A FRAMEWORK FOR COMMUNITY-BASED ACTION ON AIR QUALITY

by George Wyeth

George Wyeth is a Visiting Scholar at the Environmental Law Institute.

Over the past 50 years, tremendous progress has been made in reducing air pollution under the Clean Air Act (CAA).[1] Nevertheless, while air quality has improved greatly for much of the nation, there are still places where the goal of attaining national standards has still not been reached. This is often true in urban locations that are affected by multiple pollution sources; typically, these areas are also environmental justice communities. Recent events have called attention to the urgent need for concrete action to address the many problems of these communities.

This Comment presents a legal framework for action at the community level that represents a departure from the current statutory model. It outlines an approach that works from the bottom up, addressing a wide range of local issues in an integrated way, driven by community priorities and informed by community-generated data.[2] This model draws heavily on an approach that has been adopted in California through legislation commonly referred to as A.B. 617.[3] However, much of what is described here could be done under current law as well.

Creating a legal framework is not a guarantee that action will be taken; ultimately, the determining factor is political will. However, the events of recent months will likely create a demand for action to address environmental problems effectively at the community scale.

I. The CAA Regulatory Structure

To address the challenge of addressing local air quality concerns, it is necessary first to understand the current regulatory structure under the CAA. This summary will vastly oversimplify a complex field that has developed over 50 years.[4] However, it provides a sense of the landscape into which the problem of local air quality fits.

The starting point for regulation under the CAA is the establishment of air quality standards: metrics for determining whether the air is safe to breathe, "allowing an adequate margin of safety."[5] Standards are set by the U.S. Environmental Protection Agency (EPA) for six "criteria" pollutants such as ozone and particulate matter.[6] Then, EPA and state agencies monitor air quality to determine whether the standards are being attained. For areas where they are not, the state is to develop a state implementation plan (SIP) for putting in place controls that will reduce pollution to the acceptable level.[7]

Thus, attainment designations are a critical step in the process, determining whether a given area is subject to aggressive pollution control. These designations are typically made on a regional or citywide level.[8]

To measure air quality, EPA and states maintain a network of monitors across the region. These devices must meet highly rigorous standards for reliability and precision, and are designated as "federal reference methods," or FRMs. They are expensive and generate exceptionally reliable data, recording conditions over many years. At a national level, the network of monitors is very large, with thousands of monitoring sites across the country. Thus, the network provides a particularly good picture of overall air quality at a regional scale.

However, in any given vicinity, a relatively small number of monitors is spread across a wide area. For example, in California's San Joaquin Valley, 24 agency monitors are deployed across eight counties—plenty to assess regional

---

1. 42 U.S.C. §§7401-7671q, ELR Stat. CAA §§101-618.
2. This Comment builds on an earlier article in which my co-authors and I noted challenges faced by community members who had gathered data on local air quality. *See* George Wyeth et al., *The Impact of Citizen Environmental Science in the United States*, 49 ELR 10237, 10259-60 (Mar. 2019). That article used the term "citizen science"; organizations working in environmental justice, however, often prefer the term "community-based science."
3. A.B. 617, ch. 136, 2017-2018 Leg. Sess. (Cal. 2017), *available at* https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617 (last visited Aug. 7, 2020).

4. The complexity of the analysis required under the CAA is illustrated in *Clean Wisconsin v. Environmental Protection Agency*, No. 18-1203, 50 ELR 20170 (D.C. Cir. July 10, 2020).
5. 42 U.S.C. §7409(b)(1).
6. The other criteria pollutants are carbon monoxide, lead, nitrogen dioxide, and sulfur dioxide; particulate matter is further subdivided into large and small particles. *See* U.S. EPA, *Air Pollution Monitoring*, https://www3.epa.gov/airquality/montring.html#amtic (last updated June 8, 2016).
7. Typical SIPs include, in addition to continued air quality monitoring, measures such as requiring permits for new sources, source surveillance and enforcement, and a variety of other emission-limiting rules and regulations. In some cases, they may also include voluntary or other non-traditional programs. *See* U.S. EPA, The Basics of State Implementation Plans 8 (2016); *available at* https://www.epa.gov/sites/production/files/2016-02/documents/prez_materials_on_sipbasics.pdf.
8. For example, under the new national ambient air quality standard (NAAQS) for ozone issued in 2015, the cities of Cleveland, Dallas, and Detroit were designated as in nonattainment, along with less-populated areas such as Muskegon County, Michigan, and Sheboygan County, Wisconsin.

air quality, but not enough to provide detailed information on individual communities.[9] Therefore, this system cannot track conditions on a small scale—from one neighborhood to another.[10] Agencies attempt to distribute monitors in a way that captures variations within a region, but cannot measure air quality in every locality. Many neighborhoods within the region may have no monitor at all or, if they are lucky, they may have one. Thus, it is uncertain whether a given neighborhood will be monitored, and if one is present in a given locality, it may not detect variations or fluctuations in pollution levels across the neighborhood.[11]

As a result, the monitoring network may not detect all localities with unusually high pollution levels (hot spots), so the region may be found in attainment when some parts are still polluted. Even if the region is found to be out of attainment, the limited granularity of agency monitoring means that hot spots within the region may not be discovered.[12]

This creates a discrepancy between what air agencies focus on and the concerns of local communities. Residents usually focus on their immediate neighborhoods, not a large region. Agencies, on the other hand, do not always gather data on the local level or may not monitor some hot spots.

