

*BIC Meeting of
August 20, 2014*

Agenda Item #9

LEGISLATIVE DIGEST

[Health Code - Article 38 Ventilation Requirement for Urban Infill Development]

Ordinance amending the Health Code to require an enhanced ventilation system for sensitive use projects within the Air Pollutant Exposure Zone; and establishing document review fees, amending the Building Code to correspond to the Health Code changes making environmental findings and findings of consistency with the General Plan and the eight priority policies of Planning Code Section 101.1.

Existing Law

To avoid health problems associated with exposure to roadway pollution, the California Resources Board recommends avoiding the placement of residential and other sensitive uses within 500 feet (approximately 150 meters) of freeways and other busy roadways. The expansion of residential development and the limited amount of land available in San Francisco led to residential development in urban infill sites near freeways or busy arterial roadways, potentially increasing residents' exposure to air pollutants and their associated health risks.

Article 38 requires the developers of residential projects containing 10 or more units and located near freeways to and major roadways to submit an Air Quality Assessment to evaluate the concentration of PM_{2.5} (solid particles and liquid droplets which are less than 2.5 micrometers in diameter) from traffic generated within 500 feet from the site, which must be submitted to the Director of Health.

If this Air Quality Assessment indicates that the concentration level of PM_{2.5} is greater than 0.2 ug/m³, the project shall: (1) be designed or relocated on the site in a way that would avoid residential exposure greater than 0.2 ug/m³, or (2) submit to the Director a Ventilation Proposal capable of removing ≥ 80% of ambient PM_{2.5} from habitable areas of the dwelling units, and meets the requirements of San Francisco Building Code Section 1203.5.

Amendments to Current Law

The "Potential Roadway Exposure Zone" is redefined as the "Air Pollutant Exposure Zone" and includes other sources of air pollution emissions.

The Air Pollutant Exposure Map shall depict all locations within the City where the estimated cumulative PM_{2.5} concentration is greater than 10µg/m³ or where the estimated cumulative excess risk of cancer from air pollutants resulting from lifetime (70 years) exposure is greater

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than 100 in a million. The map shall also include all locations within 500 feet of any freeway, if those locations were not otherwise captured by modeling estimates.

The amendment defines "Health Vulnerable Locations" as those San Francisco zip codes, census tracts or other defined locations having the highest percentage of health vulnerable residents, based on criteria such as State discharge data from respiratory and cardiovascular related hospitalizations, non-accident mortality, or other criteria as determined by the Director of Health. For these areas, the Air Pollutant Exposure Zone Map shall depict all locations where the estimated cumulative $PM_{2.5}$ concentration is greater than $91\mu g/m^3$ or where the estimated cumulative excess risk of cancer from air pollutants resulting from lifetime (70 years) exposure is greater than 90 in a million.

The amendment defines "Sensitive Use" as any building or facility designed for residential use, or serving specific sensitive populations, such as adult support centers, child care centers, community treatment centers, health care facilities, schools, and group homes.

All buildings containing any Sensitive Use located the Air Pollutant Exposure Zone that are: (1) newly constructed; (2) undergoing a major alteration to an existing building; or (3) applying for a San Francisco Planning Department – permitted Change of use shall be required to submit an Enhanced Ventilation System be capable of achieving the protection from particulate matter ($PM_{2.5}$) equivalent to that associated with MERV 13 filtration.

Background Information

Scientific studies show that exposure to particulate matter from air pollution leads to significant human health problems, including: aggravated asthma; chronic bronchitis; reduced lung function; irregular heartbeat; heart attack; and premature death in people with heart or lung disease. Exposure to air pollutants that are carcinogens can also have significant human health consequences. For example, exposure to diesel exhaust is an established cause of lung cancer.

Persons living in close proximity to air pollution sources, such as freeways or busy roadways, have poorer lung functions and are more susceptible to developing asthma and other respiratory problems, compared with persons living at a greater distance; from such sources. The California Air Resources Board's 2005 Land Use Guidance document, "Air Quality And Land Use Handbook: A Community Health Perspective," reviewed traffic-related air pollution studies and found that particulate matter pollution levels decrease by about 70 percent at 500 feet from freeways and high-traffic roadways, defined as urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.

Consequently, health vulnerability varies among neighborhoods and populations within San Francisco, as measured by population health records of air pollution-associated hospital

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discharges and emergency room visits, and non-accident mortality. Health vulnerable populations are likely to have more significant health consequences from air pollutant exposure compared to populations that are less vulnerable. "Sensitive Use" buildings have the highest proportion of individuals who are most vulnerable to air pollutant exposures.

Available technologies exist to protect sensitive uses from air pollution health effects. Available and accepted air pollution modeling technology allows for the estimation of certain air pollutant concentrations for individual land parcels. Furthermore, available building ventilation and engineering technologies provide mechanisms to protect indoor environments from the infiltration of ambient air pollutants.

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Harris, Sonya (DBI)

From: Cohn, Karen (DPH)
Sent: Wednesday, July 23, 2014 4:19 PM
To: Cohn, Karen (DPH)
Subject: Legislation introduced 7/15 updating Admin Code for Clean Construction and Health Code Article 38

I am writing to let you know that SF Supervisor Malia Cohen introduced two ordinances at the SF Board of Supervisors meeting on 7/15 which update existing San Francisco laws on air quality:

File# **140805** is the **Clean Construction Ordinance** amending the Administrative Code to require a Construction Emissions Minimization Plan and monitoring for public projects within the Air Pollutant Exposure Zone, as mapped pursuant to Health Code, Article 38; amending the Administrative and Environment Codes to reflect these requirements; and making environmental findings.

File# **140806** is the Ordinance amending the **Health Code, Article 38**, to require an enhanced ventilation system for sensitive use projects within the Air Pollutant Exposure Zone, and establishing document review fees; amending the Building Code to correspond to the Health Code changes; and making environmental findings, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1.

Attachments provided here show the **Air Pollutant Exposure Zone** map.

Both ordinances, legislative digests and the details on the legislative process can be tracked by entering each file number on the Board of Supervisors website at: <https://sfgov.legistar.com/Legislation.aspx>

Both ordinances are assigned to the **Land Use and Economic Development Committee**, and should appear on a September 2014 agenda for that committee.

Thank you for your interest in this issue.

Karen Cohn, Program Manager
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Population Health Division Strategic Framework:
REACH -for- Results, Equity, and Accountability for Community Health

**RESPONSE TO QUESTIONS POSED BY BIC
COMMISSIONERS AT BIC MEETING OF
2/19/14**

Date: 4/25/14

To: President Angus McCarthy, San Francisco Building Inspection Commission
From: Karen Cohn, San Francisco Department of Public Health
Subject: Response to questions posed by BIC Commissioners at BIC meeting of 2/19/14

I. REGULATORY SCOPE ISSUES

(Q1) Commissioner McCarthy asked: Would a single family home now have to do an environmental review because of this amendment to Article 38? Environmental review and mitigation of harmful effects on sensitive receptors from air pollution, as defined by the Air Pollution Exposure (APE) Zone, is already required by CEQA for single family homes and new developments, regardless of the number of units.

