 2001: 57). That study has been criticized, however, for not disclosing key data such as sample sizes and sizes of the studied communities (Bryant 1993). It is nevertheless frequently cited as evidence of enforcement disparities (Agyeman 2005; Bullard and Johnson 2000; Pellow 2000).

In another quantitative study supporting the claim that enforcement is uneven, Konisky and Reenock (2013) find evidence that when enforcement authority is highly centralized near the top of an agency’s chain of command, an increase in the percentage of Hispanic residents in a community correlates with a decrease in rates of detection of noncompliance. That means that when there are more Hispanic residents, inspectors are less likely to find a that a facility is out of compliance. In contrast, when field officers have a high degree of enforcement authority,

processes related to hazardous substances; in addition, CalEPA delegates regulation of some hazardous materials to local agencies known as California Unified Program Agencies (CUPAs). The California Department of Pesticide Regulation delegates pesticide registration, monitoring, and enforcement to its 55 county agricultural commissioners. The State Water Resources Control Board regulates over 37,000 facilities and is charged with protecting California’s water resources, including drinking water. Finally, CalRecycle partners with local and state agencies to oversee recycling facilities including but not limited to composting sites, beverage container processors, and landfills.

detection of noncompliance is not affected by the percentage of Hispanic residents in a community. In that case, findings of noncompliance are consistent regardless of the percentage of Hispanic residents. The research also suggests that the degree of mobilization around environmental justice issues in a community positively affects the rate of detection of noncompliance. The implications of their study seem to be that, at least in some cases, the demographic characteristics and political engagement of a community may influence regulators' compliance monitoring.

Despite the lack of clear conclusions drawn from quantitative studies attempting to discern whether race or income status affect monitoring and enforcement, a wealth of case studies demonstrates numerous instances when enforcement has been lacking or weak in low-income and people of color communities. One recent and particularly egregious example of weak enforcement is the water crisis in Flint, Michigan, where city officials began treating Flint River water without corrosion control, which allowed water to eat away at aging service lines, exposing residents of the city to toxic levels of lead (Flint Water Advisory Task Force 2016). The Flint Water Advisory Task Force, appointed by Governor Rick Snyder in October of 2015 to conduct an independent review, found that the Michigan Department of Environmental Quality failed to enforce the Safe Drinking Water Act. In addition, the U.S. EPA did not issue an order to the state regulatory agency to comply with that Act, as it is required to do by law. The Task Force noted, "EPA's conduct casts doubt on its willingness to aggressively pursue enforcement (in the absence of widespread public outrage)" (Flint Water Advisory Task Force 2016: 8-9). The case studies described below cast similar doubt on the enforcement activities (or lack thereof) of a range of state and federal agencies tasked with environmental protection.

The experience of the Holt family, an African American family living in Dickson City, Tennessee, provides an example of differential enforcement, where race appears to play a significant role in determining the response of government agencies. In this case, the Tennessee Department of Environment and Conservation (TDEC) repeatedly granted permits to a county landfill that was polluting groundwater near a mostly African American community, despite numerous violations (Bullard 2012). Fifty-four feet away from the landfill, the Holts owned and operated a farm with a well that they used for drinking water. Although government tests on the Holts' well in 1988 revealed contamination by trichloroethylene (TCE), which was at the time a suspected carcinogen and is now categorized as "a 'very hazardous mutagenic cancer-causing chemical'" (Bullard 2012: 133), the Tennessee Department of Health and Environment assured them that their water quality was good and that the TCE levels were likely lab errors or sampling errors. Over the next twelve years, TDEC and the U.S. Environmental Protection Agency both expressed concerns internally about the possibility of contamination of the Holts' well, yet they never shared any information about these discussions with the family. Finally, in 2000, the Holt family's wells were retested and registered TCE levels twenty-nine times the maximum contaminant level allowable by the EPA (Bullard 2012: 137). Meanwhile, when spring water used by a white family in the same county was found to be contaminated with TCE, county officials acted swiftly to notify the families, place them on the city tap system, and perform nine tests on the spring over seven years, well after the family had stopped using the spring for drinking water.

A case of environmental racism in West Ocala, Florida, further illustrates how, despite vigorous community organizing, enforcement can be weak or non-existent in people of color communities that already suffer from the disproportionate siting of industrial facilities in their

neighborhoods. In this case, residents living close to a plant that baked scrap wood into charcoal briquettes frequently found ash covering their cars, windows, and even surfaces inside their homes. Concerned residents wrote letters to city, state, and federal officials describing health issues resulting from persistent pollution emitted by the Royal Oak plant (Lerner 2010), yet the state of Florida failed to investigate or enforce the Clean Air Act. Activism against Royal Oak began in 1982 when resident Leroy Reed testified before the city council about the health effects of the pollution, yet it was not until September of 2005 that the state finally investigated. In their investigation, Department of Environmental Protection (DEP) officials found emissions of methanol, a highly neurotoxic chemical, at nine times the amount legally permitted. In addition, the company had lied about having installed afterburners, which protect public health by reducing the amount of particulate emissions. In all, DEP found nine potential violations of the Clean Air Act (Lerner 2010). Almost immediately, Royal Oak officials closed the plant, 23 years after residents began pleading with regulators to protect their health by investigating the content and cause of the soot blanketing their neighborhoods.

Although California's enforcement apparatus is vast and is increasingly focused on justice, concerns remain about the efficacy of environmental enforcement generally and in California specifically. While Gray and Shimshack (2011) argue that deterrence is highly effective in achieving industry compliance, others offer more critical interpretations. Reisinger et al. (2010) argue that this country's enforcement model has proven ineffective, leaving many laws unenforced, and that the political climate of resistance to regulation and the tightening of state agency budgets have further constrained the effectiveness of enforcement measures. Further, citizen suit provisions, included in most major environmental laws, allow public interest groups

to sue the government and polluting entities for alleged violations; however, these suits are increasingly hampered by procedural obstacles (Reisinger et al. 2010: 61).

In 2014 in California, the U.S. EPA found that a battery recycling facility owned by Exide Technologies, located in the low-income and predominantly Hispanic neighborhood of Vernon in Los Angeles, had violated the Clean Air Act's emissions standards over 30 times since the year 2000 (Kim 2014). The following year, in a settlement with the U.S. Attorney's office, the company admitted to the illegal disposal, storage, shipment, and transportation of hazardous waste, all four of which are felony offenses (KPCC March 12 2015). Despite violations documented by the California Department of Toxic Substances Control over several decades, the department continued to allow the Exide plant to operate on a temporary permit. Activists in the community had agitated for years for the closure and cleanup of the Exide site, yet the response from government agencies was slow until the U.S. Attorney's office stepped in. Cleanup and lead testing in the roughly 10,000 potentially contaminated homes near the now-vacant plant continues, but progress remains slow and frustrations among affected community members continue to run high (Lopez 2016).

By contrast, when a methane gas leak occurred at a Southern California Gas Company facility in the affluent, mostly white neighborhood of Porter Ranch in the San Fernando Valley in northwest Los Angeles, the state responded swiftly. In September of 2016, the utility reached a settlement with L.A. County prosecutors that included safety measures far exceeding state and local regulations (Walton 2016). The leak forced 8,000 residents out of their homes, and before they moved home, the company cleaned 1,500 home interiors and 1,200 exteriors, in addition to public facilities such as schools and parks (Walton 2016). One year after the Exide plant shut down, just 200 properties had been cleaned in southeastern Los Angeles (Lopez 2016).

Community advocates in the Commerce, Bell, Huntington Park, East Los Angeles and Boyle Heights noticed the disparities between how their environmental health crisis and the one in Porter Ranch unfolded, finding them disappointing but far from surprising (Martinez 2016).

In addition to limitations on effective enforcement built into the system, specific instances in California, such as the Exide case, have galvanized communities to speak out about inadequate government responses to environmental violations. In another particularly glaring case, the Department of Toxic Substances Control (DTSC) failed to recoup nearly \$200 million of taxpayer money meant to remediate hazardous waste sites or to remedy the fact that, for decades, numerous hazardous waste facilities were operating on outdated permits with weak environmental protections (Independent Review Panel 2016; Los Angeles Times Editorial Board 2014). In 2015, an independent review panel monitored ongoing problems within DTSC including weak enforcement, a backlog of expired permits, and failure to collect money the state was owed for cleaning contaminated sites (Barboza 2015). Incidences of severe pesticide drift also illustrate how residents have had to struggle to have their experiences of environmental violations taken seriously. For example, in Arvin, California, in 2002, the Department of Pesticide Regulation (DPR) found that 252 were sickened by the pesticide metam sodium. DPR investigated, despite the refusal of the County Agricultural Commissioner to find out how many people were sickened or to delegate the task to the Department of Environmental Health. Only extensive grassroots activism and the serendipitous presence of a reporter who captured their work interviewing victims of the incident, caught the attention of DPR (Perkins n.d.). These and similar incidents have led activists to demand more accountable, transparent, and responsive enforcement.

Effective Participation in Environmental Decision-Making

The call for procedural justice raises the question of what constitutes meaningful public participation. What is meaningful involvement in decision-making processes, and what is simply placation? Even collaborative processes heralded as innovative and inclusive can marginalize environmental justice, so we must address the question of how to develop participatory processes that respect and respond to participants' knowledge and concerns (Shilling *et al.* 2009). Citizen participation in governance is most meaningful when there is real power redistribution from government to those seeking a voice in the process of policy development and implementation (Arnstein 1969; Cole and Foster 2001). Arnstein's typology of citizen participation breaks participation into a ladder of eight categories climbing from forms of non-participation such as manipulation by government, to power-sharing arrangements, such as partnership, delegated power, and citizen control. Her schematic illustrates that participation exists along a gradient from total government control to total citizen control, and that lip-service to participation sometimes obscures exclusion.

Much of the grassroots organizing characteristic of the environmental justice movement has occurred despite of or in opposition to the state, rather than through participation in formal decision-making processes. For example, many communities adjacent to or downwind of heavy industry have attempted to improve monitoring of air pollution and enforcement of environmental regulations through community-based monitoring. The primary motivation driving the work of these networks, some of which are known as "bucket brigades" because of the modified five-gallon buckets in which they collect air samples, is the desire "to shift power relations by allowing the community to access information that it alone controls" (Scott 2016: 266). For these communities, the data itself is a source of power. While community-based environmental monitoring networks have galvanized residents and generated copious evidence of

environmental health hazards, O'Rourke and Macey (2003) argue that "[w]here the bucket brigades have yet to succeed is in promoting a division of roles between residents and the state that can form a basis for the co-production of environmental protection" (407). They argue that the data generated by bucket brigades can best influence the management of emitting facilities if monitoring groups and regulators work together closely and on a regular basis. While advocating for co-production of environmental monitoring, the authors also acknowledge that "a lack of co-production limits the corruption or capture of community policing efforts," hinting at the need to take care in developing relationships between communities and public agencies (O'Rourke and Macey 2003: 409).

Lee (2005) articulates several key advantages associated with a collaborative approach to environmental justice issues that includes industry, government, and other institutions. A collaborative model "fosters an integrated approach," "promotes multi-agency coordination" and "establishes multi-stakeholder partnerships to leverage human, organization, technical, and financial resources" (Lee 2005: 221). To illustrate the value of the collaborative approach, Lee interviewed Maria Moya and Paula Forbis with the Environmental Health Coalition (EHC) in San Diego, who spearheaded a collaborative process to initiate land use reforms in the Barrio Logan neighborhood of that city. The transcripts reveal that key components must be in place for collaborative approaches to be effective. In EHC's case, those components included a neutral facilitator, equal responsibility for major stakeholders, and partnering agreements that required interested parties to acknowledge the problem of environmental injustice as a prerequisite to becoming full partners in the project were essential to effective collaboration (Lee 2005).

Whereas Lee employs case studies to illustrate the potential value of collaborative approaches to environmental justice issues, Balazs and Lubell (2014) offer a theoretical

framework for analyzing collaborative endeavors. First, participation in a collaborative process can catalyze social learning, which allows stakeholders to connect in flexible networks, develop social capital and trust, and collectively shape institutional change. The authors argue that the role of social learning, a form of learning that occurs among varying stakeholders, is underdeveloped in environmental justice literature, which has emphasized instead how traditionally marginalized groups learn from participation in environmental decision-making. Importantly, Balazs and Lubell (2014: 99) posit social learning as a potential link between procedural and distributive justice, suggesting that it acts as a tool to transform simply having a seat at the table to transforming material outcomes. So, in addition to the integrated approach and maximization of resources Lee points out as advantages, collaboration may also foster social learning that can improve outcomes for disadvantaged communities.

Barriers to Effective Participation

Although procedural justice is a cornerstone of the environmental justice movement and citizen participation a key component of American democracy in theory, a significant body of literature has questioned the efficacy of participation in state environmental justice frameworks and of collaborative approaches. Despite increased official recognition of environmental justice in federal and state policy, scholars have articulated a series of challenges to achieving equity by relying on the state to support movement objectives. Benford (2005: 50) notes with disapproval how far the environmental justice movement has traveled from the environmental racism discourse and direct action tactics on display in Warren County to “more acceptable, less confrontational” and more collaborative framings. While public agencies might be willing to grant environmental justice activists a seat at the table today, he remains concerned that the movement’s emphasis on justice locks activists in to a dependence on the legislative and judicial

system, “an ironic commitment to, and reaffirmation of, the systemic status quo” (Benford 2005: 51). Other literature echoes his concerns.

