



Health in All Policies, Health Data in All Decisions

**Data, Indicators, and Tracking Strategies for
Implementation of the City of Richmond’s
Health and Wellness Element:
An Assessment and Recommendations**

December 2011

Authored by:

Jim McLean, PolicyLink

LaShonda Wilson, City of Richmond

Michael Kent, Contra Costa Health Services



With contributions from:
MIG, Inc.

With support from:
**The California Endowment
The City of Richmond**

Acknowledgments

This report was developed thanks in large part to generous funding from The California Endowment. It was written by PolicyLink in partnership with the City of Richmond City Manager's Office and Contra Costa County Health Services. Its content was developed by these same parties as members of the Richmond Health and Wellness Element Data Working Group, which consisted of staff from the City of Richmond City Manager's Office, Contra Costa Health Services, and PolicyLink. The HWE Data Working Group was part of the larger Richmond HWE Implementation Launch Team, which included staff from the City of Richmond Planning and Building Services, the City of Richmond Redevelopment Agency, Contra Costa Health Services Public Health Division, the University of California at Berkeley, and MIG, Inc.

The HWE Data Working Group would like to express gratitude to MIG, Inc. for development of the potential indicators, and the other members of the Launch Team for their contributions and feedback. The Working Group would also like to thank members of the Richmond HWE Implementation Technical Advisory Group (TAG), which contributed significantly to the initial implementation plans surrounding the Richmond Health and Wellness Element, including the conceptualization and content of this report. The TAG included residents of the Iron Triangle neighborhood of Richmond, as well as representatives of the following agencies and community-based and nonprofit organizations: California Department of Public Health, Communities for a Better Environment, Contra Costa County Department of Conservation and Development, Further the Work, Ma' at Youth Academy, Pogo Park, Urban Habitat, West Contra Costa County Unified School District, and the West County Healthy Eating Active Living (HEAL) project.

Members of the Richmond community are considered important partners to the City of Richmond in the prioritization and implementation of the recommendations in this document and the overall Health and Wellness Element of the 2030 General Plan.

Table of Contents

Executive Summary	4
Introduction	10
• Purpose	10
• Background	11
○ <i>Implementation of the Richmond HWE</i>	13
○ <i>Focus on Equity</i>	15
• The Role of Data Collection, Indicators, and Tracking in the Implementation of the Richmond HWE	15
○ <i>Goals of Data Collection, Indicators, and Tracking</i>	15
○ <i>Benefits of Measurement</i>	16
○ <i>Key Questions</i>	16
1. Identifying Users of the Data	17
• Potential Audiences for and Purposes of an HWE Indicators and Tracking System	17
• Focus on City Staff	17
2. Selecting the Data to be Tracked	18
• Process and Outcomes Considerations: Measures	18
• Timing Considerations	19
• Usage Considerations and Indicator Selection	20
3. Collecting and Tracking the Data	23
• Accountability	23
• Key Partnerships	24
• Opportunities for Integrating HWE Priority Indicators into Existing Data and Tracking Systems in Richmond and Needs for New HWE Tracking Infrastructure	29
4. Reporting and Disseminating Findings	33
• Reporting Strategies	33
• Content of Reports	33
Conclusion	35
Appendixes	36
• Appendix A – General Plans in California, and the Richmond Community Health and Wellness Element	36
• Appendix B – The Fifteen Elements of the Richmond, CA 2030 General Plan Update	38
• Appendix C – Potential Indicators for Tracking the Richmond HWE	40
• Appendix D – Potential Community Partners, Agencies and Resources for the Richmond HWE	63
• Appendix E – Mapping in Richmond	69

Executive Summary

Background

To achieve its vision of a healthy, equitable community, the City of Richmond has become the first California jurisdiction to incorporate a Health and Wellness Element into its General Plan that acknowledges the relationship between public health and the social, economic, and physical environments in which people live. Richmond's Health and Wellness Element (HWE) addresses social and environmental factors such as access to recreation and open space, access to healthy foods, and the creation of safe neighborhoods and public spaces, among others. Indeed, city leaders believe that to achieve their vision, 10 major areas related to the Richmond community must be addressed:

- Improved access to parks, recreation, and open space
- Expanded access to healthy food and nutrition choices
- Improved access to medical services
- Safe and convenient public transit and active transportation options
- A range of quality and affordable housing
- Expanded economic opportunity
- Completeness of neighborhoods
- Improved safety in neighborhoods and public spaces
- Improved environmental quality
- Green and sustainable development and practices

In addition, leaders have created an eleventh goal, to provide "leadership in building healthy communities" within and beyond Richmond city limits.

Along with the goal areas listed above, the HWE contains policies, and actions designed to improve overall health and equity in Richmond and to reduce disparities across neighborhoods within Richmond. Effective implementation of the Richmond HWE requires identifying, tracking, and acting on relevant and informative data to make decisions and monitor outcomes.

This report is the product of a collaborative interagency HWE Implementation Data Working Group. It presents key considerations, findings, and recommendations for tracking the Richmond HWE implementation and the City's long-term efforts to sustain healthy communities. Specifically, it highlights:

- The role of data and indicators in tracking the needs of Richmond residents and implementing the vision of a healthy community;
- The parties that will be served by an indicators and tracking system;
- The process for selecting the data and indicators and how data will be collected and tracked; and
- The reporting system by which the data will be disseminated to the public.

The Role of Data, Indicators, and Tracking in the Implementation of the Richmond HWE

City leaders recognize that data and information systems play an important role in achieving the 11-goal vision of creating healthy and equitable community environments. Indicators are useful tools for prioritizing available data, tracking progress, and measuring success.

Equity—the principle of just and fair inclusion—is central to the content of the HWE and is a critical part of its implementation. The goal areas, policies, and actions laid out in the Richmond HWE were directly selected to address overall health in Richmond and the inequities across Richmond neighborhoods. To understand how inequities may be changing in Richmond through 2030 (the projected timespan of the General Plan), it is critical to ensure that measurement and tracking provide information regarding inequities and changing neighborhood conditions and health outcomes across Richmond.

Key Recommendations

The Interagency HWE Data Working Group recommends that the City maintain its focus on the following three aims, and work collaboratively with partners in Richmond and neighboring areas to gather, analyze, and communicate findings in these categories to user audiences.

1. Document and measure *the implementation of key components of the Element* immediately and into the long term.
2. Track critical measures of *social and environmental conditions* relevant to the issues addressed by the HWE.
3. Create, analyze, and present for community review salient indicators of *health behavior and outcomes*, to track changes across and within Richmond communities over time.

Users and Intended Audiences

Numerous parties in Richmond can be informed by a data collection, indicators, and tracking system for the HWE, and each can play an important role in tracking and contributing to HWE indicators. The HWE Data Working Group identified the following potential user audiences for such data:

- Richmond community members
- City of Richmond staff
- Richmond City Council
- Members of county and regional jurisdictions
- Funders
- Audiences outside of Richmond working in similar areas of interest

Key Recommendations

This report centers its recommendations on Richmond City staff with suggestions for adaptation to other audiences. However, data and indicators affect all these groups across a wide range of activities, including identifying, gathering, and using appropriate data for daily decisions and priority setting at the county, regional, city and neighborhood levels. Further, communication regarding ongoing implementation of indicators will affect how multiple audiences understand and convey the City's priorities, successes, and challenges in HWE implementation. Specifics pertaining to audiences and users and their respective uses of data and indicators information are outlined in Figure 4 in the report (page 19).

Indicator Selection

The selection of indicators for tracking the HWE requires careful consideration of the measurement area of focus—implementation process, community outcomes, or health outcomes. These considerations impact when and how data related to the indicator are gathered, interpreted, and acted upon.

Process indicators are necessary to evaluate the success of the HWE implementation activities. These indicators are shorter-term and focus on the process of the City and its partners to implement actions and policies in the HWE. *Outcomes* indicators, focusing on community and health outcomes, are longer-term, and are impacted by the outcomes of process indicators. It is not possible to tell the full story of “success” without both process and outcomes indicators.

Key Recommendations

The HWE Data Working Group recognized the importance of measuring process and outcomes with respect to time and activity. To aid in developing an appropriate and balanced set of indicators to track, the HWE Data Working Group established indicator selection criteria. The group recommends that individual indicators be both SMART (Specific, Measureable, Ambitious, Realistic, and Time-Bound)¹ and useful (understandable, consistent, reliable, and relevant). In addition, the group determined that a complete and balanced set of indicators must:

- ✓ **Achieve breadth across the HWE implementation:**
Indicators should cover both the process and outcomes of the eleven goals of the HWE.
- ✓ **Consider feasibility for measurement:**
Indicators should be practical to gather and assess, while meeting measurement objectives.
- ✓ **Illustrate health equity considerations:**
Indicators should capture assets, not just problems, and when possible, showcase differences and similarities across neighborhoods and socioeconomic groups.
- ✓ **Achieve meaningful impact:**
Indicators should make a difference to Richmond residents and decision-makers.
- ✓ **Leverage local expertise:**
Indicators should leverage the expertise of local and regional residents and specialists, as well as deepen community participation and ownership, particularly to identify neighborhood-level data priorities and resources.

To ensure that the indicators reflect ongoing needs, priorities, and the best knowledge and resources of multiple users in Richmond, it is recommended that the City convene small working groups focused on specific HWE goals to identify, prioritize, and regularly revisit indicator selection and progress. Groups should consist of key stakeholders, such as City and County staff, community members, community-based organizations and area experts—namely representatives of users and audiences of this report. The groups should utilize the list of indicators developed for the specific goal area as a starting point and add or remove indicators after evaluating indicators against the recommended criteria. A range of possible process and outcomes indicators is included in Appendix C.

¹ Doran, George. 1981. “There’s a S.M.A.R.T. way to write management’s goals and objectives.” *Management Review*, 70:11.

Data Collection, Tracking Considerations, and Analysis

Tracking the HWE implementation process and outcomes is an interactive and dynamic process that requires ongoing participation of numerous parties before, during, and after implementation activities take place. To optimize this process, the HWE Implementation Data Working Group assessed the *who* and *what* for tracking indicators.

Key Recommendations

Ultimately, responsibility for tracking the HWE falls to the City of Richmond leadership and staff. The City Manager's Office is committed to playing a key role in tracking the implementation of the HWE. To optimize tracking and measuring HWE success, the City cannot do its work alone. With assistance from other City departments, County and State agencies, subject experts, and the community, the City Manager's Office will establish short- and long-term goals for the HWE, determine appropriate indicators for tracking the success of the HWE over time, share resources and information and communicate findings and data with interested parties, and revisit and revise indicators and processes.

In this respect, the interagency HWE Data Working Group recommends that the City:

- Continue to **collaborate with CCHS** to determine how to collect, analyze, and report appropriate data to identify problems across Richmond neighborhoods. Neighborhood-level data would highlight health equity issues and could assist the City, County and other interested entities in making more informed policy decisions regarding resource allocation.
- Continue and **expand active involvement of youth, community residents, and community-based organizations** in all aspects of data work including indicator selection, data collection, data analysis, and reporting. Neighborhood residents and a wide range of nonprofit and community-based organizations in Richmond and the greater Bay Area offer information and resources for City staff and others to track the ongoing success of the Richmond HWE. These groups are experts concerning the conditions of their neighborhoods.
- Where possible, **educate and train community members** on indicator selection and data collection, as well as data analysis and reporting. This will help build skills and capacity among residents to inform City processes, and also build strong partnerships between the City and community experts to encourage more productive community participation in local government decisions.
- In terms of existing data and tracking systems, to maximize efficiency and reduce new demands on City staff, it is in the City's best interest to utilize and modify, if necessary, existing resources and systems where data is already collected, analyzed, and reported. These should include the City's Five-Year Strategic Business Plan, Annual Budget & Performance Measures, and Community Survey.
- For instance, to ensure an effective HWE implementation:
 - The Strategic Business Plan should adopt the goal to achieve health equity in Richmond.
 - HWE indicators should be directly linked with Five-Year Strategic Business Plan (5YSBP) goals.
 - Performance measures across all City departments should be linked with HWE health and equity indicators.

- The City should continue to report progress on performance measures regularly online.
- The City should consider alternative mechanisms for ensuring progress on performance measures.
- The City should foster learning among City staff to better understand the HWE content, rationale, and their own role within their department in creating a healthier community for Richmond residents, particularly as the City continues to move in the direction of incorporating health in all policy decisions.
- The City should consider Richmond Community Surveys as core components of an overall HWE tracking system in Richmond. Specific results from the Community Surveys, along with the data that City departments are currently collecting and tracking for their own purposes and within the annual operating and CIP budgets and the 5YSBP, can all be useful in determining the success in implementing the HWE.²

In some cases, existing City systems can be expanded to include innovations and improvements. A scan of existing resources for data, indicators, and tracking revealed several gaps in the City’s capacity. These areas of potential improvement include Geographic Information Systems (GIS) mapping, increased funding diversity, and strengthened partnerships.

There are several opportunities and options for building out and improving a GIS system at the City level:

- Invest in additional staffing and mapping resources.
- Build partnerships with other agencies. Sharing resources between the City and County could be a cost-effective solution for both parties.
- Build upon resources from previous mapping projects. For instance, Appendix E contains specifics regarding GIS maps from the Richmond General Plan writing process as supported by MIG, Inc. 2005-2008.

The City of Richmond could exercise several strategies for leveraging increased funds by:

- Increasing funding diversity by including health and health indicators in proposals across all departments and goal areas.
- Increasing funding opportunity by building partnerships outside local governments and identifying common needs for Richmond community data and tracking.
- Drawing from information included in this report to justify applications.
- Decisions pertaining to pursuing existing and potential opportunities will require consideration of political and resource feasibility.

² In fact, HWE-related process and outcome indicators have already been incorporated into the annual budget process as well as into 5YSBP. Further, in preparation for the FY2011–12 annual budget, City departments have been instructed to incorporate performance measures, as they relate to the goals of the HWE, into the budget process.

Reporting and Disseminating the Data

Reporting is necessary and important for improving and increasing data and information-sharing across the Richmond community. It is also important for demonstrating how City staff and leaders are using relevant information to inform decisions and make progress.

Key Recommendations

The City and its partners should aim to report HWE-related data in a user-friendly, accessible, and *interactive* way to encourage utilization and understanding of the data. Leveraging popular tools, such as existing publications, online sites, and other forms of media, will require input on report planning and design from Richmond community partners. The Data Working Group strongly recommends that City staff work with key stakeholders to determine the type of information that should be included in its reports. To ensure effectiveness, the targeted audience(s) should be involved in report development and design.

The Data Working Group identified several approaches for data-sharing and reporting in Richmond with input from the Technical Advisory Group; these ideas are summarized in Figure 9 in the report (page 35). It is recommended that the City consider *all* these strategies to meet the needs of all Richmond audiences.

- Ongoing online communications (e.g., dedicated website, web portal, online maps)
- Ongoing written communications (e.g., newsletters, in addition to updated existing reports)
- Media communications (e.g., local public access stations, KCRT local radio)
- Regular oral and visual reporting at public meetings and community functions
- Community messengers
- Other existing technologies

Conclusion

Identifying, tracking, and assessing data in Richmond is neither a novel concept nor an unfamiliar task. However, pursuing the comprehensive, place-based strategy to address health in Richmond through changes to the social, economic, and physical environments does present new challenges and opportunities. Richmond government, businesses, nonprofit organizations, community groups, and residents hold a wealth of information about the conditions of life in the city. Brought together in a systematic and organized fashion, these data can provide important insights into the fabric and infrastructure of the Richmond community, shed light on its evolving needs to achieve healthy, equitable neighborhoods and residents, and tell the unfolding story behind this historic city's growth and transformation. Just as Richmond's own growth and transformation as a city has required lots of hands and minds over time, so too, will the ongoing process of data collection, prioritization, and analysis. The HWE Data Working Group is pleased to lay the groundwork for the initial steps and ongoing process for this work.

Introduction

Located in the San Francisco Bay Area of California, Richmond is a historic city with a dynamic economy that has shifted in the last 50 years from wartime shipbuilding to heavy manufacturing and warehousing, and is now transitioning to high technology. Within the city's 33.7 square miles of land lives a growing and diverse population. As compared with other communities in Contra Costa County, Richmond residents are at higher risk for many chronic conditions, including diabetes, heart disease, and stroke.³ Within Richmond, residents experience disparate health outcomes depending on their neighborhood of residence.⁴

The HWE was created to address evidence that not all neighborhoods or communities offer residents equal opportunities for healthy living. Healthy communities consist of physical, social, and economic environments that provide residents the resources they need to live, work, and play. For example, communities that lack grocery stores that stock fresh foods, and places that are unsafe for children to walk to school or play outside tend to have residents who are more likely to suffer from diabetes, asthma, heart disease, and high blood pressure.⁵ Meanwhile, people with access to fresh foods and safe neighborhoods tend to have better health outcomes.

The HWE specifically addresses environmental factors that affect health, such as access to recreation and open space, access to healthy foods, safe neighborhoods and public spaces, and several other important community factors. The Richmond HWE contains many goal areas, policies, and actions designed to improve overall health in Richmond and to reduce disparities across neighborhoods within Richmond.

To ensure that the HWE is successfully implemented and making an impact in Richmond's neighborhoods, City leaders have committed to measuring the implementation of the HWE and its impact on related social, environmental, and health conditions.