Would CEQA environmental review and mitigations for air pollution effects on sensitive receptors still be required if a new development is compliant with Article 38? CEQA is required for any new development. The proposed amendment merges the CEQA and Article 38 requirements within the APE Zone, so therefore the air pollution aspect of CEQA environmental review is met by compliance with Article 38, eliminating the need for further higher level CEQA review.

(Q2) Clarify whether the proposed Article 38 change in scope regarding "change of use" will be triggered by Supervisor Chiu's new legislation allowing for legalization of existing in-law apartments. Newly permitted in-law units would *not* be considered a Planning defined change of use, because the legalization of in-law apartments does not reflect changing from one permitted use to another permitted use. To restate another way, if an in-law unit is within a Residential Zoning District, then that use is not different from the existing residential use. Secondly, Section 311 of the Planning Code, which deals with residential permit review procedures in Residential Zoning Districts, differentiates between change in use and change in the number of dwelling units of a residential building

(Q3) Commissioner Mar asked: Would the proposed Article 38 change in scope regarding "major alterations" impact smaller property owners who wish to gut and rehab 2-5 unit buildings, including affordable housing? Will these total remodels fall into the Article 38 scope? It is very unlikely that total rehab of a 2-5 unit building will meet the extensive definition of "major alteration" as defined by SF Green Building Code (formerly SF Building Code Chapter 13C):

- MAJOR ALTERATIONS. Alterations where interior finishes are removed and significant upgrades to structural and mechanical, electrical and/or plumbing systems are proposed where areas of such construction are 25,000 gross square feet or more in Group B, M or R occupancies of existing buildings.
- For the purpose of enforcement of Chapter 13C, a significant structural upgrade shall be determined to take place when a structural alteration takes place in thirty percent or more of the area of proposed construction. Areas to be counted toward the thirty percent include areas tributary to the vertical load carrying components (joists, beams, columns, walls and other structural components) that have been or will be removed, added or altered.

(Q4) Ms. Cohn clarified the DPH requirement to do whole building enhanced ventilation vs. partial building enhanced ventilation (e.g. using height or distance from roadway or other air pollution source to exempt from enhanced ventilation). In response to developer questions posed at the 12/2/13 informational meeting held at Planning, DPH conducted a literature review which substantiated DPH policy requiring whole building enhanced ventilation. The DPH "Building Height Fact Sheet" explaining those findings and sources was distributed and discussed at the BIC public meeting on 2/19/14.

Date: 4/25/14

In sum, the research literature showed that pollutants do reach upper levels, and cannot be regarded as consistently absent at higher elevations. The State agency, Air Resources Board, concurs that we cannot discount air pollutant exposure at a certain elevation or distance from the source. Additionally, some of those pollutants of concern that reach higher elevations are of smaller diameter and therefore more harmful to health (that is more respirable) than the PM2.5 pollutant used to set the threshold for Article 38 compliance.

Exceptions to the whole building enhanced ventilation policy are made through a waiver request and justification process. The proposed amendment to Article 38 will require DPH to generate Rules & Regulations which will further define a consistent waiver request and justification process.

II. DESIGN/INSTALLATION COST AND ZONING ISSUES

(Q5) Commissioner McCarthy questioned if builders will still find it economically feasible and cost-effective to build 1-3 unit and other small scale buildings in the APE Zone. He asked about the impact of the DPH proposed amendment extending enhanced ventilation requirements to all new residential and sensitive uses - regardless of the number of units - on the economic feasibility of developing smaller scale buildings in the APE Zone, particularly where zoning requires 1-3 unit buildings.

Our team has developed overlay maps to show zoning requirements in the APE Zone, as well as to indicate which lots are most likely to be developed (5-30% softness). These maps indicate that while there are lots both zoned and likely to be developed as single family and 1-3 unit buildings in the APE Zone, those lots represent a very small portion of where development is planned to occur.

Economic feasibility issues for builders will be determined by installation, operations and maintenance costs associated with individual unit or whole building enhanced ventilation systems. Installing individual units with MERV 13 filtration does not require significant differences in design or maintenance compared to individual units with MERV 8 filtration. We are convening a panel of mechanical engineering experts to discuss this question, so that developers will have some guidance as to when it is cost efficient to choose an individual unit or a whole building ventilation system approach.

(Q6) Commissioner Melgar mentioned the Habitat for Humanity development located in OMI within the APE Zone along 280, and questioned, until the technology and its associated costs catch up, if Article 38 would be a barrier to those developing affordable housing. Habitat for Humanity is building Habitat Terrace, 28 green town homes in the Ocean View/Ingleside neighborhood of San Francisco at 1 Capitol Avenue, 94112. Ms. Cohn found out this property did receive DPH air quality modeling that indicated it should have Article 38 enhanced ventilation, based on level of particulate matter (PM2.5) pollution. However, as individual townhouses, the current Article 38 does not apply because each building has only one unit. In addition, DBI does not require mechanical plans to be submitted for single unit buildings, so we are not sure if Habitat developers went ahead and did any special design or added any special filtration to their air handling units.

DPH developed the "Enhanced Ventilation Energy Use and Costs Factsheet" to show examples of Article 38 compliant ventilation systems for various building types. The Factsheet's illustrated side shows that single units like the Habitat Terrace townhouses would be very easy to build with individual air handling units equipped with MERV 13 filtration. Additionally, the text side of the Factsheet shares research indicating there are no significant added energy costs in single family homes when using MERV 13 filtration.

Date: 4/25/14

(Q7) Commissioner McCarthy stated that in current practice most of these smaller scale buildings will not have a licensed mechanical engineer do a complete set of mechanical plans, but rather purchase systems designed by state-licensed HVAC Contractors. It seems that Article 38 compliance requires a complete set of mechanical drawings, which will require the greater cost of using a licensed mechanical engineer. Article 38 does not create the obligation to use a licensed mechanical engineer; from Section 3807 (a):

Any person or entity to whom this Article 38 applies as defined in Section 3805 shall submit to the Director an Enhanced Ventilation Proposal, including all mechanical engineering plans, specifications, calculations, and reports prepared by, or under the supervision of, a licensed mechanical engineer or other individual authorized by the California Business and Professions Code Sections 6700-6799 (Professional Engineers Act) to design professional, to install in the project a mechanical ventilation systems to that meet the requirements of this Article 38 and San Francisco Building Code Section 1203.5. An Enhanced Ventilation Proposal shall include the name, title and license number of the person submitting such proposal.