In particular, Pulido et al. (2016: 27) exhibit deep skepticism about the ultimate utility of activists’ reliance on and engagement with the state. “The state,” they assert, “is not about to eliminate the necessary ‘sinks’ that communities of color provide, for fear of both capital flight and the wrath of conservatives. Instead, the state gives lip-service to environmental justice but in fact does little to change the materiality of disproportionate pollution patterns.” They argue that instead of viewing the state as a partner, the environmental justice movement should identify the state as the adversary and challenge it directly rather than participating in empty processes that fail to offer substantive changes. Sandweiss (1998) offers a similar assessment, arguing that while the environmental justice movement and government agencies tend to agree on problem definition (low-income people of color are disproportionately burdened by pollution), consensus is lacking over the root causes of that disproportionate exposure, the associated health risks, and the best solutions to the problem. The federal government has been reluctant to frame environmental justice as a problem rooted in structural racism, emphasizing economic status instead. Liévanos (2012) argues that it may be difficult for advocates to challenge state actors on the same conceptual terms after the state has institutionalized an environmental justice frame that differs significantly from movement framing.

In addition to the problem of different framings between movement actors and the state, activists have often found themselves forced to look outside of formal processes, even those supposedly designed for their participation, to ensure that their concerns are ultimately addressed. As Cole and Foster (2001) note, many environmental laws provide for participation, but they leave social relations in place, leading to the same marginalization of the experiences

and perspectives of poor people of color that causes environmental injustice in the first place. Environmental decision-making provisions for environmental justice tend to focus on procedural rights instead of substantive ones, which has meant that activists may participate in environmental decision-making, but their participation does not necessarily result in substantive changes to policy (Sandweiss 1998).

A third challenge to meaningful public participation of communities affected by environmental injustice is that the knowledge valued in regulatory processes is often scientific expertise, which the lay public often lacks (Fiorino 2000). For example, for regulators to investigate claims of illegal pollution, the knowledge held by communities based on their lived experience, such as the experience of intense odors and associated physical symptoms, needs to be translated into forms acceptable to the standards used by regulators. Scott (2016: 279) explains, “The situation both forces residents to fall back on their senses and demands that they transcribe their collective knowledge into new, and foreign, forms. It is an in-between, uncomfortable place.” Although it is important not to reify or essentialize either local or professional knowledge (Corburn 2007), community mistrust and perception of lack of respect for local environmental knowledge remain significant barriers to effective collaboration (Lynn 2000). Despite the barriers presented by the divide between local and professional knowledge, Corburn (2007: 158) argues that local knowledge can “extend the knowledge-base used for decision-making” and suggests that co-production of knowledge can contribute to procedural justice by increasing meaningful participation in environmental policy processes.

IVAN and Environmental Justice

Whether the environmental justice movement’s engagement with state frameworks, participation in formal decision-making processes, and involvement in collaborative approaches

can generate substantive improvements in burdened communities remains a subject of debate and inquiry. The skepticism toward those approaches in much of the literature suggests that activists seeking to achieve environmental justice by these less oppositional tactics may face significant challenges. The fact remains, however, that environmental justice increasingly has been institutionalized in the form of state policies and statutes, in part through grassroots pressure (Targ 2005), and ongoing interaction between activists and government agencies represents a possible path toward mitigating environmental health disparities. Short of undermining a capitalist system premised on environmental racism (Cole and Foster 2001; Pulido et al. 2016), collaborative approaches to enforcement may offer the possibility of increased mutual recognition and respect among stakeholders, a greater sense of individual and collective power among residents, and more robust monitoring and enforcement in otherwise marginalized communities (Cole and Foster 2001; O'Rourke and Macey 2003).

Enforcement is an area of policy that is not sufficiently addressed in literature addressing collaboration and engagement with state environmental justice frameworks and is of significant concern to residents who bear the consequences of weak responses to environmental violations. Mindful of how power dynamics of social relations and the bureaucratic incentives favoring lax enforcement may impinge on collaborative approaches (Konisky and Reenock 2013), this project asks to what extent collaborative models can contribute to environmental justice in enforcement. I use case studies of two different IVAN sites to address that question.

The IVAN program offers intriguing cases because IVAN is a community-based effort outside of the formal enforcement process, yet it features ongoing partnerships between public agency staff and community organizations. It facilitates public participation in enforcement, but instead of government bringing the public to the table, IVAN invites public officials to

participate in a community process. IVAN grew out of a dynamic of ongoing tension between communities demanding stronger enforcement and state government gradually yielding to the mounting pressure. These cases offer an opportunity to examine an innovative environmental justice organizing strategy that builds spaces for public participation by bringing stakeholders together on the terms of residents in affected communities.

I have asked two related questions of these cases. First, how are the interactions between community organizations and public agencies structured and how do they function? I am interested in how the interactions between public agencies, community organizations, and residents enhance and/or constrain IVAN's capacity to both address community values and concerns and improve environmental enforcement. I have paid especially close attention to whether and how different stakeholders negotiate knowledge claims at Taskforce meetings and considered to what extent environmental protection is co-produced through the relationship between public agencies and community organizations and residents, and through what processes. In addition, as described in the methods section below, by analyzing responses to interview questions and field notes from Task Force meetings, I have considered whether problem definition is contested terrain within the partnerships that comprise IVAN's Task Forces. In other words, is there consensus as to the problems IVAN is addressing, the perceived sources of those problems, and the proposed solutions (Benford and Snow 2000), and what consequences do variations in reasons for participating and desired outcomes have for the success of the partnership.

METHODOLOGY

This study used a qualitative approach, which allowed me to gather and analyze data in a way that emphasizes the “social meaning people attribute to their experiences, circumstances, and situations” (Hesse-Biber 2017: 4). A qualitative approach is particularly well suited to projects that seek to understand and value multiple subjective perspectives, which I have aimed to do in my study of participants’ perspectives on IVAN (Hesse-Biber 2017). Conducting two case studies of sites within the IVAN network allowed me to gain a deeper understanding of the interactions at the heart of the Environmental Justice Task Forces; focusing on two sites made it possible to gather comparative data on multiple experiences. I have used in-depth, semi-structured interviews, participant observation, and document analysis to yield a fairly robust set of data that can be triangulated to enhance reliability (Hesse-Biber 2017). The data has been used for two purposes: first, to review the structure and function of the Environmental Justice Task Forces, by which I mean who participates in the Task Forces, what the roles and responsibilities of participants are, the content and format of meetings, and what roles IVAN plays in the communities where it operates. Second, the data has been used to evaluate the degree to which IVAN is effective in serving the functions described by Task Force members.

Site Selection

To achieve an in-depth understanding of the structure and function of the partnerships in IVAN’s Task Forces, I gathered and analyzed data on a sample of two out of the seven IVAN sites: Bayview Hunters Point and the Imperial Valley. Studying this small sample allowed me to develop a robust understanding of each of the two sites and to draw comparisons and contrasts between them. There are five rural and two urban sites within IVAN, so I opted to study one urban site (Bayview Hunters Point) and one rural site (Imperial Valley) to represent that

distribution. The Imperial Valley site was established first, in 2009, and the Bayview Hunters Point site in San Francisco, established in 2015, is the most recent addition to the network. Including the oldest and newest sites allowed me to capture a range of experiences in IVAN's Task Forces as group processes evolve over time.

The IVAN sites are geographically dispersed across the state, and studying two geographically distant regions rather than two neighboring areas allowed me to compare and contrast features of the network arising out of very different economic, political, ecological, topographical, and social conditions. Figure 3 shows the seven IVAN sites and an eighth that is planned to begin operating in Sacramento; Bayview Hunters Point and the Imperial Valley are circled. One of the limitations of the study is that I do not include a site in the Central Valley, which includes the Fresno, Kings, and Kern IVAN sites. That region is well-known for poor air quality from a variety of sources of pollution, including agriculture, diesel truck emissions, and oil and gas extraction, and including one site in the Central Valley would have made it possible to offer a more comprehensive look at the range of concerns in environmental justice communities in California. For the purposes of this study, however, I chose to sacrifice some breadth for the additional depth I gained by focusing on just two sites.

Gathering Data

I used a combination of purposive sampling and snowball sampling to select interview participants from each of the two Environmental Justice Task Forces to interview. The interviews took place between January and March of 2017. I conducted 16 interviews with 18 participants with a response rate of 100 percent. In two instances, individuals whom I had planned to interview requested that another staff person join the interview. The interviews ranged in length from 42 minutes to 1 hour and 50 minutes with an average duration of 66 minutes.

Most interviews were conducted face to face; however, one interview with a community member from San Francisco was conducted entirely over the phone and two other interviews with participants in the Bayview Hunters Point IVAN were initiated in person and completed over the phone due to time constraints. The quality of the interviews conducted over the phone was consistent with that of the in-person interviews, perhaps because all the participants and I had previously met face to face before our phone conversations.

Among public agency staff, I planned to interview the government problem-solver, the government Task Force chair, and the public agency staff member who has attended the most IVAN meetings. In Bayview Hunters Point, however, I learned that the Task Force is community-led, so there is neither a government Task Force chair nor a government problem-solver. There are, however, many public officials who regularly attend Task Force meetings and participate actively. Therefore, in choosing public agency staff to interview, I looked for participants who work at different levels of government and have attended all or nearly all of the Task Force meetings. The interviewees included: two EPA officials who oversee the cleanup of the Hunters Point Navy Shipyard Superfund site; three San Francisco Department of Environment Environmental Justice Program staff members; and one employee of the State Department of Toxic Substances Control (DTSC) whose involvement with IVAN dates back to its inception. In the Imperial Valley, state government officials play a more active role in facilitating meetings and problem-solving, so the selection of participants matched my selection criteria. Two of the government interviewees work for the DTSC/Imperial Certified Unified Programs Agency (CUPA), which is a state office that performs both a state and a local function. In California, CUPAs coordinate a variety of local environmental protection enforcement functions into a single program; they are usually administered locally, but in Imperial County the

state agency runs the CUPA (DTSC 2010). Among government staff in Imperial, I interviewed: the problem-solver, who is an employee of the DTSC/Imperial CUPA; the government chair, also with DTSC/Imperial CUPA, and an employee of the California Air Resources Board (CARB), who among government agency staff has attended the most IVAN-Imperial meetings since January 2014 (which is as far back as I was able to obtain attendance records).

Among community organization staff, I planned to interview the community problem-solver, who is the person within the convening organization responsible for following up on complaints filed by community members. In Bayview Hunters Point the convening organization is Greenaction, and in the Imperial Valley it is Comité Civico del Valle (CCDV). Greenaction is a grassroots organization that builds community power and advocates for environmental justice in low-income communities across the United States (Greenaction 2017). Based in Brawley, California, CCDV's mission is to "improve access to health services, research, community service programs, and environmental justice to disadvantaged communities by way of education, capacity building, and civic participation" (CCDV 2016). I intended the second community organization interview to be with the Community Task Force Chair. In early conversations with staff at both Greenaction and CCDV, I realized that the roles of the staff members at the convening organizations in the EJ Task Force meetings are less clearly defined than I had anticipated. Nevertheless, there were two staff members at each organization whose were clearly the most involved with IVAN, based on the duration of their involvement and the frequency with which they attend Task Force meetings, and so at each site those were the two whom I selected for participation in this study.

I used several methods to select community members to interview, including asking for suggestions from Greenaction and CCDV staff members, acting on suggestions from residents to

reach additional interviewees, and identifying particularly heavily involved participants in my field observations in November 2016. Because the pool of regular participants from the community is quite small, many of the suggestions made to me were the same names I identified through participant-observation at the November Task Force meeting. In Imperial, where the Task Force has been meeting monthly for eight years, there were some community members who used to attend but no longer come to meetings. I opted to interview currently active participants so that I could consider their responses in light of their participation in Task Force meetings, and vice versa. I interviewed two participants in Bayview Hunters Point, one a long-time resident of the Bayview neighborhood and the other a resident of Little Hollywood, a neighborhood just south of Bayview Hunters Point. In the Imperial Valley, I interviewed three residents, one of whom lives in the tiny desert community of Ocotillo, another who resides in the town of Imperial, and a third who lives just south of the border in Mexicali.

In-depth, semi-structured interviews are issue-oriented conversations that assume “that individuals have unique and important knowledge about the social world that is ascertainable and able to be shared through verbal communication” (Hesse-Biber 2017: 106). In this study, reasons for and ways of participating in IVAN varied widely, so interviews allowed multiple perspectives to emerge regarding a defining characteristic of IVAN’s Taskforces: partnerships between community organizations and public agencies. Topics discussed during the interviews included the purpose of IVAN; the history of IVAN in the region where the interview is taking place; how participants became involved with IVAN; the roles and responsibilities of residents, community organization staff, and public agency staff; the benefits and challenges of partnership with public agencies; and perceptions of the ways that partnership furthers or constrains progress toward environmental justice. Although I prepared an interview guide with the same set of pre-

determined questions for each interviewee, the order in which I asked those questions varied depending on the form each conversation took. Several participants seemed to feel most comfortable with a more structured interview format that moved straight through the interview guide as planned, whereas in other interviews, the conversation took a more meandering path toward addressing the questions I had in mind.