Another complication is that the regulatory structure just described does not look at the overall impact of all pollutants from multiple sources. The communities of greatest concern are often impacted by many large and small sources, regulated separately (and are disproportionately home to very large "superpolluters"). Attainment designations are made separately for each of the six "criteria" pollutants, and response plans are designed accordingly. Thus, a given city may be in attainment for ozone but out of attainment for fine particulate matter. This structure does not look at the combined effect of all the pollutants, distinguish between locations that are out of attainment for more than one pollutant, or design responses to multiple pollutants in an integrated way.[13]

The attainment analysis also does not look at the effect of pollutants, other than "criteria" pollutants, that are regulated under other provisions of the Act. For example, hazardous air pollutants like benzene or perchloroethylene (known as "perc" and often associated with dry cleaners) are regulated separately, with strict requirements for control technology that apply regardless of overall levels of ambient pollution.[14]

Looking even more broadly, the level of pollution in a neighborhood is greatly affected by land uses and infrastructure such as streets and highways, or ports. Air regulation will impose controls on emissions from a facility but will not determine whether a facility is allowed in a given neighborhood. Decisions about land use and transportation are generally made by other federal, state, and local governments. Projects that are federally funded or approved are subject to "conformity" regulations contained in the SIP, which prohibit such projects from adversely impacting air quality. The SIP conformity finding should address existing infrastructure or require other measures to reduce emissions from traffic.

In short, looking from the top down and across wide areas, the CAA reduces pollution very effectively through a mix of legal tools. In many areas, this system works well; however, it does not address pollution on a local scale evenly or consistently, especially where communities are affected by multiple sources and activities. Thus, from the community perspective, the CAA does not contain a process for developing comprehensive local solutions.[15]

This Comment's principal thesis is that what would change this dynamic is a legal framework for addressing air pollution in a comprehensive way on a local scale, driven by community needs and priorities. While this does not overcome all the barriers to addressing community concerns, it would create a regulatory tool suited to the problem at hand. The rest of this Comment will describe what a program for local air quality control could look like. It will look in particular at legislation in California that provides a possible model. Finally, it will suggest options for possible action by other states or at the federal level.

II. A Community-Based Model of Air Pollution Control

What might a program for addressing air pollution problems on a community scale, in a comprehensive way and created with and by community members, look like?

A. The Fundamental Model

The fundamental concept is straightforward: to create a legal framework either authorizing or requiring develop-

---

9. *See* San Joaquin Valley Air Pollution Control District, Community Air Monitoring Plan: Shafter AB 617 Community 4-5 (2019), http://community.valleyair.org/media/1306/shafter_camp_-v1_-2019_july.pdf.

10. *See* David E. Adelman, *The Collective Origin of Toxic Air Pollution: Implications for Greenhouse Gas Trading and Toxic Hotspots*, 88 Ind. L.J. 273, 300 (2013) (EPA data lack the resolution necessary to detect neighborhood-scale hot spots).

11. *See* Air Alliance Houston & Global Community Monitor, Air Pollution and Public Health in Galena Park, Texas 22 (2014) (asserting that results from agency monitor are not representative of the neighborhood). Air Alliance Houston conducted place monitors in five locations across the neighborhood, finding higher levels of pollution.

12. *See* Ned Helme et al., Center for Environmental Public Policy, Advancing Environmental Justice: A New State Regulatory Framework to Abate Community-Level Air Pollution Hotspots and Improve Health Outcomes 3 (2017), *available at* https://gspp.berkeley.edu/assets/uploads/page/CEPP_Advancing_Environmental_Justice.pdf ("[A]s our regions progress toward regional air quality standard attainment, exposure to elevated levels of pollution on a local scale continues to have serious public health consequences.").

13. Where a city is out of attainment for more than one pollutant, a separate SIP must be developed for each pollutant. SIPs may take into account crossover effects, where controls affect more than one pollutant. California, for example, has its own ambient air quality standards. Where they are more stringent than NAAQS, they have their own set of guidelines, which are generally attached to the federal SIP submission so that the more-stringent local regulations get approved by EPA and become federally enforceable.

14. Toxics are monitored for in a number of communities under several EPA programs. *See* U.S. EPA, *Air Toxics—Urban Air Toxics Monitoring Program*, https://www3.epa.gov/ttnamti1/uatm.html (last updated Sept. 19, 2019).

15. This Comment focuses primarily on air pollution. However, the same concern about community-level response would apply to the overall body of federal environmental statutes as a whole.

ment of comprehensive plans for addressing air quality problems on a local level. Such a framework would cause agencies to focus more attention on a local level, leading to action in overburdened communities that may be overlooked currently. In general, this would require assessing communities, identifying those with unacceptable air quality, and creating a process in which communities, agencies, and other key players work jointly to develop an effective emissions reduction plan addressing the full range of local air quality concerns.

A distinctive feature of community-based plans is that they will be designed from the bottom up, rather than from the top down, driven by community priorities and sources of risk, and consider the full range of possible authorities for addressing them.[16]

B. The Role of the Community

Although the focus thus far has been on legal authorities and agency roles, the defining feature of this model is that it is a community-based process. The community must have a major role in the process from assessment to approval of a plan (and oversight of implementation). It must have the ability to help shape the plan and be a part of any decision-making; a plan is unlikely to succeed if it does not enjoy true community support. Community members must play a significant role in determining the content of the action plan. Residents are the local beneficiaries, and should not feel that a plan has been imposed on them by agencies (no matter how well-intentioned). They must be satisfied that the plan meaningfully addresses their concerns and will achieve the goal of eliminating excess risk from pollution.

