



DRAFT

SB 673 Cumulative Impacts and Community Vulnerability Draft Regulatory Framework Concepts



Contents

Introduction	1
Hazardous Waste Management and Environmental Justice	1
Background on SB 673 (Lara)	1
Permitted Facilities in California	2
Cumulative Impacts and Community Vulnerability	2
Characterization of Cumulative Impacts and Community Vulnerability	2
Overview of Draft Regulatory Framework Concepts	3
Element 1: Initial Recommendation of Facility Action Pathways	4
Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement	4
Tier 2 Action Pathway: Mitigation or Monitoring and Community Engagement	5
Tier 3 Action Pathway: Community Outreach	5
Element 2: Public Review and Draft List of Facility Action Pathways	6
Element 3: Permit Application Review	6
Supplemental Facility Information Required for Permit Application	7
Collaborative Review Pathway for Cumulative Impacts and Community Vulnerability	7
Including Cumulative Impacts and Community Vulnerability in Permit Decisions	8
Element 4: Community Engagement and Outreach	8
Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement	8
Tier 2 Action Pathway: Mitigation or Monitoring and Community Engagement	9
Tier 3 Action Pathway: Community Outreach Pathway	9
Element 5: Mitigation and Monitoring	10
Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement	10
Tier 2 Action Pathway: Mitigation or Monitoring and Community Engagement	10
Element 6: Data and Tools Review	11
Potential Guidance Documents	11
Guidance on Additional Cumulative Impacts and Community Vulnerability Tools	11
Mitigation Measures Clearinghouse	11

Introduction

Senate Bill 673 (SB 673, Chapter 611, Stats. 2015) directed the Department of Toxic Substances Control (DTSC or the Department) to update its criteria to consider “the vulnerability of, and existing health risks to, nearby populations” when deciding whether to issue new or modified permits or permit renewals of hazardous waste facilities.¹ SB 673 also authorizes DTSC to consider the use of “minimum setback distances from sensitive receptors” in making a permitting decision.²

The concepts discussed in this document represent one approach that DTSC could follow to consider cumulative impacts and community vulnerability in the hazardous waste facility permitting process. Other approaches may be possible, and the Department is actively seeking suggestions to improve this approach or for others that may be more effective. The Department is seeking public comments on these draft concepts prior to initiating a formal regulatory process. After these public workshops, the Department will prepare draft regulatory text and will schedule additional workshops and meetings to continue public engagement and invite additional input as the regulatory process moves forward.

Hazardous Waste Management and Environmental Justice

Many communities in the state are burdened by a disproportionate share of environmental pollution from hazardous waste, air pollutants and other contaminants, while also facing socioeconomic and health challenges. Communities living near industrial facilities, trade corridors, and other sources of pollution, for example, are often predominantly low-income communities, often with a high percentage of non-English speakers, and they also demonstrate higher vulnerability to health impacts. Factors such as limited health care access, poor housing quality, linguistic isolation, and lack of access to parks and open spaces can increase their vulnerability. The cumulative environmental exposures faced by communities combine with socioeconomic stressors to increase community vulnerability and worsen health outcomes.

The siting, location, and expansion of hazardous waste sites in communities have long been an environmental justice concern in California. The potential health effects that come from living near hazardous waste disposal sites have been examined in a number of studies.ⁱ While there is often limited assessment of exposures that occur in nearby populations, there are studies that have found health effects, including diabetes and cardiovascular disease, associated with living in proximity to hazardous waste sites.^{ii,iii}

Background on SB 673 (Lara)

After Governor Brown signed SB 673 into law, the Department decided to develop two tracks to implement stronger permitting criteria for hazardous waste facilities. First, the Department developed and is finalizing a rulemaking package required by SB 673 that strengthens the protectiveness of the Department’s permitting decisions using several of SB 673’s suggested criteria, such as stronger financial assurance requirements and a more transparent and accountable consideration of facility compliance history.

Concurrently, the Department chose to also develop a proposal responding to SB 673’s suggested permitting criteria on community vulnerability and setbacks or buffer zones. The Department began by hosting symposia on cumulative impacts with academic, business, environmental justice, and government experts. The Department then reviewed the symposia’s information and established a Department-led

¹ Health and Safety Code section 25200.21(b).