Participant observation in the Environmental Justice Task Force meetings allowed me to venture a bit into the “social worlds” of the IVAN networks and provide “thick descriptions” of the interactions among stakeholders in the network (Hesse-Biber 2017: 183). Between November 2016 and February 2017, I attended three of the two-hour-long monthly Task Force meetings in Bayview Hunters Point and three in the Imperial Valley. The Bayview Hunters Point meetings take place the third Wednesday of each month. They alternate monthly between afternoon and evening meetings. The afternoon meetings take place at Southeast Community College in the Alex Pitcher Room, a cavernous basement meeting space often used for community functions. Evening meetings, a new addition this year to try to better accommodate residents’ schedules, convene at the historic Bayview Opera House, which is a neighborhood landmark originally built in 1888 as a cultural center for what was then the slaughterhouse hub for the city. In Imperial Valley, the local DTSC office in El Centro hosts the meetings on the third Thursday of each month from three to five in the afternoon. At Task Force meetings, I observed as community members, community organization staff, and public agency staff convened to discuss ongoing efforts to improve environmental conditions, listen to and discuss presentations from various agencies, and to review recently filed complaints. I gained permission to record the January and February meetings in Imperial County and the February meeting in Bayview Hunters Point; during the meetings prior to my receiving that permission, I took notes by hand.

Usually, ethnographic research involves extensive observation and participation among the people being studied; one limitation of my research is that the duration of my participant observation was brief. Participant observation supplements interview data and document analysis with descriptive detail and an illustration of the social dynamics at play during Environmental Justice Taskforce meetings. Doing one round of participant observation before conducting interviews allowed me to better understand the basic structure of IVAN and to develop at least an intuitive understanding of the working relationships among participants. This first round of participant observation raised questions that I was able to then incorporate into my interview guide. I have been cautious, however, not to draw broad conclusions about participants' perspectives based solely on these relatively brief periods of observation.

In addition to formal participant observation at Task Force meetings, I have had several opportunities to get to know IVAN participants in more informal settings. In January, two community members met me in El Centro and gave me a tour of the area so that I could see and experience for myself some of the concerns they face in their daily lives. We drove by the local high school, which is surrounded by agricultural fields on three sides and backs onto a major interstate. We also drove to an illegal dump site on private property containing hundreds of fluorescent tubes, old CPUs, tires with standing water inside, and vast quantities of other debris. We took photos and filed a report on one of the community members' phones. After the IVAN-Imperial meetings in January and February, I joined residents and government agency staff at the Denny's across the interstate from the DTSC office. This dinner is a monthly ritual where conversations started at the meeting hours earlier are continued on a more informal basis. From my perspective, these experiences in the Imperial Valley built some trust between me and the Task Force members. They also shifted me from my standpoint of being largely an observer to

one in which I had at least some of the experience of being a participant at the Task Force and in the community. Although I did not have the same opportunity to get to know participants in the Bayview Hunters Point Task Force in informal settings, simply being present at meetings and speaking casually with participants before and after meetings was useful in building rapport and establishing a foundation of trust before conducting interviews.

Document analysis provided additional information to help describe the structure, function, and development of IVAN. Publicly available documents published by CalEPA and the DTSC; research conducted for IVAN suggesting performance measures; and documents published by the communications that coordinate IVAN (Greenaction in Bayview Hunters Point and Comité Civico del Valle in Imperial), offered important contextual information. In addition, Task Force minutes for meetings in Bayview Hunters Point prior to my participant observation extended my understanding of the network; however, meeting minutes are not taken in the Imperial Valley. Finally, I used the attendance records from the IVAN-Imperial meetings from 2014 through 2016 to track who has attended those meetings over the years so that I could verify statements from current participants about who tends to attend or not attend IVAN meetings. Collectively, these documents helped explain the need for IVAN in these regions and describe the context of environmental justice efforts within which IVAN is situated, both within state government and among community organizations and grassroots activism.

Analysis

Interviews and participant observation were recorded and transcribed to maximize efforts to represent various perspectives fairly and accurately. Two interview participants preferred that their interviews not be recorded, so I took extensive notes on my laptop during those interviews to capture as much as possible of what was said. A grounded theory approach informed my

process of inductive analysis; however, I also drew on theory developed in the literature on environmental justice to raise questions about IVAN and help develop deductive categories within my major topics. Grounded theory, as Hesse-Biber (2017: 316) notes, “starts from an engagement with the data and ends with a theory that is generated from or grounded in the data.” This means that the researcher engages with the data to generate meaning rather than working purely deductively. I began content analysis using open coding to develop major topics and categories within those topics; the process of categorization was also informed by existing theory. As a consistent set of categories and themes emerged, I began selectively coding but remained open to the possibility that new categories or themes might emerge late in the process of content analysis.

As I developed my analysis, I looked carefully for opportunities to compare and contrast the perspectives of participants in different IVAN sites and the perspectives of actors playing different roles within each network. For example, I paid attention to whether patterns emerge in the responses of public agency staff regarding the purpose of IVAN and how their responses compared with responses of residents and of community organization staff. This analysis supported the elaboration of existing theory on the role of collaboration and public participation in environmental justice, which helped me respond to the question of how innovative models, particularly in the realm of monitoring and enforcement, can contribute to movement toward environmental justice.

RESULTS

Participation

Understanding how Identifying Violations Affecting Neighborhoods (IVAN) addresses environmental justice first necessitates a description of who participates, what that involves, and why they take part. There are two primary ways for people to utilize IVAN: by filing complaints on the IVAN website, and/or by joining Task Force meetings. In this project, I interviewed people who attend Task Force meetings. In some cases, those active in the Task Force also file complaints online; however, there are also people who file complaints online who do not attend meetings. Because their complaints are anonymous, it is not possible to follow up with those who report online to learn more about who they are and their motivations for reporting. Thus, the description that follows applies to participants in the Task Force component of IVAN, not the online complaint system.

Bayview Hunters Point

Attendance at the Task Force meetings ranged from roughly 30 people to over 40 in the short window when I observed. I attended two afternoon meetings at Southeast Community college, in November and in February. About 30 people attended both the November meeting and the February meeting. In January, at an evening meeting at the Bayview Opera House, over 40 people were present despite a soaking rain. At two of the three meetings, government agencies were the most heavily represented; only at the February meeting did non-profit organization representation match the government presence. In November and January, non-profit organizations comprised the second-largest group, and residents not working as staff or interns for non-profit organizations made up the smallest group. In February, eleven government employees from city, regional, state, and federal agencies attended. Eleven staff members and

volunteers with non-profits attended, representing Greenaction, the San Francisco Conservation Corps, the San Francisco Parks Alliance, Literacy for Environmental Justice (LEJ), and Manylabs, an organization that promotes the use of mathematics and data science to fuel civic change (Manylabs 2017). Of the five residents present, two noted that they live in communities just south of Bayview Hunters Point, and at least two of the remaining three live in Bayview itself.

The community organization and resident categories overlap significantly. I distinguish between the two based whether they introduced themselves at the beginning of Task Force meetings as residents or as being affiliated with an organization. Of the two staff members from Literacy for Environmental Justice who were present, one grew up in Bayview Hunters Point. Of the four participants at the meeting affiliated with Greenaction, at least one, Marie Harrison, is a resident of Bayview Hunters Point, and her involvement in IVAN is both professional and deeply personal. As she explained during our interview, “I absolutely love this community. I love the people in this community. They’re not all wonderful, beautiful people and they’re not all horrible, ugly people either. Have you ever just loved a community?”

Similarly, at least three of the five attendees who self-described as “residents” during introductions at the beginning of the meeting are also active in at least one organization related to environmental justice. For example, one resident participates in Huntersview Mothers & Fathers Committee for Health and Environmental Justice, which educates and empowers public housing tenants about environmental health problems facing the Bayview neighborhood. Another, Dr. Ray Tompkins, summarized his involvement in the community this way:

I lend my assistance to Greenaction. I'm the chair of the African American Health Equity Council on the Environment; I work with Clean Air Health Alliance ... I sit on the Bayview Hunters Point Advisory to the [Southeast Health] Clinic, run by the San Francisco Health Department because I look at the environmental side of the health ... I

used to sit on the Navy's Remediation Advisory Board on the cleanup of the Shipyard. I chaired the Technical Committee for six years; I was on the Board for twelve.

In addition to his participation in IVAN, Tony, a resident of a community called Little Hollywood that lies south of Bayview Hunters Point, founded the Little Hollywood Improvement Committee. The residents who attend EJ Task Force meetings regularly are involved in other advocacy in addition to IVAN.

For residents, the primary motivations for engaging in IVAN are their concerns about quality of life, human health, and environmental justice. For example, Marie, who works with Greenaction but is also a resident of the community, described how her early advocacy was tied to her grandson's asthma, which led her to question what was causing him to become ill. "And then I realized," she said, "Well damn, the PG&E power plant was right here. And this stovepipe that was pumping out all the particulates was right here. His bedroom window, which was right across the street, was right here." After a harrowing experience at the hospital, she explained, "I don't know what it did to me, but it did something to me, so it caused me to vigorously start going after PG&E." Another community resident, Leaotis, explained what drives him to attend during the November Task Force meeting, saying, "Sometimes I get tired of coming to meetings. Sometimes I get frustrated because I feel like we're not getting no damn where. This is why I do this shit, because of people dying of cancer. Even if they don't care about us, we got to care about ourselves." For both these participants, deep concerns about the human health impacts of pollution, for themselves and for their neighbors, drove them into advocacy roles and to IVAN.

Environmental racism is a strong motivator for Dr. Tompkins, who is involved in a wide range of environmental health advocacy organizations. When asked why he attends IVAN meetings, he expressed a sense of responsibility, explaining that "it would be a betrayal" of his parents, who fled racial violence in Louisiana in the 1930s, and of civil rights activists who put

their bodies at risk for their cause, were he *not* to maintain optimism about the fate of the black communities in San Francisco. He said simply, “There’s got to be something better. I just *can’t* accept this shit.” Finally, Tony, who lives in Little Hollywood, got involved with IVAN because it was a vehicle to address a problem in his community, but, he said, “I knew from the beginning that if I was going to get some help, I was going to need to support them first ... So I gave, and then they gave back, and I’m still giving back. And I’m committed to the larger picture of what’s good for the community even though it’s not necessarily my problem.” Although Tony and Dr. Tompkins feel personally compelled to remain involved with IVAN for slightly different reasons, both are committed to working for the public interest, just like Marie and Lee.

The government employees I spoke with have all been attending Task Force meetings since establishment of the Bayview Hunters Point IVAN. In some cases, they participate because their departments have supported the development of IVAN statewide, as in the case of DTSC, and in other instances, because Greenaction reached out to the agency directly. Three staff members at SFE met with Greenaction prior to the 2015 launch of IVAN to help them plan, and they try to send one or more staff from their EJ team to each meeting. Roger Kintz, state Environmental Justice Coordinator for DTSC, explained that he is the designated liaison from his department to the Bayview Hunters Point Task Force “to provide technical support and representation on toxics issues and environmental justice issues, and issues related to DTSC.” Two U.S. EPA employees who attend Task Force meetings regularly explained that they became involved in IVAN initially because they were requested to by Marie Harrison of Greenaction: “she’s a well-respected person in the community, and so she was pulling all her strings to make sure that the Task Force had the right people in it to help the community through any issues that they might bring up,” one of them said.

Modes of participation in IVAN vary among individuals. Unlike in the example provided by Lee (2005), there are no formal partnering agreements between government agencies and Greenaction or CCDV, nor do parameters exist describing how residents or non-profit organization representatives should participate. Despite the lack of formal partnering agreements, all the interviewees for this project expressed an intent to stay involved with IVAN. Government agency representatives described their role as giving input, trying to help respond to reports, occasionally advising Greenaction about how to route complaints to the correct agencies, and sharing information with community members. During Task Force meetings, most government representatives focus more heavily on sharing technical information and responding to questions. A few others participate both by sharing information and by directly addressing some of the structural and functional challenges associated with IVAN, such as the division of roles and responsibilities between government and private citizens, and how government can build trust among communities.

Greenaction facilitates Task Force meetings. To prepare, a team of Greenaction staff and volunteers look at the IVAN reports filed online between meetings each month and ensure that they are routed to the proper regulatory agencies for follow-up. In addition, a volunteer with Greenaction takes meeting minutes, which are posted online each month; the Bayview Hunters Point IVAN is the only site of the seven in California that posts meeting minutes monthly, providing a public record and affording the wider community an opportunity to stay current on what is happening in Task Force meetings even if they cannot attend. Other non-profit organizations' participants mostly observed quietly during the months that I attended IVAN meetings, although meeting notes indicate that LEJ has participated vocally in the past, especially when the topic of illegal dumping has arisen during meetings.