Community members will bring to the table expertise and knowledge of both problems and possible solutions. With the emergence of community-based science, key data are not exclusively in the hands of agencies (and, as discussed above, agencies may not have such data at all).[17] New technology creates the potential for community residents to supplement their advocacy by providing data and other information that can be used at every stage of the planning process. Lower-cost monitoring devices are now available that are within the reach of private citizens and community groups. This is an opportunity not only to provide valuable new information, but also to empower community residents to take an active role and reduce their dependency on data from government or business that they

do not fully trust. Community-generated data thus provide a potentially powerful new tool.

First, community-generated data can fill gaps in our understanding of local conditions. Where the agency may have one monitor (if any) in the community, local residents can now deploy many devices in a small area. Such data may not be appropriate for attainment decisions, but it could be suitable for local-level screening decisions, or at least to get a neighborhood into consideration for screening to see if it qualifies for a community plan. For example, community-generated data may be used to show enough reason for concern to justify placing an agency monitor in the neighborhood,[18] to determine whether the locality warrants action under the framework.

Communities can also provide information that helps to shape the response plan. They may be able to provide localized information on hot spots, major sources, and particularly sensitive exposure points such as schools or senior centers.

Nothing precludes the use of community-generated data under current law, but it is often discounted by agencies for technical reasons. The data provided by community-based scientists comes from devices that do not meet the criteria of precision and reliability that are expected of regulatory quality monitors or FRMs.[19] The community residents gathering data are in many cases not professional scientists, and agency officials are likely to be skeptical about the quality of the research—whether it was designed and carried out in a way to justify reliance on the results. As a result, agencies may view the data as of limited value.[20]

While these concerns have validity, they should not be decisive. Data need not come from an FRM to have value, and agencies can look for ways to use it for purposes that do not require the same level of precision (e.g., to highlight hot spots or inform placement of FRMs). And in practice, most community science groups partner with academics and other experts to ensure that research is designed and carried out in a rigorous way.[21] If residents are able to partner with an agency and other institutions that they trust, it should be possible to make all parties happy with the results.

Any new framework should include processes for gaining the greatest value possible from data provided by communities, both because it improves the knowledge base

---

16. Detailed guidelines for ensuring an effective process that ensures meaningful community engagement can be found in California Air Resources Board, Community Air Protection Blueprint 11 (2018) [hereinafter Community Air Protection Blueprint], https://ww2.arb.ca.gov/sites/default/files/2020-03/final_community_air_protection_blueprint_october_2018_acc.pdf.

17. Another commonly used term is "citizen science." In the environmental justice context, the emphasis on community is generally preferred. Some distinguish between "citizen science" as relying on nonprofessionals to collect data to be interpreted by institutions, and community science that helps community members to collect their own data. See Public Lab (@ PublicLab), Twitter (July 24, 2020); see also National Institute of Environmental Health Sciences, West End Revitalization Association: Demonstrating the Value of Community-Led Research to Address Environmental Justice Issues, https://www.niehs.nih.gov/research/supported/translational/community/west-end/index.cfm (last reviewed Jan. 28, 2019).

18. It could be argued that for purposes of making local air quality determinations, lower-cost sensors may be adequate even if they are not approved as FRMs. These devices are increasingly sophisticated and can be tested by co-locating them with agency monitors. They provide information at a much greater level of detail, and can reveal variations within a neighborhood. They can also be deployed in large numbers; their collective accuracy is thus greater than that of any individual device. The potential value of such data-gathering, which is within the capacity of community organizations, is likely underestimated in current practice.

19. The data are also likely to differ in other ways from what agencies may expect to use in making formal regulatory decisions. Unlike data from official monitors that can show trends, patterns, peaks, and valleys over a period of years, community-based data are likely to have been gathered over a shorter time (especially in any given location) and may not be as thorough.

20. See Wyeth et al., supra note 2, at 10248-49 (data gathered by community group in Houston were not considered by EPA for attainment determination).

21. See Wyeth et al., supra note 2, at 10257.

and because it builds local confidence in the planning process. Agencies that the residents trust can create structured channels and procedures for the submission of data, provide guidance on proper data-gathering practices, and identify devices considered acceptable for this purpose, among other measures.[22]

More ambitious options (some of which might require legislation) could include:

- Providing funding to help communities gather data, including paying for monitoring devices, obtaining technical assistance, and other needs.

- Authorizing approved community-based monitoring networks, which have a role in agency air quality assessments. Criteria for such networks can spell out requirements regarding the types of devices that may be used, the design of the network, and other measures to ensure data fit the purpose for which it is intended. Community members and organizations should be given a significant role in designing and operating these networks.

- Creating a process for deployment of community monitoring networks, in which community members would play a significant role (this might help overcome other concerns about the devices being used or the quality of the research design).

- Creating and funding a process for assessment of emerging monitoring technology, to ensure that community members use reliable devices; this in turn would help ensure that their data are taken seriously.

- Staffing and funding assistance programs for community-based air quality research, such as training, providing guidance on what kind of data are needed for various uses, providing model research plans, and so on.