Purpose

This report presents key considerations, findings, and recommendations for tracking the Richmond HWE implementation and the City's long-term efforts to sustain healthy communities. Specifically, it:

- Presents considerations and identifies needs for implementing an indicators and tracking system for healthy, equitable communities in Richmond;

³ Casanova, Debbie, Lisa Diemoz, Jennifer Lifshay, and Chuck McKetney. 2010. "Community Health Indicators for Contra Costa County: 2010 Edition." Prepared for the Hospital Council of Northern and Central California by the Community Health Assessment, Planning and Evaluation (CHAPE) Unit of Contra Costa Health Services' Public Health Division. Accessed April 20, 2011. http://cchealth.org/health_data/hospital_council/.

⁴ Moore, Eli and Swati Prakash. 2009. "Measuring What Matters: Neighborhood Research for Economic and Environmental Health Justice in Richmond, North Richmond, and San Pablo." Oakland: The Pacific Institute. Prepared by The Pacific Institute, West County Toxics Coalition, Neighborhood House of North Richmond, Contra Costa Interfaith Supporting Community Organization, Historic Triangle Neighborhood Council, Morada de Mujeres del Milenio, North Richmond Shoreline Open Space Alliance, Richmond Progressive Alliance. Accessed April 20, 2011. http://www.pacinst.org/reports/measuring_what_matters/.

⁵ Bell, Judith, and Mary Lee. 2011. *Why Place and Race Matter: Impacting Health through a Focus on Place and Race*. Oakland: PolicyLink. Accessed April 20, 2011. <http://www.policylink.org>.

- Recommends steps and possible resources for implementing such an indicators and tracking system in Richmond; and
- Summarizes the process by which the indicators and tracking system considerations and recommendations were identified for this report.

This report is intended for the Richmond City Manager, but is relevant to City staff, other interested members of the Richmond community, and those outside of Richmond who are interested in improving health and equity in their own communities.

Background⁶

A community's overall health depends on many factors, including the environment in which residents live and work. Places with clean air and water, an abundance of healthy food outlets, and safe streets, neighborhoods, and parks provide better living, working, and playing environments for community health. Urban planning strategies, which guide social, economic, and physical change within communities, are promising tools to improve community health.

Every city and county in California must create a General Plan to guide its future development.⁷ In its 2030 General Plan Update, the City of Richmond, California, prioritized community health and equity as key goals for the future of Richmond by including a Community Health and Wellness Element (HWE) in its 2030 General Plan.⁸

The Richmond HWE is the first stand-alone element in a California jurisdiction's General Plan that addresses the relationship between public health and the jurisdiction's social, economic, and physical environments. The Richmond HWE is based on an extensive assessment of spatial, social, and economic factors that influence health in the community, and focuses on the following 10 goal areas that impact public health:

- Improved access to parks, recreation, and open space
- Expanded access to healthy food and nutrition choices
- Improved access to medical services
- Safe and convenient public transit and active transportation options
- A range of quality and affordable housing
- Expanded economic opportunity
- Completeness of neighborhoods
- Improved safety in neighborhoods and public spaces
- Improved environmental quality
- Green and sustainable development and practices

In addition to each of these 10 goal areas (Figure 1), the City of Richmond has also included an eleventh goal around Leadership in Building Healthy Communities "to craft proactive policies that address: design of built environment; effective programs and services; strong partnerships with health providers and agencies; and community engagement to influence policies and decisions at regional, state, and national levels to promote the health and well-being of residents."⁹

⁶ Further background information can be found in Appendix A.

⁷ California Government Codes §65300 and §65302.

⁸ City of Richmond. 2010. "General Plan 2010." Accessed April 20, 2011. <http://www.ci.richmond.ca.us>. The Richmond General Plan is slated for adoption in early 2012.

⁹ City of Richmond. 2010. "General Plan 2010." Accessed April 20, 2011. <http://www.ci.richmond.ca.us>

Figure 1. Community Factors addressed by the Richmond Health and Wellness Element



Graphic by MIG, Inc.

Implementation of the Richmond HWE

To implement this far-reaching and innovative effort, the City launched an implementation planning and pilot program in 2008. At the time of this writing, adoption is slated for early 2012. The purpose of the launch effort was to identify promising strategies for the long-term implementation.

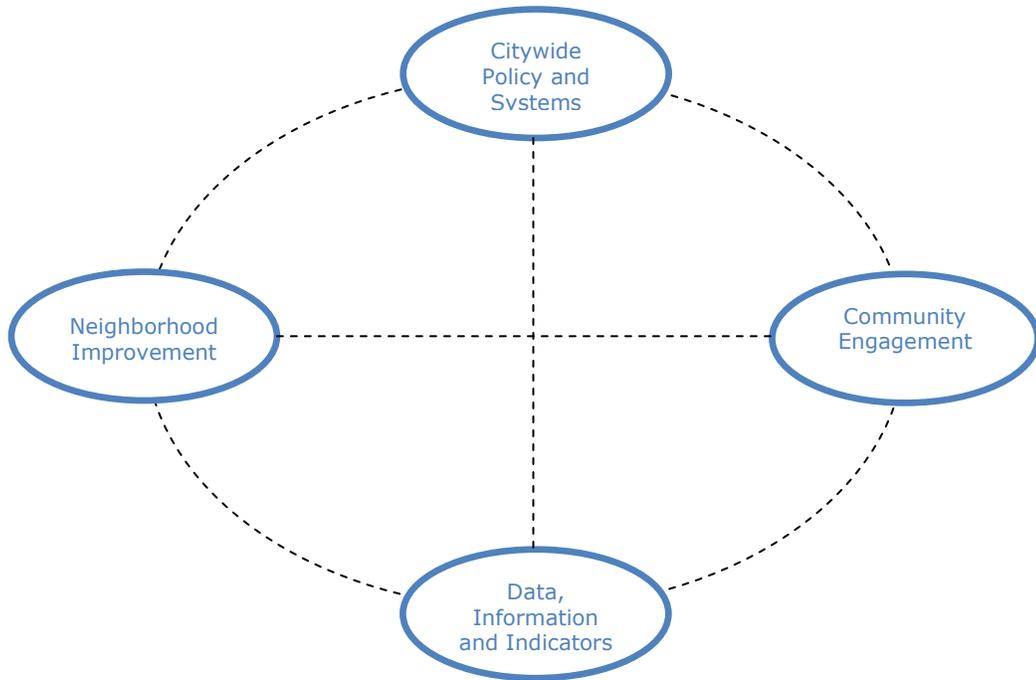
Central goals of the launch effort included:

- Identifying promising frameworks and strategies for HWE implementation in city neighborhoods;
- Identifying promising frameworks and strategies for HWE implementation in citywide systems and policies;
- Identifying data and information resources available to support and evaluate HWE implementation;
- Building internal staff awareness and capacity to address health and equity within departments;
- Strengthening partnerships across departments and with other agencies to address health and equity;
- Identifying and drawing connections between strategic and synergistic activities related to health and equity in Richmond; and
- Strengthening partnerships with the community and identifying community engagement opportunities to ensure effective HWE implementation.

Following the assignment of key staff and assembly of a core HWE implementation launch team, the City and its partners identified four core areas of focus for the implementation (Figure 2), as follows:

1. **Citywide Policy and Systems Implementation**, to operationalize health and equity goals in the regular processes, daily practices, and ongoing policies of the City of Richmond;
2. **Neighborhood Improvement Strategies**, to improve the physical environments in Richmond to improve health choices and outcomes and reduce disparities;
3. **Data Collection, Indicators Development, and Measurement of Success**, to track and monitor changes in community and health conditions; and
4. **Community Engagement**, to integrate in and across all aspects of the work to ensure relevance and impact across Richmond.

Figure 2. Richmond Interrelated Implementation Areas



The City of Richmond has viewed the implementation of these four areas as interconnected, with each area informing and contributing to the others. To coordinate the work with the staffing, the team introduced three subcommittees to focus on major areas of implementation interest, touching on all aspects of the HWE as well as community engagement (Figure 3).

Figure 3. Interrelated Implementation Areas



Graphic by PolicyLink

Pilot activities addressing each of these areas were undertaken by multidisciplinary, multisector teams involving partners from across City and County departments, expert consultants, community-based

organizations, and members of the Richmond community. Activities included:

- The creation of pilot policy implementation tools such as ordinances, guidelines, assessments, and standards;
- The initiation of pilot projects in neighborhoods of great need to initiate improvements consistent with the HWE; and
- The completion of a thorough analysis of opportunities for collecting, managing, and continuously using key indicators and appropriate data to consider health and equity priorities in decision-making processes, to track HWE implementation progress, and to provide feedback on new opportunities.

Focus on Equity

Equity—the principle of just and fair inclusion—is central to the content of the HWE and is a critical part of its implementation. The goal areas, policies, and actions laid out in the Richmond HWE were directly selected to address overall health in Richmond and the inequities across Richmond neighborhoods. An overarching goal is to reduce inequities in health outcomes by race, gender, income level, and education level.

To build progress towards more healthy and equitable communities across Richmond, the City seeks to increase citizen participation in decision-making processes to prioritize how neighborhood environments and citywide policies and systems change to improve health. These processes were launched prior to 2011 and will expand throughout implementation. This report identifies key opportunities for areas of expansion.

The Role of Data Collection, Indicators, and Tracking in the Implementation of the Richmond HWE

To achieve the 11-goal vision of healthy and equitable community environments, the City of Richmond needs a thorough and ongoing understanding of the changing needs, assets, and opportunities in Richmond communities. This requires identifying, tracking, and acting on relevant and informative data to make decisions and monitor outcomes. Indicators are useful tools for prioritizing available data, tracking progress, and measuring success.

Goals of Data Collection, Indicators, and Tracking

A data collection, indicators, and tracking system for the Richmond HWE should ultimately achieve three purposes:

1. Document and measure the *implementation of key components of the Element immediately and into the long term*. This includes creating, tracking, and measuring indicators of progress for enacting and carrying out:
 - the policies, programs, and actions listed in the Plan;
 - projects to improve the built environment, community services, and other aspects of neighborhood strategies instigated by the Plan; and
 - efforts to reduce health disparities among neighborhoods and by race, gender, income level, and education level.
2. Track critical measures of *social and environmental conditions relevant to the issues addressed by the HWE*. The 11 goals of the HWE address many of the circumstances that determine the health of

Richmond residents, some very directly (e.g., air quality) and others more distally (e.g., economic security). A selected set of indicators can track these conditions across and within Richmond communities as they change over time.

3. Create, analyze, and present for community review salient indicators of *health behavior and outcomes*, to track changes across and within Richmond communities over time. These would be measures of how Richmond residents are faring, with regard to selected health behaviors, chronic conditions, and other measures that are deemed relevant to the issues addressed by the HWE. These would also measure changes in health inequities between neighborhoods, by race and gender, and between people of different income and educational levels.

Benefits of Measurement

Data and information that capture the different kinds of changes—including progress in implementing actions and policy changes as well as changes to physical environments and subsequent shifts in health outcomes—not only measure progress but also show areas for potential improvement. Ongoing monitoring can inform decisions on a continual basis. Evidence of interim successes can help to leverage or draw in additional resources to support continued progress. A clearer understanding of changing circumstances can reveal new opportunities for positive change. Appropriate data can help city staff and other officials do their jobs well, and obtain the buy-in and support of residents to support continued progress.

Key Questions

The identification of indicators and implementation of a tracking system raise several important questions and considerations:

1	Users and Intended Audiences	Who could or would use information related to HWE implementation indicators? What are the different goals for indicator users? Will the indicators in this report meet the needs of all users?
2	Indicator Selection	How will key indicators and data be selected? Are the right indicators and data being selected to support the questions that need to be answered?
3	Tracking Considerations and Analysis	When will indicators and data be gathered and assessed?
4	Reporting	How will findings be reported and disseminated?

The following sections of this report address each of these questions.

1. Identifying Users of the Data

The future of Richmond lies in the hands of many, including the city’s residents, workers, community organizations, and institutions (e.g., schools, churches, and businesses), as well as its elected officials and local and regional government staff. Each party needs good and accurate data to inform decisions and assess outcomes related to healthy, equitable planning efforts in Richmond.

Potential Audiences for and Purposes of an HWE Indicators and Tracking System

Figure 4 lists six potential audiences for HWE indicators in Richmond, and how each might use such information.

Figure 4. Potential Audiences for and Purposes of an HWE Indicators and Tracking System

Audience	Purpose of Tracking HWE Indicators
Members of the Richmond community	<ul style="list-style-type: none"> • Understand the City’s priorities in a concrete way • Understand the City’s successes and challenges in HWE implementation • Use the information to become or stay involved in local decisions • Contribute to and produce opportunities to engage in tracking the HWE
Members of the City of Richmond staff	<ul style="list-style-type: none"> • Understand the City’s priorities in a concrete way • Identify, gather, and use appropriate data for daily decisions • Assess progress and measure success of HWE implementation efforts • Use the information to inform future local decisions and processes
Members of the City Council	<ul style="list-style-type: none"> • Understand and convey the City’s priorities in a concrete way • Assess progress and measure success of HWE implementation efforts • Use the information to inform the priorities and decisions of the Council
Members of county and regional jurisdictions	<ul style="list-style-type: none"> • Understand the City’s priorities in a concrete way • Use the information to identify priorities and make decisions at the county or regional levels that may affect Richmond • Use the information to inform priorities of neighboring jurisdictions that may affect Richmond
General Public	<ul style="list-style-type: none"> • Understand the City’s priorities in a concrete way • Understand the City’s success in addressing health and community change
Funders	<ul style="list-style-type: none"> • Understand the City’s priorities in a concrete way • Understand the City’s success in addressing health and community change to spur further investment in the Richmond community

Focus on City Staff

The Data Working Group determined that for the purposes of this report the primary focus would be on City staff members who are tasked with the implementation of the policies and goals set forth in the Richmond General Plan; on a daily basis, City staff play a major role in guiding when, where, and how growth and development in Richmond occurs. Nonetheless, it is important to note that much of this information can be adapted to accommodate the needs of other audiences. This can be accomplished through thoughtful reporting systems. The topic of reporting is addressed in greater detail later in this report.

2. Selecting the Data to be Tracked

A countless number of indicators could be used to track the many goals of the Richmond HWE. Important considerations for selecting indicators include:

- Process and outcomes: what the indicator measures
- Timing: when the indicator is used
- Utility: how the indicator will be used and selection criteria

Process and Outcomes Considerations: Measures

Indicators for the implementation of the HWE include process indicators—inputs and activities—as well as outcomes indicators—the expected and unexpected results of the work.

Process Indicators

While indicators that measure the success of the Richmond HWE must include final outcomes indicators, a realistic understanding of the time required to see long-term change necessitates a parallel focus on process indicators. Process indicators measure the human, financial, organizational, and community resources—or inputs—required for a given program or project to lead to desired outcomes.¹⁰ They also help to track the progress of activities that lead to outcomes.

In the Richmond HWE implementation, process indicators measure the efforts made to pursue HWE implementation activities. They help to track whether and how much of a certain activity was accomplished, how well that activity met stated objectives, and help to identify factors that contribute to or inhibit the ultimate success of a particular endeavor. Process indicators might measure staff or funding resources allocated to address a topic, progress towards community engagement milestones, or measures of project progress. Specific process indicators are included in Appendix C.

Outcomes Indicators

Outcomes indicators measure the results of any given program or effort. The outcomes that “occur ‘out there’ in the community, within a targeted area or target population, or across the nation or state or local jurisdiction generally, but not inside the program itself or the agency or organizational unit that operates it” are considered to be outcomes indicators.¹¹

The Richmond HWE aims to accomplish overall community health improvement and the reduction of health inequities over the long term by changing the social, economic, and built environments of neighborhoods. To change environments, changes must occur in city policies and systems. Experts in measuring such long-term change efforts stress the importance of measuring not only health and health equity outcomes, but also the community changes and policy changes designed to create them.¹²

¹⁰ W. K. Kellogg Foundation “Logic Model Development Guide.” W. K. Kellogg Foundation, 2004 (Battle Creek, MI). The RAND Corporation, 2004, adapted from the Virginia Effective Practices Project: Atkinson, A., Deaton, M., Travis, R., and

Wessel, T. (1998). “Getting to Outcomes 2004: Promoting Accountability Through Methods and Tools for Planning, Implementation, and Evaluation.” James Madison University and the Virginia Department of Education.

¹¹ Poister T. 2003. *Measuring Performance in Public Nonprofit Organizations*. San Francisco: Jossey-Bass.

¹² IOM (Institute of Medicine). 2010. *Bridging the Evidence Gap in Obesity Prevention: A Framework to Inform Decision Making*. Washington, DC: The National Academies Press.

All these types of outcomes—policy changes, environmental outcomes, and health outcomes—can take months and even years to occur. The time needed for construction of a new building or the redesign of a road can be extensive, depending on the political process involved in decision-making and the fiscal and practical challenges that may occur along the way. Once the environmental change takes hold, the changes to health behavior among community members also requires time.

Timing Considerations

Indicators come in a variety of shapes and sizes: Some measure the success of specific activities related to the HWE implementation, some can measure their community impacts, and others can help to measure ultimate health impacts. Indicators measuring process and outcomes occur incrementally, over time.