Three community members participated most vocally during my observations of IVAN meetings in San Francisco. One of those three explained to me, “My role has evolved from one of coming there with my own problems for our area and trying to get them solved to...we made a lot of progress on those, and now my role has morphed into trying to be a peacemaker and trying to be a unifier among a bunch of people that don't all agree.” When I asked him to elaborate on why he needed to be a peacemaker, he explained that one of his concerns is that “the few [community members] that do come down either have an axe to grind, and it might be a very legitimate concern that they have, but they're not always tremendously reasonable about how they present that concern.” He explained how he plays the peacemaker role as follows: “I try to call everybody on their bullshit. I try to do it very diplomatically, I try to be positive to all people and respectful of all different sides, and that takes a lot of time and effort. I've tried to make this case that the government people are not the enemy and they're not just sent here by their boss to bullshit us.” While this resident focuses on changing the tenor of meetings to facilitate collaborative problem-solving between community and government, the two other community members emphasize government accountability through their participation. For example, during a conversation in February about a cleanup of a toxic site along the waterfront in Southeast San Francisco that advocates perceived to be botched, one of them said, “We can't allow this stuff to happen. It might be a small thing to some people, but it's not small to us. Every bit of it matters, because there's lives at stake.” Community participation varies more in tone and substance than that of non-profit organizations or government.

In every interview, Task Force members in San Francisco said that low participation among community members is a challenge facing IVAN in Bayview Hunters Point. Interviewees offered several explanations to account for low reporting rates and low meeting attendance,

including competing reporting systems and additional issues that compete for their time and attention, lack of awareness of IVAN, fear of reporting, and the normalization of environmental health hazards. Roger Kintz with DTSC explained, “Bayview Hunters Point doesn’t have a very high reporting rate, even though there are a lot of illegal dumping and things happening here. I’m not quite sure why that’s low. There’s competition with other government agency reporting systems, and I also think the community itself hasn’t had an opportunity and education to understand how to use IVAN effectively.” One U.S. EPA official who is a Community Involvement Specialist also noted that residents have multiple issues competing for their time and attention: “The community, you know, the ones who are active, they go to a lot of meetings ... So they all came when IVAN first started, but then the numbers started getting smaller and smaller,” she said. This perspective was corroborated by another interviewee who noted that, in an environment of rapid gentrification, the major concerns of many Bayview Hunters Point residents are housing and jobs. She also noted that opinions differ about who should be responsible for increasing participation. She explained that government participants are concerned about the lack of turnout at meetings and want organizers on the ground to engage residents, whereas Greenaction wants agencies to find ways to increase community participation. The division of labor between government and community-based organizations remains contested, at least regarding this responsibility. Finally, another SFE staff member pointed out that fear and the normalization of hazards after years of neglect can be barriers to participation. He explained, “A lot of people are scared to complain. They feel like there might be retaliation from their landlord, or they’ve gotten so used to dealing with conditions that they just don’t expect that anything will be done, so why bother complaining?” Lacking a sense of efficacy, people are less likely to engage.

Imperial County

The Task Force meetings in Imperial tend to be much smaller gatherings than the ones in Bayview Hunters Point. Based on sign-in sheets at the DTSC office in El Centro, where meetings take place, an average of twelve people participate in person. Several more government staff typically join in over the phone, including a representative from U.S. EPA Region 9. Three community members attend regularly, as do two to four staff members from Comité Civico del Valle (CCDV). Humberto Lugo of CCDV and Roger Vintze from DTSC co-chair the Task Force. Since 2014, local government has participated with diminishing frequency. In 2016, two staffers from the County Agricultural Commissioner's Office comprised the entirety of local government participation. Other local agencies that have sent staff in the past include the Imperial County Air Pollution Control District (APCD), the Imperial Irrigation District, the County Public Health Department, and Imperial County Planning and Development Services. The most frequent participants from state agencies are DTSC, the Colorado River Water Quality Control Board, and the California Air Resources Board (CARB). A staffer from the office of the California State Assembly member from the 56th District, of which Imperial County is part, also frequently attends IVAN-Imperial meetings, as does an employee of Spreckels Sugar, which has a factory in the county.

The community members who participate in IVAN-Imperial see it as a vehicle for change in a region where they perceive government is not typically responsive to their concerns. Anita, a resident of the town of Imperial, has been active in her community since the early 1990s and has worked with CCDV to protect the environment and public health. She explained that IVAN "has been like a channel for us to let the world know, or the state in this case, because here in the County we're just not being heard." Edie, another resident, told me, "I've spent since 1977 when

I moved to Imperial County dealing with environmental health and environmental justice and one disaster after another in Imperial County.” Her work has included protecting Native American sacred sites from development projects, as well as fighting hazardous waste landfills, waste incineration sites, a cyanide heap leach open pit gold mine, and a project called Wind Zero, which would have been a military and law enforcement training site within hundreds of feet of homes in Ocotillo, the tiny desert community thirty miles west of El Centro where Edie lives. “So, I just have learned a whole lot more than I ever wanted to know about zoning and planning, and when and why so many regulations are just ignored,” she told me. For her, participating in IVAN with representatives from the state and federal government and “having people *care*, because we don't get the level of care from people in departments in Imperial County that you would expect to care,” allows her to stay “hopeful that there will be changes.”

As in San Francisco, government agency participants were either requested to do so by CCDV or assigned the task by their supervisors to attend IVAN meetings. All three government agency staff members interviewed for this project described personal fulfillment derived from working with IVAN. The government co-chair, Roger, said that although competing priorities such as completing all of the inspections for the DTSC/Imperial County Certified Unified Program Agency (CUPA) can make devoting enough time to IVAN a challenge, “If I’m in the office, I’ll be at the Task Force meeting, because it has a lot of value to me. I really like it, and I know I don’t spend enough time on it.” Raquel, the problem-solver for IVAN-Imperial explained that for her, “I thought maybe this might be the way to see the changes that I want for the Valley.” She described taking a course in college that awakened her to the environmental justice challenges facing communities in Los Angeles and returning home to Imperial County to learn through IVAN that many of the same issues occur there. She expressed a sense of efficacy and

responsibility, saying, “I want to fight for people who can’t fight for themselves.” Finally, Hector, a CARB Air Pollution Specialist told me, “I enjoy this.” Later in our conversation he told me, “Once you establish friendships, then it’s like you’re doing it for your friends.”

Whereas in San Francisco, a staff member or volunteer from Greenaction facilitates the meetings, in Imperial County the problem-solver, a DTSC/Imperial CUPA staff member, acts as facilitator. The problem-solver reviews complaints filed during the previous month and reports back to the Task Force about where she forwarded the complaints and what response she got from the agency she contacted. Throughout the meetings in Imperial, participants voice questions and suggestions frequently. For example, in a discussion in January 2017 about a complaint related to truck idling in a residential neighborhood, a CCDV staff member who lives in the neighborhood where the trucks were idling asked Hector, an air pollution specialist with CARB, if he could send the Task Force a picture of the sticker that indicates certain trucks have permission to idle. Hector described the sticker and clarified, “[this occurred] in front of a residential area, so they shouldn’t be idling at all, regardless of whether they have a sticker or not.” In the exchange that followed, a DTSC employee and a resident asked a series of clarifying questions about CARB’s Truck and Bus regulation. Following this, the problem-solver herself asked, “So if I get complaints like this in the future, should I send them to APCD?” Hector explained that CARB does not have enough inspectors in the state to send them out in the evenings, but that some local entities have a Memo of Understanding (MOU) with CARB, allowing the local body to issue citations on some of the CARB regulations. He suggested, “You guys can pressure the entity in Imperial County to sign an MOU with us.” A community member joined in, “Well, what happened to your drones? ... They’re only \$100 ... They come with a

camera,” suggesting slyly that CARB could extend their enforcement capacity by using drones to investigate complaints.

The conversation soon returned to the challenges of getting APCD to respond to pollution complaints and CARB’s small number of inspectors, before the group moved on to the next complaint. In this instance, the Task Force discussed a specific complaint, participants (including both government and residents) gained clarity on the relevant rules and processes related to enforcement in that case, and a suggestion was made about how the Task Force could act to improve enforcement on similar issues in the future. As in most discussions in Imperial, at least half of the people in the room participated in the conversation. The conversations in Imperial often lack the sense of urgency that propels meetings in Bayview Hunters Point, but the high level of engagement of participants allows the Task Force to be a space where government, residents, and community-based organizations learn from one another and collectively brainstorm novel potential solutions to environmental problems.

In interviews, participants elaborated on how they participate in Task Force meetings. Hector explained, “Most of the time I participate with issues that are air-related because it’s my area of expertise. But I do know about other areas, and I will participate when other things happen...if I find that nobody attended from a certain agency and there’s information that needs to be given to the other agency, then I will take it to the other agency.” Ray, the community member who asked where CARB’s drones are, wants to hold government accountable. He told me, “I introduce myself as a trouble-maker” and explained that he plays that role because he sees government agencies claiming they lack the funds to send inspectors out and unable or unwilling to conduct inspections on weekends or holidays, and “that mentality just drives me nuts!” He feels his role is to “put the knife in ‘em, because they’re not being responsive to their

constituents.” The staff members from CCDV mostly observe, aside from the co-chair, Humberto. Sometimes, however, they share information about the reports that have been filed that either they submitted themselves or that families they work with have filed.

As in San Francisco, most interviewees acknowledged that low participation is a challenge for IVAN-Imperial. In contrast to Bayview Hunters Point, though, Task Force members in the Imperial Valley note that while involving residents is difficult, it is equally challenging to get local agencies to attend IVAN meetings or respond to reports filed through IVAN. In fact, Luis Olmedo, the founder of the IVAN network and Executive Director of CCDV, did not cite low community participation as being of concern but did note repeatedly the importance of boosting the engagement of local agencies. He indicated improvement, however, when he explained:

At the local level, especially in rural areas [government agencies] get no attention and no funding. They get no nothing; so people become very bitter ... they feel like, ‘You just come out here to call me out on things, but you never offer me support and money.’ So I think there’s a sense of that. But I think IVAN over time throughout the years, because we’ve been very consistent, I think now we see that there’s more willingness at the local level [in] Imperial.

Other participants in the Task Force, however, take a less sanguine perspective. A resident told me, for example, “[T]he fact that county department heads don't regularly come to EJ Task Force meetings probably says something about how they feel. Because for them it's like, a 5- or 10-minute drive, and yet there are people that come from Sacramento, San Francisco, LA, San Diego ... that come to the meeting because they care.” In addition to the challenge of cajoling local agencies to participate in meetings, Task Force members find that those agencies remain unresponsive to reports filed through IVAN. For example, one Task Force member said, “The Air District here is not very responsive. And that’s an agency that we wish ... I mean, they’ve been to our Task Force meetings before. But that’s an agency that sometimes, we submit reports

and we call them directly but they never show up. They'll say, 'Oh, we can't make it. We're low on staff.'”

Analysis

Participation looks different in Bayview Hunters Point and the Imperial Valley because of the disparities in size and composition of the Task Forces. The IVAN-Imperial Task Force has developed an intimacy and group cohesion that the Task Force in Bayview Hunters Point lacks; yet, the group in San Francisco has succeeded in securing the consistent participation of a much broader array of government agencies than the group in Imperial County has. The tenor of the dialogue in San Francisco is more oppositional; there is tension in the room throughout the meetings, which is acknowledged by government and community members alike. In the Imperial Valley, relationships appear to be stronger and collaboration in the sense of power-sharing feels more possible; however, there seems to be no mechanism in place to ensure that the ideas generated through collaboration align with the goals of the Task Force or to delegate responsibilities to Task Force members when the possibility of collaborative action arises. For example, when Hector suggested advocating for the APCD to sign an MOU with CARB, which could potentially significantly affect the capacity to enforce mobile emissions-related regulations, his suggestion was neither captured in notes nor did any Task Force member offer to follow up on it. In both Task Forces, community participation is narrow but deep; relatively few community members participate in the Task Force, but those who do are consistent and their contributions reflect extensive knowledge garnered both through personal experience with environmental health hazards, and through research and interactions with a variety of experts and agency personnel.

Concerns about participation point to larger questions about the function of IVAN. Is it primarily a reporting network that does not see a large volume of use because of competing government reporting systems, or is it mainly an organizing tool that is under-utilized because the core participants present at the Task Force meetings have not strategized adequately to mobilize the community? Should IVAN function as a platform to express and address existing, clearly defined concerns shared by community members, or is IVAN a forum to define and refine those concerns with input and support from the community and the additional insight of government agencies? Perhaps in part because IVAN is a collaborative program, its participants emphasize different facets of its function and thus ascribe varying significance to the challenge of low participation. To better understand the value of increasing participation in IVAN and to begin to talk about strategies to do so, it will be useful to articulate the range of functions that participants associate with IVAN.