What is most important is for the community-generated data to be utilized.

There will be challenges in achieving the goal of giving the community a meaningful say in decisionmaking. Many of the decisions in developing and carrying out a plan ultimately require government action.[23] Communities could easily be cynical about a process in which they can express opinions but not make final decisions. Con-

versely, there is not necessarily a single "community" opinion. Communities are made up of many different interests, which will have different perspectives, and there is no guarantee that all these interests will support a plan even if it has broad support.

Those implementing the process will have to navigate these hurdles in a way that delivers a final product that local opinion supports. Nevertheless, the importance of making significant progress on a community level is too great to let these risks prevent the attempt.

C.   Criteria for Selecting Communities

The framework could be made mandatory, requiring plans to be developed in polluted communities, or it could be permissive—creating a legal authority available for use at the agency's discretion in the highest-priority communities.[24] In either case, it will have to provide criteria for selecting communities in which plans are to be developed. Such criteria would presumably include quantitative risk-based measures, but could also include more qualitative considerations (e.g., where strong community organizations exist that can partner on the effort or provide data and other valuable information). A combination of such factors is most likely. It would be desirable, however, not to make the screening process so intensive that it prevents prompt action.[25] There are many communities where attention is warranted, and it is better to achieve progress in some than to sink years into the selection process.

The result would be to identify a limited number of remarkably high-priority communities (similar to the national priorities list for Superfund). As experience is gained, more communities could be added to the list.

Assessing air quality for purposes of prioritizing at the neighborhood level may look different from traditional attainment determinations. Attainment determinations currently are done for individual pollutants: looking at whether the national ambient air quality standards (NAAQS) are exceeded for any single criteria pollutant such as particulate matter or ozone. At a community level, a more integrated approach is appropriate since communities face impact from multiple pollutants.[26] Focus on a key target pollutant (often particulates) might be sufficient in some cases, but it is important to consider the total pollution faced by residents. The presence of multiple pollutants is one of the defining features of "overburdened" communities. Another approach entirely would be to look at pollution relative to that in the city or region as a whole; this would focus on inequity as well as risk (and could also

---

22. Models for facilitating the use of community-generated data could be found in water programs, where data gathered by watershed groups are routinely used for regulatory purposes. *See* Wyeth et al., *supra* note 2, at 10259-60. For example, Virginia's citizen monitoring program provides detailed guidance on data collection, identifying three tiers of data use and providing guidance on data collection methods required for each tier. The most stringent tier, used for regulatory purposes, requires use of a state-approved quality assurance project plan. *See* Virginia Department of Environmental Quality, *Citizen Monitoring Guidance*, https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityMonitoring/CitizenMonitoring/Guidance.aspx (last visited Aug. 7, 2020).

23. For example, under California's A.B. 617, discussed in Part III, final approval of plans is given by the California Air Resources Board.

24. Another variation would be to require plans to be developed for a limited number of communities each year, to ensure action is taken without creating an overwhelming burden for the agency at the start.

25. Past experience suggests that any legislative effort will generate detailed decision criteria and processes reflecting concerns of a variety of interest groups, with the potential for judicial or other intervention if those groups are not satisfied with the results. Any new effort must seek to avoid the risk of procedural roadblocks while appropriately recognizing legitimate concerns.

26. A tremendous amount of debate has occurred regarding the calculation of "cumulative risk" from multiple pollutants, without complete resolution. However, to the extent possible, planning should attempt to look at multiple impacts rather than addressing pollutants in isolation.

---

avoid the result of trying to reduce pollution in one community to a low level when the background regional level is high).

A truly comprehensive assessment process would consider other factors contributing to health effects, even if those factors are not the result of air pollution and are outside the scope of the response plan. The risk posed by pollution can be increased where people face other risk factors such as elevated rates of underlying health conditions. This consideration would be relevant in prioritizing the communities with the greatest needs.

D.   Defining the Problem

The next step in developing a plan involves identifying the chief pollutants of concern, the major sources of pollution, and important receptors such as schools, senior centers, and so on. A comprehensive response plan will require looking at all sources, including both stationary and mobile sources. Overburdened neighborhoods are usually affected by pollution from a variety of sources. Major transportation hubs, such as ports, are often a large part of the problem. Looking at the full universe of sources is somewhat novel, because programs tend to be siloed—addressing large sources separately from small "area" sources and emitters of hazardous air pollutants separately from those emitting "criteria" pollutants, and regulating mobile sources in yet other ways. Plans should attempt to address all those sources, or at least those that are the greatest sources of pollution and risk.

While this Comment focuses on air pollution, consideration should be given to expanding the plan to include other environmental threats faced by these communities, from waste management to drinking water. While expanding the scope can make the process more complicated, communities are likely to be frustrated by stovepiped processes that make sense to agency officials but ignore the realities of life for local residents facing multiple pollutants.

E.   Identifying Solutions

After sources and risks are identified, strategies must be identified for addressing them. These could include a variety of options—some familiar and some less so.

- Most obvious are the regulatory tools that already exist under the CAA. As described earlier, these include permitting, generally applicable regulations (e.g., controls on small sources), and other controls adopted in SIPs. Typically, larger sources may require permits, while smaller sources are subject to other rules. All the existing regulatory tools should be considered available. Since most of these regulatory requirements may already be in effect, stepping up enforcement of those requirements would be an important part of the strategy. Focused and coordinated inspection and enforcement could by itself represent significant progress.