² Health and Safety Code section 25200.21(c).

work group to develop this draft framework proposing a method to implement SB 673's permitting criteria.

In addition to the recent legislative direction pursuant to SB 673, SB 828 (Alarcon, 2001) directs each board, department and office in the California Environmental Protection Agency (CalEPA) to review its programs, policies, and activities to identify and address gaps that may impede the achievement of environmental justice.³

The Department carefully considered these legislative directives, as well as recent advances in science and technology, in the development of these draft regulatory framework concepts. The Department also explored opportunities to collaborate with other state, local, and federal partners in assessing and addressing cumulative impacts and community vulnerability. These draft regulatory framework concepts incorporate the CalEnviroScreen 3.0 tool developed by the Office of Environmental Health Hazard Assessment (OEHHA) and recognize ongoing actions by the California Air Resources Board and local air pollution control and air quality management districts to implement Assembly Bill 617 (AB 617, chapter 136, stats. 2017).⁴

Permitted Facilities in California

California currently has 81 facilities with active hazardous waste permits (excluding post-closure permits). Permits are generally issued for 10 years; however, permits may be issued for a shorter term based on certain factors such as the facility's compliance history. The Department reviews applications for new hazardous waste facility permits, and for modification or renewal of existing hazardous waste facility permits. These regulatory concepts address operating facilities when they apply for a new permit, permit modification, or renewal.

Cumulative Impacts and Community Vulnerability

In these draft framework concepts, cumulative impact refers to the combined health and environmental effects of all sources of pollution in a community insofar as they can be assessed, including threats to air, water, and land. Community vulnerability refers to the aggregated effect of factors in the community (such as emergency room visits for asthma or cardiovascular illnesses, unemployment, and linguistic isolation) that amplify the vulnerability of residents to impacts from environmental pollution. It is also important to note that measures of cumulative impacts and community vulnerability discussed in this framework include environmental media and other factors that have not historically been regulated by the Department.

Characterization of Cumulative Impacts and Community Vulnerability

Characterization of cumulative impacts and community vulnerability has historically been difficult based on lack of sufficient data and effective tools to integrate those data into a decision-making framework. In recent years technology has allowed the collection of large quantities of increasingly higher-resolution data about health and disease across the state. Mass datasets are now, or soon will be, available to visualize population effects and trends in health outcomes, and to correlate those effects and trends with location-specific factors.

³ Senate Bill 828 (SB 838, chapter 765, stats. 2001), section 71114.1 of the Public Resources Code.

⁴ AB 617 requires the California Air Resources Board to develop a statewide strategy to reduce emissions of toxic air contaminants and criteria pollutants in communities affected by a high cumulative exposure burden.

There are several tools currently available to characterize cumulative impacts and community vulnerability in California communities and provide comparisons of environmental, health and socioeconomic characteristics. The most robust tool, [CalEnviroScreen 3.0 \(CES 3.0\)](#), is the science-based mapping tool developed by OEHHA and used by CalEPA and its boards, departments, and offices (BDOs). CES 3.0 uses 20 indicators of pollution burden and population characteristics to compare pollution levels in communities and identify communities that have high pollution vulnerability. Other important GIS tools include the [Environmental Justice Screening Method](#) and the [Healthy Places Index](#). These tools are continually being updated, and new tools are under development.

Today, we have enough data and a sufficient understanding of cumulative impacts and community vulnerability in many parts of the state to propose a draft regulatory framework to reduce pollution burdens and improve conditions in some of our state's most impacted communities. This framework contemplates the use of available data and tools to identify vulnerable communities, the cumulative impacts of pollution on those communities, and strategies to reduce cumulative impacts, while remaining flexible and anticipating future data and tools. Over the next several years, these data and technologies should provide a rich understanding of the specific factors most critical in cumulative impacts and community vulnerability in communities throughout California.

The Department intends to consider pollution impacts across environmental media and factors in the local environment that affect responses to that pollution in this framework. However, the Department is not proposing to assume direct regulatory authority over these environmental media or other factors. Rather, the Department is considering mechanisms to support and augment the actions of the primary regulatory agencies with jurisdiction, through coordination and collaboration.