DPH referenced the online California Board for Professional Engineers and Land Surveyors *Guide to Engineering & Land Surveying for City and County Officials* for the following explanation of when an unlicensed person can practice mechanical or electrical engineering, (citing B&P Code §§ 6730.2, 6737.3, 6739, 6740, 6746, 6746.1, 6747). An unlicensed person can practice mechanical or electrical engineering if he or she is:

- a) A federal officer or employee;
- b) An employee of the state, or any city or county, who was in responsible charge of engineering work on or before January 1, 1985, until such time that person is replaced;
- c) Working under the responsible charge of a licensed mechanical or electrical engineer, as appropriate;
- d) An employee of a communications company or an employee of a contractor engaged in work for such a communications company, while engaged on work on communication lines and equipment for a communications company;
- e) An employee, consultant, temporary employee, a person hired pursuant to a third party contract, or a contract employee of a manufacturing, mining, public utility, research and development, or other industrial corporation provided that work is in connection with the products, systems, or services of that corporation or its affiliates;
- f) A contractor appropriately licensed by the Contractors State License Board (CSLB) and only designs electrical or mechanical systems which he or she will install. An employee of the contractor may perform the installation. However, the contractor cannot subcontract the installation to another contractor.

DPH asks Project Sponsors to provide the following information in order for DPH to review the Enhanced Ventilation Proposal to assess compliance with the requirements of Article 38:

- 1) Air change for residential units: **XXX cfm**
- 2) Air change for common areas: **XXX cfm**
- 3) Filter type for residential units **(e.g. MERV 13)**
- 4) Filter type for common areas

When positive pressure is maintained in units and habitable spaces, enhanced filtration is not required for adjacent common areas such as hallways. Projects where positive pressure will be maintained only in units and habitable spaces must submit a list of the common areas, such as hallways, that are not served by the enhanced ventilation in 7(a) below.

When positive pressure is not maintained in units and habitable spaces, then enhanced filtration is required for all adjacent common areas as well as for the units/habitable spaces.

- 5) Location of air intakes **(e.g. Roof)**
- 6) Positive Pressure in residential units and other habitable spaces? **(Yes/No)**
- 7) Positive Pressure in common areas such as corridors? **(Yes/No)**

If Positive Pressure will be maintained only in units and habitable spaces:

- a. Areas not served by enhanced ventilation? **(e.g. common areas such as corridors)**

Date: 4/25/14

- 8) Floors of building with habitable spaces: [SPECIFY]
- 9) If applicable, location of Z-ducts, trickle vents, or similar unfiltered air system used for residential units
[SPECIFY]

The above information must be included on a Proposal Letter signed and stamped by a licensed mechanical engineer *or other individual authorized by the California Business and Professions Code Sections 6700-6799* (Professional Engineers Act) to design ventilation systems that meet the requirements of Article 38 and San Francisco Building Code Section 1203.5. The Proposal Letter should state that in the signatory's opinion, the ventilation system as designed is compliant with the Provisions of Article 38 and any accompanying guidance or Rules and Regulations in effect at the time of signing. In addition to compliance with Article 38, this system will need to be in compliance with all applicable standards, including any applicable smoke control requirements.

(Q8) Commissioner McCarthy asked if engineering professionals are designing appropriate enhanced ventilation systems, with proper air handling volumes that will not dry out the building, not take up too much space on roof, and not cause too much noise exposure to residents. Ventilation system design issues such as balancing air supplies and controlling fan noise are routinely managed by mechanical engineers. We are convening a panel of mechanical engineering experts to discuss issues such as these, and to identify standard professional practices that can be used for Article 38 compliance.

III. OPERATIONAL COSTS AND ENERGY USE ISSUES

(Q9) Commissioner Lee asked: What is happening to our carbon footprint due to Article 38 enhanced ventilation systems, assuming the units are going to be on 24 hours/day? What is the impact on the home owner association's electric bill? Are we operating contrary to our green building legislation? The Health Code is not operating contrary to our Building Code's Green Building legislation. In fact, the Green Building Form C-2 for Site Permit Submittal posted on the Department of Building Inspection website requires Air Filtration with MERV-13 filters in residential buildings located in air-quality hot-spots (or LEED credit IEQ 5), in accordance with SF Health Code Article 38 and SF Building Code 1203.5.

Since 2010, the California Code of Regulations (CCR) Title 24 Parts 1 and 6 requires that all newly built Low Rise Residential Homes (Single Family Homes and Multi-Family, 3 Stories or Less) have space conditioning equipment that meets minimum energy efficiency requirements defined in the code and that ventilation systems be designed to provide the building with a defined amount of outside air required for the building size. Continuous delivery of outside air is optional; total replacement air volume requirements must still be met when intermittent air delivery is chosen.

In response to BIC Commissioners' energy consumption questions posed at the BIC public meeting on 2/19/14, DPH developed the "Enhanced Ventilation Energy Use and Costs Factsheet" to explain how compliance with CA Title 24, CA CEQA Review and SF Health Code Article 38 requirements might be achieved in three housing types: single family homes, low rise and high rise buildings. Two studies of single family homes and light commercial spaces using MERV 13 filtration documented that energy costs of homes and commercial spaces were very slightly impacted by using MERV 13 filtration. This factsheet was distributed and discussed at the DBI Public Advisory Committee meeting on 3/26/14 and at the second developer meeting held at Planning on 4/8/14.

IV. OCCUPANT EDUCATION/ MAINTENANCE ISSUES

(Q10) Commissioner Lee stated that he would like to hear some testimony and comments from current residents or their use of enhanced ventilation systems. Do they use the enhanced ventilation or do they open their windows all of the time? Do they know how to maintain the system? In the future, how will occupants be educated to properly use and maintain these systems?

We do not have sufficient information on how current occupants of Article 38-compliant homes are benefitting from enhanced ventilation systems, because most of the properties subject to Article 38 are just beginning to be built, following the economic downturn. We are currently filling in a database to keep track of what type of enhanced ventilation technology each Article 38 building has used, and we can later query property developers on associated costs. We are also arranging for site visits to Article 38-compliant buildings, so please let us know if you have any invitations for us.

The proposed Article 38 amendment includes new disclosure and maintenance requirements. Our hope is that such disclosure creates awareness, and that awareness generates a market force where future occupants value that they are being protected from air pollution exposure zones. We believe that developers should be able to feature their enhanced ventilation systems as a desirable feature for prospective buyers and renters.

DPH is also partnering with a start-up firm, Birdi, to pilot the use of a multi-hazard monitoring device which can alert residents to air pollutants generated in the home, such as from cooking, or entering the home from outside, such as from traffic emissions. We will study whether use of this feedback information helps occupants modify their behaviors to have better indoor air quality and to protect themselves from specific air pollution triggering events, such as opening your windows at rush hour.

