



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



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MEMORANDUM

TO: Cumulative Impacts and Precautionary Approaches Work Group

FROM: Arsenio Y. Mataka *AM*
Assistant Secretary for Environmental Justice and Tribal Affairs
California Environmental Protection Agency

George Alexeeff, Director *George Alexeeff*
Office of Environmental Health Hazard Assessment

DATE: July 30, 2012

SUBJECT: DRAFT CALIFORNIA COMMUNITIES ENVIRONMENTAL HEALTH SCREENING
TOOL (Cal-ENVIROSCREEN)

INTRODUCTION

By statute the California Environmental Protection Agency (Cal/EPA or the Agency) is required to conduct its programs, policies and activities, and to promote the enforcement of all its existing health and environmental statutes, in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations in the state. To carry out this direction, in 2004 the Agency developed an Environmental Justice Action Plan that concluded, among other things, that guidance should be provided on how Cal/EPA, its boards, departments and office might analyze, prevent and reduce cumulative impacts on communities throughout California.

Cal/EPA defines the term "cumulative impacts" to mean exposures, public health or environmental effects from combined emissions and discharges in a geographic area, including environmental pollution from all sources, whether single or multimedia, routinely or accidentally, or otherwise released. In order to adequately identify areas in the state subject to these impacts, it was determined that consideration also should be given to populations that are especially sensitive to the effects of pollution, and to socioeconomic factors that can amplify the effects of pollution, where applicable and to the extent data are available.

Primary responsibility for preparing guidance on how to assess cumulative impacts was assigned to the Office of Environmental Health Hazard Assessment (OEHHA). A Cumulative Impacts and Precautionary Approaches (CIPA) Work Group was established to help Cal/EPA and OEHHA develop this guidance. The CIPA Work Group met seven times between 2008 and 2010 to discuss the Agency's direction on cumulative impacts.

OEHHA's efforts culminated in a Cal/EPA report in December 2010 that described the science behind concerns for cumulative impacts in communities and outlined an approach for evaluating cumulative impacts across all the regions of the state. The report provided a proposed methodology that would utilize available environmental and population data to develop a tool that state and local decision-makers, community members and economic developers could use to assess cumulative impacts.

Cal/EPA now intends to build upon the 2010 report by releasing this draft California Communities Environmental Health Screening Tool for public review and comment. As discussed below, this draft implements and further explains the methodology described in the 2010 report. It is a working draft, and over the next several months our goal is to discuss the methodology and our conclusions with the public and a wide range of stakeholder, community and government groups to ensure that the final report will be of help to state agencies, departments and local municipalities in their future planning and budgeting decisions.

The draft California Communities Environmental Health Screening Tool uses existing environmental, health and socio-economic data to create a cumulative impact score for communities across the state. The tool is used to compare areas of the state against other areas, creating a relative ranking. This means that an area with a high score would be expected to experience greater cumulative impacts, as compared to areas with low scores. The tool presents a broad picture of the burdens and vulnerabilities different areas face from environmental pollutants. Having this information will enable state and local decision makers to focus their time, resources and programs on those portions of the state that have higher vulnerabilities and burdens, as compared to other areas, and therefore are most in need of assistance.

The tool is not intended to be a substitute for focused risk assessment for a given community or site and cannot precisely predict or quantify specific health risks or effects associated with cumulative exposures identified for a given community or individual. The tool also does not directly correlate the potential impacts of exposure from different types of pollutants, such as particulate exposures from vehicle emissions and exposures from pesticides or hazardous materials. Additionally, it should be noted that the statutory definition of "cumulative impacts" contained in the California Environmental Quality Act (CEQA), is substantially different than the definition of "cumulative impacts" adopted by Cal/EPA and used to guide the development of this tool. Therefore, the data and ranking generated by this tool cannot be used as a substitute for an analysis of the cumulative impact of any specific project for which an environmental review is required by CEQA. The screening tool is not intended to create a legal obligation to conduct additional detailed cumulative impacts analyses for individual rulemakings.