The Functions Of IVAN

Accountability

Luis Olmedo and Bradley Angel, executive directors of CCDV and Greenaction, respectively, rank increasing the accountability of government agencies high on the list of the roles IVAN plays in their communities. For Angel, accountability is the bottom line: “its essence is an accountability forum. And it’s hard to wiggle out of it,” he explained of the Task Force. The government agencies, he said, “know controversial stuff comes up and we won’t zip our lips on it.” When we met in his office the day before the February IVAN meeting, Angel anticipated that the U.S. EPA would, after agreeing to make a presentation on the latest developments at the Navy Shipyard, suggest instead that they were open only to answering questions from residents. He said, “Marie’s probably going to call ‘em up, and I’m sure there’s going to be people yelling

at 'em. But at least they're there, and they *have* taken some more actions ... I mean, communities will continue to be able to have this direct face-to-face accountability once a month." Angel perceives that the accountability starts with the simple fact that government agencies at every level from city to federal show up at every meeting. "So," he explains, "their presence makes them accountable."

Whereas Angel believes that accountability has increased because government agencies are showing up for the monthly meetings, Olmedo describes the role of the problem-solver as central to imposing accountability on regulatory agencies and other government entities. He explains that after the problem-solver routes a complaint to the appropriate agency, "There is an expected obligation that the [problem-solver] would do everything in their power to get that report to the proper agency and then get feedback or get *that* agency to the table, so that on a month-to-month basis we eventually get to resolve the problem." In reality, however, the problem-solver expressed that not having time built into her work schedule for IVAN makes it very challenging to do more than make an initial contact with agencies to inform them about reports that fall under their jurisdiction. Olmedo also explained that IVAN's functionality as a reporting tool makes it valuable as an accountability measure: "Let's say worse comes to worse and an agency doesn't respond," he says. "We've got one report sent to them, no response. Ten reports, same result. Thirty reports. Now we've got evidence that ... I mean, is this agency just neglecting their job, neglecting their authority? Abusing their authority? ... Does this now merit some kind of legal action?" No situation involving an agency refusing to respond to reports submitted through IVAN has escalated to the point of a lawsuit, Olmedo noted; instead, the problem-solver has worked with agencies to increase their responsiveness.

Residents echo the emphasis on accountability and the uniqueness of the program's ability to capture the attention of and generate responsiveness among regulatory agencies. A San Francisco resident who participates in IVAN explained that the program is "holding [regulatory agencies] more accountable than they get held in general, and holding them more accountable to this particular community that's been systematically abused." He continued, "You can actually put a face to someone that cares about your problem, and if it's not dealt with you can discuss it with them and see what's it going to take to turn up the heat to get some action over here? And you can't get that anywhere else." Another Task Force member, a long-time resident of Bayview Hunters Point explained why having so many regulatory agencies in the same room creates accountability. He described finger-pointing between the agencies this way: "I get to get 'em all in one room, and 'Oh, it's his fault!' 'It's *his* fault!' I don't want to hear this shit. All of you get together and let's solve the damn thing." Later, explaining the effect that IVAN has had on participants, he said, "It's accountability. Accountability. Don't try and bullshit me. I understand you're trying to keep a job. But don't bullshit me." In Imperial County, too, residents credit IVAN with introducing a sense of accountability among at least some regulatory agency officials. One participant explained that IVAN is "beginning to let people know 'we're looking.'" Another explained that the main point of IVAN is to address "this issue of not being accountable to us" and that she can tell regulators are paying attention to IVAN because "when we submit these reports, we ask for accountability. We ask, okay, what did you do about this? ... It's not just submitting the report, it's what comes after."

The government employees interviewed for this study were less likely than Greenaction and CCDV staff and residents to describe accountability as a key function of IVAN's work. In San Francisco, out of the six government participants in interviews, just one described fostering

accountability as one of the most important roles IVAN plays. In the Imperial Valley, out of three government interviewees, two mentioned accountability, but neither described it as central to IVAN's work. Accountability appears to manifest differently between the two regions, which is likely because of the rates of government participation in the two regions. In Bayview Hunters Point at the February Task Force meeting, government attendees included representatives from one federal, one state, and four local agencies: the U.S. EPA, the California DTSC, The Department of Public Works, SFE, the Bay Area Air Quality Management District, and the San Francisco Public Utilities Commission. An employee of CARB and a San Francisco Department of Public Health employee also frequently attend. In the Imperial Valley, by contrast, there were just two state agencies and one federal agency represented at the February meeting: the DTSC-Imperial CUPA, CARB, and the U.S. EPA. In the past the Regional Water Quality Control Board has participated as well. The broad participation in San Francisco allows residents to hold government accountable by asking them directly what they have done to address the community's concerns. In Imperial, the problem-solver is the conduit through which communication passes from the community to the agencies in whose jurisdictions potential violations occur, and her capacity to demand accountability is limited by the voluntary nature of her role.

The problem-solver in the Imperial Valley said that she thinks IVAN "gives people, other agencies, an inclination to find a resolution or to investigate. Because they know that IVAN has already seen it and the community can see it. So, they know that this is happening and [community members] expect some sort of resolution." Another government employee and founding member of IVAN in the Imperial Valley used stronger language, asserting, "With IVAN you have really a disinterested third party now basically sticking their nose into the

business to make *sure* that the issues *are* being addressed in a transparent manner.” In most cases in the Imperial Valley, the problem-solver forwards reports to local entities that do not participate in Task Force meetings, such as the County Department of Environmental Health, city governments, or APCD. Although both individuals asserted that IVAN increases accountability, one of them also noted that “you definitely have a lot of hesitation on the part of the local agencies, because they believe that they have existing reporting systems that are perfectly capable of handling whatever IVAN can provide.” This hesitation affects whether complaints filed through IVAN are resolved. For example, at the January IVAN-Imperial meeting, the problem-solver mentioned that she had forwarded a complaint to the County Department of Environmental Health but that “they’re not necessarily the best at keeping in touch with me.” At the same meeting, a CCDV staff member suggested inviting APCD to the next IVAN meeting. The problem-solver then said, skeptically, “I’ll call them personally and invite them next month and see what they say,” and the staff member responded, “Yeah, let’s do that.” The APCD was not present at the meeting the following month when once again the agency’s unresponsiveness arose as a topic of discussion in response to an agricultural burning report.

Finally, while residents and non-profit organizations stressed the value of IVAN as a vehicle to hold government agencies accountable, several government participants in San Francisco indicated that IVAN could be doing more to foster accountability. All three participants who shared this observation are environmental justice staff members with SFE, which does not have regulatory authority. One staff member noted that IVAN’s ability to increase accountability is tied to its ability to track complaints effectively. This person pointed out that it is currently difficult to use the IVAN website to track which complaints have been

resolved, which have not, and whose desk a given complaint is currently sitting on. What is needed to hold regulatory agency staff accountable, according to this staff member, is a general inventory of what has been resolved, what is pending, and how long it has been pending. Two other staff members, interviewed together, explained that they initially expected that Greenaction would do more at public forums such as the Task Force meetings to push agencies to follow through on investigations. As one interviewee puts it, “They bring issues to our attention and after that it’s like they step back ... There’s no accountability with us, which I would welcome ... Maybe we could take a tongue-lashing from Greenaction, but right now they’re not really doing that.” In Bayview Hunters Point, then, which has a very high rate of government participation, at least some government officials feel that simply being face-to-face with community members who expect action is not enough to impose accountability. Both a more user-friendly complaint tracking system and more pressure from Greenaction, they indicated, would do more to hold government agencies accountable.

Accountability, although among the most frequently discussed functions of IVAN, remains inconsistently defined across participants in the program, both in Imperial and San Francisco. In particular, the mechanism by which IVAN demands and attains accountability from regulatory agency staff is unclear. For example, although in theory the problem-solver in Imperial County is responsible for following up on complaints so that eventually problems are resolved, in reality she does not have the capacity to demand follow-through from the parties responsible for addressing complaints. She explained:

[M]y participation in EJ and the role of the problem-solver is strictly voluntary. It’s not part of my job description. We have nothing in our Memos of Understanding that relate to environmental justice, so everything I do is voluntary ... I have zero percent [of my time] allotted for this. So I get the email notification, but when I don’t get the email notifications, which I haven’t been doing recently, I don’t check IVAN very often.

If there is no mechanism by which to guarantee that local agencies are held to account by the community, or by the problem-solver who works on their behalf, then there may be a risk that despite the sense community members have that they are being heard, the Task Force's function is reduced to something closer to placation than to meaningful participation (Arnstein 1969).

This lack of clarity is important because, from the perspective of the advocacy organizations that sponsor IVAN in the Imperial Valley and Bayview Hunters Point, the ability to insist on accountable regulatory agencies is part of what makes productive collaboration possible.

Building Relationships and Establishing Trust

The multi-stakeholder work IVAN is able to do is not made possible solely by reminders that the community will hold government accountable. Community members and government in both Imperial County and San Francisco described ways in which participating in IVAN has built a foundation for personal relationships between community members and government employees and established or, in some cases, re-established trust between community and government. Meaningful participation of poor and people of color communities in environmental decision-making is only possible when existing social relations, in which those communities are marginalized, are disrupted. Building relationships and trust among individuals takes time, but without it, mistrust and the perception of a lack of respect can hamper productive collaboration (Lynn 2000). Residents in both the Imperial Valley and Bayview Hunters Point have expressed distrust of government, and in both regions some agencies have been skeptical and distrustful, especially early on, of IVAN's intentions and of the wisdom of involving the public in matters related to enforcement. The work of building personal investment among Task Force participants was described in interviews as a precondition of building working partnerships between government and community.

Historical and recent breaches of trust in both Bayview Hunters Point and in Imperial County have left many residents skeptical about the government's intent to look out for the community's best interests. Currently, the most significant broken relationship in Bayview Hunters Point is between residents of the neighborhood and the U.S. Navy. The Hunters Point Naval Shipyard was designated a Superfund site and placed on the National Priorities List in 1989, and the cleanup is led by the Navy with regulatory oversight from the U.S. EPA, DTSC, and the California Regional Water Quality Control Board (U.S. EPA 2017). In 2011, whistleblowers showed that a Navy contractor, Tetra Tech, had falsified soil samples from the site, underrepresenting the amount of radioactivity in the soil, and possibly dumping radioactive soil illegally. Residents and advocates want comprehensive retesting of the entire shipyard site and independent oversight of both the retesting process and the cleanup of illegally dumped radioactive soil. As Bradley Angel of Greenaction explained during the February Task Force meeting, "The fact is Tetra Tech was caught in 2011. The agencies didn't take action until December 13, 2016. Five years. There is less than no trust ... The Navy can say whatever the hell they want, or EPA with all due respect, or DTSC, we're not going to trust it." This study does not explore explicitly how the community's experience with the Shipyard has affected residents' perceptions of other government agencies, but it seems likely that mistrust toward one set of government agencies would cast a shadow over perceptions of others as well. The Task Force has allowed participants to begin repairing the relationships between community members and government, if not with the Navy specifically.

In the Imperial Valley, residents' concerns about government were directed mostly toward agencies at the local level. Because government participation in the Imperial Valley EJ Task Force comes mainly from state agencies, there is not as much of a need as in San Francisco

to overcome a significant lack of trust rooted in past experiences. In a discussion at the February IVAN-Imperial Task Force meeting, one resident said that she would not feel free to speak openly if county officials were present at a meeting, indicating her mistrust of local government officials. On the other hand, that resident is among the most vocal and outspoken participants when state and federal officials are present. Another resident, Anita, explained that she signed up for air quality alerts from the Imperial County APCD, but she does not trust the data from the county's air monitors. On a clear afternoon in January, she showed me the mountain that sits on the border, called El Centinela in Mexico and Mount Signal in the U.S. She told me, "When you're able to see El Centinela, you know that that's a good day. I don't need an air monitor. And they were telling me on the reports that I was getting because I signed up for the website for the alerts, every day the air was good! And I would just stand outside and see, 'no, okay, today they're lying.'" Neither resident seems to feel that their local government agencies are responsive to them or operate with their best interests in mind, yet their trust of state government agencies is much greater.

In Bayview Hunters Point, residents, more than Greenaction staff or government employees, elaborated in their interviews on the value of interpersonal relationships between community members and government staff. For instance, one community member explains, "As far as the community is concerned [the benefit of the Task Force is] an ability for them to put faces to faceless agencies, and to humanize these agencies and to realize that they're not all just blood-sucking bureaucrats that don't give a damn about anybody." Another community member recalled the meeting that wrapped up just minutes before our interview: "We were developing respect and mutually working ... you've got to talk to people before you can change people's hearts." He pointed to a state government employee and a community member who were, aside

from our interview, the only two people left in the room, and says, “You see, those two are still talking.” For this participant, building relationships is not just about humanizing government; it is also about ensuring that he is respected and perceived as technically and scientifically knowledgeable and capable of understanding complex information. He said, “So yes, they know that I’m not just a crazy old black man. I really know what the hell I’m talking about.” For him, IVAN functions in part to “break the stereotypes,” of which he says, “it’s going to take time. It don’t happen overnight.” Building relationships is, for some, a process of ensuring their recognition from those by whom they have been felt ignored in the past.