(Q11) What about protecting current residents in the APE Zone from air pollution?

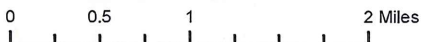
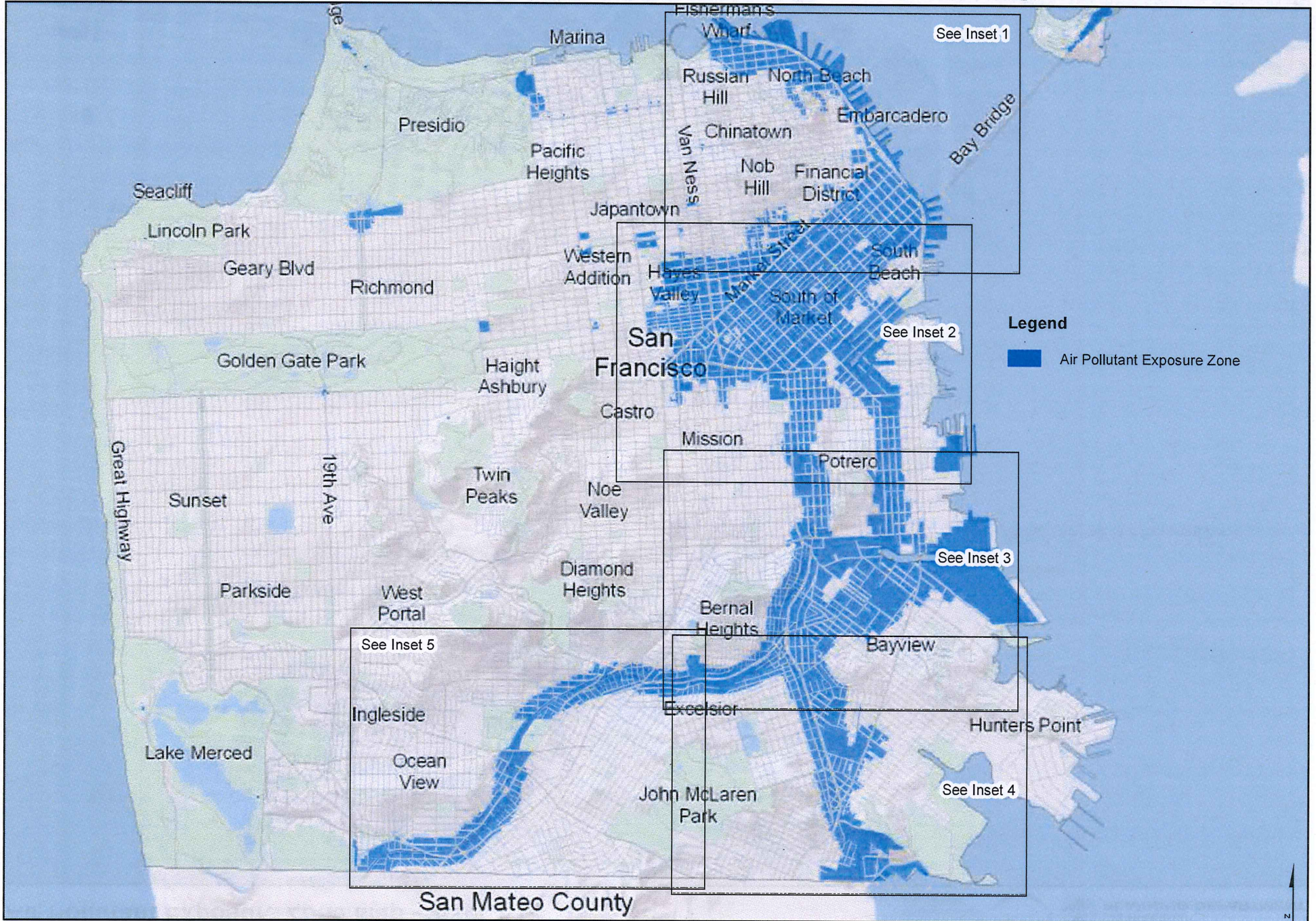
Ms. Cohn explained a current Mirant Settlement-funded pilot project that she oversees, working with the Mayor's Office of Housing & Community Development, where existing homes in the freeway corridor of Potrero Hill and Bayview are being selected for furnace filtration retrofits and building envelope air sealing, along with kitchen and bathroom mechanical ventilation. These are mostly low income, owner occupied single family homes, some with significant deferred maintenance. We are working with Lawrence Berkeley National Lab, leading indoor air quality and energy scientists, to do pre and post air sampling to evaluate the effectiveness of our interventions.

(Q12) Acknowledging that a change in professional practice will be required, what is the overall purpose of amending Article 38? Article 38 is existing law; the proposed amendment to Article 38 is intended to synchronize it with the current CEQA requirements which will:

- Ensure that future residences are sufficiently protected from all known sources of air pollution, not just traffic-related sources;
- Allow for better coordination among City Departments;
- Make project sponsor approval more predictable and with less steps so that applicants experience a more efficient permit review process.