- Such requirements could be made more stringent based on local conditions. For example, in a community that is within a region considered to be in attainment with air quality standards, but where local air quality does not meet national standards, authority to impose more stringent standards might be provided.[27]

The most straightforward approach would stop at this point, focusing on the air pollution control authorities that are exercised by EPA and states. In that case, the community plan would be like an SIP, but with a much narrower geographic focus. Even if the plan did nothing more than this, it would be a significant step: using these authorities in a targeted, coordinated way (including giving enforcement priority to local violations) would be a notable change from current practice.

However, it is possible to envision drawing on other regulatory authorities, not necessarily limited to those under the CAA:

- Mobile sources are often a major source of pollution in overburdened communities (often, they are near ports or other transportation hubs). While a community action plan could not set different emissions standards for individual vehicles, vehicular pollution could be addressed in other ways (e.g., prohibiting or limiting truck traffic, reducing overall traffic in the neighborhood, etc.).[28]

- Land use and siting controls can also be used, to limit construction of new sources or even relocate existing but highly problematic activities.

- Nonregulatory measures can also be used, such as improving public transportation, or encouraging bicycle and pedestrian travel.

Putting together a plan this comprehensive would require the active participation of several—perhaps many—government agencies beyond EPA and state environmental agencies. Land use controls are usually created by local governments (and possibly more than one level of local government). Transportation patterns and the design of roads and highways are determined by transportation agencies. Other major activities such as ports and airports may have their own governing bodies.

Getting all of these agencies to the table could be very difficult. Some will have a vested interest in the effort; others will consider themselves visitors, more concerned about protecting their own autonomy than contributing to a solution. Creating a single plan drawing on all these

---

27. In theory, the region should be designated nonattainment if national standards are exceeded in any location within it. However, as has been noted earlier, the official monitoring network cannot capture all local hot spots.
28. In the Community Action Plan for West Oakland under A.B. 617, discussed in more detail in Part III, the California Air Resources Board has made a number of commitments relating to mobile sources such as improving truck and bus inspection and maintenance programs, and adopting regulations to require zero-emissions technology for the transport refrigeration unit fleet.

actors could create complicated questions of governance and interagency relationships. Nevertheless, expanding the options to include tools outside the CAA has great potential value and should not be ruled out.

It will be necessary to specify who would be responsible for leading the process. It is likely that a government agency—most likely EPA or a state environmental agency—would serve as chief convenor on a formal basis. However, representatives of the community should have effectively equal status.

Although the prospect is daunting, there are precedents in EPA's geographic programs addressing water pollution, such as the Chesapeake Bay Program. These are led by EPA, but are strongly influenced by local concerns and include many players including federal, state, and local governments, and businesses, as well as local residents.

The ultimate goal of this combined effort is to develop an action plan that uses all available tools to reduce exposure to air pollution, addressing many different sources, in a coordinated strategy that has strong community support.[29] Responsibility must be clearly assigned for carrying out these steps, with deadlines and metrics for progress, as well as measurable goals. Ultimately, the goal should be to make air quality in the target communities at least as good on average as elsewhere in the country.

F. New Authorities

An important question in designing a process for community action is whether it should create additional legal authorities, either for assessing or responding to pollution, or focus primarily on coordinating the use of existing authorities. Although much could be accomplished using the full array of existing regulatory tools, some new authorities may be valuable:

- First, as has already been noted, there could be authority to establish stringent controls where air in a community fails to meet national standards even if the region is in attainment. This result might be achieved by using the local data to revisit the regional attainment designation—a complex and time-consuming process. However, new statutory authorization for acting on a local level could make such "micro" nonattainment designations more straightforward.

- If the plan anticipates participation by the full range of regulatory (and nonregulatory) players, it will be necessary to address the respective roles of EPA, other federal agencies, states, local governments, and others. A possible model would place primary responsibility with the state, which in most cases is the primary air regulator. EPA's most appropriate role

may be one of oversight and convening, and possibly final approval of the plan. Since some key authorities, such as land use controls, are traditionally not federal in nature, the participation of state, tribal, or local agencies with that authority may be essential to developing an effective plan. At the same time, federal agencies other than EPA will need to be part of the process, requiring some mechanism to ensure their involvement. (And they may have their own state or local counterparts.)

- It will also be necessary to consider mechanisms for creating accountability for carrying out commitments in the plan. If the plan focuses on CAA authorities, this would be relatively straightforward and would track other programs in which states have lead implementation authority, EPA conducts oversight, and outside parties have some enforcement rights. Where other agencies are involved, it will be more challenging, given the number of different governmental actors involved (none of which report to the others), the fact that they operate under different laws, and that they are from multiple levels of government.

The most likely approach would have to be a consensus approach, leading to good-faith agreements with implementation responsibility left to each participating agency. Short of a legally enforceable agreement, some accountability could be imposed at least on federal agencies involved in the plan, and states carrying out the authority could impose accountability on their own subunits. Accountability may ultimately be more political than judicial, with public reporting of actions and results providing at least a degree of transparency and oversight.

Clearly, things could get complicated quickly. It is important not to make legislation more complex than necessary in the desire for perfection. Simplicity should be a significant drafting consideration even if it means sacrificing some desirable content.