PRELIMINARY ANALYSIS

Over the past year and a half, staff at OEHHA has gathered information from all available ZIP codes in California to begin making the tool described in the 2010 report a reality. The attached draft California Communities Environmental Health Screening Tool presents the next step toward understanding cumulative impacts in California. It is important to stress that this draft document provides a preliminary analysis. It is not intended as a complete or final document and we are hoping that by seeing the tool in operation, readers will be able to provide informed feedback on the overall methodology and suggest feasible improvements.

We are aware that both before and since Cal/EPA and OEHHA started working on this tool, much work has been done in the academic and environmental justice communities on other related cumulative impacts methodologies. As an example, Professors Manuel Pastor, Rachel Morello-Frosch and Jim Sadd developed and updated an Environmental Justice Screening methodology that has strongly influenced the approach here. Additionally, in November 2011, the UC Davis Center for Regional Change published a report on the San Joaquin Valley using a Cumulative Environmental Vulnerability Assessment. One of our objectives in releasing this draft California Communities Environmental Health Screening Tool now is to invite a discussion and comparison of these other methodologies with our proposed approach. The information and directions taken in these other reports may inform, modify or supplement the tool.

A WORK IN PROGRESS

It is important to stress that this is still very much a work in progress and we are interested in feedback on several issues. For example:

- This tool considers information on the use of certain high-hazard/high-volatility pesticides to be an indicator of exposure¹. We recognize, however, that pesticide use in California is regulated with the goal to eliminate harmful exposures. Use alone does not represent a true measure of exposures to pesticides and does not equate to harmful exposures. However, no complete dataset on actual exposures to pesticides is available across the entire state. Since pesticide exposures are an important issue in many places in California, we would like feedback on whether there are better ways to represent exposures with the data that are available.
- Similarly, we do not want to equate proper disposal and storage of hazardous materials with toxic releases to air and water. We are looking for additional input to make this distinction clearer.
- We also would like to hear what you think about the number and type of indicators that should be used to describe socioeconomic factors.
- We recognize that the choice to map statewide at the ZIP code scale results in trade-offs relative to the use of other geographic scales. For example, some important data are only available at a statewide ZIP code scale. However, ZIP code scale may not always provide information at the level of geographic detail to accurately reflect the impact on some communities. We are interested in feedback on whether - on balance - the goal of producing a statewide map with these data is worth the trade-offs or whether alternate scales can be considered to generate a statewide map of cumulative impacts.
- Further, we plan to develop a drinking water quality indicator and welcome your thoughts about the potential methodology and data for that indicator.

¹ An indicator is a numerical value derived from actual measurements of a stressor, state or surrounding condition, exposure, or human health or ecological condition over a specified geographic area, whose trends over time represent or draw attention to underlying trends in the condition of the environment. (Derived from USEPA definition in EPA's 2008 Report on the Environment, available at http://www.epa.gov/ncea/roe/docs/roe_final/EPAROE_FINAL_2008.PDF.)

We hope that in your review of this draft guidance document, you can use the issues above to inform your comments and suggestions.

POTENTIAL USES OF RESULTS

Of course, the form and nature of the information evaluated in this tool should reflect its potential uses. We look forward to discussing with the public, stakeholders and government entities how the California Communities Environmental Health Screening Tool may be used. It is not our intent to use the tool to start a new program; instead, the tool should be seen as an aid to ongoing planning and decision making already underway within Cal/EPA and other state entities. Local governments may also find the tool to be useful. Most importantly, in a time of limited resources for environmental protection, this tool will provide significant insight into how these resources can be prioritized to improve the environmental health of all Californians.

As an example, the tool should be useful in the administration of the Agency's Environmental Justice Small Grant program, and could guide other grant programs as well as environmental education and community programs throughout the state. It would also help to inform Agency boards or departments when they are budgeting scarce resources for cleanup and abatement projects. The board or department could use the tool to direct its resources toward the most impacted communities. It may also help to guide boards or departments in the Agency when planning their community engagement and outreach efforts.

Furthermore, knowing which areas of the state have higher relative environmental burdens or are more subject to exposure to environmental hazards will help with prioritization in the enforcement of environmental laws. Given the role of the Agency and its boards and departments in enforcing the state's environmental laws and working with local enforcement agencies, enforcement efforts should be targeted to alleviate stresses on the state's most impacted communities.