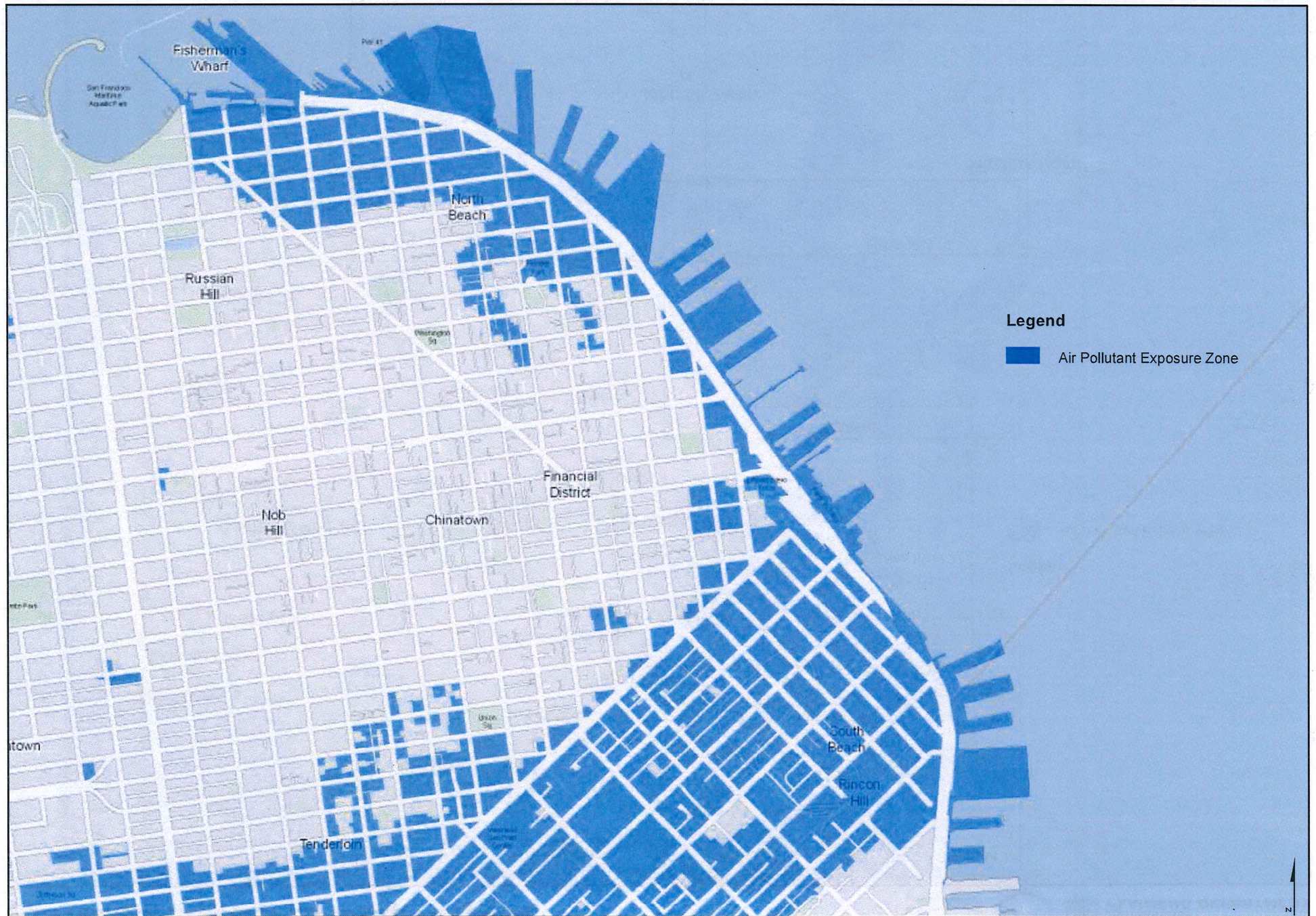
The proposed change of scope to all new sensitive uses, regardless of the number of units, assists developers to meet this requirement without the time-consuming and expensive steps needed for CEQA environmental compliance (assuming no other significant environmental effects).

Air Pollutant Exposure Zone Map - Citywide



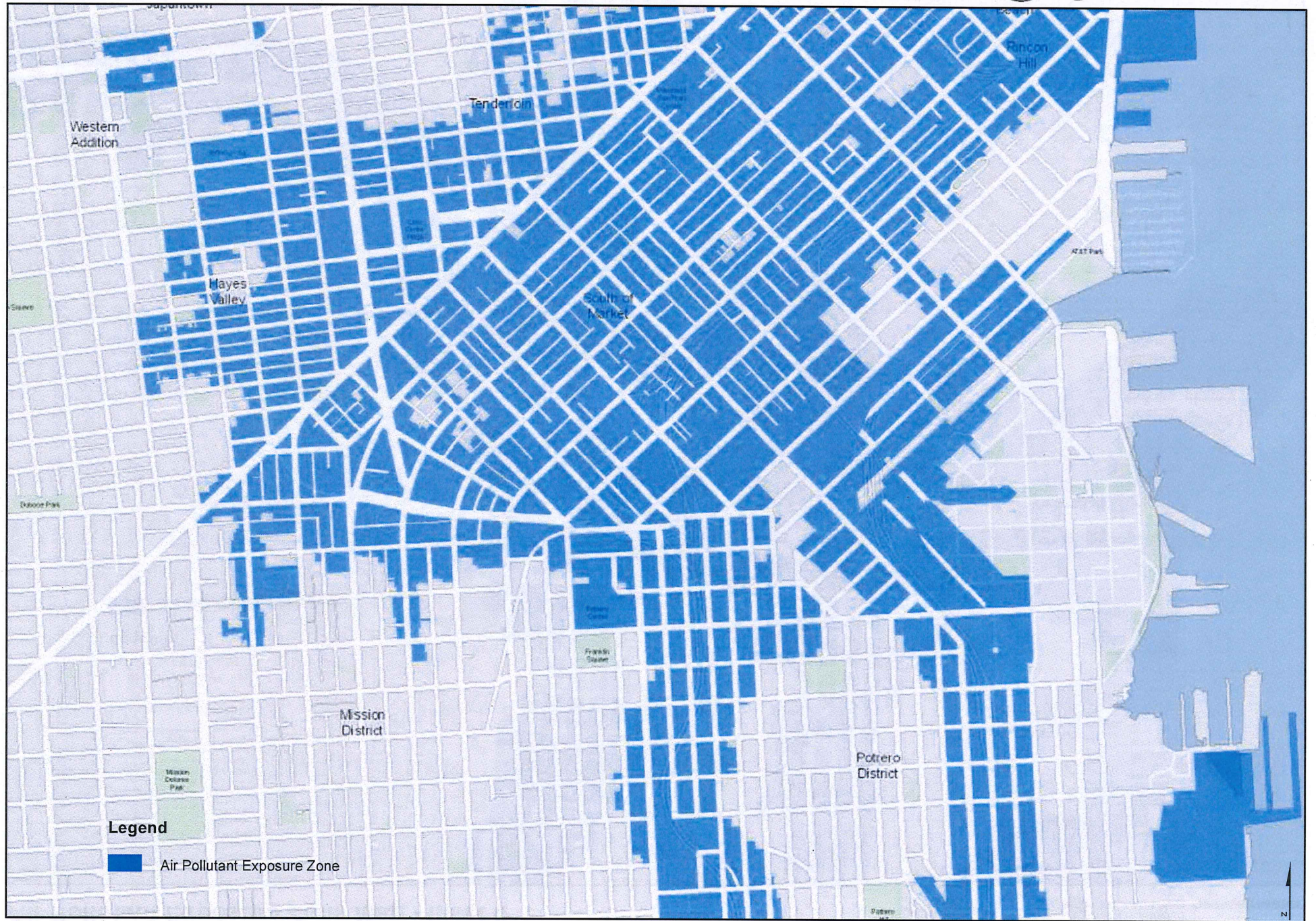
Note: This map does not identify all city lots that overlap with the criteria identified in Article 38 of the Health Code because certain lots are substantially large (e.g., Golden Gate Park, Lake Merced, Presidio, Balboa Park, City College of San Francisco, Yerba Buena Island) and identifying the entire lot, although only one or a few receptor points within the large parcel exceed the criteria, could be misleading. In these instances, only the receptor point(s) is shown.

