National City SMART Foundation

Future Conditions Report

September 30, 2013

FY 2011/12 Community-Based Transportation Planning Grant
FTA Contract No. 74A0643

Prepared for:

CALIFORNIA NATIONAL CITY 1887 INCORPORATED

Prepared By:

KTUA Planning + Landscape Architecture

Future Conditions

This report compiles the review of existing documents, Capital Improvement Projects (CIPs), development of neighborhood based guidelines and GIS analysis for future planning efforts.

Planning Context

The following are relevant City of National City goals and policies with the potential to affect components of this project. The numbering system is not sequential, but is related to the General Plan numbering system

Existing General Plan

The General Plan identifies a preferred future for National City and steers land use and development policies in that desired direction. It serves as the foundation for all planning decisions in National City. Under California law, no specific plan, zoning, subdivision map, or public works project may be approved unless the City finds that it is consistent with the adopted general plan. The current general plan was adopted in June 2011 and the previous General Plan was adopted in 1996. One of the main objectives of this comprehensive update is to create a dynamic and durable document that describes the connectivity of key urban planning issues; respond to the needs of a diverse citizenry; identify realistic implementing actions; and establishes evaluation criteria to track National City's progress towards reaching its goals and policies.

General Plan Elements

State law requires every general plan to address seven specific topics, known as "elements," to the extent that they are locally relevant. The city must ensure that the general plan and its elements form an integrated, internally consistent and compatible statement of development policies. These topics include the Land Use Element, Circulation Element, Housing Element, Safety Element, Noise Element, Open Space Element and Conservation Element. Additionally, state law allows cities to include optional elements that best fit its unique circumstances. Optional elements National City has chosen to include are Community Character, Agriculture, Sustainability, Nuisances, Health and Environmental Justice and Education and Public Participation.

Summarized Relevant Policies

Each element of the General plan includes goals and policies to guide the city through the decision making process. Goals and policies that are relevant to the S.M.A.R.T. Foundation project have been extracted from the Land Use, Open Space and Circulation Elements.

Goal – A general direction-setter and a description of the general desired result that the City seeks to create through implementation of the General Plan.
Policy – A specific statement that guides decision making. A policy is carried out by Implementation measures.

Goal LU-1: Smart growth that is consistent with statewide and regional transportation and planning goals and policies.

- Policy LU-1.1: Use SANDAG's Smart Growth Opportunity Areas map as a guide for identifying appropriate locations to direct future growth and development within the planning area.
- Policy LU-1.2: Concentrate commercial, mixed-use, and medium to high density residential development along transit corridors, at major intersections, and near activity centers that can be served efficiently by public transit and alternative transportation modes.

Goal LU-2: A mix of land uses including residential, commercial, employment, service, agricultural, open space, and recreational uses that accommodate the needs of persons from all income groups and age levels.

- Policy LU-2.4: Provide additional recreational open space areas and connect these areas to trails, bikeways, pedestrian corridors and other open space networks, where feasible.
- Policy LU-4.4: Establish policies and implementation programs specific to the unique needs of each neighborhood.
- Policy LU-4.5: Support and encourage the involvement of resident volunteers in the implementation of actions for the betterment of their neighborhoods.

Goal LU-4: Complete neighborhoods that meet the community's needs for sustainable and high-quality living environments.

- Policy LU-4.2: Promote the design of complete neighborhoods that are structured to be family-friendly, encourage walking, biking and the use of mass transit, foster community pride, enhance neighborhood identity, ensure public safety, improve public health, and address the needs of all ages and abilities.

Goal LU-9: Enhanced community character and identity through good urban design that considers function, form, pedestrian scale, amenities, and aesthetics.

- Policy LU-9.1: Design developments along mixed-use and "community corridors" for the comfort and enjoyment of pedestrians and bicyclists. This includes features such as street trees, placing buildings close to the street, deemphasizing parking lots and garages, limited driveway cuts, traffic-calming features, clearly defined street crossings, adequate lighting, and street furnishings where appropriate.
- Policy LU-9.4: Encourage an overall high quality streetscape design, where feasible, that promotes narrow roadways; bike lanes; on-street parking; minimal curb cuts; enhanced crosswalks; appropriate sidewalk widths; landscaped medians and parkways; street trees, planters, and wells; street lighting; street furniture; wayfinding; enhanced paving; public art; and other features that contribute to the desired character for National City, where appropriate.

Goal OS-7: A well-maintained system of recreational trails and related facilities throughout the city that enhance and connect open space lands, parks and recreational facilities.

- Policy OS-7.2: Encourage the creation of connected paseos and trails between community activity areas and schools and consider opportunities to enhance them with kiosks and rest stations.

Goal C-1: Coordinated land use and circulation planning.