G. Funding

Finally, it is necessary to mention funding, as it will not be possible to take meaningful action without significant resources. Funding will be needed for, among other things:

- Agency staff to carry out the work, including contractor support;

- Additional air quality monitoring;

- Financial support for community groups, including direct support and funding for data-gathering and technical advisors;

- Grants to states and local governments, for the work of developing the plan, or implementing it, or both.

---

29. Although these sources may be regulated or controlled in other ways, those programs tend to be narrowly focused in some way. For example, permitting programs address sources of a certain size. Other regulations impose controls on toxic emissions from small "area" sources. Emissions from vehicles are controlled in yet another way, and transportation planning and facility siting are overseen by entirely different agencies.

The necessary level of funding should not be underestimated. The model of asking agencies to absorb major new projects within flatlined budgets, which has been all too common for decades, simply will not work if real progress is to be made.

III. A Real-World Model: California's A.B. 617

One model of such community-based action on air quality already exists, in legislation adopted by California in 2017: A.B. 617.[30] This law was drafted in response to concerns of environmental justice organizations about the potential adverse impacts of California's cap-and-trade program for controlling greenhouse gases.[31] It was designed as a way to assure environmental justice communities that their local environmental challenges would receive serious and sustained attention.

A.B. 617 is not terribly long or complex. The components relevant here are the following.[32] First, it directs the California Air Resources Board (CARB) to select locations around the state for deployment of community air monitoring systems.[33] The locations are to be communities with "high exposure burdens." The first systems were to be deployed by July 1, 2019, with additional locations to be designated each year thereafter.[34] These systems are set up and maintained by the regional air pollution control district, with community input to inform the types and locations of monitors.[35] In some cases, the plan provides for low-cost sensors to be provided to community members to gather additional information.[36]

Second, A.B. 617 directs CARB to prepare a statewide strategy to "reduce emissions of toxic air contaminants and criteria air pollutants in communities affected by a high cumulative exposure burden."[37] The strategy is to establish criteria for identifying communities with high cumulative exposure burdens, prioritizing disadvantaged communities.

The agency is to consider data from community air monitoring systems, as well as other data, in doing this analysis. CARB is then to select locations for preparation of community emissions reduction programs, and the state air district in which each community is located is to adopt such a program within one year. Programs are then submitted to CARB for approval. Additional communities are to be selected annually thereafter. CARB is also authorized to provide grants to community-based organizations for technical assistance and participation in the process of developing the emissions reduction program.

It is important to note that A.B. 617 is not cheap. Its implementation is funded through revenues from California's cap-and-trade program for greenhouse gases. In 2019, the state budgeted $275 million for implementation of A.B. 617.[38]

The implementation of A.B. 617 is illustrated by the development of the emissions reduction plan for West Oakland, a low-income community that is home to the port of Oakland and many other large and small pollution sources. Traffic from the port, as well as on freeways and city streets, also has a significant impact on air quality.

The West Oakland Community Action Plan, as it was finally called, was approved by CARB in December 2019.[39] It was developed through a process co-led by the Bay Area Air Quality Management District and the West Oakland Environmental Indicators Project (WOEIP). WOEIP is a local community organization that was formed in 1999 and has been collecting data on local air quality since 2008. Other participants in the development of the plan included:

- Government entities, including (among others):

  ◦ EPA
  ◦ CARB
  ◦ City of Oakland
  ◦ Port of Oakland Authority
  ◦ East Bay Municipal Utility District
  ◦ Alameda County Public Health Department

- Representatives of multiple community organizations and businesses.

The plan that emerged from this process has 84 different emissions reduction strategies, and four "further study measures." The strategies take many different forms, including (among many other things):

- Reducing pollution from the port of Oakland by transitioning to zero-emission drayage truck opera-

---

30. A.B. 617, ch. 136, 2017-2018 Leg. Sess. (Cal. 2017), *available at* https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617 (last visited Aug. 7, 2020).

31. *See generally* Helme et al., *supra* note 12.

32. Much more-detailed resources on the implementation of A.B. 617 include Community Air Protection Blueprint, *supra* note 16, and California Air Resources Board, Community Air Protection Framework Concept Paper (2018), https://www.metalscoalition.com/uploads/2/4/3/5/24359359/ab617_conceptpaper_feb2018.pdf.

33. A.B. 617, §7 (codified as amended at Cal. Health & Safety Code §42705.5(c)).

34. The concept was based on a monitoring network created in Imperial County by a partnership between the state, a local group, and a university. The system used a locally focused network of lower-cost devices to measure air pollution on the community level. Under A.B. 617, similar systems are being set up in communities across the state. *See* Tracking California, *Imperial County Community Air Monitoring Project*, https://trackingcalifornia.org/imperial-air-project/imperial-air-project-landing (last visited Aug. 7, 2020).

35. *See, e.g.*, San Joaquin Valley Air Pollution Control District, *supra* note 9, at 4-5; South Coast Air Quality Management District, AB 617 Community Air Monitoring Plan (CAMP) for the East Los Angeles, Boyle Heights, West Commerce Community (2019), https://www.aqmd.gov/docs/default-source/ab-617-ab-134/camps/elabhwc-camp.pdf?sfvrsn=4.