Figure 5 illustrates the anticipated spectrum of changes that might occur as a result of the Richmond HWE. This series of changes is consistent across healthy communities efforts at the national, state, and local levels.¹³

Keener, D., Goodman, K., Lowry, A., Zaro, S., & Kettel Khan, L. 2009. Recommended community strategies and measurements to prevent obesity in the United States: Implementation and measurement guide. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

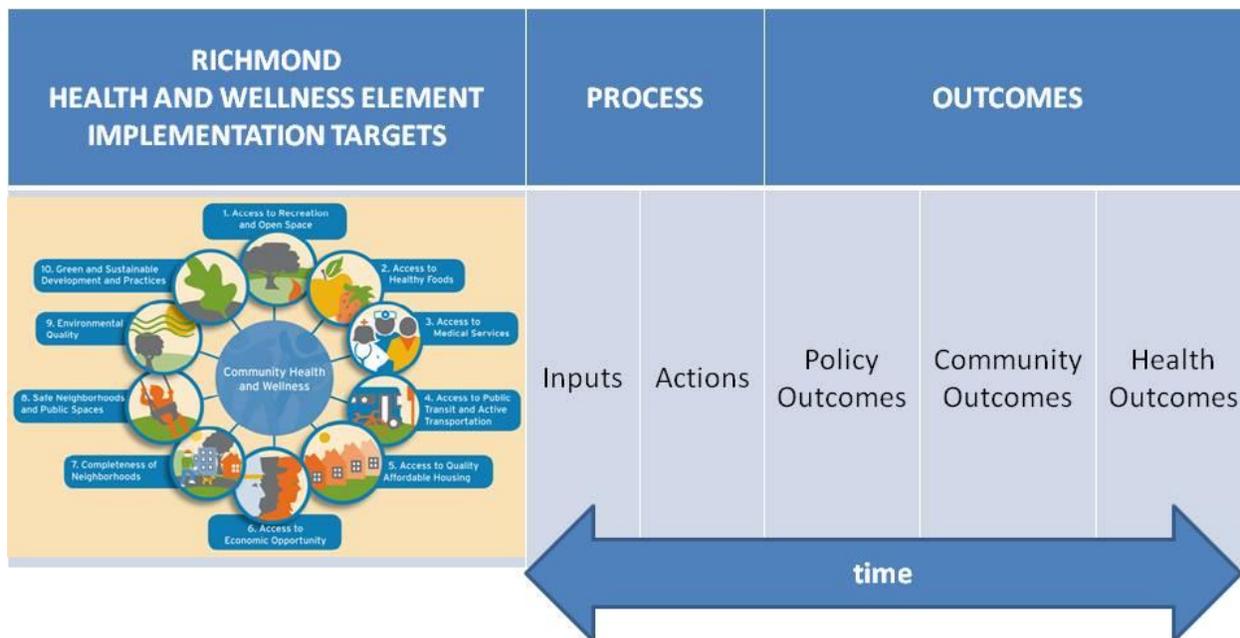
2009. Lee, V., Mikkelsen, L., Srikantharajah, J., and L. Cohen. 2008. "Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living." Oakland, CA: Convergence Partnership.

¹³ IOM (Institute of Medicine). 2010. *Bridging the Evidence Gap in Obesity Prevention: A Framework to Inform Decision Making*. Washington, DC: The National Academies Press.

NIH (National Institutes of Health). 2011. "Strategic Plan for NIH Obesity Research." Accessed April 20, 2011. <http://www.obesityresearch.nih.gov/About/strategic-plan.htm>.

Centers for Disease Control and Prevention (CDC). 2011. "Healthy Communities: Preventing Chronic Disease by Activating Grassroots Change At a Glance 2011." Accessed April 20, 2011. http://www.cdc.gov/chronicdisease/resources/publications/AAG/healthy_communities.htm.

Figure 5. HWE Spectrum of Change Framework



Usage Considerations and Indicator Selection

To select the appropriate indicators across the overarching categories of the HWE over time, the Richmond Data Working Group created indicator selection criteria. Criteria were determined based on findings from the available research, lessons learned from similar health indicators projects in other communities, known logistical considerations in Richmond city government, as well as the guidance of community stakeholders.

Key questions for prioritizing indicators are outlined in Figure 6, and are summarized below:

Indicator Selection Criteria

Where possible, individual indicators selected should strive to be both SMART (Specific, Measurable, Ambitious, Realistic, and Time-Bound)¹⁴ and useful (understandable, consistent, reliable, and relevant). In addition, a complete and balanced set of indicators must:

- ✓ **Achieve breadth across the HWE implementation:**
Indicators should cover both the process and outcomes of the goals of the HWE.
- ✓ **Consider feasibility for measurement:**
Indicators should be practical to gather and assess, while meeting measurement objectives.
- ✓ **Illustrate health equity considerations:**
Indicators should capture assets, not just problems, and when possible, showcase differences and similarities across neighborhoods and socioeconomic groups.
- ✓ **Achieve meaningful impact:**
Indicators should make a difference to Richmond residents and decision-makers.

¹⁴ Doran, George. 1981. "There's a S.M.A.R.T. way to write management's goals and objectives." *Management Review*, 70:11.

✓ **Leverage local expertise:**

Indicators should leverage the expertise of local and regional residents and specialists, as well as deepen community participation and ownership.

The set of possible indicators for tracking the process and outcomes for the many categories of the Richmond Community HWE is available in Appendix C. There are hundreds of possible indicators that could be used to track the HWE. Potential indicators were developed by MIG, Inc. based on criteria set forth by the Richmond Data Working Group. Indicators are specific to goals laid out in the Richmond HWE, and would be of interest to City staff in the implementation of the HWE.

Indicator Selection Process

Final indicators should be selected by small working groups, organized by HWE goal area, consisting of city and county staff, community members, community-based organizations, and subject experts. The groups can utilize the list of indicators developed for the specific goal as a starting point, and add or remove indicators based on criteria and priorities reflective of the time and resources available to the group. The goal is for each group to collectively identify SMART and useful indicators that will inform the City on the success of the HWE implementation based on the most relevant information and data available, given existing resource opportunities and constraints.

Usage of indicators must be considered in the context of a tracking system, described in greater detail in the following section, and must be revisited and updated over time.

Figure 6. Selection Criteria for Possible HWE Indicators

Breadth Criteria	
HWE Content	How does this indicator inform the goals of the HWE? Which goal does it address?
Indicator Domain	What does this indicator measure? - <i>Inputs or activities (resources contributing to programs or policies)</i> - <i>Systems or policy change outcomes targeting community or health impacts</i> - <i>Community environment changes/ outcomes</i> - <i>Health and health equity impacts (behavior change or health outcome)</i>
Feasibility Criteria	
Data Availability	Are data sources available to measure this indicator or must new data be generated to do so? - <i>Existing / - New</i>
Data Source	For existing data, where can the data be found? For new data, what would be required to create new data? - <i>Name source</i>
Frequency	For existing data, how frequently can the data be assessed? For new data, how frequently should data be assessed? - <i>(Write in)</i>
Barriers to Data Collection	Are there barriers to accessing the data? - <i>No - Data are free and widely available</i> - <i>Some - Data are restricted to certain parties and/or have costs associated</i> - <i>Yes - Data are very restricted and/or have high costs</i>
Double Duty	Do these data inform other goals of the General Plan? (<i>Reference</i>)
Current Usage	Are these data already tracked in Richmond? If yes, by whom? Include relevant departments within local government, county government, and community-based organizations, as well as other community partners. Include relevant details regarding tracking mechanisms, such as surveys or annual reviews.
Health Equity Criteria	
Geographic Scale	What is the geographic resolution of the data? Can the data illustrate neighborhood-level disparities in Richmond? - <i>Neighborhood; Tract; City; County; other</i>
Demographic Factors	What are the social and economic dimensions of the data? Can the data be stratified by social, economic, or demographic factors?
Impact Criteria	
Change Potential	Are these data particularly useful to policymakers, for making or communicating Richmond decisions and priorities? (<i>Yes/No and include any references</i>)
Public Interest	Have members of the Richmond community expressed interest in these data or otherwise prioritized related information/data? If so, whom and how? (<i>Yes/No and include any references</i>)
Local Expertise Criteria	
Community Participation	How do or can members of the Richmond community participate in the collection, analysis, or tracking of this indicator? (<i>Specifics</i>)

3. Collecting and Tracking the Data

Indicators have little utility without an effective system for tracking and analyzing them. Several considerations must be made in the creation of a tracking system: How will indicators be assessed? Who is accountable for gathering and analyzing indicators data? How frequently will indicators data be gathered? When is a useful time to do this? How can existing systems be adapted to track indicators, and what new systems must be created?

To develop recommendations for an HWE indicators tracking system, the Richmond Data Working Group assessed the existing infrastructure, barriers, and needs for tracking systems in Richmond, determined core opportunities for integrating HWE priority indicators, and identified needs for new HWE tracking approaches.

This section summarizes findings concerning:

- Accountability for an HWE indicator tracking system
- Partnerships to achieve measurable results
- Opportunities for integrating HWE priority indicators into existing systems in Richmond
- Needs for new HWE tracking infrastructure

Accountability

In order to ensure the breadth and depth needed to measure meaningful and balanced indicators of the Richmond HWE, an effective system must include not only those people directly responsible for implementation, but also a central body to provide leadership and coordination, as well as other partners to provide much-needed or difficult-to-obtain information. These factors require ongoing and frequent communication among data “players,” and transparency for easy access to information. The players in an overall data and tracking system in Richmond, as well as their roles, are summarized in Figure 7.

Figure 7. Roles and Responsibilities for Implementing Richmond HWE Indicators and Tracking Systems

<p>Leadership</p>	<p><u>Richmond City Manager’s Office</u> The City Manager’s Office will play a key role in tracking the implementation of the HWE. The City Manager’s Office implements City Council policy through effective day-to-day oversight of operating departments and by providing day-to-day leadership in policy development and implementation. With assistance from other departments, Contra Costa County, area experts and the community, the City Manager’s Office will help establish short- and long-term goals for the HWE, determine appropriate indicators for tracking the success of the HWE over time, share resources and information and communicate findings and data with interested parties, and revisit and revise indicators and processes.</p>
<p>Implementation</p>	<p><u>City of Richmond Staff</u> While the City Manager’s Office will lead the indicators and data tracking work and serve as the central point of contact for HWE-related data, other City departments will be relied upon to ensure that neighborhood projects are completed, policies are developed and implemented, and data is collected and analyzed. All departments will have an important part to play in ensuring that a health in all policies approach is successfully implemented. City staff will play the most direct role in HWE tracking. Indicators selection criteria are intended for use by all City staff in consideration of selecting data and indicators</p>

	for the HWE implementation work. The matrix of possible indicators (Appendix C) is a helpful reference for City staff.
Support	<u>Partnerships: Emphasis on the County Health Department and the Community</u> Even with the collective knowledge and assistance of all City departments, the City of Richmond alone cannot successfully measure the implementation of the HWE without critical input from other partners. It is imperative that the City leverage existing resources and knowledge from the community, nonprofit and community-based organizations, other jurisdictions and entities, as well as other agencies to achieve success. Potential agency partners and their scope of reach for data are listed in Appendix D; details regarding CCHS and Community roles are in the narrative below.

Key Partnerships

Partners play an important role in helping the City of Richmond to achieve measurable results of the HWE. Contra Costa Health Services and the Richmond community are two key partners.

Contra Costa County Health Services

In order for the City of Richmond to understand how and where to make the greatest impact in community and health in Richmond, health data are needed in and across Richmond, particularly at the neighborhood level. These types of data allow:

- Residents to be armed with meaningful information about their environment to understand, advocate for, and support appropriate community changes;
- Health and elected officials to make appropriate decisions to positively impact and address the specific needs of unique communities; and
- The Richmond HWE to achieve its purpose of improving community health and environmental change at the neighborhood level.

Health agencies serve an important role in monitoring health outcomes. However, like almost all other cities in California, the City of Richmond does not have its own municipal health agency, but rather, shares a health agency with all the communities in the county. Establishing new partnerships and strengthening existing partnerships with other government entities in Richmond—particularly Contra Costa County Health Services (CCHS)—will help provide the city with health information needed for the HWE.

The City of Richmond has a long history of partnering with CCHS on numerous efforts related to the HWE implementation, including the creation of the HWE and the launch of pilot neighborhood, policy, and data work. As the City considers strategies for improving indicators and tracking systems within Richmond, it aims to continue this important partnership and welcomes ideas, resources, and opportunities for ongoing collaboration with its sister agency.

Some ideas and opportunities for continued partnership on data and indicators work with CCHS include both new and existing approaches, detailed below:

- ***Generating Local Public Health Data regarding Richmond*** – CCHS collects, analyzes, and disseminates data regarding public health in Contra Costa County. Health data is provided by two groups in CCHS: the Epidemiology, Surveillance & Health Data (ESHD) unit and the Division of

Community Health Assessment, Planning, and Evaluation (CHAPE).¹⁵ The ESHD Unit is responsible for gathering and analyzing data and producing reports on communicable disease data for Contra Costa County. CHAPE collects and analyzes data essential to project planning and evaluation, community health assessment, and injury and disease surveillance. The City of Richmond supports CCHS's continued collaboration in this area.

- **Compiling Public Health Data related to Richmond** – CCHS compiles and has access to a wide range of health-related data that can be used to help evaluate the health of the residents of the City of Richmond over the long term. CCHS annually collects data about communicable and infectious diseases, births, deaths, and homelessness across Contra Costa County. CCHS also compiles data on chronic diseases, maternal and child health, injuries, mental health, communicable diseases, and hospitalization from a wide range of sources. The City of Richmond supports CCHS's continued collaboration in this area.
- **Identifying Strategies to Fill Gaps and Limitations** – Neighborhood-level data are needed to help the City of Richmond, the County, and other entities measure success and continually inform decisions about targeting resources. The City aims to track the impacts of healthy neighborhood policy across and within City neighborhoods. Over time, HWE implementation will focus on many of the more than 30 established and distinctive neighborhoods where socio-economic status, education levels, racial and ethnic make-up, and other demographics of residents often differ. There is limited data about health conditions in and across Richmond neighborhoods. The CCHS report on Community Health Indicators for Contra Costa County, which is produced every three years, provides needed data and is informative on many different levels. However, neighborhood-level information is beyond the scope of its analysis. As questions are generated, indicators are selected and the City develops a system for tracking the changes resulting from the implementation of the HWE, the City looks forward to collaboration with the County to identify and track longer-term environmental and health outcomes at the city and neighborhood level for Richmond residents.

While it is understood that financial, political, and administrative feasibility need to be taken into consideration, the City is eager to collaborate with CCHS to determine how to collect, analyze, and report appropriate data to identify problems across Richmond neighborhoods. Neighborhood-level data would highlight health equity issues and could assist the City, County, and other interested entities in making more informed policy decisions regarding resource allocation. The City and CCHS can look to other county health departments such as neighboring Alameda County, which provides life outcomes expectations by neighborhood, to learn about promising models for collecting, analyzing, and reporting neighborhood-level data that can be applicable to Richmond.

¹⁵ <http://www.cchealth.org/groups/epidemiology/> and <http://www.cchealth.org/groups/chape/>, respectively

Community Partners

Combining the first-hand experience and knowledge of local residents can contribute to better solutions for environmental health problems.¹⁶ Establishing partnerships and strengthening existing partnerships with community players to collect, analyze, and utilize health and community data are particularly important for identifying local needs, priorities, and emerging resources in Richmond, and to effect change.¹⁷

“Increasingly, there is a realization that to effect change, research in public health and related fields must be policy relevant. The field needs to move as researchers work *with* (rather than *on*) communities to study and address their issues and concerns, and collaboratively use the findings to influence policy and promote health equity.”¹⁸

Neighborhood residents and a wide range of nonprofit and community-based organizations in Richmond and the greater Bay Area offer information and resources for City of Richmond staff and others to track the ongoing success of the Richmond HWE. City staff and leadership can consider these groups experts concerning the conditions of their neighborhoods.

Community participation in indicator selection and data collection, as well as data analysis and reporting, can bring many benefits to the City, in addition to useful information and resources. It can also lead to community ownership and buy-in of the overall work and process. When community members participate in, understand, and impact major decision processes early on, the possibility of controversial final decisions and review processes decreases. To have successful community participation, the City recognizes that education and training of community members may be necessary to build skills and capacity and to build strong partnerships with community experts.

The City of Richmond aims to incorporate community engagement into its existing systems whenever possible. For example, the Planning Department has been proactive in engaging the community in the development of HWE policy tools through the creation of a HWE Implementation Technical Advisory Groups (TAG) and subject-specific advisory committees, such as a committee on urban agriculture. The groups engaged in policy development can also be involved in developing outcomes and determining meaningful measures of success.

The City can also partner with community-based organizations that are engaging residents in data work. For example, Richmond Healthy Eating Active Living (HEAL) conducted a survey of Richmond parks in which residents were involved in identifying priorities and collecting data. Communities for a Better Environment (CBE) has been involved in research and data collection related to environmental health in Richmond. Nonprofits and other groups provide a rich resource of information. Figure 8 lists numerous possible strategies for the City of Richmond to partner with the Richmond community to track the

¹⁶ Corburn, Jason. 2005. *Street Science: Community Knowledge and Environmental Health Justice*. Cambridge: MIT Press. Clark, N.M., Lachance, L., Doctor, L.J., Gilmore, L., Kelly, C., Krieger, J., Lara, M., Meurer, J., Milanovich, A.F., Nicholas, E., Rosenthal, M., Stoll, S.C. & Wilkin, M. (2010) Policy and system change and community coalitions: Outcomes from allies against asthma. *American Journal of Public Health*. Vol.100, No.5.