In contrast with San Francisco, in the Imperial Valley all groups – government, non-profit, and community members – described the value of building personal relationships between community and government. One state government employee explained, “To me, that’s what it’s all about: creating relationships with individuals, and then from there you start doing work in the community.” For him, building relationships means building trust. “I’ve worked to make them feel like they can ask me anything ... So, part of working with these groups is gaining their confidence. Because ... a lot of these communities, they fear government.” He recalled his early days in the group, saying, “I wanted to get a feel of the group, but they wanted to get a quicker feel of me ... I’ve been out to eat with a lot of these people. And I enjoy this.” The problem-solver in the Imperial Valley expressed a similar degree of dedication saying, “We care about [the community members] so much that their concerns become our concerns, and we want to be able to help them, to help them see the resolutions that they want or what they think should be done.” A CCDV staff member noted the familiar relationships among members of the group, saying, “I don’t know if you noticed the atmosphere. We’re all friends, you know?”

The sample size of this study is not large enough to draw broad conclusions about the way Task Force members participate; however, it should be noted that the Task Force in the Imperial Valley has been meeting for roughly seven years compared to Bayview Hunters Point's year and a half. This difference may account for the greater emphasis on personal relationships in the responses of participants in Imperial. In addition, the San Francisco Task Force is much larger than Imperial's, and the difference in size may affect the ease with which relationships develop. Finally, in San Francisco the agencies that were skeptical early on nevertheless attended meetings, whereas in the Imperial Valley, local agencies have been resistant to IVAN and do not regularly attend Task Force meetings. The regulatory agency officials who do attend are the ones who are strong supporters of IVAN. This may allow a stronger affinity to emerge among participants than in San Francisco, where the Task Force has not existed for as long and where agencies that were initially resistant regularly participate.

Building relationships and developing trust are clearly important preconditions to functional working relationships. In IVAN, several participants described barriers to building consistently strong interpersonal relationships within the network. Most significantly, where there have been the greatest breaches of trust, the agencies involved by and large do not participate in IVAN. In the meetings I attended in the Imperial Valley, a significant amount of time was dedicated to discussing complaints that had been sent to the APCD, and, as noted previously, participants expressed frustration at multiple meetings about the lack of responsiveness APCD had demonstrated when they reported air quality issues. APCD does not attend IVAN meetings, and building trust with *other* agencies does nothing to repair relationships with APCD. Similarly, in San Francisco, there is time at each meeting spent

discussing the Navy's cleanup of the Hunters Point Shipyard, but the Navy declines to attend IVAN meetings.

An additional barrier to building consistently strong relationship is that government involvement in IVAN is voluntary, and especially for state government employees who travel long distances for Task Force meetings, finding the time to sustain relationships with community members can be a challenge. Nevertheless, some state government employees make the effort because they value the work IVAN does and want to express their care for the community. One state government employee who commutes four hours each way from Los Angeles to the monthly IVAN meetings notes that the ten percent of his time allotted each month for environmental justice work covers only one leg of the drive, not to mention the meeting itself; however, he joins Task Force members at the Denny's in El Centro each month for dinner after the afternoon meetings. For him, "It's a little bit of a sacrifice." Nevertheless, he said, "I'm willing to do it," especially, he explained, since he has developed relationships with community members. Doing work that involves the meaningful participation of residents in communities disproportionately burdened by pollution requires building trust, and while the voluntary efforts of particularly committed public servants is admirable, government employees need more time allotted for environmental justice to make relationship-building, trust-building work possible on a wider basis.

If IVAN were widely understood as much as a tool for establishing trusting relationships between community and government as it is as a problem-solving forum for concerns about environmental protection, perhaps governmental bodies would consider the selection process for participation in the Task Force more intentionally. Asked whether he feels there are other people who are willing to put in the kind of time he does on a voluntary basis, the government employee

described above responded, “I think so. I think there’s a hell of a lot more of us than you would [think]. It’s just that we’re not given the opportunity.” He explained that in his agency, when a representative to the IVAN Task Force was chosen, “The selection process in most of these places is, you over there, we need you to do this. Do you have any interpersonal skills – that’s not a question. It’s never a question. You just go out there, and it’s just ‘Oh, you speak Spanish? We need you over there.’” Another government participant employed by a different agency shared that her preparation to join the Task Force by her department was minimal. It seems that methods for choosing IVAN representatives in agencies vary, but given the importance of interpersonal relationships within IVAN, all government entities should take care to select participants who express interest in and understanding of environmental justice and who have strong interpersonal skills.

While the first three challenges facing the process of relationship-building – lack of agency participation, voluntary government participation, and inconsistent methods to select representatives to IVAN – seem to be the responsibility of government to address, one additional challenge relates to community members’ communication of pent-up frustration about the conditions in their communities. In Bayview Hunters Point, four government employees indicated that there has been tension between community members and government during Task Force meetings. A DTSC employee, for example, said, “For community members, sometimes this is one of the first opportunities they have to voice their frustrations and concerns directly to government people, and it’s a captive audience, and so it can be a lot of unloading on them. That’s a challenge.” He went on to note that the unloading of frustrations has occurred every time an IVAN program has started in a new region, and that over time “the outrage dies down a little bit, and there’s more productive discussion that happens.” In this way, it seems that the stage of

venting frustrations might be a necessary step in the process of fostering honest conversation. An SFE staff member summed up her observations this way: “People still feel the injustice of being burdened to this level, but at the same time I’ve heard community residents express appreciation that we’re all there listening.” She added that the general sentiment often seems to be, “I’m mad as hell but thanks for coming.” While challenging, accepting the expressions of frustrations from community members and continuing to show up and demonstrate a commitment to listen and to respond, appear to be vital parts of the development of collaborative relationships capable of collectively producing stronger environmental protection in heavily impacted communities.

The Production of Environmental Protection

The following sections detail how IVAN functions to produce environmental protection in the communities it serves. Building relationships and trust and demanding accountability from government agencies are two sides of the same coin, both essential functions of IVAN. Those improved relationships, and the expectation from community members of accountable action, support IVAN’s role as a venue for community members to participate meaningfully in environmental governance, especially enforcement. IVAN operates as a platform for community members to express their concerns, elevates or amplifies many of those concerns, and works as a forum for community, government, and sometimes industry to learn from one another and collaborate to identify and enact solutions.

IVAN was originally founded to address disparities in environmental quality between the Imperial Valley and more affluent communities with fewer people of color; the six other sites established across the state share the same purpose. In IVAN, recognition and meaningful participation are in part ways to facilitate distributive justice, to ensure environmental benefits and burdens are shared fairly. So, while one role IVAN plays is to increase the visibility of and

validate the concerns of community members. It is also important to consider whether and to what extent IVAN affects the pollution burden borne by the communities where it operates. Bradley Angel emphasized this dimension of IVAN's work in Bayview Hunters Point, stating, "The benefits are we're getting results. The community's getting results ... It's getting results around, whether it's illegal dumping, idling of trucks, better, more rapid responses to air violations, to stopping the railroading of the toxic development of the shipyard in its tracks."

When a problem reported through the IVAN online system leads to action, there are several possible ways that action can occur. First, just as when reports are filed through agency reporting systems, a single agency may investigate a potential violation and, if enforcement is merited, may issue a penalty. In some cases, especially in San Francisco, where the rate of agency participation is high, the Task Force allows agencies that usually would not collaborate in a consistent, ongoing manner, to work together more frequently to address challenges brought to their attention through the Task Force. Although usually the solutions reached through IVAN require mostly government agency action, sometimes the Task Force itself acts collectively to address residents' concerns. In addition, government agencies sometimes express support for community advocacy on an issue that arises in Task Force discussions. Finally, participants in the Imperial Valley noted that IVAN sometimes provides opportunities to change government policies and programs to better serve environmental justice communities.

IVAN as a Platform to Express and Refine Concerns

Participants in nearly every interview in both regions described how the Task Force functions as a forum where community members can voice their concerns and be heard and acknowledged. For example, in San Francisco, Roger Kintz of DTSC explained, "what's unique about the Task Force is IVAN brings everybody together to talk about the reports ... For

community members, sometimes this is one of the first opportunities they have to voice their frustrations and concerns to government people.” IVAN offers a space to bring the community into direct contact with government agencies, and it also, as a U.S. EPA official noted, allows community members to discuss “any environmental issue in the community,” rather than addressing one narrow concern as other venues for public participation are more likely to do. Because it is an open forum, IVAN can be flexible to meet the needs of residents with a broad range of concerns. Bradley Angel of Greenaction, for example, pointed out the importance of IVAN’s role as a community forum in the case of the Tetra Tech soil sample falsifications, saying, “I think IVAN became the only forum, really, where we were able to discuss it ... The Task Force became a forum to push stuff.”

In Imperial County, too, a DTSC/Imperial CUPA employee stated simply, “the community finally has a platform in which they can go to express their concerns about the community they live in. I’m not aware of any other platform you have in Imperial County for that.” His colleague concurred, saying that one of the greatest benefits of the Task Force is that community members “let their concerns be known” and, whereas in other interactions with government officials they had not felt heard, “I think here they get the sense [that] we’re here and we actually listen.” Ray, a resident on the IVAN-Imperial Task Force corroborated those statements, explaining that IVAN “just personifies what I’ve been thinking. It validates what I’ve been thinking.” Anita, also a resident from Imperial, said that IVAN “gives some of us the opportunity to speak up, to let our voices be heard.” By creating a space where residents who historically have not felt listened to can voice their concerns and be heard and taken seriously by representatives of government agencies, IVAN offers a measure of recognition justice to communities disproportionately burdened by environmental pollution. The sense that this role of

being a community forum is a central component of IVAN is shared in both the Imperial Valley and Bayview Hunters Point.

IVAN is valuable as a forum not only because it allows community members to voice their concerns, but also because it provides a space to refine those concerns and figure out how they should be addressed. A U.S. EPA official explained, “It’s a good forum for people to bring their concerns and then take somewhat of a collaborative approach to figuring out, ‘Okay, well what is your actual *issue*?’ Because ... some people, you know, they’re old school, they want to just talk about it. So, the group in some instances can help refine what the complaint is and figure out, okay, how can we address this.” She noted that for her, this approach is not entirely new, because the Superfund division of the U.S. EPA is mandated to do community involvement; however, that is not the case in other agencies or even other divisions of the U.S. EPA, so she appreciates how IVAN brings community involvement to other government agencies and departments.

Multi-Directional Flow of Information

Information-sharing operates in IVAN as a way to demand greater accountability from government, to elevate community concerns to the attention of government officials, to enable collective action by the Task Force, and to push for change to policies and programs related to environmental justice at the local and state levels. The multi-directional flow of information, over time, builds more comprehensive, shared understandings among stakeholders, which leads to more nuanced, honest, and productive discussion. Participants in both Task Forces described a multi-directional flow of information, from community members to government agencies and from government to community. In addition, several Task Force members indicated that their

own awareness of the severity of environmental injustice has increased because of their participation in IVAN.

According to a long-time participant in multiple IVAN networks explained, government benefits from this information-sharing “by getting community information and community intelligence.” This notion of community intelligence surfaced repeatedly in interviews, and the term describes the idea that residents function as an extension of the enforcement apparatus, reporting potential violations that regulatory agency staff could not catch on their own. For instance, as one EPA official said, “It's helpful for the community to be the eyes and ears of the IVAN network.” An Environmental Justice Specialist with SFE explained why broad community participation in IVAN would be useful, saying, “There might be concerns we haven't considered that people raise. There might be areas where something's going on and we're not aware of it.” A resident of Imperial County said, “You have to understand that you have these agencies...they're not out there looking for things. But because we live in those communities, we are those eyes and those ears, and in terms of the resources, we don't have to invest extra money because we are already there.” On the other hand, Bradley Angel, while asserting that “there's more information flowing” because of IVAN, expressed skepticism as to the degree to which government agencies have been previously unaware of the challenges facing community members. He noted, “residents share information, although the government knew about all this, they just didn't do anything.”

Community members also learn from government agencies at Task Force meetings, both through formal presentations about government programs and policies and through the participation of government officials in conversations about how complaints are tracked and which agencies have jurisdiction over which types of environmental issues. One government

official who participates in the Bayview Hunters Point Task Force explained that the “open forum and discussion” at the meetings allows participants to develop “a better understanding of local, state, federal responsibilities. I think anyone who comes to these meetings has a different perspective now,” she explained. In Imperial County, too, a staff member at CCDV emphasized how the Task Force shifts perspectives: “It’s a great learning place, learning for advocates or activists, because you get to learn *how government sees things*...It’s not just necessarily a place for us to say, are you gonna give them violations and enforce? It’s not that. It’s so the community can be educated as well, we’re learning what each agency does” (emphasis added). In addition, in Imperial County the problem-solver, frequently forwards complaints to agencies that do not participate in IVAN and has herself learned more about how enforcement works in different local agencies. She told participants at the Task Force meeting in February:

I do send [reports] to the county. They [used to not] respond to me that much ... Before I would just send [reports] to whatever inspector I could remember, and one inspector would say, ‘Oh, no, it’s not me. It’s the other one,’ and the other one would say, ‘It’s to this one!’ ... Now I have a more direct path ... The way they described it is I send it to their admin staff, their admin staff puts it in their database, their director monitors the database, and then it gets sent to the correct inspector, because they all do different kinds of jobs. Like this one was sent to their vector inspector, and another one was sent to their tire inspector.