36. South Coast Air Quality Management District, *supra* note 35, at 22.

37. A.B. 617, §8 (codified as amended at Cal. Health & Safety Code §44391.2(b)).

38. State of California, California State Budget 2019-20, at 97 (2019), http://www.ebudget.ca.gov/2019-20/pdf/Enacted/BudgetSummary/FullBudgetSummary.pdf. Most of the funding ($245 million) is for grants to fund local programs to reduce air pollution. The remainder provides funding for local air districts ($20 million) and technical assistance to community groups.

39. The plan is available at Bay Area Air Quality Management District, *West Oakland Community Action Plan*, https://www.baaqmd.gov/community-health/community-health-protection-program/west-oakland-community-action-plan (last updated Aug. 4, 2020).

tions by 2035, amending a statewide at-berth regulation to require more ocean-going vessels to use power from onshore (rather than running onboard diesel engines), and funding cleaner tugboat engines;

- Reducing emissions from trucks through increased enforcement of traffic laws, new truck signage and driver education, and improved truck routes;

- Adopting an "Advanced Clean Trucks" regulation at the state level, targeting truck fleets that operate in urban centers for transition to zero-emission technology;

- Relocating two polluting facilities, and creating incentives and subsidies to encourage relocation of other businesses that do not conform to zoning regulations;

- Increasing environmental compliance inspections and updating the district's complaint policy;

- Using city land use controls to sunset industrial uses and facilitate relocation of major pollution sources;

- Using filtration and other measures to mitigate indoor exposure;

- Improving public transit and improving street design for pedestrian and biker safety;

- Limiting additional permits for pollution sources in residential areas and areas with high current levels of pollution; and

- Taking health measures such as expanding the county's asthma management program.

This plan is an impressive combination of efforts by many different players, using a variety of regulatory and nonregulatory strategies, to address many different sources of pollution. It has measurable, realistic goals: (1) by 2025, to make the air at least as clean in all parts of West Oakland as the community's average today (i.e., eliminating local hot spots), and (2) by 2030, to make the air as clean throughout West Oakland as the cleanest parts of the neighborhood today. Ideally, of course, the air would be even cleaner and comparable to other parts of the city.

The process of developing the plan had further benefits. Community organizations that had been working for many years to get meaningful action on their concerns about air quality finally had the ability to get in the door, and play a major role in development of a plan that required action by many governmental bodies. The West Oakland plan shows how such a process can pull together many governmental authorities to address a local problem in a more comprehensive way than any single agency could have achieved. The extremely wide range of strate-

gies—far more diverse than any single agency could ever implement—is most impressive.

It cannot be claimed that all the strategies listed in the plan exist only due to A.B. 617. There have been previous collaborative efforts to improve air quality in West Oakland, and some parts of the plan were already part of existing plans or programs. However, others are new and could not have been addressed through traditional environmental programs. Others would have been unlikely to be undertaken in isolation, and only came about because of the requirement to develop a comprehensive plan.

There are also limitations to A.B. 617:

- First, it creates no new pollution control authority; rather, it is a process for using existing authority in a coordinated way. (This is no small feat, however, since existing authority sometimes sits unused or is not coordinated.)

- Second, agreements under A.B. 617 are not enforceable. The West Oakland plan is a consensus document stating good-faith intentions; it is not enforceable by third parties (such as community organizations), or by any one participating agency against the others. It depends on the good will and political commitment of the participants. Some elements of the plan may prove difficult to carry out and may fall to the wayside. Because of this, some environmental groups did not support the legislation.

Even with these limitations, the experience under A.B. 617 suggests that addressing air quality in a comprehensive way on a community level is a powerful concept. While it remains to be seen whether all the commitments will be carried out, at a minimum, the plan puts them in a spotlight and has created expectations that will be difficult for the participating parties to ignore.

IV. Options for Taking Action

What must be done to give environmental agencies the tools to act on a local level, and to enhance the ability of communities to force action?

A.   Much Can Be Done Under Current Law

A good deal can be done under current law, if the political will to focus on these concerns is strong enough. A.B. 617 did not create new authority so much as direct agencies to use authorities they already have. In the short run, and with sufficient political will, a firm directive—such as an Executive Order—might have enough force to put things in motion. Recent events might provide the momentum to give such directives real impact.

Such directives could accomplish much of what has been described above: for example, EPA could announce that it intends to select a number of frontline communities for concerted action, convening processes that included all the relevant federal, state, and local authori-

ties as well as community members. It could establish criteria for selecting these communities and create a process through which communities could provide data to inform the decision. EPA could also convene, or direct states to convene, environmental authorities from the federal, state, and local levels.[40] An Executive Order could bring in other key players, such as the U.S. Department of Transportation or federal agencies that own land or carry out operations in the community. Even in the absence of such a directive, EPA might be able to win the active participation of other agencies given the pressure for real action on environmental justice concerns.

Policies could also be adopted giving community residents a major role in this process. Agencies could, for example, develop protocols for considering community-generated data in assessing which localities warrant action, and in designing the resulting action plans. Such protocols could identify the types of sensors and monitors whose data would be acceptable, and the purposes for which the data might be used.[41] They can also define research designs for community residents to follow.[42]

Any such program would have to deal with some significant limitations on authority under current law. One challenge would be the need to obtain the active participation of agencies from state and local government, who would not be subject to a federal Executive Order. Another is that funding for the effort does not currently exist, and current grant programs may not be up to the task for a major effort.