Air Pollutant Exposure Zone Map - Inset 1



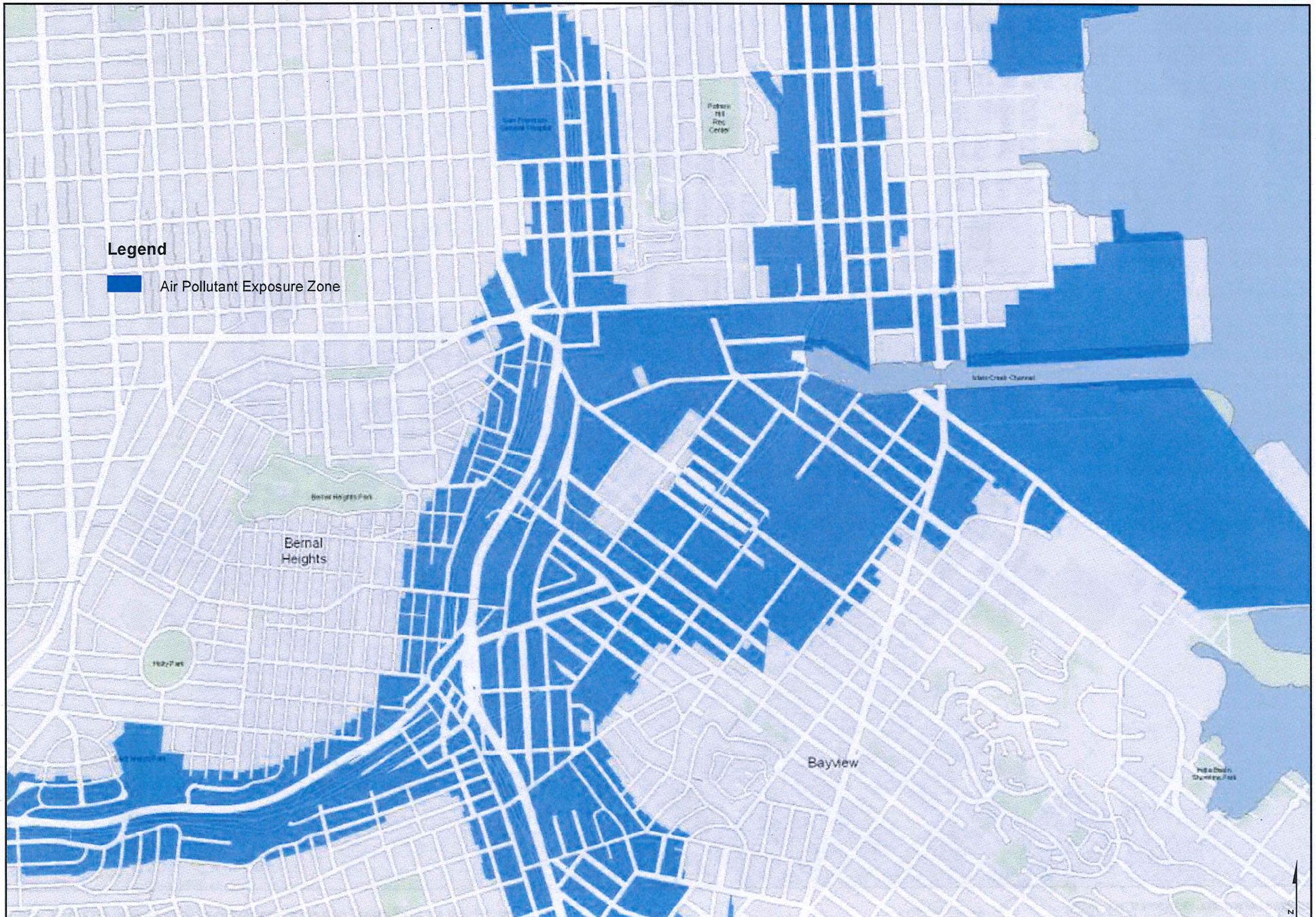
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Air Pollutant Exposure Zone Map - Inset 2



Note: This map does not identify all city lots that overlap with the criteria identified in Article 38 of the Health Code because certain lots are substantially large (e.g., Golden Gate Park, Lake Merced, Presidio, Balboa Park, City College of San Francisco, Yerba Buena Island) and identifying the entire lot, although only one or a few receptor points within the large parcel exceed the criteria, could be misleading. In these instances, only the receptor point(s) is shown.

Air Pollutant Exposure Zone Map - Inset 3

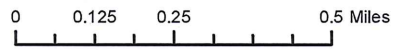
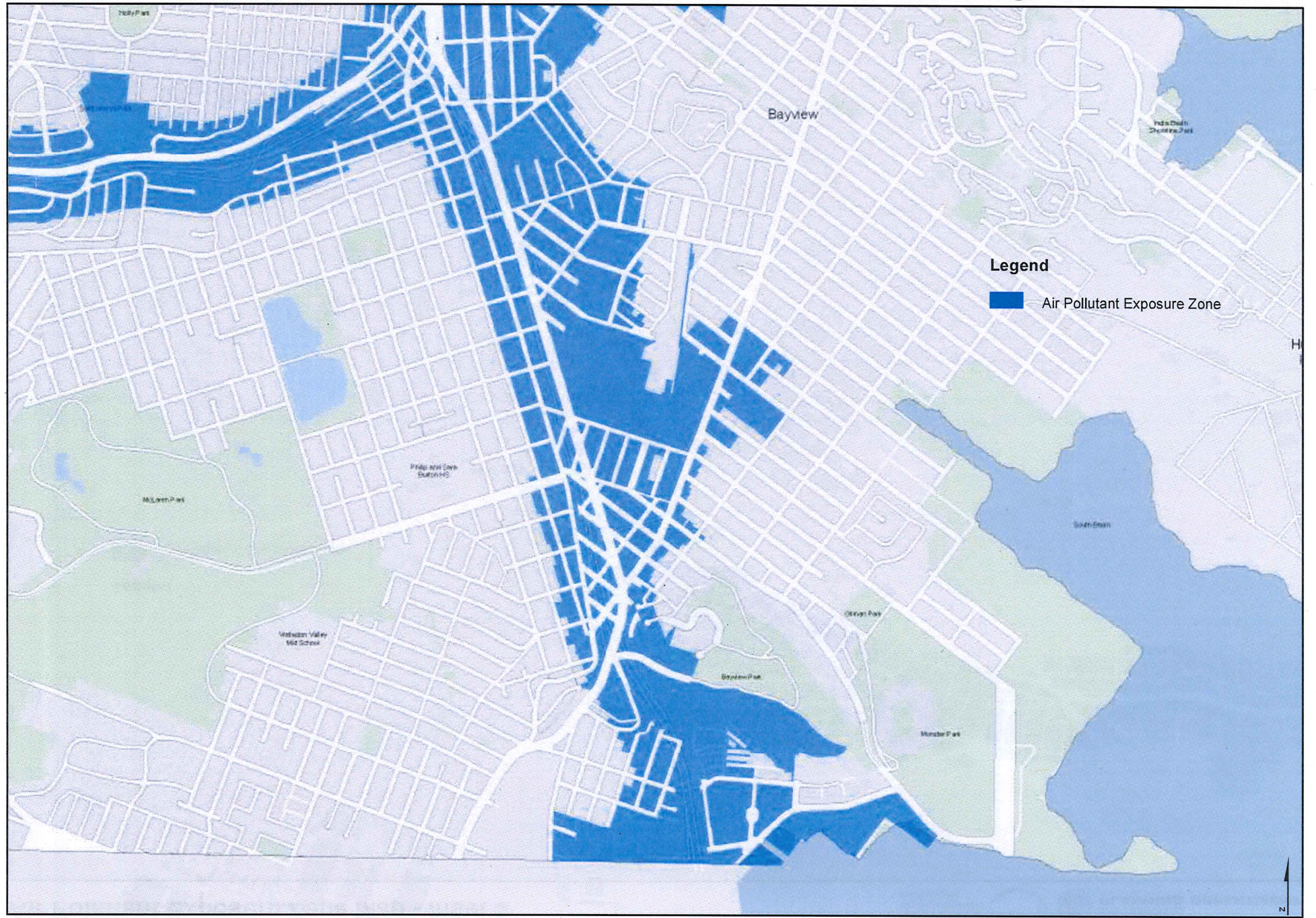