Overview of Draft Regulatory Framework Concepts

Under these framework concepts, the Department would review hazardous waste facility characteristics and activities, as well as assessments of cumulative impacts and community vulnerability in nearby communities, to place facilities on pathways for mitigation, monitoring, and enhanced community outreach through the permitting process.

The Department could develop three tiers of action pathways for facilities in order to address cumulative impacts and community vulnerability in the areas near hazardous waste facilities. First, the Department would review and assess information about all the operating hazardous waste facilities, including size, facility characteristics, and hazardous waste activities (or planned activities, in the case of new facilities) to assist in determining the action pathway that best fits the facility's potential impact on the community and its needs.

Then the Department would review data from existing cumulative impact tools to assess cumulative impacts and community vulnerability near each of the permitted hazardous waste facilities. The draft framework contemplates using CES 3.0 in conjunction with other peer-reviewed scientific tools and scientific data described below for this purpose. The draft framework also proposes that the Department consult with other BDOs to periodically assess the availability of data and tools on a statewide basis, and as part of the review undertaken when a facility submits a permit application.

Under this draft framework, the Department would combine information from individual facility assessments (including size, characteristics, and activity information), together with the CES 3.0 percentile of the community surrounding the hazardous waste facility, to place facilities on one of three facility action pathways to address cumulative impacts and community vulnerability. This initial pathway recommendation for all permitted hazardous waste facilities would be released for public review and comment before the draft pathways are finalized.

When a permit application is submitted for an existing or new hazardous waste facility, the Department would review and, if necessary, update the available science and data to designate a facility action pathway for addressing cumulative impacts and vulnerability in the community around the facility, and require the facility to develop mitigation, monitoring, and public engagement measures based on that pathway as part of the permit application.

During initial discussions about these concepts, stakeholders have asked whether an application for a new or modified permit or permit renewal could be denied based on the level of cumulative impacts and vulnerability in a community surrounding a hazardous waste facility. It is important to note that health impacts, facility compliance history, risk assessment findings, cumulative impacts, community vulnerability, and other factors are part of the total record of information considered in making decisions on permit renewals, permit modifications, or new permits. The Department is considering the range of possible actions that could be taken specifically based on the level of cumulative impacts and community vulnerability in communities surrounding hazardous waste facilities, up to and including permit denial.

In summary, the Department would utilize information on facility operations, CES 3.0 and other cumulative impact tools, supplemental data, and community input to:

1. place facilities on one of three action pathways according to facility size, activities, and the level of community vulnerability and cumulative impacts nearby;
2. notify and inform the public during the Department's permit review process, including by requiring enhanced community engagement during the process;
3. determine enhanced community needs for monitoring, mitigation, and community engagement; and
4. incorporate mitigation, monitoring and community engagement measures as permit conditions, and hold facilities accountable for successful and timely implementation.

Element 1: Initial Recommendation of Facility Action Pathways

Based on facility assessments and a review of cumulative impacts and community vulnerability in the communities surrounding hazardous waste facilities, the Department could make an initial recommendation of the Facility Action Pathway for each hazardous waste facility with an operating permit to address cumulative impacts and community vulnerability.

Following are some suggested criteria the Department could use in recommending that facilities be placed on action pathways. For facilities that do not fall within the criteria listed below, the Department could determine the appropriate pathway based on consideration of the current or potential hazard of facility activities, CES 3.0 scores, and other measures of cumulative impacts and community vulnerability, as well as community input.

Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement

Facilities could be placed on this action pathway based on the following criteria:

- 1) The facility assessment shows a high level of potential impact on the community.

Factors to be considered in the facility assessment include: facility size; number and type of environmental permits, including hazardous waste permits; type and amount of hazardous waste managed, stored, or disposed at the facility; facility proximity to sensitive receptors; the number of truck trips generated by the facility within the surrounding community; and the CES 3.0 hazardous

waste indicator score for the census tract that the facility is located in. For new facilities, the Department would consider potential impacts of planned operations at the facility.

- 2) The highest CES 3.0 ranking for the census tracts within a half-mile of the facility is in the 90th percentile or higher compared to other census tracts in the state.