¹⁷ Minkler, M., and N. Wallerstein. 2008. Introduction to Community-Based Participatory Research: New Issues and Emphases. In *Community-Based Participatory Research for Health: From Process to Outcomes*, 2nd Edition, eds. M. Minkler and N. Wallerstein. San Francisco: Jossey-Bass.

Israel, B. A., E. Eng, A. J. Schulz, and E. A. Parker, eds. 2005. *Methods in Community-Based Participatory Research for Health*. San Francisco: Jossey-Bass.

¹⁸ Minkler, Meredith, Victoria Breckwich Vasquez, Charlotte Chang, Jenesse Miller, Victor Rubin, Angela Blackwell Glover, Mildred Thompson, Rebecca Flournoy, and Judith Bell. 2008. *Promoting Healthy Public Policy through Community-Based Participatory Research: Ten Case Studies*. Oakland: PolicyLink. A project of the University of California, Berkeley, School of Public Health and PolicyLink, funded by a grant from the W. K. Kellogg Foundation

implementation of the HWE. The Illustration on the next page provides an example of how partnership between the Richmond community and staff at Contra Costa Health Services helped to leverage existing local expertise and address relevant community health priorities.

Figure 8. Opportunities for Partnership with Richmond Communities

Partnership Opportunity	Description
Resident Representation on Official City Government Decision Making Committees	<ul style="list-style-type: none"> • Inclusion of resident experts on City committees and panels through application processes, rotating positions, or open calls. • Residents can lend local expertise to local considerations. • Local nonprofits may also provide important perspective on community concerns and priorities.
Community Advisory Groups	<ul style="list-style-type: none"> • Advisory Groups can be convened on different topics (such as urban agriculture) or to represent different geographic areas (such as the Iron Triangle) or community groups (such as Asian Americans in Richmond). • Representatives of nonprofits and other institutes can provide important insight alongside resident perspectives. • Advisory Groups are most effective with meaningful participation and inclusion in decision-making processes. • The Richmond HWE Phase II Technical Advisory Group (TAG) is one example of a community-based advisory group.
Resident Researchers	<ul style="list-style-type: none"> • With training and education, community members are excellent candidates for gathering raw data to help City government optimize its work; both volunteer and stipend positions can be utilized. • Community-Based Participatory Research (CBPR) and Participatory Action Research (PAR) are examples of academically proven community-led strategies for gathering and analyzing data. • PhotoVoice is a renowned approach for identifying community priorities while building community capacity. • Surveys, environmental scans, local needs assessments, bicycle/pedestrian mapping and other data collection strategies are common in communities across the country, and build important relationships between community residents and local decision makers.
Youth Engagement	<ul style="list-style-type: none"> • Local schools are an important partner in the HWE implementation work, and could prove a valuable resource for data collection and analysis. • Richmond has a strong history of youth organizing and involvement in decision making. Examples include The East Bay Green Corridor Energy and Technology project and politically affiliated youth groups.

ILLUSTRATION: Project 12898 - Solutions for West County Land Use and Environmental Justice

Citizen participation in local government decision making through the use of data and indicators is not new in Richmond. In numerous instances, partnerships between local agencies and community residents have arrived at joint, meaningful solutions.

One example is Project 12898: Solutions for West County Land Use and Environmental Justice, funded by the California Department of Transportation, the San Francisco Foundation, The California Endowment, and the Pacific Institute. This was a collaborative effort of Contra Costa Health Services, the Pacific Institute, Neighborhood House of North Richmond, the West County Toxics Coalition, the Community Health Initiative, and residents of West Contra Costa County.

The project aimed to incorporate the priorities of West County residents into local transportation and land use decisions affecting the impacts of diesel trucks, ships, and trains on local neighborhoods. The project built on earlier work of the partner organizations, which revealed that certain neighborhoods of Richmond were overburdened by diesel pollution—much of it derived from the movement of freight in and through the area by truck, rail, and ships.

Over 18 months, members launched community education and training activities to prepare residents to become involved in the transportation and land use planning decisions. During this time, Project 12898 surveyed more than 160 residents in English, Lao, and Spanish about how trucks and trains affect their health and quality of life. The core project team also led residents through a series of five workshops designed to map out the most urgent problems and identify potential solutions.

Once issues were identified, residents worked with a core planning team to develop action plans for solutions in three areas:

- Active living
- Community health and air quality
- Emergency responses

These action plans included such aspects as:

- Establishing short-term and long-term goals
- Determining what entities could implement specific goals
- Identifying potential allies
- Picking specific tools for accomplishing specific tasks
- Identifying how to conduct specific tasks
- Identifying who would accomplish specific tasks

This approach recognized that residents have the most intimate knowledge of local freight transportation problems and land use issues, and can focus on developing solutions that best meet their needs.

Opportunities for Integrating HWE Priority Indicators into Existing Data and Tracking Systems, and Needs for New Systems

The City collects, analyzes, and reports data on many topics in a variety of ways. To maximize efficiency and reduce new demand on City staff, it is in the City's best interest to utilize and modify, if necessary, resources and systems where data is already collected, analyzed, and reported. Opportunities include the City's Five-Year Strategic Business Plan, Annual Budget & Performance Measures, and Community Survey. Because all these efforts collect and track data relevant to the HWE, they should be considered core components of the overall HWE tracking system. Below is a discussion of these data systems, strategies for incorporating HWE indicators into existing systems, and recommendations to strengthen and improve HWE tracking infrastructure.

Existing Data and Tracking Systems in Richmond

Five-Year Strategic Business Plan

The City of Richmond Five-Year Strategic Business Plan (Strategic Business Plan or SBP) aims to help the Richmond City Council assess the effects of today's policy decisions on the City's future and the quality of life of its residents. It guides the City's day-to-day operations and its capital improvement and revitalization programs.

The Strategic Business Plan is a key tool for implementing the City's new General Plan, and the HWE. The General Plan provides an overarching vision and sets policies for guiding the physical, economic, social, and cultural development of the City over the next 20 years. In contrast, the Strategic Business Plan looks at the next five years and outlines the strategies, projects, and programs that will support a phased implementation of the General Plan. The City's Capital Improvement Plan (CIP) and Operating Budget then prioritize these projects and programs on an annual basis.

The Richmond Strategic Business Plan is formulated by five goals, embraced by the City Council, Commissions, and staff. These goals are based on the understanding that investment of financial, physical, and staff resources made today ensure that the City's quality of life is enhanced and preserved for future residents. The goals are to:

1. Maintain and enhance the physical environment.
2. Promote a safe and secure community.
3. Promote economic vitality.
4. Promote sustainable communities.
5. Promote effective government.

To track the progress of strategies listed in the 5YSBP, the City convenes quarterly meetings with staff responsible for specific projects. These meetings allow staff to share project status, discuss potential barriers to project completion, and identify opportunities for collaboration. In the future, the City desires to utilize a web-based performance measurement tracking system, which would provide residents with a more interactive method of accessing project information and would allow them to assess progress while the City meets its performance targets.

Annual Budget and Performance Measures

The City's budget development process is the formal method through which the City establishes its program priorities, goals, and service levels annually. Through this process, policy is set, programs are established, service levels are expressed, performance measures are articulated, and resources are identified.

As part of the budget process, the City developed a performance measurement system that allows city departments and staff to set desired outcomes for work and to measure progress in achieving those outcomes. For the annual operating and CIP budgets, each department is responsible for developing meaningful performance measures that will help them learn and improve their work and evaluate it so that the City can be more effective and efficient.

Each quarter, departments report the progress in meeting the goals set in the beginning of each year. In an effort to be transparent, progress on performance measures for the CIP and operating budgets are reported to City Council and are available on the City's web site.

Richmond Community Survey

One of the best ways to improve Richmond's services is to ask the people who live there what they think. The City of Richmond does just that every two years with the *Richmond Community Survey*. The purpose is to help city officials and staff evaluate services, measure resident satisfaction with services, and plan for Richmond's future. Results from the survey are summarized in a final report available to all city officials, staff, and residents.

In 2007, 2009 and 2011, *Richmond Community Survey* questionnaires were sent to a random sample of 3,000 Richmond households.

In 2011, as a result of activities by the HWE Data Working Group, two questions asking specifically about resident health were added to the survey. Other questions connected to the goals within the HWE were also included. Elected officials and City staff will be able to use the 2011 survey results to:

- Assess the quality of community life and services provided to residents;
- Track resident perceptions of services, amenities, and safety;
- Help make informed decisions about where to direct resources;
- Assess support for local policies;
- Gather information on residents' use of services;
- Develop follow-up questions to gain a deeper understanding of the issues so that the City is better able to solve problems; and
- Compare results from 2007 and 2009 to measure changes over time.

Four reports will be produced to highlight the 2011 survey results: (1) a comprehensive report of local results that includes the survey background, methods, and analysis of local responses presented in tables and graphs; (2) a report analyzing responses based on demographic questions relating to length of residence in Richmond, ethnicity, race, and age; (3) a report analyzing survey responses based on geographic areas; and (4) a report comparing the 2011 results to 2009 results as well as to findings in other jurisdictions of similar size nationwide and to more than 400 jurisdictions in the NRC database. As the City moves toward incorporating health in all policy decisions, City staff are learning more about the HWE and their role in creating a healthier community for Richmond residents. In preparation for the FY 2011-12 budget, city departments were instructed to incorporate performance measures, as they relate to the goals in the HWE, into the budget process. It is recommended that the city continue to incorporate and/or highlight HWE-related performance measures and projects into the annual budget process, as well as into the 5YSBP.

Strategies for Integrating Health and Equity Indicators into Existing Systems

Specific results from the Community Surveys, along with the data that City departments are currently collecting and tracking for their own purposes and within the annual operating and CIP budgets and the 5YSBP, can all be useful in helping to determine the success in implementing the HWE and should be considered core components of an overall HWE tracking system in Richmond. To ensure an effective HWE implementation:

- ✓ The Strategic Business Plan should adopt the goal to achieve health equity in Richmond.
- ✓ HWE indicators should be directly linked with Strategic Business Plan goals.
- ✓ Performance measures across all City departments should be linked with HWE health and equity indicators.
- ✓ The City should continue to report progress on performance measures regularly online.
- ✓ The City should consider alternative mechanisms for ensuring progress on performance measures.

Needs for new HWE tracking infrastructure

A scan of tools and information needed for HWE implementation as compared with existing resources for data, indicators, and tracking revealed several gaps in the City's capacity. These areas of potential improvement include improved Geographic Information Systems (GIS) mapping, increased funding diversity, and strengthened partnerships to support each of these areas.

GIS Mapping

Mapping is a critical tool for presenting and analyzing data spatially. Spatial analysis of health data and other community conditions data is fundamental to understanding the success of the HWE implementation. However, mapping-related activities using Geographic Information Systems (GIS) software in the City of Richmond are currently limited due to staffing constraints. Improved mapping capacity would allow the City to identify and understand trends pertaining to health and community outcomes in and across Richmond neighborhoods.

There are several opportunities and options for building out and improving a GIS system at the City level. The City can:

- ✓ Invest in additional staffing and mapping resources.
- ✓ Build partnerships with other agencies. Though partners at the Contra Costa Health Services also have limited staffing for mapping activities, they have strong interest in increasing staff capacity. Sharing resources between the City and County could be a cost-effective solution for both parties.
- ✓ Build upon resources from previous mapping projects. For instance, Appendix E contains specifics regarding GIS maps from the Richmond General Plan writing process as supported by MIG, Inc. 2005-2008.

Increased Funding Diversity

Efforts to ensure that ample resources are available for data and indicators tracking systems for the Richmond HWE will also assure the sustainability of the HWE implementation and the measurement of its success. Resources are needed to supplement budget cuts and support areas of potential expansion and innovation.

The City of Richmond can exercise several strategies for leveraging increased funds by:

- ✓ Increasing funding diversity by including health and health indicators in proposals across all departments and issue areas, whether directly linked with data or not.

- ✓ Increasing funding opportunity by building partnerships outside local government and identifying common needs for Richmond community data and tracking.
- ✓ Drawing from information included in this report to justify applications.

4. Reporting and Disseminating Findings

By working to update and streamline data and indicators tracking systems within and across City departments, the City of Richmond is in a unique position to improve and increase data and information-sharing across the Richmond community. Reporting is necessary and important for this process as well as for demonstrating how City staff and leaders are both using relevant information to inform decisions and make progress.

Reporting Strategies

The Data Working Group identified several approaches for data-sharing and reporting in Richmond with input from the Technical Advisory Group; these ideas are summarized in Figure 9. It is recommended that the City consider and implement *all* these strategies to meet the needs of all Richmond audiences.

Figure 9. Potential Reporting Strategies in Richmond

- Ongoing online communications (e.g., dedicated website, web portal, online maps)
- Ongoing written communications (e.g., newsletters, in addition to updated existing reports¹⁹)
- Media communications (e.g., local public access stations, KCRT local radio)
- Regular oral and visual reporting at public meetings and community functions
- Community messengers (including City or County staff well-connected in the community, and/or community members well-connected with City or County staff)
- Other existing technologies, such as SMS (text messaging) updates

Content of Reports

Public documents or reports should include information that is:

- ✓ Related to outcomes across each of the HWE areas over
 - the short term (months and year) and
 - the long term (5 years and beyond)
 - multiple areas of Richmond, considering the City as a whole as well as its constituent neighborhoods
- ✓ Meaningful to multiple audiences
 - informs Richmond City Council and city staff
 - informs residents and workers in Richmond
- ✓ Accessible to multiple audiences

¹⁹ Several existing reports in or about Richmond offer the City a starting point for generating annual written reports or report cards. These include:

- ✓ The 2007 Community Health Indicators for Contra Costa County report (July 2010) http://cchealth.org/health_data/hospital_council_2007/pdf/chape_executive_report_2007.pdf. This report is produced by the Community Health Assessment, Planning and Evaluation Group (CHAPE) of Contra Costa Health Services Public Health Division.
- ✓ The 2007 Richmond Existing Conditions Report, prepared in July 2007 by MIG, Inc. <http://www.healthycommunitiesbydesign.org/docManager/1000000125/Existing%20Condictions%20Report%20August%202007.pdf>.
- ✓ The 2007 Richmond Existing Conditions Maps, prepared in July 2007 by MIG, Inc. <http://www.healthycommunitiesbydesign.org/docManager/1000000181/Analysis%20Maps%20Reduced.pdf>.
- ✓ Annual budget and 5-Year Strategic Business Plan

- easy to obtain
 - easy to understand—brief but with definitions where needed
 - translated into multiple languages
- ✓ Up to date and regularly updated—to remain relevant

It is recommended that the City work with the internal HWE Task Force and a Community Advisory Group on Data to prioritize HWE indicators, and determine ideal reporting strategies. The Technical Advisory Group contributing to the HWE's overall implementation strongly underscored that indicators selected should be meaningful to and in particular—*engage*—the Richmond community, and therefore testing in the community should occur before report strategies are finalized. The content, formatting, and effectiveness of reports should be revisited on a regular—possibly annual—basis with the Advisory Group.

Conclusion

Identifying, tracking and assessing data in Richmond is neither a novel concept nor an unfamiliar task. However, pursuing the comprehensive, place-based strategy to address health in Richmond through changes to the social, economic, and physical environments does present new challenges and opportunities. Richmond government, businesses, nonprofit organizations, community groups and residents—along with partners in the region—hold a wealth of information about the conditions of life in the city. Brought together in a systematic and organized fashion, these data can provide important insights into the fabric and infrastructure of the Richmond community, shed light on promising approaches and evolving needs to achieve healthy, equitable neighborhoods and residents, and tell the unfolding story behind this historic city’s continuing growth and transformation.

Just as Richmond’s own growth and transformation as a city has required lots of hands and minds over time, so too, will the ongoing and iterative process of data collection, prioritization, and analysis. The recommendations laid out in this report will require time to prioritize and implement. However, as seen in the development of this report, some strategies can be implemented immediately while others require further time for “cooking.”

The HWE Data Working Group is pleased to lay the groundwork for the next steps of this effort, and enthusiastically supports the City Manager’s Office as it takes on this long-term and important effort.

Appendix A.

General Plans in California

Every city and county in California must create a general plan to guide its future development.²⁰ A general plan is a policy document that expresses a jurisdiction's long-term development goals and objectives relative to the distribution of future land uses, both public and private, as well as a number of other topics. It is the responsibility of each jurisdiction to implement the policies, actions and programs laid out in its general plan, and to maintain its relevance by reviewing and revising its content at least once every five years. Thorough general plan updates are traditionally completed every 15-20 years.²¹

The Richmond Community Health and Wellness Element (HWE)

The State of California requires that seven topics, or elements, be addressed in every general plan, but allows each city and county the flexibility to also include other topics of great importance to the community. In the Richmond 2030 General Plan, the City of Richmond included a total of fifteen elements, including the Community Health and Wellness Element (Appendix B).