0 0.125 0.25 0.5 Miles

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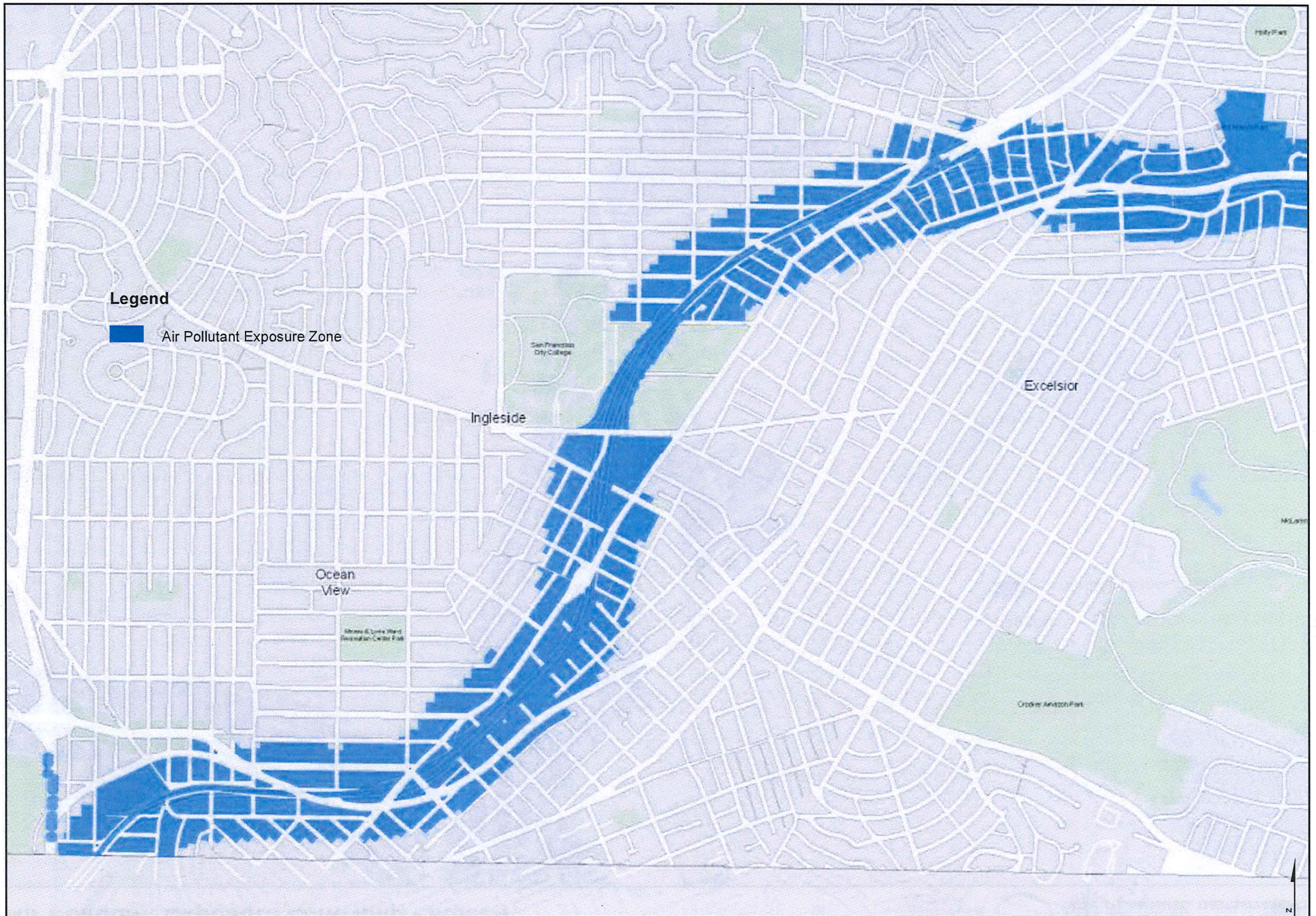
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Air Pollutant Exposure Zone Map - Inset 4



Note: This map does not identify all city lots that overlap with the criteria identified in Article 38 of the Health Code because certain lots are substantially large (e.g., Golden Gate Park, Lake Merced, Presidio, Balboa Park, City College of San Francisco, Yerba Buena Island) and identifying the entire lot, although only one or a few receptor points within the large parcel exceed the criteria, could be misleading. In these instances, only the receptor point(s) is shown.

Air Pollutant Exposure Zone Map - Inset 5



Note: This map does not identify all city lots that overlap with the criteria identified in Article 38 of the Health Code because certain lots are substantially large (e.g., Golden Gate Park, Lake Merced, Presidio, Balboa Park, City College of San Francisco, Yerba Buena Island) and identifying the entire lot, although only one or a few receptor points within the large parcel exceed the criteria, could be misleading. In these instances, only the receptor point(s) is shown.



Building and Health Code Amendment

The proposed Ordinance would amend Article 38 of the Health Code to require an enhanced ventilation system for sensitive receptor projects within the Air Pollutant Exposure Zone, as mapped by Article 38 of the Health Code; amend the Building Code to reflect changes in Article 38 of the Health Code; and make environmental findings.

GOAL OF THE ORDINANCE

The goal of the proposed Ordinance is to protect public health in locations of the City burdened with poor air quality (Air Pollutant Exposure Zone). The proposed Ordinance requires new sensitive receptor construction to include a ventilation system that requires the removal of fine particulate matter (PM_{2.5}) equivalent to that associated with MERV 13 filtration.