CalEPA has designated communities in the top 25th percentile of CES 3.0 scores to be disadvantaged communities under SB 535. The Department is considering whether to adjust the Tier 1 criteria to a level below the 90th percentile, and possibly to the 75th percentile to include all areas designated as "disadvantaged." The Department is also requesting peer-reviewed research demonstrating potential facility impacts to a larger area around the facility than the suggested half-mile buffer in order to determine the level of scientific support for using cumulative impacts and community vulnerability assessments for a larger area.

Tier 2 Action Pathway: Mitigation or Monitoring and Community Engagement

A facility could be placed on this action pathway based on the following criteria:

- 1) The facility assessment shows a moderate level of potential impact on the community.

Factors to be considered in the facility assessment include: facility size, number, and type of environmental permits including hazardous waste permits; type and amount of hazardous waste managed, stored or disposed at the facility; facility proximity to sensitive receptors; the number of truck trips generated by the facility within the surrounding community; and the CES 3.0 hazardous waste indicator score for the census tract that the facility is located in. For new facilities, the Department would consider potential impacts of planned operations at the facility.

- 2) The highest CES 3.0 ranking for the census tracts within a half-mile of the facility is in the 65th percentile or higher but below the 90th percentile.

Consistent with the proposed adjustment to the CES 3.0 criteria in Tier 1, the Department is considering whether to adjust the Tier 2 criteria to a level in the range of the 50th percentile or higher and lower than the 75th percentile. The Department is also requesting peer-reviewed research demonstrating potential facility impacts to a larger area around the facility than the suggested half-mile buffer in order to determine the level of scientific support for using cumulative impacts and community vulnerability assessments for a larger area.

Tier 3 Action Pathway: Community Outreach

A facility could be placed on this action pathway based on the following criteria:

- 1) The facility assessment shows a low level of potential impact on the community. Factors to be considered in the facility assessment include: facility size; number and type of environmental permits, including hazardous waste permits; type and amount of hazardous waste managed, stored, or disposed at the facility; facility proximity to sensitive receptors; the number of truck trips generated by the facility within the surrounding community; and the score for the hazardous waste indicator within CES 3.0 for the census tract that the facility is located in. For new facilities, the Department would consider potential impacts of planned operations at the facility.
- 2) The highest CES 3.0 ranking for the census tracts within a half-mile of the facility is below the 65th percentile.

Consistent with the proposed adjustment to the CES 3.0 criteria in Tier 2, the Department is considering whether to adjust the Tier 3 criteria to a level below the 50th percentile. The

Department is also requesting peer-reviewed research demonstrating potential facility impacts to a larger area around the facility than the suggested half-mile buffer in order to determine the level of scientific support for using cumulative impacts and community vulnerability assessments for a larger area.

Based on the above steps, the Department could publish a list of recommended facility action pathways for cumulative impacts and community vulnerability for each facility with a hazardous waste facility operating permit, as well as a list of supplemental data (from the list in Element 2) for public review and comment. This list would be considered an initial list of recommendations for the purpose of public review and comment, and not a final decision from the Department.

Element 2: Public Review and Draft List of Facility Action Pathways

These framework concepts seek to increase the public's information about hazardous waste facilities, their contribution to cumulative impacts in surrounding communities, and the vulnerabilities of communities in which hazardous waste facilities are located. These concepts also attempt to provide the public with greater opportunities for input into decisions about facilities located in their communities. In this step, the Department would invite public comment on the initial recommendations of action pathways for each facility and on the availability of supplemental data. The Department could use the information provided during the public review process to further review and assess the appropriate pathways. The Department could consider public comment, petitions from community members or local government officials, and additional factors that may be raised in the public comment process.

Conceptually, for this stage in the process the Department would take public comment on the information considered in Element 1 and consider a limited set of supplemental factors providing further information on the pollution burden (cumulative impacts) and vulnerability in communities surrounding each facility. Examples of these factors could include:

- A map of facilities of interest that are significant sources of criteria air pollutants or toxic air contaminants and are located in close proximity to the hazardous waste facility
- The hazard proximity score developed for the Environmental Justice Screening Method for the census tracts in close proximity to the facility
- Healthy Communities Index rankings for census tracts in close proximity to the facility

After the public review process, the Department would publish the draft list of facility action pathways for cumulative impacts and community vulnerability on its website, along with the findings made to support those adjustments.