Conceived in 2005, the Richmond Community Health and Wellness Element (HWE) is the first standalone element in a California jurisdiction's General Plan that addresses the relationship between public health and the jurisdiction's social, economic, and physical environments.

A community's overall health depends on many factors including the environment in which residents live and work. Places with clean air and water, an abundance of healthy food outlets, and safe streets, neighborhoods and parks provide better living, working, and playing environments for community health. Meanwhile, places that carry the greatest environmental burdens, including high levels of air and noise pollution, a lack of healthy food stores, and poorer schools, jobs and housing, consistently demonstrate worse community health outcomes.²² Socioeconomic and environmental differences between neighborhoods, communities, cities and regions result in major inequities in stress levels and subsequent health outcomes across places.²³ Low income communities and communities of color tend to experience both a greater share of adverse neighborhood conditions as well as a disproportionate burden of disease.

Urban planning strategies, which guide social, economic and physical change within communities, are promising tools to improve community health. Planning strategies not only shape urban form, but also affect economic issues such as the affordability of housing, the availability of jobs, and access to health care, and social issues such as community connectedness and support. These socioeconomic factors are known to influence health.²⁴ Well-crafted urban planning strategies can help assure that all people – regardless of race, income, or community of residence – are able to exercise their right to live up to their full potential.

²⁰ California Government Codes §65300 and §65302.

²¹ Johnston, Julia Lave, Jeff Loux, and Paul McDougal. 2003. "State of California General Plan Guidelines." Sacramento: Governor's Office of Planning and Research. Accessed April 20, 2011. http://www.opr.ca.gov/planning/publications/General_Plan_Guidelines_2003.pdf.

²² Bell, Judith, and Mary Lee. 2011. "Why Place and Race Matter: Impacting Health through a Focus on Place and Race." Oakland: PolicyLink. Accessed April 20, 2011. <http://www.policylink.org>.

²³ Flournoy, Rebecca and Irene Yen. 2004. "The Influence of Community Factors on Health: An Annotated Bibliography." Oakland: PolicyLink. Accessed April 20, 2011. <http://www.policylink.org>.

²⁴ Bell, Judith, and Mary Lee. 2011. "Why Place and Race Matter: Impacting Health through a Focus on Place and Race." Oakland: PolicyLink. Accessed April 20, 2011. <http://www.policylink.org>.

The Richmond HWE is based on an extensive assessment of spatial, social, and economic factors that influence health in the community, and addresses major factors (referred to as goal areas in the report) that impact public health, including:

- Improved Access to Parks, Recreation, and Open Space
- Expanded Access to Healthy Food and Nutrition Choices
- Improved Access to Medical Services
- Safe and Convenient Public Transit and Active Transportation Options
- A Range of Quality and Affordable Housing
- Expanded Economic Opportunity
- Completeness of Neighborhoods
- Improved Safety in Neighborhoods and Public Spaces
- Improved Environmental Quality
- Green and Sustainable Development and Practices

In addition to each of these ten goal areas (presented in Figure 1), the City of Richmond has also included an eleventh goal around Leadership in Building Healthy Communities, “to craft proactive policies that address: design of built environment; effective programs and services; strong partnerships with health providers and agencies; and community engagement to influence policies and decisions at regional, state and national levels to promote the health and well-being of residents.”²⁵

²⁵ City of Richmond. 2010. “General Plan 2010.” Accessed April 20, 2011. <http://www.ci.richmond.ca.us>.

Appendix B.

The Fifteen Elements of the Richmond, CA 2030 General Plan Update

Element 1. The Economic Development Element establishes direction for short and long-term economic growth, guiding elected officials, employers and community members as they plan for the future. It includes a range of strategies to sustain businesses and industries, diversify the economic base, accommodate job growth and increase access to employment for Richmond residents.

Element 2. The Education and Human Services Element provides direction to improve educational opportunities and support social and emotional well-being through human service offerings. The Element seeks to ensure that Richmond residents have equitable access to a diverse range of educational opportunities and resources that are fully integrated with the City's long-term quality-of-life goals.

Element 3. The Land Use and Urban Design Element presents a framework for governing future decisions about allowable, context-appropriate land use and desirable development patterns. It also defines a preferred urban design character for buildings, gathering spaces and streetscapes. Overarching goals focus on providing a vibrant urban core, active public spaces and enhanced neighborhood character in the context of balanced and compatible uses.

Element 4. The Circulation Element seeks to ensure efficient mobility and access for all residents, workers and visitors through a safe, interconnected, multimodal transportation system. Goals, policies and implementing actions will guide management of transportation systems in a progressive, responsible and well-balanced way.

Element 5. The Housing Element establishes a framework for protecting, maintaining and expanding quality and affordable housing options for current and future residents. It also seeks to provide adequate housing for groups with special needs and promote integrated neighborhoods that support families, seniors and people of all incomes.

Element 6. The Community Facilities and Infrastructure Element presents a framework for the City to provide services, amenities and infrastructure for today's residents as well as future generations. Policies and implementing actions seek to responsibly improve educational and human service facilities, physical infrastructure and a range of public utilities and services to best meet community needs as Richmond grows.

Element 7. The Conservation, Natural Resources and Open Space Element is designed to protect, maintain and enhance Richmond's natural resources and open spaces, and balance current community resource needs with critical conservation endeavors to benefit the common good.

Element 8. The Energy and Climate Change Element provides strategic direction for the City to promote mitigation, sustainability and adaptation in response to Richmond's impact on climate change. The Element identifies goals, policies and implementing actions to address energy conservation, renewable energy production and use, sustainable business development, responsible community revitalization and reduction of climate change impacts in Richmond.

Element 9. The Growth Management Element provides a framework for effective coordination of land use, transportation and infrastructure. This Element outlines a strategy to promote compact urban development, protect open space and provide adequate infrastructure and services to accommodate future community needs in Richmond.

Element 10. The Parks and Recreation Element provides direction for developing and maintaining a comprehensive system of quality parks, recreational facilities, programs, support services and open space. General Plan goals, policies and implementing actions are designed to preserve resources and enrich parks and recreational offerings.

Element 11. The Community Health and Wellness Element establishes a critical path for improving conditions that will foster the physical health and emotional well-being of Richmond residents. The Element defines healthy living indicators, reviews current conditions in Richmond relative to healthy indicators, and prescribes specific policies and implementing actions tailored to critical health needs in the community.

Element 12. The Public Safety and Noise Element seeks to minimize risks posed by environmental and human-caused hazards that may impact Richmond residents' health and welfare. These include crime, geologic and seismic hazards, flooding, fires, hazardous materials and noise.

Element 13. The Arts and Culture Element presents Richmond's approach to integrating arts and culture into everyday community life, thereby strengthening Richmond's unique character and identity.;

Element 14. The Historic Resources Element provides a framework for preserving, restoring and leveraging Richmond's historic assets to maintain the City's sense of place and ensure that these assets can be enjoyed by current and future residents and visitors.

Element 15. The National Historical Park Element establishes a framework for fully developing the Rosie the Riveter/World War II Home Front National Historical Park. The National Historical Park honors and preserves Richmond's history and commemorates the millions who worked on the wartime home front.

Appendix C.

Potential Indicators for Tracking the Richmond HWE *(courtesy of MIG, Inc.)*

INDICATOR		BREADTH CRITERIA		FEASIBILITY CRITERIA						HEALTH EQUITY CRITERIA		IMPACT CRITERIA		LOCAL EXPERTISE CRITERIA	ADDITIONAL NOTES
Reference	Indicator	HWE Content	Indicator Domain	Data Availability	Data Source	Frequency	Barriers to Data Collection	Double Duty	Current Usage	Geographic Scale	Demographic Factors	Change Potential	Public Interest	Community Participation	
Goal HW1: Improved Access to Parks, Recreation and Open Space															
Total Parkland	Acres of total parkland have been added in the past [flexible]	HW1.1	community environment	yes	Planning	variable	Must be calculated	PR		parcel	yes				For frequency, "variable" means that at any given point, data from within the past year will be available; the City must determine how regularly these indicators will be measured, and should establish a schedule based on this. Typical schedules might be quarterly, annually, biennially, etc. based on capacity of staff to process and use the data.
Parkland per Capita	Acres of parkland per thousand residents	HW1.1	community environment	yes	Planning, Census, ACS	variable	Must be calculated	PR		block group	yes				
Total New Parkland	Acres of total parkland have been added in the past [year/5 years/etc.]	HW1.1	community environment	yes	Planning	variable	Must be calculated	PR		city	no				
Satisfaction with Park Condition	Percent change in resident satisfaction with park condition in the past xx years	HW1.1	community environment	yes	City survey	biennial (next survey in 2013)	Survey depends on funding availability and Council directive	PR	Survey information is provided to city council, staff and residents.	possibly; depends on survey questions	possibly				

Pedestrian Access to Parks	Percent change in how many residents live within ¼ mile of a neighborhood or community park over the past xx years	HW1.1	community environment	yes	Planning, Census, ACS	variable	Must be calculated	PR		block group	yes	yes			
Transit Access to Parks and Open Space	Percentage of parks and open space served by transit routes	HW1.1, HW1.4, HW1.7	community environment	yes	AC Transit, BART, Planning	variable	Must be calculated	PR, CN		parcel	yes				
Community Park Needs Met	Percentage of community needs identified in the Parks Master Plan are currently met in park facilities	HW1.1, HW1.2, HW1.3, HW1.5	community environment	yes	Recreation	variable	must be calculated; not currently collected; difficult to measure	PR		n/a	no				
Recreation Facility Use	Percentage of Richmond residents who regularly use City recreation facilities	HW1.3	community environment, health impact	some	Recreation	variable	Methodology? Need to define "regularly"	PR, CF		n/a	no				
Park Use	Percentage of Richmond residents who regularly use City parks	HW1.3	community environment, health impact	some	Recreation	variable	Methodology? Need to define "regularly"	PR		n/a	no				
Recreation Program Capacity	Percentage of recreation programs operating at 90 percent capacity or higher	HW1.3	community environment	yes	Recreation	variable	None	PR		yes; can consider geographic locations of recreation programs at or under capacity	yes				
Park Quality	Percentage of park facilities are rated good or excellent	HW1.4	community environment	yes	Planning, Recreation	biennial (next survey in 2013)	Not currently included in City survey	PR		parcel	yes				
Joint Use Partnerships	Number, location, and partner for active joint use partnerships	HW1.5	community environment		Planning, WCCUSD	variable	Not currently collected	EH, PR, CF		n/a	no				
Perceived Safety in Parks	Percent change in how safe residents feel in parks over the past xx years	HW1.6	community environment, health impact	yes	City survey	biennial (next survey in 2013)	Survey depends on funding availability and Council directive	PR, SN	Survey information is provided to city council, staff and residents.	possibly; depends on survey questions	possibly				

Crime in Parks	Number of crimes in City parks within the past [year/5 years/etc.]	HW1.6	community environment	yes	RPD	monthly	Must be calculated based on locations of crimes	PR, SN		parcel (if individual parks are considered separately from aggregate)	yes				
Total New Protected Open Space	Acres of protected open space have been added in the past [year/5 years/etc.]	HW1.7	community environment	yes	Planning, Census, ACS	variable	Must be calculated	PR, CN		city	no				
Recreation on Shoreline	Number and location of recreational activities located on the shoreline	HW1.8	community environment	yes	Planning	variable	None	PR, CN		parcel	yes				
Public Access to Shoreline	Percentage of the Richmond shoreline is currently publicly accessible	HW1.8	community environment	yes	Planning, Census, ACS	variable	Must be calculated	PR, CN		parcel	yes				
Goal HW2: Expanded Access to Healthy Food and Nutrition Choices															
Access to Healthy Foods	Percentage of residents within 1/2 mile of full-service grocery store or fresh produce market	HW2.1	community environment, health impact	yes	Planning, Census, ACS, California Nutrition Network	variable	Must be calculated	n/a		block group	yes				Can residents walk to stores selling fresh produce?
Resident Engagement in Urban Agriculture	Percentage of residents engaged in community gardens, food growing, or other urban agriculture activities	HW2.1	community environment, health impact	TBD	Partner organizations (e.g., Urban Tiith), Census	variable	Not all organizations track numbers of participants	n/a		n/a	no				How many people in the city are engaged in urban ag activities?
Obesity Rate	Percentage reduction in obesity rate in children and adults	HW2.1	health impact	yes	CCHS	variable	None	n/a		n/a	no				

Corner Store WIC/SNAP Vendors	Percentage of corner stores participating in WIC/SNAP programs	HW2.1	community environment, health impact	yes	Planning, CCHS, Food Bank of Contra Costa and Solano Counties, California Nutrition Network	variable	None	n/a		parcel	yes				
Corner Store Healthy Food Vendors	Percentage of corner stores carrying fresh fruits and vegetables	HW2.1	community environment, health impact	yes	CCHS	variable	May not be tracked currently	n/a		parcel	yes				
WIC/SNAP Participation Rate	Percentage of residents eligible for, but not enrolled in, WIC/SNAP programs	HW2.1	community impact, health impact	yes	Planning, CCHS, Food Bank of Contra Costa and Solano Counties, California Nutrition Network	variable	None	n/a		n/a	no				
Farmers Markets per Capita	Number of farmers markets per capita	HW2.2	community environment	yes	Planning	variable	Must be calculated	n/a		n/a	no				
Farmers Markets by Neighborhood	Neighborhoods served by farmers markets	HW2.2	community environment, health impact	yes	Planning	variable	None	n/a		neighborhood	yes				
Vacant Lot Garden Use	Percentage of vacant lots being used for community gardens or farming	HW2.2	community environment	yes	Planning, partner organizations	variable	Must be calculated	PR		parcel	yes				
Community Gardens by Neighborhood	Neighborhoods with community gardens	HW2.2	community environment, health impact	yes	Planning	variable	None	PR		neighborhood	yes				
Community Gardens per Capita	Acres of community gardens per capita	HW2.2	community environment, health impact	TBD	Planning, Census, ACS	variable	Acres of community gardens are not all defined; may require some surveying--consider using number instead	PR		n/a	yes				

Restaurant Nutritional Information	Percentage of restaurants posting nutritional information	HW2.3	community environment, health impact	TBD	CCHS	variable	Unclear whether these data are collected	n/a		n/a	yes					
Restaurants Offering Local Foods	Percentage of restaurants using locally-grown or produced food	HW2.3	community environment, health impact	TBD	CCHS?	variable	Unclear whether these data are collected; relies on self-reporting from restaurants; not directly tied to policy language, which discusses "healthy" food. Difficult to measure "healthy foods" since many restaurants may use fresh produce, but resulting dish may or may not be healthy.	n/a		n/a	yes					
Goal HW3: Improved Access to Medical Services																
Transit Access to Primary Care	Percentage of primary care facilities or clinics within 1/4 mile of transit stop or served by public transitor shuttles connecting to public transit	HW3.1	community environment, health impact	yes	AC Transit, BART, Planning	variable	Must be calculated	CR		block group	yes					
Access to Emergency Care	Percentage of residents within three miles of emergency facilities	HW3.1	community environment, health impact	yes	AC Transit, BART, Planning	variable	Must be calculated	SN		block group	yes					What distance is appropriate? How should access to care be defined?
Transit Access to Hospitals	Percentage of hospitals served by public transit or shuttles connecting to public transit	HW3.1	community environment, health impact	yes	Planning, AC Transit, BART	variable	Must be calculated	CR		parcel	no					

Workers with Health Insurance	Percentage of Richmond workers with health insurance	HW3.2	community environment, health impact		CCHS	variable	Not clear if data are currently collected on this; some workers may be undocumented or otherwise under the radar	n/a		n/a	TBD				
Employers Offering Health Insurance	Percentage of Richmond employers offering health insurance to employees	HW3.2	health impact		CCHS	variable	Not clear if data are currently collected on this	n/a		n/a	no				
Fire Stations per Capita	Number of fire stations per capita	HW3.3	community environment	yes	Census, ACS, RFD	variable	Must be calculated	SN		n/a	no				Appropriate metric?
Police Officers per Capita	Number of police officers per capita	HW3.3	community environment	yes	Census, ACS, RPD	variable	Must be calculated	SN		n/a	no				Appropriate metric?
Fire Stations per Neighborhood	Geographic distribution of fire stations	HW3.3	community environment	yes	Planning, RFD	variable	None	SN		neighborhood	yes				Appropriate metric?
Police Stations per Neighborhood	Geographic distribution of police stations or sub-stations	HW3.3	community environment	yes	Planning, RPD	variable	None	SN		neighborhood	yes				Appropriate metric?
Disaster Preparedness and Recovery Plan Status	Years since Disaster Preparedness and Recovery Plan was last updated	HW3.3	system/policy	yes	Planning	variable	None	SN		n/a	no				

Goal HW4: Safe and Convenient Public Transit and Active Circulation Options

Access to Local Transit	Percentage of residents within 1/4 mile of a local transit stop	HW4.1	community environment	yes	Census, ACS, AC Transit	variable	Must be calculated	EC		block group	yes				
Transit-Oriented Development	Percentage of new development within 1/4 mile of a local or regional transit stop	HW4.1	community environment	yes	Planning, AC Transit, BART	variable	Must be calculated	CR, EC		parcel	yes				