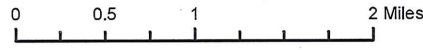
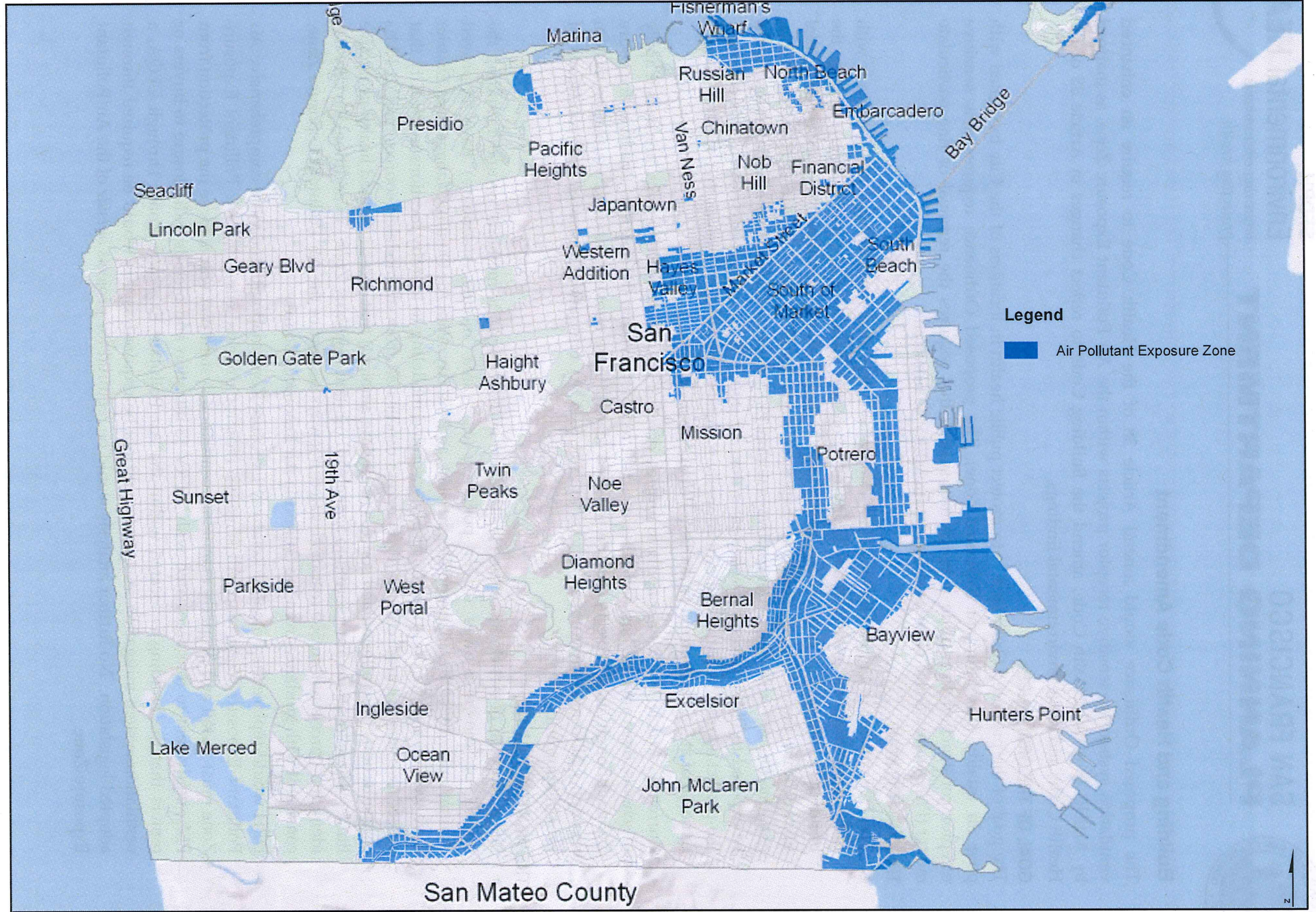
THE WAY IT IS NOW:

- The Department of Public Health (DPH) maintains a map that identifies *potential* roadways with PM_{2.5} concentrations greater than 0.2 µg/m³ (Potential Roadway Exposure Zone). During the building permit review process, any newly constructed building containing 10 or more residential units within the Potential Roadway Exposure Zone requires that an Air Quality model be generated to assess the impact of roadways within 150 meters to determine if building users would be exposed to PM_{2.5} concentrations greater than 0.2 µg/m³. If the project site exceeds this criterion, the project sponsor must install and properly maintain a ventilation system that will achieve the removal of at least 80 percent of ambient PM_{2.5} concentrations.
- Currently, Article 38 does not apply to projects of fewer than 10 residential units; nor does it apply to schools, day care facilities, and other sensitive receptors, within the Potential Roadway Exposure Zone, although such projects may be required to install the above-mentioned ventilation system through California Environmental Quality Act (CEQA) mitigation measures and conditions of project approval.

THE WAY IT WOULD BE:

- Since adoption of Article 38 of the Health Code in 2008 scientific methods for understanding the impact of known sources of air pollution (e.g., area, mobile, stationary) have improved dramatically. DPH, the Planning Department, and the Bay Area Air Quality Management District have worked together to utilize third-party-verified modeling to identify locations in the City that exceed two health-based criteria: 1) an excess cancer risk from all modeled sources; and 2) PM_{2.5} concentrations from all modeled sources (including ambient) that exceed defined health-protective limits. These locations are referred to as the Air Pollutant Exposure Zone. In addition, the City has identified parcels within 500 feet of elevated freeways as part of the Air Pollutant Exposure Zone, consistent with guidance from the California Air Resources Board.
- DPH would replace the Potential Roadway Exposure Zone map with the more comprehensive Air Pollutant Exposure Zone map. All sensitive receptor projects *within* the Air Pollutant Exposure Zone must install and properly maintain a ventilation system that will achieve the protection from PM_{2.5} equivalent to that associated with MERV 13 filtration and include a disclosure to buyers or renters that the building is located within the Air Pollutant Exposure Zone. Through CEQA, a ventilation system mitigation measure would not be required as this would be required through adopted legislation. No further analysis would be required for projects *outside* of the Air Pollutant Exposure Zone.

Air Pollutant Exposure Zone Map



Note: This map does not identify all city lots that overlap with the criteria identified in Article 38 of the Health Code because certain lots are substantially large (e.g., Golden Gate Park, Lake Merced, Presidio, Balboa Park, City College of San Francisco, Yerba Buena Island) and identifying the entire lot, although only one or a few receptor points within the large parcel exceed the criteria, could be misleading. In these instances, only the receptor point(s) is shown.