Under this draft framework concept, the Department could periodically review and update the draft list of facility action pathways and the tools used to measure cumulative impacts and community vulnerability, possibly every three to five years. The Department could propose changes when appropriate to the pathway designation process to reflect new data and advances in science and technology.

Element 3: Permit Application Review

Consistent with the direction in SB 673, these draft regulatory framework concepts could require permit decisions for hazardous waste facilities to consider information on the facility's contribution to cumulative impacts and community vulnerability around the facility, including more information on facility activities and site-specific indicators, and to incorporate permit conditions to address conditions in the community.

Under the framework concepts, at the time a facility submits an application for a hazardous waste facility permit, the Department would notify the public of the application and the draft designation of a facility action pathway for cumulative impacts and community vulnerability. The Department would conduct a review to ensure the Department is using the best data sets and most up-to-date and comprehensive information about environmental conditions and community vulnerability to assess cumulative impacts and community vulnerability around the facility. For example, the Department would review key data inputs in the CES 3.0 ranking to ensure they are up-to-date and accurate.

The public would have the opportunity to comment on the action pathway proposed for the facility, including all data and information used by the Department in making the pathway determinations and additional information submitted by the facility in the permit phase. The public could also provide more localized supplemental information for the Department to consider before making a final determination on the facility action pathway.

Examples of supplemental cumulative impacts and community vulnerability data the Department could review at the permitting stage could include:

- Air or water (surface or groundwater) monitoring data generated by governmental or community monitoring networks implemented pursuant to AB 617, or other data of similar quality
- Cumulative impacts and/or community vulnerability collected pursuant to this framework, or as part of a study approved or accepted by the Department
- risk to the community from diesel truck trips generated to and from the facility and diesel equipment operated at the facility
- Risk pursuant to hazardous waste facility risk assessment or a facility risk assessment pursuant to the AB 2588 Hot Spots Information and Assessment Act
- Facility violation history
- Designation of a cumulatively impacted community by another state or local regulatory agency

Supplemental Facility Information Required for Permit Application

In addition to information previously required for hazardous waste permits, the Department could require any facilities that have been initially placed on a Tier 1 or Tier 2 Facility Action Pathway to submit an expanded inventory of potential facility releases, emissions and discharges as part of the permit renewal application. The enhanced inventory would include all information required in 66270.14 (e)(5) as well as the submission of additional available data on facility emissions and discharges (including Toxics Release Inventory data) and on known and potential sources of chemicals of potential concern beyond those activities related to permitted units at the facility.

The Department would review the additional facility specific data to determine whether the data confirm the draft designation of the facility action pathway and to confirm that the facility action pathway reflects community needs based on the potential level of impact of the facility and the indicators of cumulative impacts and community vulnerability around the facility.

Collaborative Review Pathway for Cumulative Impacts and Community Vulnerability

An alternative pathway is envisioned for facilities that opt to work with the Department, community organizations, and local government agencies to develop and submit a community agreement for mitigation, monitoring, and community outreach. This community agreement could be similar to a “good

neighbor agreement,” signed by representatives of community groups and approved by the Department prior to the submittal of the permit application.

If a permit applicant were to follow this pathway, the applicant could be allowed to bypass the requirement for the submittal of additional facility specific data on cumulative impacts and community vulnerability at the permit application stage, including the expanded inventory of potential facility releases and the expanded sources of chemicals of potential concern documentation.

If begun early, this alternative review pathway could result in a faster permit review process for facilities than otherwise would be required. Facilities that choose this alternative pathway would follow the steps under Elements 4 and 5 to develop mitigation, monitoring, and public outreach measures, and those measures, once approved by community members and the Department, would be incorporated as conditions of facility permit requirements.

Including Cumulative Impacts and Community Vulnerability in Permit Decisions

As stated previously, cumulative impacts and community vulnerability, along with other key factors including health impacts, risk assessment findings, facility compliance history, and other facility information, are part of the total record of information to be considered in decisions on permit renewals, permit modifications, or new permits. The Department is considering the range of possible actions that could be taken specifically based on the level of cumulative impacts and community vulnerability in communities surrounding hazardous waste facilities, up to and including permit denial.