This instance illustrates the fact that just as community members learn about navigating government bureaucracy through their participation in IVAN, so do government agency staff.

While nearly everyone I interviewed described the exchange of information between residents and government officials, several also described IVAN’s role in increasing their general awareness of the severity environmental justice issues. Of the nine interviewees who work in government, two, both in the Imperial Valley, indicated surprise at the depth of the pollution problems in the region. One, an employee of the DTSC-Imperial CUPA, explained, “I think before [IVAN] I didn’t know this much happened...I’ve seen the ag burns and I’ve seen the dumping. But I didn’t know there was as much as I do know now.” Similarly, a CARB Air

Pollution Specialist said, “I knew that there were problems, but I didn’t know that they were this severe.” In San Francisco, one resident said, “I was never very aware of environmental justice because unless it’s happening *to* you, you’re generally not aware of it...so it’s increased my awareness of that dramatically.” Environmental protection is compartmentalized, and many whose day-to-day focus is not environmental justice simply may not be aware before participating in IVAN; similarly, for residents who come to the Task Force to address one specific issue affecting their lives in mind, IVAN can make them aware that their experiences are part of a larger pattern of disproportionate pollution burdens in low-income and people of color communities.

Elevating Concerns

One of the key benefits of a forum for residents to have their concerns recognized and for varied stakeholders to learn from one another is that such a space increases the likelihood that government agencies – whether local, state, regional, or federal, or some combination – will be able to respond to the concerns of the community. As Tony (a resident from San Francisco) explained, because government agencies have committed to coming month after month to hear people talk about the problems in the neighborhood, IVAN has “created an environment where there is more likelihood that a solution could be reached and that those problems could be addressed, maybe some new ideas might come up or new energy or something.” In addition, there is a direct link between the sharing of information (which happens more freely when there is trust among participants) and the strength of enforcement cases. Roger Kintz of DTSC noted, “The system ... provides better quality information-gathering ... you get witnesses, photographs, statements, that can all be used to build a good enforcement case on the reporting framework of IVAN.” So, IVAN both creates an environment where discussion can lead to solutions and offers

opportunities for the direct transfer of information from residents to agencies with enforcement power.

Numerous participants noted that IVAN leads to real outcomes because the forum itself elevates community-level, and even individual-level, concerns to the attention of city, state, and federal agencies. That both prompts the agencies themselves to act and, at least in one case, has put increased pressure on violators to come into compliance with regulations to avoid enforcement action. In San Francisco, Tony described the power of elevating concerns about the local recycling company. He recalled that “it took hitting them over the head with a two by four before they’d sit down and talk to us. Once they saw that it was in their interest to talk to us and that we were a force to be reckoned with, then they were smart enough to turn around and say, ‘Okay, how do we deal with this?’”

IVAN has also led to material improvement in environmental quality by addressing diesel idling in Bayview Hunters Point. Bradley Angel recalled, “One of the big issues ... is diesel idling, and there’s never been any government enforcement of those laws. Bayview’s heavily impacted by diesel. And so, through Greenaction’s *long* work on that issue and through the Task Force, the Air District and [CARB] stepped up to work with Greenaction, and [said], ‘Okay, yeah, we’ll put up some No Idling signs.’” In response to a complaint of diesel idling filed through IVAN in June 2016, an Air District employee wrote, “Thank you. This complaint came to the Air District well after the fact, and we could not respond. However, the more idling complaints we get through IVAN, the more easily we can identify additional areas where idling is an ongoing problem. The Air Resources Board and the Air District are working together to get the No Idling signs in place at strategic locations.” Agency representatives continued to report on progress in developing the signage, and in January 2017 the Air District, CARB, and

Greenaction held a press conference announcing the installation of twenty-two anti-idling signs in the Bayview neighborhood (Bay Area Air Quality Management District 2017). The locations for the signs were determined in collaboration between Marie Harrison, a community organizer with Greenaction, and CARB. In this example, IVAN functioned as a tool for the co-production of environmental protection, in which community knowledge and regulatory authority collaboratively addressed an issue that the community had identified as high-priority.

In the Imperial Valley, all participants expressed the idea that one of the key functions of IVAN is its role as a forum to elevate the concerns of individuals to agencies that have the power to respond. One example was relayed by Roger, a DTSC/Imperial CUPA branch chief, who recalled an instance when many residents were concerned about a wind energy project called Ocotillo Wind. Members of the Task Force wanted to speak with the North American Development Bank (NADBank), which was funding the project, so Roger leveraged his role on a government advisory committee on which NADBank also served to bring NADBank into a conference call with the Task Force. The purpose of the call was “to try to ensure that NADBank understood ... where these people were coming from with their concerns.” He admitted, “NADBank was very non-committal in their willingness to listen to issues outside their area of authority” and hinted at some of his own dissatisfaction with their low level of responsiveness; nevertheless, his actions on behalf of residents on the Task Force demonstrate the power of the Task Force not just as a forum to air concerns, but also as a mechanism to elevate those concerns to decision-makers and regulators with the power to respond.

In Imperial County, residents and CCDV staff emphasized the importance of participation by state government agencies, explaining that working with the state allows them to sidestep the power dynamics operating in the local political arena. Luis Olmedo described the

challenges of navigating the “good old boy network that exists in communities like Imperial,” explaining that instead of relying heavily on local government participation, “We have more faith in the state because they’re less vulnerable to local politics, and they’re not as far-reaching as the federal ... I think the state is the key ingredient for us.” Humberto, also a CCDV staff member, elaborated on the advantages of engaging state agencies rather than local government: “Local politics sometimes get in the way ... a lot of the county people that are in some of the positions are also the same farmer families, so it’s all tied together. That’s why it’s sometimes better for us to work with the state agencies. It’s more transparent.” Anita, a resident, told me, “You have to understand who is in power here, and power, the economic power, is in the hands of just a few here. We have been run by an ag business industry. There is a lot of money involved in that ... They don’t care about our health.” Anita maintains hope, however, that through air monitoring data and ongoing advocacy, the local political culture is starting to change, albeit slowly. In Imperial County, the online reporting platform helps bring local concerns to the attention of state, regional, and federal agencies, ensuring that the voices of residents are heard.

Inter-agency Collaboration

In some cases, bringing concerns to IVAN allows those concerns to be heard by a broad spectrum of government agencies at the same time and prompts collaboration among multiple agencies. For example, residents from Little Hollywood (just south of Bayview Hunters Point) came to the Task Force in 2015 with concerns about problems at Recology, the local recycling facility, including noise, traffic, illegal dumping outside the boundary, and vector control. The residents had been attempting to engage Recology through letter-writing and media coverage and had struggled to gain traction; by bringing their concerns to the attention of IVAN, they were

able to get action from government agencies. A U.S. EPA official recalled, “For a long time they had been kind of beating down on this company, but I think when the regulators and everybody got involved ... they kind of listened and they started actually implementing some things that helped the community.” Tony Verreos, a resident who organized the effort, recalled, “Through IVAN, the different agency people heard the story ... and they had four or five different agencies send their personnel down to Recology ... they went down there with like 15 people, all regulators. You know, there isn’t any business around that wants 15 government sets of eyeballs running through their business.” Recalling the collaborative effort in response to the Recology issue, a staff member with SFE suggested that IVAN can be most effective in cases like that one, when the problems reported are complex and “more agencies need to be involved at multiple jurisdictions.” She noted that although it is common to see two government agencies pair up briefly for an inspection, for example, “getting all of them there together to focus on one issue is not as common.”

Most online reports do not lead to such a large, coordinated response from agencies; however, most interviewees in San Francisco noted that IVAN seems to have increased the frequency and regularity of interagency communication. For instance, Lily Lee, the Superfund Site Manager for the Hunters Point Naval Shipyard, explained, “Sometimes we’ll post [on IVAN Online] and say ‘EPA saw this and we’re referring it to [another] agency,’ and then sometimes that other agency will say, ‘Yes, I know that this is going on and I’m working on it’ ... So one change is that we never did this before, and now we *do* do this.” The posts Lee referred to are all visible to the public through the IVAN website. Her comments seem to indicate that communication among agencies has increased significantly as a result of the IVAN platform. In addition, building relationships through IVAN has allowed government bodies to share

information and resources on an ongoing basis. For example, an Environmental Justice Coordinator with SFE explained, “I’d say that because of IVAN I feel like I now have a network of people to contact when some issue comes up ... and we have been able to continue to collaborate on different things or refer things to each other.” When illegal dumping arose as a significant issue in Bayview Hunters Point, CARB lent SFE a camera to prevent and ideally catch violators. Another SFE staff member explained, “That may not have happened had they not heard of the need at those meetings. The ability to hear each other’s issues and problems and be able to help each other, that has been really good.”

Whereas most Bayview Hunters Point interviewees discussed increased interagency collaboration as a benefit of IVAN, most interviewees in Imperial did not describe similar instances. Notably, although residents and government participants emphasized other benefits, Luis Olmedo, the founder of IVAN and Executive Director of CCDV, *did* discuss collaboration among governmental bodies as a benefit of IVAN. In his comments, Olmedo referred to changes occurring at the state level in CalEPA. Because of the success IVAN had in developing an integrated reporting system, CalEPA remade their online reporting system in the image of IVAN’s. Olmedo explained:

We also see that the CalEPA is now developing a model to get those reports to the different agencies internally, which is improving communication ... We also see that CalEPA is doing these enforcement activities where they’re picking a community and going as an interagency enforcement and tackling the issues that are out there by getting every department and every expert to go out and address it as a Task Force ... now you’re taking [a] more comprehensive approach towards environmental protection.

So, where government participants in San Francisco are seeing greater interagency participation among city departments and between city and state bodies, Olmedo perceives a shift in CalEPA’s enforcement efforts toward a more coordinated, less compartmentalized approach. Olmedo credits IVAN, arguing, “Because of the creation of the pressure of IVAN being a

community-based model in some ways being more efficient in trying to do the government's job, government has also tried to step it up." Indeed, in the press release announcing CalEPA's new integrated reporting system, the agency noted, "CalEPA will continue to update the new system and is working closely with IVAN Online, a network of local environmental reporting systems that serves more than half a dozen low-income communities across the state, to coordinate the functions of the two systems" (CalEPA 2016). While participants did not describe a great deal of inter-agency collaboration occurring to solve problems in Imperial County (most likely because fewer agencies participate in Imperial County than in San Francisco), Olmedo's comments indicate that IVAN's efforts have gained the attention of the state environmental agency and generated sufficient pressure to improve its reporting system and shift toward interagency enforcement.

CONCLUSION

Residents of Bayview Hunters Point San Francisco juggle concerns about unemployment, gentrification and rapidly rising housing costs, radioactive fugitive dust from the Hunters Point Naval Shipyard, illegal dumping in streets and alleys throughout the neighborhood, the impact of diesel emissions on the lungs of children and the elderly, and the unknown origins and effects of the daily assault of strange and pungent odors that drift through the streets. In the Imperial Valley, reports to IVAN frequently address smoke from agricultural burning, illegal dumping (sometimes of hazardous materials), truck idling, dust from illegal off-road vehicle activity, and concerns about pesticide application and possible drift into neighborhoods adjacent to agricultural fields. Both sites include several census tracts that score in the top ten percent of disadvantaged communities according to California's environmental justice screening tool, which considers a range of factors related to population sensitivities and pollution burden (CalEnviroScreen 2017).

The Identifying Violations Affecting Neighborhoods (IVAN) program was founded in the Imperial Valley in 2008, and its most recent iteration began operating in 2015 in Bayview Hunters Point. Residents in San Francisco participate to address the human health impacts of pollution and concerns about quality of life, and to undo the insidious effects of environmental racism. In the Imperial Valley, residents see IVAN as a vehicle for change in the community and a way to have their concerns heard by state regulatory agencies whose work occurs outside the local power dynamic. Multiple participants cautioned me not to make too much of the novelty of collaborative approaches to solving environmental justice problems; environmental justice advocates have always used a wide array of tools, including collaboration when appropriate, to solve problems affecting communities impacted by pollution. What I argue *is* both novel and

unique about IVAN in both locations is its sustained presence over time and its comprehensive approach to environmental justice problem-solving, which bring together a variety of stakeholders with wide-ranging perspectives on and knowledge. IVAN functions as a forum to build trust, increase accountability, educate both government and residents about each other's ways of understanding the impacts of pollution, and generate solutions for environmental protection.

The development of interpersonal relationships and of trust among community-based organizations, government, and residents contributes to recognition justice for the community. That means that community members' accounts of their experiences are met by agency staff with respect and with a willingness to take action based on their testimony. Recognition facilitates meaningful participation; when residents feel cared for and listened to, they can engage openly with government agency staff. In addition, participation occurs on the community's terms; whereas meaningful participation sometimes translates to little more than a seat at the table, in IVAN the community has established the structure of the program and sets the agenda each month. Government is invited to join a community process each month, rather than the other way around.