Safe Routes to Transit	Percentage of transit stations or major bus transfer areas with safe routes to transit plans in place	HW4.1	community environment	yes	Planning, BART, AC Transit	variable	Must be calculated	CR, EC		parcel	yes				Safe Routes to Transit is an established regional program that provides funding for communities to plan and implement pedestrian and bicycle improvements around transit stations to allow residents to travel to transit more safely.
Automobile Use	Percentage reduction in automobile mode share	HW4.1	community environment	TBD	BAAQMD, ABAG, MTC	variable	Must be calculated	CR, EC		n/a	no				This refers to what percentage of people are traveling by automobile versus other modes of travel (e.g., walking, biking, transit, etc.)
Jobs Accessible to Transit	Percentage of jobs within 1/2 mile of a regional transit stop	HW4.1	community environment	yes	Census, ACS, AC Transit, Amtrak, BART, North American Industry Classification System	variable	Must be calculated	CR, EC		block group	yes				
Access to Regional Transit	Percentage of residents within 1/2 mile of a regional transit stop	HW4.1, HW3.1	community environment	yes	Census, ACS, AC Transit, Amtrak, BART	variable	Must be calculated	CR, EC		block group	yes				
Vehicle Miles Traveled	Percentage reduction in vehicle miles traveled (VMT) per capita	HW4.1, HW4.3, HW4.5	community environment	TBD	BAAQMD, ABAG, MTC	variable	Must be calculated	CR, EC		n/a					
Single-Occupancy Vehicle Mode Share	Percentage reduction in single-occupancy vehicle mode share	HW4.1, HW4.3, HW4.5	community environment	TBD	BAAQMD, ABAG, MTC	variable	Must be calculated	CR, EC		n/a					
Access to Paratransit	Percentage of residents in areas eligible for paratransit	HW4.2	community environment	yes	Paratransit, Planning, Census, ACS	variable	Must be calculated	CR		block group	yes				
Paratransit Use	Percentage of residents served by paratransit	HW4.2	community environment	yes	Paratransit, Planning, Census, ACS	variable	Must be calculated	CR		n/a	no				

Pedestrian Network Implemented	Percentage of Richmond Pedestrian Plan that has been implemented	HW4.3	community environment	yes	Planning	variable	None	CR, EC		n/a	no				
Bicycle Network Implemented	Percentage of planned bicycle network (based on Richmond Bicycle Plan) that has been completed	HW4.3	community environment	yes	Planning	variable	None	CR, EC		neighborhood	yes				
Access to Bicycle Routes	Percentage of schools with direct access to or within 1/4 mile of a bike lane or bike path	HW4.3	community environment	yes	Planning, WCCUSD	variable	Must be calculated	CR, EC		parcel	yes				
Access to Schools	Percentage of households within 1/4 mile of a public elementary or middle school	HW4.3	community environment	yes	Planning, Census, ACS, WCCUSD	variable	Must be calculated	CR, EC		block group	yes				
Pedestrian Collisions per Capita	Reduction in number of pedestrian collisions per capita	HW4.3, HW4.4	health impact	yes	Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol	variable	Must be calculated	CR, SN		possibly, if locations of collisions are considered	possibly				
Bicycle Collisions per Capita	Reduction in number of bicycle collisions per capita	HW4.3, HW4.4	health impact	yes	Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol	variable	Must be calculated	CR, SN		possibly, if locations of collisions are considered	possibly				
Pedestrian Deaths per Capita	Reduction in number of pedestrian deaths per capita	HW4.3, HW4.4	health impact	yes	Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol	variable	Must be calculated	CR, SN		possibly, if locations of deaths are considered	possibly				

Bicycle Deaths per Capita	Reduction in number of bicyclist deaths per capita	HW4.3, HW4.4	health impact	yes	Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol	variable	Must be calculated	CR, SN		possibly, if locations of deaths are considered	possibly				
Safe Routes to School	Percentage of schools with safe routes to school plans in place	HW4.3, HW4.4	community environment	yes	Planning, WCCUSD	variable	Must be calculated	CR, SN		parcel	yes				Safe Routes to School is an established Federal program that provides funding for communities to plan and implement pedestrian and bicycle improvements that allow students to travel to school more safely.
Number of Cul-de-Sacs	Number of cul-de-sacs	HW4.5	community environment	yes	Planning, Public Works	variable	Must be calculated	CR, SN		n/a	no				
Number of Gated Streets	Number of gated streets	HW4.5	community environment	yes	Planning, Public Works	variable	Must be calculated	CR, SN		n/a	no				
Density of Intersections	Density of intersections	HW4.5	community environment	yes	Planning, Public Works	variable	Must be calculated	CR, EC		n/a	no				Number of intersections per square mile
Length of Block	Average length of block	HW4.5	community environment	yes	Planning, Public Works	variable	Must be calculated	CR, EC		n/a	no				
ADA-Compliant Intersections	Percentage of intersections that are ADA compliant	HW4.5	community environment	yes	Planning, Public Works	variable	Must be calculated	CR		possibly, if locations are evaluated	possibly				
Green Streets	Number of green streets	HW4.5	community environment	yes	Planning, Public Works	variable	None	CR, EC, PR		possibly, if locations are evaluated	possibly				Green streets are a strategy (Action HW4.L) in the Richmond General Plan.
Intersections Reviewed for ADA compliance	Percentage of intersections that have been reviewed for ADA compliance	HW4.5	community environment	yes	Planning, Public Works	variable	None	CR		possibly, if locations are evaluated	possibly				
Goal HW5: A Range of Quality and Affordable Housing															
Concentration of Poverty	Concentration of poverty	HW5.1	community environment	yes	Census, ACS, SIPP	variable	Difficult to define--must use consistent methodology to measure	HE		block group	yes				

Housing Affordable to Median Income Households	Percentage of housing that is affordable to median income households	HW5.1	community environment	yes	Housing, ABAG, California Association of Realtors, HUD	variable	Must be calculated	HE		n/a	no				
Owner-Occupied Homes	Percentage of homes that are owner-occupied	HW5.1	community environment	yes	Census, ACS, Planning	variable	Must be calculated	HE		n/a	no				
Units Provided Through Inclusionary Housing	Number of affordable units provided through inclusionary housing policies	HW5.1	community environment	yes	Housing	variable	None	HE		possibly, if locations are mapped	possibly				
Housing Affordable to Extremely Low Income Households	Percentage of housing affordable to extremely low income households	HW5.1, HW5.3	community environment	yes	Housing, ABAG, California Association of Realtors, HUD	variable	Must be calculated	HE		n/a	no				
Housing Affordable to Very Low Income Households	Percentage of housing affordable to very low income households	HW5.1, HW5.3	community environment	yes	Planning, Housing, ABAG, California Association of Realtors, HUD	variable	Must be calculated	HE		n/a	no				
Housing Affordable to Low Income Households	Percentage of housing affordable to low income households	HW5.1, HW5.3	community environment	yes	Planning, Housing, ABAG, California Association of Realtors, HUD	variable	Must be calculated	HE		n/a	no				
Housing Affordable to Moderate Income Households	Percentage of housing affordable to moderate income households	HW5.1, HW5.3	community environment	yes	Planning, Housing, ABAG, California Association of Realtors, HUD	variable	Must be calculated	HE		n/a	no				
RHNA Targets Met	Percentage of RHNA targets met	HW5.1, HW5.3	community environment	yes	ABAG, Planning	variable; RHNA targets updated every 7 years	Must be calculated	HE		n/a	no				
Land Trusts	Acres of land held by community land trusts	HW5.1, HW5.2	community environment	yes	Planning	variable	None	HE		n/a	no				

Homes at Risk of Foreclosure	Percentage of homes at risk of foreclosure	HW5.1, HW5.2, HW5.3	community environment, health impact	yes	Housing, RealtyTrac	variable	Must be calculated	HE		parcel, if locations are mapped	possibly				Homes at risk of foreclosure could be defined to include those with notices of default filed or those that are "underwater."
Homes in Foreclosure	Percentage of homes in foreclosure	HW5.1, HW5.2, HW5.3	community environment, health impact	yes	Housing, RealtyTrac	variable	Must be calculated	HE		parcel, if locations are mapped	possibly				
New Studios and 1BR Units	Percentage of new units that are studios or 1 BR	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New 2BR Units	Percentage of new units that are 2 BR	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New 3BR or Larger Units	Percentage of new units that are 3 BR or larger	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Condominiums and Apartments	Percentage of new units that are condominiums or apartments	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Attached Single-Family Homes	Percentage of new units that are townhomes or other attached single-family residences	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Detached Single-Family Homes	Percentage of new units that are detached single-family residences	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Ownership Units	Percentage of new units that are ownership units	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Rental Units	Percentage of new units that are rental units	HW5.2	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
New Mixed Income Developments	Percentage of new developments that are mixed income	HW5.3	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
Housing Meeting HUD Housing Quality Standards	Percentage of housing meeting HUD housing quality standards	HW5.4	community environment	yes	Planning, Housing, ABAG, HUD	variable	None	HE		n/a	no				

Substandard Homes	Percentage of homes that are substandard	HW5.4	community environment	yes	Planning, Housing, ACS	variable	None	HE		n/a					
Code Violations	Number of code violations reported per thousand units	HW5.4	community environment, health impact	yes	RPD	variable	Must be calculated	HE, SN		block group, if locations are mapped	possibly				
Blight Reports	Number of blight reports reported per thousand units	HW5.4	community environment	yes	RPD	variable	Must be calculated	HE, SN		block group, if locations are mapped	possibly				
Units Rehabilitated Through City Programs	Number of units rehabilitated through City programs in the past year	HW5.4	community environment	yes	Planning, Housing	variable	None	HE		parcel, if locations are mapped	possibly				
Homelessness Rate	Number of residents experiencing homelessness	HW5.5	community environment, health impact	TBD	Housing	variable	Population is historically difficult to count	HE		n/a					
Mental Health Needs Met	Percentage of need for mental health services currently being met	HW5.5	community environment, health impact	TBD	DMH, CCHS	variable	How to measure this?	HE		n/a					
Goal HW6: Expanded Economic Opportunity															
Unemployment Rate	Unemployment Rate	HW6.1, HW6.2	community environment	yes	CA EDD	quarterly	None	EH, ED		n/a					Relevant to HW6?
High School Graduation Rate	High School Graduation Rate	HW6.2	community environment	yes	WCCUSD	annual	None	EH, ED		n/a					Relevant to HW6?
High School Dropout Rate	School Dropout Rate	HW6.2	community environment	yes	WCCUSD	annual	None	EH, ED		possibly, if data are available for individual schools	possibly				Relevant to HW6?
Residents with Post-Secondary Education	Percentage of residents with some post-secondary education	HW6.2	community environment	yes	ACS	variable	None	EH, ED		n/a					Relevant to HW6?
Residents with Associate's Degrees	Percentage of residents with Associate's degrees	HW6.2	community environment	yes	ACS	variable	None	EH, ED		n/a					Relevant to HW6?

Residents with Bachelor's Degrees	Percentage of residents with Bachelor's degrees	HW6.2	community environment	yes	ACS	variable	None	EH, ED		n/a					Relevant to HW6?
Residents with Graduate Degrees	Percentage of residents with graduate degrees	HW6.2	community environment	yes	ACS	variable	None	EH, ED		n/a					Relevant to HW6?
New Businesses with Local Hire Commitments	Percentage of new businesses with commitments to hire local residents	HW6.1	community environment	TBD	OED	variable	May not be tracked currently	EC, ED		n/a					
Change in Living Wage	Percentage change in living wage	HW6.1	community environment	TBD	OED	variable	Only relevant when living wage changes	ED		n/a					
Businesses Paying Living Wage	Percentage of businesses paying living wage	HW6.1	community environment	TBD	OED	variable	May not be tracked currently outside of City contracts	ED		n/a					
Change in Median Income	Percentage change in median income	HW6.1	community environment	yes	Franchise Tax Board	variable	Difficult to distinguish between rising incomes and displacement	ED		n/a					
New Businesses and Industries	Number of new businesses and industries	HW6.1	community environment	yes	OED	variable	None	ED		n/a					
Businesses Benefiting from Business Support Programs	Number of businesses benefiting from City-sponsored incentives or other business-support programs	HW6.1, HW6.3	community environment	TBD	OED	variable	May not be collected currently	ED		n/a					
Residents Participating in Workforce Training	Number of residents served by workforce training programs	HW6.2	community environment	TBD	OED	variable	May not be collected currently	EH, EC, ED		n/a					
Small Local Business Participation in City Programs	Number of local small businesses participating in City initiatives	HW6.3	community environment	yes	OED	variable	None	ED		n/a					
Small Business Participation in City Programs	Number of small businesses participating in City initiatives	HW6.3	community environment	yes	OED	variable	None	ED		n/a					

New Small Businesses	Number of new small businesses	HW6.3	community environment	yes	OED	variable	None	ED		n/a					
Certified Green Businesses	Number of certified Green Businesses	HW6.4	community environment	yes	OED	variable	None	EC, ED		n/a					
Businesses in Compliance with Emissions Regulations	Percentage of businesses in compliance with emissions regulations	HW6.4	community environment, health impact	TBD	BAAQMD	variable	May not be collected currently	EC, ED		n/a					
Goal HW7: Complete Neighborhoods															
New Infill Developments	Percentage of new developments that are infill on vacant or underutilized lots	HW7.1	community environment	yes	Planning	variable	Must define underutilized--based on zoning?	EC, LU		parcel, if locations are mapped	possibly				
New Mixed-Use Developments	Percentage of new developments that are mixed-use	HW7.1	community environment	yes	Planning	variable	None	EC, LU		parcel, if locations are mapped	possibly				
New Transit-Oriented Development	Percentage of new development that is transit-oriented	HW7.1	community environment	yes	Planning, AC Transit, BART, ABAG	variable	None	EC, LU		parcel, if locations are mapped	possibly				
Corridor Improvement Plans Implemented	Percentage of actions identified in adopted corridor improvement plans that have been implemented	HW7.1	community environment	yes	Planning	variable	None	EC, LU		corridor	yes				
Access to Essential Goods and Services	Percentage of residents within 1/2 mile of essential goods and services	HW7.2	community environment	yes	Planning, ACS, Census, Contra Costa Health Services, AC Transit, California Nutrition Network, North American Industry Classification System	variable	Must be calculated	CF, EC, LU		block group	yes				Essential goods and services are defined as those goods and services that are necessary for living (e.g., grocery stores, medical care)

Access to Established Neighborhood Nodes	Percentage of residents within 1/2 mile of established neighborhood nodes	HW7.2	community environment	yes	Planning, Census, ACS	variable	Must be calculated	EC, LU		block group	yes				
Implementation of Neighborhood Revitalization Plans	Percentage of actions identified in adopted neighborhood revitalization plans that have been implemented	HW7.2	community environment	yes	Planning	variable	None	CF, EC, LU		n/a	no				
Goal HW8: Improved Safety in Neighborhoods and Public Spaces															
Rehabilitation of Existing or Construction of New Public Facilities and Spaces	Percentage of budget invested in rehabilitating or building new public facilities or spaces	HW8.1	system/policy	yes	Mayor's Office	annual	None	CF, SN		n/a	no				
Pedestrian-Scale Lighting	Percentage of streets with pedestrian-scale lighting in place	HW8.1, HW8.2	community environment	yes	Planning, Public Works	variable	Must be calculated	SN		neighborhood	yes				
Homicide Rate	Percentage change in homicide rate per capita	HW8.2	community environment, health impact	yes	RPD	monthly	None	SN		neighborhood/ block group	yes				
Violent Crime Rate	Percentage change in violent crimes per capita	HW8.2	community environment, health impact	yes	RPD	monthly	None	SN		neighborhood/ block group	yes				
Property Crime Rate	Percentage change in property crimes per capita	HW8.2	community environment, health impact	yes	RPD	monthly	None	SN		neighborhood/ block group	yes				
Vehicle Theft Rate	Percentage change in car thefts per capita	HW8.2	community environment, health impact	yes	RPD	monthly	None	SN		neighborhood/ block group	yes				
Street Events and Festivals	Number of street events or festivals held annually	HW8.2	community environment	yes	Planning, Mayor's Office	annual	None	SN		n/a	no				
Street Closures for Events	Number of street closing permits applied for by residents	HW8.2	community environment	yes	Planning, Public Works	annual	None	SN		n/a	no				
Liquor Stores per Capita	Number of liquor stores per capita	HW8.2	community environment, health impact	yes	ABC, Census, ACS	variable	Must be calculated	SN		n/a	no				
Proximity to Liquor Stores	Percentage of residents within 1/4 mile of a liquor store	HW8.2	community environment, health impact	yes	ABC, Census, ACS	variable	Must be calculated	SN		block group	yes				