Any measures developed by the facility and approved by the Department to address cumulative impacts and community vulnerability under a facility action pathway would become permit conditions, and would be enforceable by the Department in the same manner as other permit conditions.

Element 4: Community Engagement and Outreach

These framework concepts envision that all facilities would have to use enhanced public outreach tools depending on the facility action pathway.

Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement

Those on this pathway could be required to:

- Prepare a Community Engagement Plan (CEP) for the Department’s approval. The plan would be subject to DTSC review and approval to determine if the plan meets DTSC standards for community involvement and responsiveness to community needs in the development and content of the CEP.

The CEP would describe the steps the facility would take to inform the community about facility operations, its contribution to cumulative impacts and community vulnerability, its compliance history, and other relevant information. The CEP would also outline actions the facility would take to build and enhance its communication about its operations and relationship with the community, and actions it takes or would take to solicit community input on measures that could mitigate cumulative impacts or enhance community resiliency to those impacts. In preparing the CEP, the facility would be encouraged to incorporate any steps taken pursuant to other similar regulatory frameworks (such as a Risk Reduction Audit and Plan under HSC Section 44300 et seq., or state or local requirements implementing AB 617).

- Upon petition, establish and support the meetings of a community advisory group similar to advisory groups on site mitigation, in lieu of holding public meetings annually or every other year.

- Hold annual community meetings to inform the community about operations at the facility, including information about cumulative impacts and community vulnerability, and provide updates to the community on implementation of required mitigation measures.
- Prepare and distribute every six months, subject to the Department's approval of form and content, a community update informing the community about operations at the facility, including information about cumulative impacts and community vulnerability, and progress in implementing required monitoring and mitigation measures.

Tier 2 Action Pathway: Mitigation *or* Monitoring and Community Engagement

Those on this pathway could be required to:

- Prepare a CEP for the Department's approval. The plan would be subject to the Department's review and approval to determine if the plan meets the Department's standards for community involvement and responsiveness to community needs in the development and content of the CEP.

The CEP would describe the steps the facility would take to inform the community about the facility operations, its contribution to cumulative impacts and community vulnerability, its compliance history, and other relevant information. The CEP would also outline actions the facility would take to build and enhance its communication about its operations and relationship with the community, and actions it takes or would to solicit community input on measures that could mitigate cumulative impacts or enhance community resiliency to those impacts. In preparing the CEP, the facility would be encouraged to incorporate any steps taken pursuant to other similar regulatory frameworks (such as a Risk Reduction Audit and Plan under HSC Section 44300 et seq., or state or local requirements implementing AB 617).

- Hold community meetings annually or every other year to inform the community about operations at the facility, including information about cumulative impacts and community vulnerability, and progress implementing any mitigation measures as applicable.
- Prepare and distribute annually, subject to the Department's approval of form and content, a community update informing the community about operations at the facility, including information about cumulative impacts and community vulnerability, and progress implementing monitoring or mitigation measures as applicable.

Tier 1 Versus Tier 2

- Both require community engagement plans approved by the Department
- Annual community meetings in Tier 1, every other year in Tier 2
- Community updates every 6 months in tier 1, annually in Tier 2.
- Mitigation ***and*** monitoring in Tier 1, mitigation ***or*** monitoring in Tier 2.

Tier 3 Action Pathway: Community Outreach Pathway

Those on this pathway could be required to:

- Prepare and distribute on a regular basis, subject to the Department's approval of form and content, a community notice informing the community about operations at the facility, including information about cumulative impacts and community vulnerability.

Element 5: Mitigation and Monitoring

These draft framework concepts include potential requirements for mitigation of cumulative impacts, taking community vulnerability into consideration, and for monitoring of pollutants. Under the draft framework concepts, the Department could develop, through a public process, a clearinghouse of approved community mitigation projects to reduce the cumulative environmental and health impacts on the community or to enhance community resiliency for facilities that have been placed on the Tier 1 or Tier 2 Pathway.