Even in the absence of such an ambitious program, EPA could take more limited (but still bold) steps to facilitate action on a community level. EPA and states could also develop policies for the consideration of data generated by community members in making attainment determinations (or petitioning for current determinations to be revisited). A process could also be set up for communities to request placement of one or more agency monitors in their neighborhoods; community-generated data could certainly play a role in such decisions.

B.   The Need for Legislation

Thus, much can be done under current law, given political will. However, political will is uncertain and fleeting. An Executive Order can easily be reversed, especially if there is a change of administration. Agency staff, pulled in differ-

ent directions over time, can find it hard to carry out new initiatives or may disregard directives from upper management that conflict with other demands they face. Essential players (i.e., other agencies) may not always be cooperative, and may be protective of their independence if any single agency tries to organize a community-level effort. And new substantive statutory authority may be needed to address some problems.

Therefore, for real impact in the long term, legislation is almost certainly necessary. Legislation is of course not easily accomplished; very little major environmental legislation has been enacted at the federal level in many years.[43] Nevertheless, the current historic moment may present the political demand for ways of finally addressing environmental justice concerns in a concrete and lasting way.

At the federal level, one option would be to amend the CAA. However, amendments to the CAA are likely to be highly controversial regardless of their substantive merits. Moreover, once changes to the Act are in motion, there may be efforts to make other changes as well, opening a Pandora's box that extends far beyond the intended focus of the kind of law envisioned here.

Another possible vehicle for legislation authorizing community plans is legislation regarding environmental justice. Such legislation has been proposed on several occasions although no significant action has been taken to date.[44] These bills currently focus primarily on federal agencies and do not contain language specifically aimed at empowering communities. However, it would not be difficult to add such provisions to them.

Using environmental justice legislation as the vehicle has several advantages. First, there is no risk posed to the CAA. Second, its focus would ensure that community plans are targeted on the highest-priority locations. The pending bills already contain a definition of an "environmental justice community," which would set bounds on the places where community plans could be adopted. Further limits could be added, such as specifying the number of communities in each year that would be able to adopt such plans (this was done in A.B. 617 to avoid burdening the state agencies excessively). Third, being outside the CAA, it is a better context for requirements that bind not only EPA but other agencies whose participation would be needed to carry out such plans.

Although it is beyond the scope of the concept described so far, a community-based effort adopted through environmental justice legislation could extend beyond air quality. It could address the full range of environmental issues in the community. It could also include an economic development component that would complement pollution controls with job opportunities for residents.

Federal legislation would have to ensure that all relevant federal agencies are accountable for contributing to the

---

40. In fact, states are generally the primary regulators under the CAA, so they might have to be in charge of such initiatives, with EPA playing a more general convening role.

41. In considering data quality, agencies should take into account the potential for crowdsourcing to add precision.

42. A model that could be borrowed from state water quality monitoring programs would be to designate possible data uses, and group them in tiers according to the quality of data required for each use. Guidelines can then be provided on the nature of the data required for each use, which helps communities decide what they hope to achieve and design their field work accordingly. This reduces the risk that they will invest time and effort in data-gathering that is rejected by the agency. For an example of such guidance in a state water program, see Virginia Department of Environmental Quality, *Citizen Monitoring Guidance*, https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityMonitoring/CitizenMonitoring/Guidance.aspx (last visited Sept. 4, 2020).

43. The principal exception is the Lautenberg Chemical Safety Act of 2016, which extensively reformed and revitalized the review of chemicals in commerce.

44. Bills currently pending are S. 2236, introduced in 2019 by Sen. Cory Booker (D-N.J.) and others, and H.R. 5986, introduced in 2020 by Rep. Raúl Grijalva (D-Ariz.) and others.

effort. It would also have to address the roles of state, tribal, and local governments. Both of these components would present challenges, but they should not be insuperable.

Significant funding will also be required. Too many initiatives have been attempted with little or no additional budget, often resulting in well-intentioned but understaffed programs. This effort is too important for that to happen. So, at a minimum, legislative appropriations will be necessary.

In considering legislation, it is extremely important not to make things unduly complex. A variety of important drafting decisions have been identified above, and it will be tempting to develop complicated formulas, legal authorities, and so on. However, the primary need currently is for real, tangible action that results in reduced pollution and improved health in suffering communities. A.B. 617 is short—it might take up five pages of typical federal legislative text. To the extent possible, simplicity should be a primary goal of legislative drafters.

Federal legislation is not the only option. Legislation could also be adopted at the state level. The experience in California indicates that this might occur more quickly and lead to more prompt action. State legislation is also better suited to addressing the role of local governments and special authorities such as ports and airports.

Of course, pursuing legislative options does not preclude taking as many steps as possible in the short run. The process of carrying out community-level action under current law can provide valuable experience that informs legislative action. Environmental legislation often builds on actions that EPA has already taken, either to address questions of legislative authority or to expand beyond what the Agency was able to do on its own.

V. Conclusion

It is important to bear in mind that creating a framework for action, even one embodied in a statute, does not guarantee that action will be taken. Agencies can fail to deliver on promises; it may be difficult to reach agreement; funding may fall short if interest wanes over time. Ultimately, it is political will more than legal structures that will determine the outcome.

However, the events of 2020 will put intense pressure on environmental agencies to show action in a tangible way to address the problems of underserved, low-income, minority communities. At least regarding air quality, a path forward can be envisioned. This is not to say it will be easy, but the need is too great to do any less.