Existing Developments Reviewed for CPTED Compliance	Number of existing developments that have undergone CPTED reviews	HW8.2, HW8.3	community environment	yes	RPD	variable	None	SN		parcel, if locations are mapped	yes					
New Developments Reviewed for CPTED Compliance	Number of new developments that have undergone CPTED reviews	HW8.2, HW8.3	community environment	yes	RPD, Planning	variable	None	SN		parcel, if locations are mapped	yes					
Vacant Homes	Percentage of homes that are vacant	HW8.3	community environment	yes	Housing, Census, ACS	variable	Must be calculated	HE, SN		block group	yes					
Change in Blight Reports	Percentage change in number of blight reports	HW8.3	community environment, health impact	yes	RPD	variable	None	HE, SN		parcel	yes					
Change in Code Violations	Percentage change in number of code violations	HW8.3	community environment, health impact	yes	RPD, Housing	variable	None	SN		parcel	yes					
Inmate Re-entry Transition Program Participation	Percentage of recently-released former inmates participating in inmate re-entry transition programs	HW8.4	community environment	TBD	Contra Costa County Office of the Sheriff, RPD	variable	May not be tracked currently	SN		n/a	no					
Recidivism Rate	Rate of recidivism for Richmond former inmates	HW8.4	community environment	yes	California Department of Corrections and Rehabilitation	variable	May not be available on the city level	SN		n/a	no					
Goal HW9: Improved Air Quality																
City Spending on Environmental Quality	Percentage of City spending focused on environmental quality	HW9.1	system/policy	yes	Mayor's Office	variable	None	LU, CN, EC		n/a	no					
Change in City Spending on Environmental Quality	Percentage increase in City spending on environmental quality	HW9.1	system/policy	yes	Mayor's Office	variable	None	LU, CN, EC		n/a	no					

New Environmental Quality Policies	Number of new policies to improve environmental quality	HW9.1	system/policy	yes	Mayor's Office	variable	None	LU, CN, EC		n/a	no				
New Environmental Quality Programs	Number of new programs aimed at improving environmental quality	HW9.1	system/policy	yes	Mayor's Office	variable	None	LU, CN, EC		n/a	no				
Street Sweeping	Percentage of residential and commercial curb miles swept per month	HW9.1	community environment	yes	PWD	variable	None	LU, CN, EC	City Manager	n/a	no				
Contaminated Sites	Location of contaminated sites	HW9.1	community environment	yes	CA Dept of Toxic Substances Control, EPA	variable	None	LU, CN, EC		n/a	no				
Perception of Air Quality	Resident perception of air quality	HW9.1	community environment, health impact	possibly	Richmond Citizen Survey	variable	May not be collected currently	LU, CN, EC		n/a	no				Do residents believe the air is cleaner?
Air Quality	Regional air quality	HW9.1	community environment	yes	BAAQMD	variable	May not be collected currently	LU, CN, EC	Planning Dept. (during review of CEQA)	n/a	no				
Ozone and CO Levels	Levels of ozone and CO	HW9.1	community environment	yes	San Pablo station	variable	May not be collected currently	LU, CN, EC	Housing? RDA?	n/a	no				
Sulfur PM Levels	Levels of sulfur PM	HW9.1	community environment	yes	Richmond station	variable	May not be collected currently	LU, CN, EC		n/a	no				
Community Risk Reduction Plan	Development and implementation of community risk reduction plan	HW9.1	system or policy change	yes	Office of Emergency Services	variable	None	LU, CN, EC		n/a	no				
Staff Training in Air Quality Monitoring Data	Percentage of staff trained in using air quality monitoring data	HW9.1	system/policy	yes	City Manager's Office	variable	None	LU, CN, EC		n/a	no				
Projects with CEQA Statements of Overriding Consideration	Number of projects that are given statements of overriding consideration during CEQA review	HW9.1	system/policy	yes	Planning	variable	None	LU, CN, EC		n/a	no				

Change in Acres of Buffer Zones	Percentage change in acres of buffer zones	HW9.1	community environment	yes	Planning	variable	None	LU, CN, EC		n/a	no				
Sources of New Pollution	Number of sources of new pollution	HW9.1	community environment	TBD	BAAQMD	variable	May not be collected currently	LU, CN, EC		n/a	no				
Change in Existing Pollution	Percentage change in existing pollution	HW9.1	community environment	TBD	BAAQMD	variable	May not be collected currently	LU, CN, EC		n/a	no				
Households Very Near Freight Transport Corridors	Number of households located within 500 ft. of freight transport corridors	HW9.1	community environment	yes	Census, ACS, BAAQMD, ABAG, Planning	variable	Must be calculated	LU, CN, EC		block group	yes				
Residents Very Near Heavy-Use Roadways	Percentage of residents within 500 feet of roadways with 100,000 average daily vehicles	HW9.1	community environment	yes	Census, ACS, BAAQMD, ABAG, Planning	variable	Must be calculated	LU, CN, EC		block group	yes				
Schools Very Near Heavy-Use Roadways	Percentage of schools within 500 feet of roadways with 100,000 average daily vehicles	HW9.1	community environment	yes	Census, ACS, BAAQMD, ABAG, Planning	variable	Must be calculated	LU, CN, EC		parcel	yes				
Residents Very Near a Polluting Industry	Percentage of residents within an impact area of a polluting industry	HW9.1	community environment	yes	Census, ACS, BAAQMD, ABAG, Planning	variable	Must be calculated	LU, CN, EC		n/a	no				
Schools Very Near a Polluting Industry	Percentage of schools within an impact area of a polluting industry	HW9.1	community environment	yes	Census, ACS, BAAQMD, ABAG, Planning	variable	Must be calculated	LU, CN, EC		n/a	no				
Households Near a Freight Transport Area	Number of households located within 500-1,000 feet of a freight transport area	HW9.1	community environment	yes	Pacific Institute	variable	None	LU, CN, EC		block group	yes				
Days Between Chevron Flarings	Number of days between flarings at the Chevron refinery	HW9.1	community environment	yes	Pacific Institute	variable	None	LU, CN, EC		n/a	no				

Brownfield Sites Mitigated	Number of contaminated (brownfield) sites that have been cleaned up in the past [flexible]	HW9.2	community environment	yes	Envirostar dtsc.ca.gov	variable	Hard to determine	LU, CN, EC		parcel	yes					
Brownfield Sites Reused	Number of former brownfield sites being reused	HW9.2	community environment	yes	Planning	variable	None	LU, CN, EC		n/a	no					
Covenants for Onsite Monitoring	Number of covenants for onsite monitoring	HW9.2	system/policy	yes	Planning	variable	None	LU, CN, EC		n/a	no					
Review of Covenants for Onsite Monitoring	Number of covenants for onsite monitoring reviewed within the past [flexible]	HW9.2	system/policy	yes	Planning	every 5 years?	None	LU, CN, EC		n/a	no					
Brownfield Sites Redeveloped for Commercial or Industrial	Percentage of former brownfield sites redeveloped for commercial or industrial	HW9.2	system/policy	yes	Planning	variable	Must be calculated	LU, CN, EC		n/a	no					
Resident Involvement in Cleanup and Remediation Activities	Number of clean-up, monitoring and restoration activities with resident involvement	HW9.3	system/policy		Mayor's Office	variable	None	LU, CN, EC		n/a	no					
Schools Participating in Stormwater and Pollution Education Program	Number of schools participating in stormwater and pollution education program	HW9.3	system/policy	yes	WCCUSD, Mayor's Office	variable	None	LU, CN, EC		n/a	no					
New Developments in Compliance with City Water Quality Permit	Percentage of new developments in compliance with city water quality permit	HW9.3	community environment	yes	Clean Water Program	variable	None	LU, CN, EC	Regional Water Quality Control Board -- issues permits (NPDES) to cities	n/a	no		Public Works implements permit (extensive process)	Public Works implements permit (extensive process)	Aren't all developments required to comply? Should this be measured?	
Urban Runoff	Measurement of urban runoff	HW9.3	community environment	yes	San Francisco Estuary Institute	variable	Difficult to measure runoff reliably--must identify a consistent metric	LU, CN, EC		n/a	no					

Contaminated Fish Consumption	Contaminated fish consumption	HW9.3	community environment	TBD		variable	How to measure this?	LU, CN, EC		n/a	no				
Businesses in Compliance with Point Source Requirements	Percentage of businesses in compliance with point source requirements	HW9.3	system/policy	yes	BAAQMD	variable	None	LU, CN, EC		n/a	no				
Completion of Sewer Master Plan Update	Completed update of sewer master plan	HW9.3	system/policy	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Implementation of Capital Improvement Plan	Percentage of Capital Improvement Plan (CIP) completed	HW9.3	system/policy	yes	Planning, Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Implementation of Cogeneration Technology	Percentage of cogeneration technology implemented	HW9.3	system/policy	TBD		variable	None	LU, CN, EC	City Manager	n/a	no				
Maintenance of Sludge/Leachate Pipe	Percentage of maintenance plan for 3.5 mile underground sludge/leachate pipe completed	HW9.3	system/policy	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Stormwater Collection and Management	Percentage of stormwater collection system and management tools upgraded	HW9.3	community environment	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Use of New Biosolids Dewatering Methods	Percentage completed of new biosolids dewatering method to vacate the current lagoons currently dewatering the City's biosolids	HW9.3	system/policy	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Condition of Sewer Systems	Percentage of sanitary sewer collection systems and management tools upgraded	HW9.3	community environment	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				

New Street Trees	Number of new trees planted	HW9.4	community environment	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	neighborhood, if locations are tracked	yes				
Street Tree Support	Creation and funding of an endowment for tree maturity and sustainability	HW9.4	system/policy	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Tree City USA Designation	Achievement of "Tree City USA" designation	HW9.4	system/policy	yes	Public Works	variable	None	LU, CN, EC, CF	City Manager	n/a	no				
Tree Canopy	Proportion of land with tree canopy, by subregion	HW9.4	community environment	yes	Google Earth, Public Works	variable	Must be calculated	LU, CN, EC, CF		subregion	possibly, depending on size of subregion				

Goal HW10: Green and Sustainable Development and Practices

Change in Greenhouse Gas Emissions per Capita	Percentage change in greenhouse gas emissions per capita	HW10.1	community environment	TBD	ABAG, BAAQMD	variable	Must be calculated; may not be monitored/collected regularly	LU, EC		n/a	no				
Change in Total Greenhouse Gas Emissions	Percentage change in total greenhouse gas emissions	HW10.1	community environment	TBD	ABAG, BAAQMD	variable	Must be calculated; may not be monitored/collected regularly	LU, EC		n/a	no				
New Developments At Risk of Liquefaction	Percentage of new development in areas at risk from liquefaction	HW10.1	community environment	yes	Planning, USGS	variable	None	LU, EC		parcel	yes				
New Developments At Risk from Sea Level Rise	Percentage of new development in areas at risk from sea level rise	HW10.1	community environment	yes	Planning, Pacific Institute	variable	None	LU, EC		parcel	yes				
New Developments Achieving LEED Status	Percentage of new developments achieving LEED status	HW10.2	community environment, health impact	yes	Planning, USGBC	variable	May not be collected currently	LU, EC		parcel	yes				
New Developments Meeting Green Building Standards	Percentage of new developments meeting green building standards	HW10.2	community environment, health impact	yes	Planning	variable	None	LU, EC		parcel	yes				

New Developments Using Green Infrastructure	Percentage of new developments incorporating green infrastructure techniques	HW10.2, HW10.3	community environment	yes	Planning	variable	May not be collected currently	LU, EC		parcel	yes				
Renewable Energy	Percentage of energy originating from renewable sources	HW10.4	community environment	yes	PG&E	variable	None	LU, EC		n/a	no				
Electric and Clean Fuel Cars in City Fleet	Percentage of City fleet comprised of electric or clean fuel cars	HW10.5, HW10.8	community environment, system/policy	yes	Mayor's Office, Public Works	variable	None	LU, EC		n/a	no				
New Development Access to Transit	Percentage of new development within 1/2 mile of a transit stop	HW10.5, HW10.8	community environment	yes	Planning, AC Transit, BART, Amtrak	variable	Must be calculated	LU, EC		parcel	yes				
Construction and Demolition Waste Diverted	Percentage of construction and demolition materials diverted from landfills for new development	HW10.6	community environment	TBD	Planning, WCCIWMA	variable	May not be collected currently	LU, EC		n/a	no				
Recycling	Percentage of waste being diverted to recycling	HW10.6	community environment	yes	WCCIWMA	variable	None	LU, EC		n/a	no				
Composting	Percentage of waste being diverted to composting	HW10.6	community environment	yes	WCCIWMA	variable	None	LU, EC		n/a	no				
Recycled Water and Graywater Systems	Percentage of new or rehabilitated developments with recycled water or graywater systems	HW10.7	community environment	yes	Planning	variable	May not be collected currently	LU, EC		parcel	yes				
New Low-Emission Cars	Percentage of new cars sold in Richmond that are low-emission	HW10.8	community environment	yes	Planning, Richmond car dealerships	variable	May not be collected currently	LU, EC		n/a	no				

This page is intentionally blank.

Appendix D.

Potential Community Partners, Agencies and Resources for the Richmond HWE

	Local Expertise and Points of Contact	Places or Issues of Interest	Available Data and Reports
Across multiple areas of HWE	<ul style="list-style-type: none"> • California Department of Public Health (CDPH) • City of Richmond (COR) departments • COR elected officials • Contra Costa Health Services (CCHS) • Healthy Richmond Hub • Richmond Chamber of Commerce • Richmond Community Foundation • Richmond Equitable Development Initiative (REDI) • Richmond HWE Phase II TAG members • West Contra Costa Unified School District (WCCUSD) 	<ul style="list-style-type: none"> • • 	
Goal 1. Access to Recreation and Open Space	<ul style="list-style-type: none"> • COR Planning Division • COR Recreation Department • East Bay Regional Parks District • Groundwork Richmond • Healthy Richmond Hub • Port of Richmond • West Contra Costa Council of Industries (WCCOI) • West County Healthy Eating Active Living (HEAL) Project 	<ul style="list-style-type: none"> • Elm Park • Richmond Greenway • Solano Playlot 	<ul style="list-style-type: none"> • HEAL Park Surveys • <i>Access to Parkland: Environmental Justice at East Bay Parks, Paul Stanton Kibel, City Parks Project, Golden Gate University School of Law, Summer 2007</i>
Goal 2. Access to Healthy Foods	<ul style="list-style-type: none"> • COR Planning Division • City of Richmond Community Redevelopment Agency • Local food vendors • Richmond Grows • Urban Tilth • West County Healthy Eating Active Living (HEAL) Project • West Contra Costa Unified School District 	<ul style="list-style-type: none"> • WIC/SNAP EBT at Farmer’s Markets 	<ul style="list-style-type: none"> • HEAL Communities of Excellence (Food Vendor Surveys)
Goal 3. Access to Medical Services	<ul style="list-style-type: none"> • Community-Oriented Correctional Health Services – www.cochs.org • Contra Costa County Community 	<ul style="list-style-type: none"> • Healthy Oakland Center for Reentering Populations 	<ul style="list-style-type: none"> • Prevention Institute (Oakland) research on reentry and health

	<p>Awareness and Emergency Response (CAER) – www.cococaer.org</p> <ul style="list-style-type: none"> • Contra Costa County Hazardous Materials Programs– www.cchealth.org/groups/hazmat • COR Fire Marshall and Hazardous Materials Specialist • Red Cross Bay Area – www.redcrossbayarea.org • WCCUSD – Peres Elementary School Dental Clinic • Transit: <ul style="list-style-type: none"> • North Richmond Municipal Advisory Committee Board Member from AC Transit • WestCAT – www.westcat.org • COR ParaTransit • Work force: <ul style="list-style-type: none"> • Wanda Sessions, new Assistant Director to Dr. Walker – access to health care for low-income, her emphasis is on medical/medicare; point person for health care reform • Hospital Council of Northern and Central California – Regional VP East Bay Section • Kaiser Permanente Richmond
<p>Goal 4. Access to Public Transit and Active Transportation</p>	<ul style="list-style-type: none"> • CalTrans • CCHS Community Wellness and Prevention Program • COR Engineering • COR Office of Neighborhood Safety • COR ParaTransit • Metropolitan Transportation Commission (MTC) • North Richmond Municipal Advisory Committee – AC Transit Representative • Richmond Spokes • WesCAT • WCCUSD – Safe Routes to School • Carbon-free shuttles and vans for local trips (starting with parks, Richmond Plunge, etc.) • Convergence Partnership Transportation and Health Toolkit – www.convergencepartnership.org/th101
<p>Goal 5. Access to Quality Affordable</p>	<ul style="list-style-type: none"> • Association of Bay Area Governments (ABAG) • Community Housing • Integrate information on potential sites • State Housing and Community Development maintains regional reports

Housing	<p>Development Corporation North Richmond – www.chdcnr.com</p> <ul style="list-style-type: none"> • Contra Costa County Redevelopment Agency – www.ccreach.org COR Community Redevelopment Agency – Housing Division • COR Housing Authority • Richmond Housing Authority • Richmond Neighborhood Housing Services – www.richmondnhs.org 	<p>with brownfield data</p>	<p>of housing needs and affordable housing projects</p>
Goal 6. Access to Economic Opportunity	<ul style="list-style-type: none"> • Association of Bay Area Governments (ABAG) • Asian Pacific Environmental Network (APEN) – www.apen.org • Bay Area Local Initiatives Support Corporation (LISC) – www.bayarealisc.org • Communities for a Better Environment – www.cbe.org • COR Community Redevelopment Agency Economic Development Division • COR Employment and Training – RichmondWORKS • COR Literacy for Every Adult Program (LEAP) • Ella Baker Center – www.ellabakercenter.org • Environmental Health Coalition – www.environmentalhealth.org • PODER – www.poder.org • SparkPoint West Contra Costa – www.sparkpointcenters.org • West Contra Costa County Business Development Center – www.wccbdc.org 	<ul style="list-style-type: none"> • Businesses in Richmond 	<ul style="list-style-type: none"> • California Environmental Justice Alliance – Green Zone white paper greenzones@caleja.org
Goal 7. Completeness of Neighborhoods	<ul style="list-style-type: none"> • See all other sections 	<ul style="list-style-type: none"> • Elm Playlot changes over time 	<ul style="list-style-type: none"> • NURVE surveys • www.walkscore.com • www.furtherthework.com
Goal 8. Safe Neighborhoods and Public Spaces	<ul style="list-style-type: none"> • COR Office of Neighborhood Safety • COR Fire Service and Emergency Preparedness Division • Safe Routes to Schools • COR Parks • COR Police 		<ul style="list-style-type: none"> • Popsicle Project of North Richmond (Popsicle Index)

	<ul style="list-style-type: none"> • Contra Costa Interfaith Supporting Community Organization (CCISCO) – www.ccisco.org
Goal 9. Environmental Quality	<ul style="list-style-type: none"> • Audobon Society • Bay Area Air Quality Management District (BAAQMD) – Community Air Risk Evaluation (CARE) Program • Bay Conservation and Development Commission • CA Air Resources Board (CARB) • CA Department of Fish and Game Office of Oil Spill Prevention and Response • CA Department of Industrial Relations (Cal/OSHA) • CA Department of Toxic Substances Control • CA Office of Environmental Health Hazard Assessment • CA State Regional Water Quality Control Board • CalTrans Division of Environmental Analysis • Contra Costa Clean Water Program – www.cccleanwater.org • Contra Costa County Environmental Health Program • Contra Costa County Hazardous Materials Program • COR City Manager’s Office Environmental Initiatives Division • COR City Manager’s Office Stormwater Program • COR Parks Division arborist • East Bay Regional Park District • Golden Gate Law Clinic – technical expert, Ken Kloc kkloc@ggu.edu • Local neighborhood parks groups • San Francisco Bay Regional Water Quality Control Board • San Francisco Sierra Club Chapter • United States Environmental Protection Agency • Urban Creek Council • Cleanup of Zeneca site • Transportation-related noise: railroad grade concerns • Chevron air quality • AirNow/EPA has mapping function for air quality

	<ul style="list-style-type: none"> • The Watershed Project – Richmond Field Station • Western States Petroleum Association • West County Toxics Coalition
<p>Goal 10. Green and Sustainable Development Practices</p>	<ul style="list-style-type: none"> • Contra Costa County Green Building Program • Contra Costa County Department of Conservation and Development • COR City Manager’s Office Environmental Initiatives Division • Green and Healthy Homes Initiative • Sustainable Contra Costa

Appendix E.