Local and regional governments, including regional air districts, water boards, and planning and transit agencies, may also use this tool. The tool could help identify opportunities in sustainable development in heavily impacted neighborhoods. These areas could also be targeted for cleaning up blight and redevelopment to bring in jobs and increase stability. In addition, the tool might be of assistance in developing planning and financial incentives to retain jobs and create new, sustainable business enterprises in the state's most impacted communities.

And, when reviewing potential development projects, the tool could be used by decision makers carrying out their existing obligations under the California Environmental Quality Act. For instance, the information provided in the tool would be available to: assist in establishing the environmental setting for a proposed project, identifying cumulative impacts requiring environmental review, and might be useful in analyzing and formulating appropriate alternatives and mitigation measures. (See, for example, the Attorney General's advice letter on *Environmental Justice at the Local and Regional Level*, available at http://oag.ca.gov/sites/all/files/pdfs/environment/ej_fact_sheet.pdf.)

In making these recommendations, we recognize that the California Communities Environmental Health Screening Tool is just one of many resources available to address environmental justice concerns. Because it has been designed to identify impacts at a ZIP Code level, and to assist in setting priorities from a statewide perspective, local communities may want to further refine or add to the information available in the tool in order to more accurately reflect local or regional

conditions. Thus, the tool should be understood to provide a baseline of information and it is not intended to be used as the sole determining factor in decision-making.

PROVIDING YOUR EXPERTISE

The uses of this tool are limited by the best available data and this guidance document simply provides suggestions for how the tool could be used. Your comments and input, however, will maximize the potential application and eventual use of this tool.

In the interest of producing the most effective tool possible, we look to your expertise and suggestions. The most helpful comments will address the following:

- How can policy-making bodies, businesses and other groups and organizations best use the tool, and the information it reveals, to make decisions?
- Are the indicators, data sources and methodologies currently chosen meaningful and justified, or should they be improved? If so, how should they be improved? Please try to provide specifics.
- What other available data or indicators could be considered for inclusion to assist in promoting our environmental justice goals?

We hope this early look at the type of information that the tool uses and produces will assist you in reviewing the indicators and methodologies, and will help to guide all of us in meeting our commitment to achieving environmental justice.

OPPORTUNITIES FOR PUBLIC INPUT

Transparency and public input into government decision making and policy development are the cornerstones of environmental justice. Inasmuch as the information being presented here is preliminary and is not intended to be final or definitive, Cal/EPA and OEHHA request participation from all stakeholders in order to better inform the development of this tool.

The attached draft report is being presented initially to the CIPA Work Group at a public meeting for review and feedback. The attached PowerPoint presentation will provide background and an overview of the project.

Further, we are asking for comments and suggestions from stakeholder groups and the general public by September 18, 2012. Specifically, we request input concerning the indicators used, the data source selected and how the results of the tool should be used by Cal/EPA and its boards and departments. To assist in preparing these comments, we also plan to conduct a series of public workshops that will be held in August and September:

Date	Event	Location
August 7	CIPA Workgroup meeting	Sacramento
August 21	Regional Workshop 1	Los Angeles
August 22	Regional Workshop 2	San Bernardino
August 23	Regional Workshop 3	San Diego (Barrio Logan)
September 5	Regional Workshop 4	Fresno
September 6	Regional Workshop 5	Oakland
September 7	Academic Workshop	Seaside
September 18	All public comments due	
October 9	Final CIPA Workgroup meeting	Sacramento
November	Release California Communities Environmental Health Screening Tool	TBD

After considering all the comments and suggestions received, Cal/EPA and OEHHA will further develop and refine the tool. They will then work with the CIPA Work Group and the boards and departments within the Agency to develop a final report.

CONCLUSION

Cal/EPA is committed to an open and public process for the development of the California Communities Environmental Health Screening Tool and the related guidance to further our state's environmental justice goals. Input from California communities, businesses and other stakeholders are critical to the success of this project. We appreciate the willingness of the CIPA Work Group to assist Cal/EPA and OEHHA with this project and look forward to a productive dialogue with you and all interested parties.

CONTACT INFORMATION

To provide public comment on this document and the development of the draft California Communities Health Screening Tool, please contact:

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