Tier 1 Action Pathway: Mitigation, Monitoring, and Community Engagement

This pathway could require the following approaches in addition to the Tier 1 community engagement and outreach approaches listed earlier:

- hold public meetings on community monitoring and mitigation priorities.
- propose, as part of its permit application and subject to public comment and the Department's approval, to implement community mitigation projects from an approved list for pollution hazard reduction and cost; and
- achieve reasonable further progress in implementing the mitigation project as defined by a schedule in the permit, but no less expeditiously than as defined in the regulation
- maintain records and submit reports demonstrating the successful implementation of the project;
- implement a community monitoring network (including a network implemented pursuant to AB 617, or another similar program), subject to approval by the Department in consultation with other state and local environmental agencies with applicable jurisdiction (e.g., a Regional Water Quality Control Board or local Air Pollution Control/Air Quality Management District); and
- report monitoring data to the Department and the community on a schedule specified in the permit.

If the application is for a new hazardous waste facility, the Department could require a buffer zone or setback distance from sensitive receptors.

Tier 2 Action Pathway: Mitigation or Monitoring and Community Engagement

This pathway could require one of two approaches in addition to the Tier 2 community engagement and outreach approaches listed earlier. Under the first, the applicant would:

- implement a mitigation strategy;
- hold public meetings on community monitoring and mitigation priorities every other year;
- propose, as part of its permit application and subject to public comment and the Department's approval, to implement mitigation measures from an approved list;
- achieve reasonable further progress implementing the mitigation projects as defined by a schedule in the permit but no less expeditiously than as defined in the regulation; and
- maintain records and submit reports demonstrating the successful implementation of the mitigation measures.

If the application is for a new hazardous waste facility, the Department could require a buffer zone or setback distance from sensitive receptors.

Under the second approach, the applicant would:

- implement a monitoring strategy:
- implement a community monitoring network, subject to public comment and approval by the Department in consultation with other state and local environmental agencies with applicable jurisdiction (e.g. a Regional Water Quality Control Board or local Air Quality Management District); and
- report monitoring data to the Department and the community on a schedule specified in the permit.

If the application is for a new hazardous waste facility, the Department could require a buffer zone or setback distance from sensitive receptors of [N2 distance, smaller than N1].

Element 6: Data and Tools Review

An important goal of these draft framework concepts is to incorporate advances in science and technology to ensure that the most recent and accurate data and information is used to assess cumulative impacts and community vulnerability. Under the draft framework concepts and on a periodic basis, the Department would, in conjunction with CalEPA and other BDOs, conduct a review of the availability of data and tools to determine whether additional tools or datasets need to be incorporated into the initial prioritization process. In addition, the Department would also review data and tools at the time of a permit application to ensure that the final facility classification has incorporated the best available information. This data and tools review would be analogous to a “best available control technology” review.

Potential Guidance Documents

To provide clear and practical information to regulated facilities and to the public, the Department could develop, through a public process, guidance related to key elements of the framework. Areas where guidance could be appropriate include:

Guidance on Additional Cumulative Impacts and Community Vulnerability Tools

- Methods and consideration of additional tools for assessing cumulative impacts and community vulnerability

Mitigation Measures Clearinghouse

Examples of potential mitigation measures:

- Reduced truck traffic/emissions, replacement with clean trucks, re-routing
- Safer chemical substitutions
- Lead abatement in homes
- Community investments (investments could be linked to AB 617 emission reduction strategies)
- Additional community monitoring of air, water, and environmental pollution concentrations, including dust, soil, and biomonitoring
- Community public health and healthy homes assessments

- Asthma intervention program
- Facility pollution prevention plans
- Other project ideas generated through a community input process

ⁱ Vrijheid M (2000). Health effects of residence near hazardous waste landfill sites: a review of epidemiologic literature. *Environmental health perspectives* 108 (Suppl 1):101.

ⁱⁱ Kouznetsova M, Huang X, Ma J, Lessner L, Carpenter DO (2007). Increased rate of hospitalization for diabetes and residential proximity of hazardous waste sites. *Environ Health Perspect* 115(1):75-9.

ⁱⁱⁱ Sergeev AV, Carpenter DO (2005). Hospitalization rates for coronary heart disease in relation to residence near areas contaminated with persistent organic pollutants and other pollutants. *Environ Health Perspect* 113(6):756-61.