Mapping in Richmond

Geospatial analysis is an important tool in tracking and analyzing the success of the Richmond Health and Wellness Element (HWE). Geographic and spatial assessment of community conditions and health outcomes is fundamental for understanding Richmond's community needs and assets, and determining where and how to allocate resources.

The assessment undertaken by the Richmond Health and Wellness Element Implementation Data Working Group in 2010-2011 revealed that there is limited capacity for mapping assessment in Richmond. Increased mapping capacity among staff and the appropriate equipment at the City of Richmond and Contra Costa Health Services – two key agencies in the implementation of the Richmond HWE – would allow the City and its partner agencies to better understand local conditions and needs, as well as track overall impacts over time.

During the General Plan Update process in 2005-2010, the City of Richmond contracted with a planning consulting firm to conduct geospatial analysis of Richmond. These analyses not only provide the City with a baseline analysis of community conditions and health outcomes in and across Richmond communities, they provide a rich resource for future geospatial analysis. The data, files, and decisions made between the City of Richmond and its consultants and partners at that stage provide future efforts a wealth of opportunity and resources.

This appendix provides a succinct inventory of the maps developed by Moore Iacofano Goltsman, Inc. (MIG) between 2007 and 2011 as part of the Richmond General Plan Community Health and Wellness Element creation, and the associated implementation process. The inventory includes a description of the maps made, the purpose of the maps, the map content and map layers available in the mapping software, as well as data sources for the mapped data.

The following files are intended to accompany this appendix, and are available digitally:

- Richmond_HPE_GIS_DATA.xls (Microsoft Excel spreadsheet)
- Map Document files (.mxd) contained with GIS_Compiled folder

These files have been transferred to the City of Richmond Planning Department.

COMMUNITY HEALTH AND WELLNESS MAPS

A series of maps was created in 2007 as part of the current conditions analysis for the HWE. In addition to the City of Richmond Base Map, these maps include:

Richmond General Plan Community Health and Wellness Element Maps

Goal HW1: Improved Access to Parks, Recreation and Open Space

- 1.A. Parks and Open Space
- 1.C. Community Recreation Facilities
- 1.D. Creeks and Shorelines
- 1.E. Adequate Play Areas

Goal HW2: Expanded Access to Healthy Food and Nutrition Choices

- 2.A. Healthy Food Distribution
- 2.B. Food Balance
- 2.C. Food Quality
- 2.D. Food Assistance

Goal HW3: Improved Access to Medical Services

- 3.A. Medical Facilities

Goal HW4: Safe and Convenient Public Transit and Active Circulation Options

- 4.A. Local and Regional Transit
- 4.B. Proximity of Places of Employment to Public Transit
- 4.E.i Pedestrian Collisions & 4.E.ii. Bicycle Collisions
- 4.F. Proximity of Schools to Residential Units
- 4.G.i. Proximity of Schools to Public Transit
- 4.G.ii. Proximity of Schools to Bicycle Facilities

Goal HW6: Expanded Economic Opportunity

- 6.B. Housing Tenure
- 6.C. Banking Services

Goal HW7: Complete Neighborhoods

- 7.A. Neighborhood Completeness

Goal HW8: Improved Safety in Neighborhoods and Public Spaces

- 8.A. Distribution of Liquor Stores
- 8.B. Violent Assaults

Goal HW9: Improved Environmental Quality

- 9.A. Tree Canopy
- 9.B. Proximity to Busy Roads
- 9.C. Toxic Facility Impact Areas
- 9.D. Potential Sources of Pollution

Richmond Urban Agriculture Assessment Maps

The following maps were developed in Spring 2011 as part of the HWE Implementation Process for use in the Richmond Urban Agriculture Assessment:

1. Existing Urban Agriculture Activities in Richmond
2. Potential Urban Agriculture Lands
3. Healthy Food Distribution
4. Poverty and Urban Agriculture
5. Communities of Color and Urban Agriculture

MAP LAYERS AND DATA SOURCES

The following tables outline the map layers present in each map file in addition to the base map layers, and the source of data for that layer. Should the City decide to update these maps in the future, staff may wish to revisit the original data source for updated information to amend the GIS layers.

City of Richmond Base Map

Map Layer	Data Source
BART	City of Richmond
BART Stops	City of Richmond
Freeways	City of Richmond
Arterials	City of Richmond
Roads	City of Richmond
Rail	City of Richmond
City Creeks	City of Richmond
Other Creeks	City of Richmond
Waterbodies	City of Richmond
Parks	City of Richmond
Cities Name	City of Richmond
Cities Boundary	City of Richmond

1.A. Parks and Open Space

Map Layer	Data Source
Population Density	2000 U.S. Census
1/4 Mile Park Service Area	Buffer created using ArcGIS

[1.B. unused]

1.C. Community Recreation Facilities

Map Layer	Data Source
Community Recreation Facilities	City of Richmond
Private Recreation Facilities	City of Richmond
Bicycle Network	Metropolitan Transportation Commission

Community Recreation Facilities Buffer	1/4 mile buffer generated using ArcMap spatial tools
Population Density	2000 U.S. Census data joined to 2000 block group geographies: total population, #households, people per acre, Households per Acre

1.D. Creeks and Shorelines

Map Layer	Data Source
Publicly Accessible Creeks & Shorelines: Bicycle Access to Creeks and Shoreline	Derived from a spatial selection of Contra Costa County bicycle network layer (see 1.C)
Publicly Accessible Creeks & Shorelines: Accessible Shoreline	City of Richmond
Publicly Accessible Creeks & Shorelines: Accessible Creeks	City of Richmond
City of Richmond	City of Richmond

1.E. Adequate Play Areas

Map Layer	Data Source
Public Elementary Schools - Adequate Acreage	Dataset from City of Richmond/Contra Costa County

2.A. Healthy Food Distribution

Map Layer	Data Source
Full Service Grocery Store or Fresh Produce Market	Data created by geoprocessing tool merge of food multiple store layers from City of Richmond
Food Sources (Community Gardens, Farmers' Markets)	Geocoded point data from City of Richmond
Convenience Stores	California Nutrition Network
1/2 Mile Grocery Store Service Area	2,460' buffer of Full Service Grocery Stores
Population Density	2000 U.S. Census

2.B. Food Balance

Map Layer	Data Source
Fast Food Restaurants	Data created in May 2007 in ArcGIS by merging multiple layers of geocoded food layers
Full Service Grocery	City of Richmond
Food Balance (good, average, poor)	City of Richmond

2.C. Food Quality

Map Layer	Data Source
Retail Food Environment Index, by Census	Source unknown

2.D. Food Assistance

Map Layer	Data Source
Charitable Food Services	California Nutrition Network, CCHS
WIC and/or Food Stamp Vendors	California Nutrition Network, CCHS
Percent of Population Eligible and Enrolled in EBT or WIC	CCHS, Food Bank of Contra Costa and Solano Counties
Percent of Population Eligible and Not Enrolled in EBT or WIC	CCHS, Food Bank of Contra Costa and Solano Counties

3.A. Medical Facilities

Map Layer	Data Source
AC Transit Bus Stop	City of Richmond, AC Transit
1/2 Mile Regional Transit Stop Service Area	1/2 mile buffer regional transit generated using ArcMap spatial tools
1/4 Mile Local Transit Stop Service Area	1/4 mile buffer local transit generated using ArcMap spatial tools
Primary Medical Care Facilities	Geocoded point data; source unknown
Dental Facilities	Geocoded point data; source unknown
Mental Health Facilities	Geocoded point data; source unknown
Other Facilities (optometry, etc.)	Geocoded point data; source unknown
# of Households without Car Access by Block Group	2000 U.S. Census data joined to 2000 block group geographies: # of Households without car access

4.A. Local and Regional Transit

Map Layer	Data Source
AC Transit Bus Stops	City of Richmond, AC Transit
1/2 Mile Regional Transit Service Area	2,640' buffer of regional transit stops generated using ArcMap spatial tools
1/4 Mile Transit Stop Service Area	1,320' buffer of AC transit stops generated using ArcMap spatial tools
Population Density	2000 U.S. Census

4.B. Proximity of Places of Employment to Public Transit

Map Layer	Data Source
# Employees at Each Place of Employment (2005 2nd Qtr)	NAICS
1/2 Mile Regional Transit Stop Service Area	2,640' buffer of regional transit stops generated using ArcMap spatial tools
1/4 Mile AC Transit Bus Stop Service Area	1,320' buffer of AC transit stops generated using ArcMap spatial tools
AC Transit Bus Stops	City of Richmond, AC Transit

[4.C. and 4.D. unused]

4.E.i Pedestrian Collisions & 4.E.ii. Bicycle Collisions

Map Layer	Data Source
2002 Bicycle/Pedestrian Collisions	SWITRS, CHP
2003 Bicycle/Pedestrian Collisions	SWITRS, CHP
2004 Bicycle/Pedestrian Collisions	SWITRS, CHP
2005 Bicycle/Pedestrian Collisions	SWITRS, CHP
Bicycle Network	Metropolitan Transportation Commission

4.F. Proximity of Schools to Residential Units

Map Layer	Data Source
Public Elementary and Middle Schools	City of Richmond, WCCUSD
Other Educational Institutions	City of Richmond
1/4 Mile Service Area	Point file from ESRI dataset, May 2007
Households per Acre	1/4 mile buffer of K-8 public schools generated using ArcMap spatial tools

4.G.i. Proximity of Schools to Public Transit

Map Layer	Data Source
Schools Transit Access (Direct, No Direct)	Point file from ESRI dataset, May 2007
AC Transit Facilities	City of Richmond
1/4 Mile Local Transit Stop Service Area	1/4 mile buffer local transit generated using ArcMap spatial tools

4.G.ii. Proximity of Schools to Bicycle Facilities

Map Layer	Data Source
Richmond Schools Transit Access (Direct, No Direct)	City of Richmond
1/4 Mile Bicycle Facility Service Area	1,320' buffer of the bicycle network generated using ArcMap spatial tools
Bicycle Network	Metropolitan Transportation Commission

[6.A. unused]

6.B. Housing Tenure

Map Layer	Data Source
Industrial Zoned Land	City of Richmond
Proportion of Housing Units that are Owner Occupied	2000 U.S. Census data joined to 2000 block group geographies: Percent of Housing Units Owner Occupied, Total Units, Total Owner Occupied

6.C. Banking Services

Map Layer	Data Source
Financial Institutions	NAICS, Google Maps
1/2 Mile Banking Services Service Area	1/2 mile buffer of banks generated using ArcMap spatial tools
Population Density	2000 U.S. Census

7.A. Neighborhood Completeness

Map Layer	Data Source
Public and Private Services	City of Richmond, California Nutrition Network, NAICS, Contra Costa Health Services, AC Transit
Services Index	Index calculation in ArcMap

8.A. Distribution of Liquor Stores

Map Layer	Data Source
Liquor Stores	Contra Costa Health Services
Schools	City of Richmond, WCCUSD
Percent of Population in Poverty	2000 U.S. Census data joined to 2000 block group geographies: Percent Population in Poverty

8.B. Violent Assaults

Map Layer	Data Source
Homicides in 2006	RPD
Assaults with a Deadly Weapon	RPD
Percent of Population in Poverty	2000 U.S. Census data joined to 2000 block group geographies: Percent Population in Poverty

9.A. Tree Canopy

Map Layer	Data Source
Tree Canopy	Generated using Spatial Analyst Tools; Center for Urban Forest Research, USDA Forest Service

9.B. Proximity to Busy Roads

Map Layer	Data Source
Busy Roadways	California Environmental Health Tracking Program, 500' buffer along both sides of the AADT line (total width 1,000') generated using ArcMap spatial tools
# People Living in Poverty (2000)	2000 U.S. Census data joined to 2000 block group geographies: Percent Population in Poverty

9.C. Toxic Facility Impact Areas

Map Layer	Data Source
Facilities That Release Toxins	DTSC
Toxic Impact Area	300' and 1000' buffer around geocoded toxic locations generated using ArcMap spatial tools
# People Living in Poverty (2000)	2000 U.S. Census data joined to 2000 block group geographies: Percent Population in Poverty

9.D. Potential Sources of Pollution

Map Layer	Data Source
Richmond Schools Within Impact Areas	City of Richmond, WCCUSD
Richmond Schools Outside Impact Areas	City of Richmond, WCCUSD
Truck Routes	City of Richmond
Industrial Lands	City of Richmond
500' Impact Area Around Freeways, Industrial Lands, etc.	500' buffer around freeways and industrial areas generated using ArcMap spatial tools
Population Density	2000 U.S. Census data joined to 2000 block group geographies: Total Population, Number of Households, People per Acre, Households per Acre

Additional Maps Developed as part of the HWE Implementation Process

The following maps were developed in Spring 2011 as part of the HWE Implementation Process for use in the Richmond Urban Agriculture Needs Assessment.

1. Existing Urban Agriculture Activities in Richmond

Map Layer	Data Source
Community Gardens	City of Richmond, community data
School Gardens	City of Richmond, community data
Farmers Markets	City of Richmond, community data
Community Farms	City of Richmond, community data
Commercial Urban Agriculture	City of Richmond, community data

2. Potential Urban Agriculture Lands

Map Layer	Data Source
Developed Land	Created by merging all developed parcels City of Richmond
Exclusive Agriculture	City of Richmond
Schools	City of Richmond, WCCUSD
Churches	City of Richmond
Hazardous Material	DTSC, City of Richmond
DTSC Sites	DTSC

3. Healthy Food Distribution

Map Layer	Data Source
Population Density	2005-2009 ACS data joined to block group geographies: Total Population, Number of Households, People per Acre, Households per Acre
Community Gardens	City of Richmond, community data
School Gardens	City of Richmond, community data
Farmers Markets	City of Richmond, community data
Community Farms	City of Richmond, community data
Commercial Urban Agriculture	City of Richmond, community data
Full Service Grocery Store or Fresh Produce Market	City of Richmond, California Nutrition Network

4. Poverty and Urban Agriculture

Map Layer	Data Source
Percent of Population in Poverty	2005-2009 ACS data joined to block group geographies: Percent Population in Poverty
Community Gardens	City of Richmond, community data
School Gardens	City of Richmond, community data
Farmers Markets	City of Richmond, community data
Community Farms	City of Richmond, community data
Commercial Urban Agriculture	City of Richmond, community data

5. Communities of Color and Urban Agriculture

Map Layer	Data Source
Percent of Population in Poverty	2005-2009 ACS data joined to block group geographies: Hispanic/Latino, African American, Native American, Asian, and Two or more races
Community Gardens	City of Richmond, community data
School Gardens	City of Richmond, community data
Farmers Markets	City of Richmond, community data
Community Farms	City of Richmond, community data
Commercial Urban Agriculture	City of Richmond, community data