IVAN functions slightly differently in the Imperial Valley than in Bayview Hunters Point because the two regions present different political opportunities and challenges. In the Imperial Valley, IVAN more nearly approaches the co-production of environmental protection envisioned by O'Rourke and Macey (2003), in which regulators work closely with the affected community to identify challenges and brainstorm solutions. The relationships among stakeholders are strong, and the level of trust among participants is high. The major limitations of IVAN-Imperial appear to be a lack of partnering agreements described by Lee (2005) that define the roles and

responsibilities of participants and the apparent unwillingness or inability of local agencies to participate. Without clear commitments to action from stakeholders, there remains no clear path for the ideas generated during meetings, such as inviting APCD to join meetings or applying pressure to a local entity to sign an MOU with CARB to enforce mobile source air pollution regulations, to translate into action. The social learning discussed by Balazs and Lubell (2014) that occurs at the IVAN-Imperial Task Force meetings has the potential to bridge the gap between procedural and distributive justice by making significant improvements to enforcement; however, the mechanism to use IVAN to hold local agencies accountable to enforcing regulations and to enact ideas generated by the Task Force appears to be absent.

In Bayview Hunters Point, many government agencies at the local, state, regional, and federal level participate consistently. There, the relationships and trust so apparent in the Imperial Valley are less well-established, partly because of the contentiousness of pollution problems, such as the ongoing cleanup of the Hunters Point Naval Shipyard. In Bayview Hunters Point, the primary mechanisms that allow IVAN to make substantive changes to environmental conditions are accountability and inter-agency collaboration. The process of social learning one observes in the Imperial Valley occurs unevenly in Bayview Hunters Point; residents do share information with government agencies and vice versa, but the openness of the dialogue remains limited by a history of mistrust that persists. IVAN is still new in Bayview Hunters Point, and relationships may deepen as the program becomes more established and residents see more results. Nevertheless, as in the Imperial Valley, IVAN in Bayview Hunters Point has built on the practice of community-based environmental monitoring by introducing consistent, ongoing interaction between the state and the community, in which community intelligence guides enforcement activity. In addition, the inter-agency collaboration occurring through IVAN-

Imperial mirrors recent shifts in CalEPA’s approach to enforcement in environmental justice communities, and early results such as improvements at the Recology facility suggest that the approach may lead to a measure of distributive justice in Bayview Hunters Point. The ability of this study to draw strong conclusions about whether IVAN successfully bridges the gap from procedural and recognition justice to distributive justice is limited, however, because IVAN lacks a robust, accessible data set describing the outcomes of reports filed over the years.

Although IVAN is a statewide network, its approach appears to vary considerably between regions based on on-the-ground political realities. Future research should evaluate the function of IVAN in the Central Valley sites of Kings, Kern, and Fresno Counties. Such an investigation could help determine the extent to which community-based environmental reporting, in collaboration with government agencies, helps connect the dots among recognition justice, meaningful participation, and distributive equity. The evidence that emerged in this research suggests that the IVAN Task Forces in Bayview Hunters Point and the Imperial Valley have navigated their unique sets of local circumstances to arrive at distinctive sets of strategies to address environmental justice concerns. In addition, participants in IVAN-Imperial raised concerns about the ecological and human health impacts of utility-scale renewable energy projects on communities in the Imperial Valley. California’s Renewable Portfolio Standard continues to rise, pushing the share of renewable energy on the grid ever higher. Future research should investigate the recognition, procedural, and distributive dimensions of utility-scale renewable energy expansion in California desert communities. The state’s shift toward renewable energy should benefit, not harm, its most vulnerable communities; research on the subject should amplify the voices of community members where development has been most concentrated.

This thesis set out to answer the question of whether and to what degree collaborative approaches can contribute to environmental justice. Reviewing the literature, it appeared that there were two opposed camps, one arguing that collaboration in environmental justice problem-solving can allow partners to leverage resources more effectively and better coordinate their efforts (Lee 2005; O'Rourke and Macey 2003). The other expressed positions ranging from skepticism (Shilling *et al.* 2009) to hostility toward the notion that viewing the state as a partner could further the cause of environmental justice (Benford 2005; Pulido *et al.* 2016). What became clear in interviews for this study was that neither the residents nor the non-profit participants in IVAN thought of this program as sufficient to address the full spectrum of environmental injustices in their communities. Instead, IVAN works as a tool specifically to address quality of life issues that can be solved through targeted enforcement (although in Bayview Hunters Point, its purview has expanded since the dissolution of the Remediation Advisory Board). In the full scope of their advocacy work, Greenaction, CCDV, and many of the residents who attend Task Force meetings can and do move flexibly between embracing state agencies as partners and viewing the state as the opponent. Engagement with the state need not be an either/or proposition; instead, advocates can partner with the state on issues for which collaboration yields results and take an adversarial stance *vis à vis* the state on systemic issues where there may be less common ground. In the context and scope in which IVAN operates, it has successfully facilitated recognition and procedural justice; however, the degree to which distributive justice is achieved through this collaborative approach remains uncertain.

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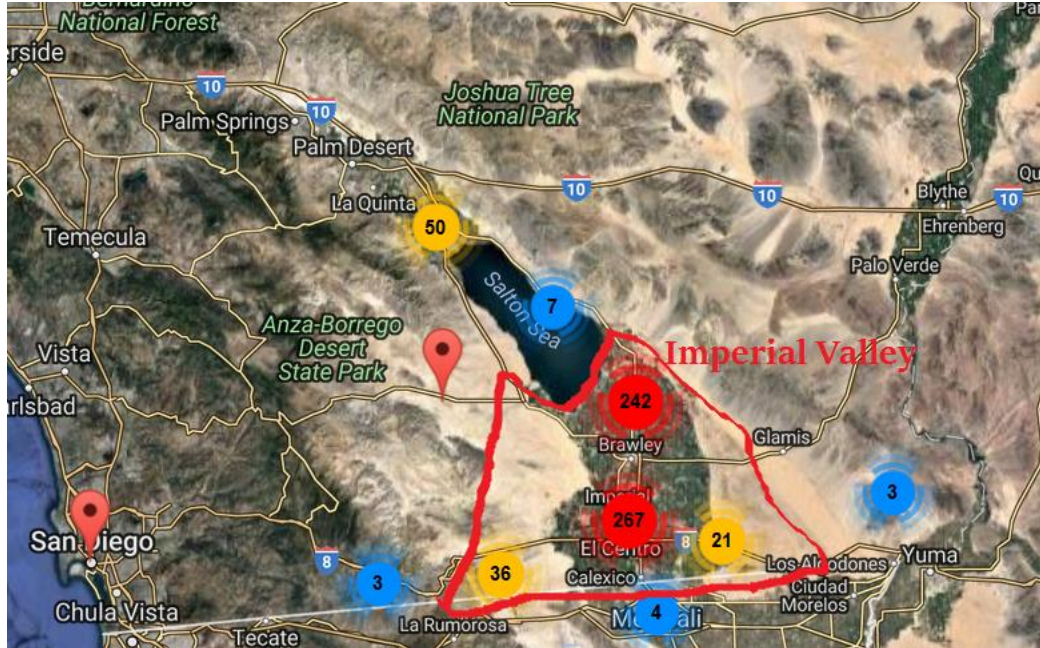
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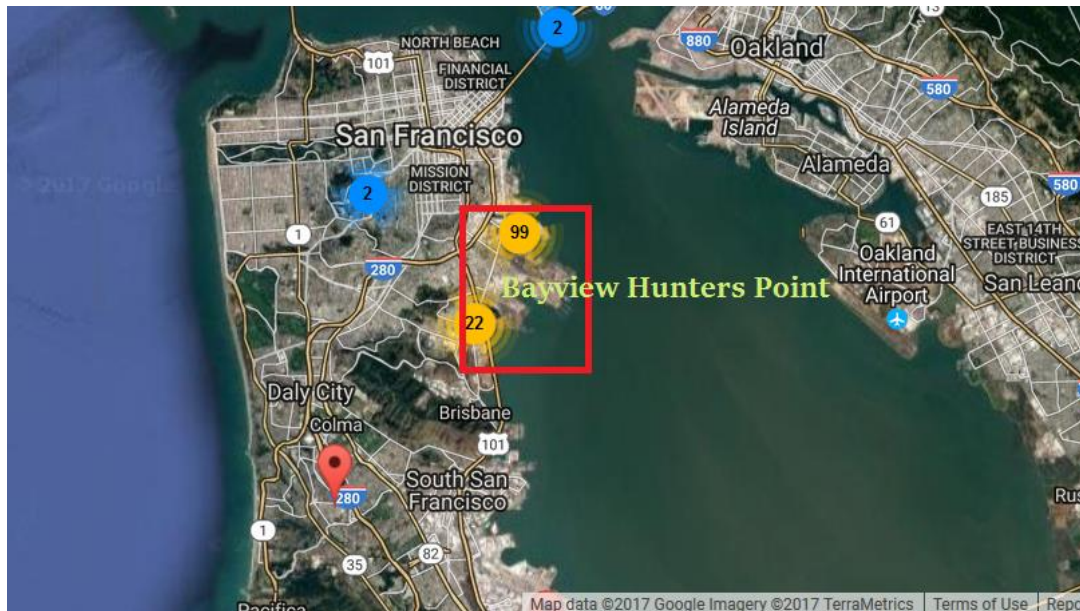
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Figure 1. The Imperial Valley



This map shows the location of the Imperial Valley, south of the Salton Sea, just north of the U.S.-Mexico border, and east of the Laguna Mountains in eastern San Diego County. (Source: maps.google.com).

Figure 2. Bayview Hunters Point



This map shows the location of the Bayview Hunters Point neighborhood in Southeast San Francisco. The yellow dots indicate that there have been 99 reports filed in the northern half of the neighborhood and 22 in the southern half since the inception of the IVAN program there in 2015. Bayview Hunters Point is by far the smallest geographical region served by an IVAN program. (Source: maps.google.com).

Figure 3. IVAN Regions



This figure displays the seven regions where IVAN operates and an eighth planned in Sacramento. The sites of the two case studies in this research are circled. (Source: IVANonline.org)

APPENDIX

Appendix A: Interview Guide

Introduction

Thank you so much for taking the time to talk with me today. Today I'd like to ask you some questions about your experience with IVAN. In my research, I'm interested in learning about the purpose of IVAN, and I have questions about how the participants work together to achieve IVAN's goals.

My university requires that I go over this informed consent form with you and obtain your signature before going ahead with the interview. I can summarize some of the most important points, and then you're welcome to take as much time as you need to read it before signing. [Note that participation is voluntary, participants may request that we stop at any time, names and other identifying info may be used, but if there is information that is particularly sensitive participants can request that I not associate their identity with their comments on that topic, and ask if I can audio record].

Background

1. To start out, what is your role on the Task Force?
 - a. Follow-up: How long have you been involved?
 - b. Follow-up: How often do you attend meetings?
 - c. Follow-up: What are your responsibilities on the Task Force?
2. What led you to become involved with IVAN?

Function

3. What do you think are the most important roles that IVAN plays?
 - a. Probe: Does IVAN serve any additional purpose?
 - b. Probe: Ask for examples whenever possible.

Structure

4. How does IVAN operate to fulfill those roles?
 - c. Follow-up: What are the roles and responsibilities of various participants in the task force?
 - d. Follow-up: How are roles determined?
 - e. Follow-up: When a complaint is filed, what is the process used to address it?
 - f. Follow-up: How are decisions made about what complaints or what issues to prioritize? (Ask for examples).

Outcomes of IVAN

5. What are the most important results of IVAN's work?
 - g. Follow-Up: Are there any other outcomes that you feel are valuable?

- h. Follow-up: In what ways, if any, has IVAN affected environmental enforcement in this neighborhood/region? [Ask for examples.]
 - i. Follow-Up: In what ways, if any, has IVAN been able to improve environmental quality in this neighborhood/region? [Ask for examples.]
 - j. Follow-Up: Has IVAN affected the relationships among community advocates for environmental justice and government agency staff members? If so, how?
6. Has your participation in IVAN changed you personally in any way? Why or why not?
- k. Follow-Up: How have you incorporated these new understandings into your activism/continued EJ advocacy/work with [your agency]?

Relationships

Something that seems to be unique about IVAN is the regular, monthly meetings among so many different stakeholders: government agencies, non-profit organizations, and residents. I'm interested in learning more about the task force model, so I'd like to ask you a few questions about the interactions among participants in the task force.

- 7. In your experience, what are the benefits of the task force model of having different stakeholders come together at the task force meetings?
 - l. Probe: Ask for examples of any benefits cited.
 - m. Probe: Are there any other benefits? How do residents benefit? How do agency staff benefit? How do organizations benefit?
- 8. Are there any challenges associated with the collaborative approach the task force takes?
 - n. Ask for examples of challenges.
 - o. Any other challenges?
- 9. How does your experience with the task force compare with other experiences you have had with environmental justice advocacy?

Conclusion

- 10. Is there any more information that you would like to share about your experience working with IVAN?