- Policy C-1.1: Allow, encourage, and facilitate transit-oriented development, mixed-use, and infill projects in appropriate locations that reduce vehicular trips, especially near the 8th Street and 24th Street trolley stops, the future South Bay Bus Rapid Transit Station (BRT), and along major transportation corridors such as 8th Street, Highland Avenue, Plaza Boulevard, and 30th Street/Sweetwater Road.
- Policy C-1.2: Require new development to provide and enhance connectivity to existing transportation facilities via the provision of key roadway connections, sidewalks and bicycle facilities.
- Policy C-1.3: Require new development and redevelopment to provide good internal circulation facilities that meets the needs of walkers, bicyclists, children, seniors, and persons with disabilities.
- Policy C-1.5: Work with state, regional, and local transportation entities to improve and expand transportation facilities and services that link residents to important land use destinations such as workplaces, schools, community and recreation areas, and shopping opportunities.

Goal C-2: A comprehensive circulation system that is safe and efficient for all modes of travel.

- Policy C-2.1: Develop and maintain an interconnected, grid- or modified grid-based transportation system that sustains a variety of multi-modal transportation facilities.
- Policy C-2.2: Enhance connectivity by eliminating gaps and barriers in roadway, bikeway, and pedestrian networks.
- Policy C-2.3: Strive to attain an automobile Level of Service (LOS) of D or better (or an equivalent standard under another analytical methodology). An automobile LOS of E or F may be acceptable under the following circumstances:

  1) Improvements necessary to attain a automobile LOS of D or better would decrease the effectiveness of the nonautomotive components of the multimodal circulation system (i.e. pedestrians, bicyclists, mass/public transit, etc.), or
  2) improvements necessary to increase the effectiveness of the non-automotive components of the multimodal transportation system result in a decrease in automobile LOS.

- Policy C-2.6: Enhance the quality of life in the City's neighborhoods and minimize impacts on schools, hospitals, convalescent homes and other sensitive facilities through the implementation of traffic calming measures in these areas to reduce vehicle speeds and discourage cut-through traffic.
- Policy C-2.8: Implement road diets, where appropriate, as a means to improve safety, increase efficiency of pick-up and drop-off operations at schools, and provide greater separation between pedestrians and vehicles.

Goal C-4: Increased use of alternative modes of travel to reduce peak hour vehicular trips, save energy, and improve air quality.

- Policy C-4.3: Require new uses to provide adequate bicycle parking and support facilities.
- Policy C-4.5: Encourage the use of alternative transportation modes.
- Policy C-4.6: Prioritize attention to transportation issues around schools to reduce school related vehicle trips.

Goal C-7: Increased use of public transit systems.

- Policy C-7.2: Improve bus stop and shelter facilities to increase the comfort of users.
- Policy C-7.3: Provide multi-modal support facilities at transit stops for bicyclists and pedestrians, including children and youth, the seniors, and persons with disabilities.

Goal C-8: A universally accessible, safe, and convenient pedestrian system that encourages walking.

- Policy C-8.1: Provide connectivity of wide, well-lit walking environments with safety buffers between pedestrians and vehicular traffic, when feasible.
- Policy C-8.2: Require new development and redevelopment to incorporate pedestrian-oriented street designs that provide a pleasant environment for walking.
- Policy C-8.3: Identify and implement necessary pedestrian improvements with special emphasis on providing safe access to schools, parks, community and recreation centers shopping districts, and other appropriate facilities.
- Policy C-8.4: Promote walking as the primary travel mode to schools.
- Policy C-8.5: Improve pedestrian safety at intersections and mid-block crossings.
- Policy C-8.6: Reduce architectural barriers that restrict full movement and access by less mobile segments of the population consistent with the Americans with Disabilities Act.
- Policy C-8.7: Apply universal design standards to the pedestrian system.
- Policy C-8.8: Provide a continuous pedestrian network within and between neighborhoods to facilitate pedestrian travel free from major impediments and obstacles.

Goal C-9: A safe, comprehensive and integrated bikeway system that encourages bicycling.

- Policy C-9.1: Expand and improve the bikeway system and facilities by establishing bike lanes, separated paths, and bicycle storage facilities at major destinations.
- Policy C-9.2: Require new development and redevelopment to provide safe, secure bicycle parking facilities.
- Policy C-9.3: Require new development and redevelopment to provide connections to existing and proposed bicycle routes, where appropriate.
- Policy C-9.4: Encourage existing businesses and new development or redevelopment projects to promote bicycling by providing bike rack facilities, personal lockers, and shower rooms.
- Policy C-9.5: Encourage bicycling through education and promotion programs in conjunction with the local school districts.
- Policy C-9.6: Keep abreast of bicycle facility innovations in other cities and regions, and seek to incorporate these into the bicycle network.

Previous Studies

Bicycle Master Plan (2012)

The National City Bicycle Master Plan provides a broad vision, strategies and actions to improve conditions for bicycling in National City. The plan outlines a range of recommendations to increase the number of people who bike and frequency of bicycle trips, improve safety for bicyclists, and increase public awareness and support for bicycling. The plan provides direction for expanding the existing bikeway network, connecting gaps, and ensuring greater local and regional connectivity. In addition to providing recommendations and design guidelines for bikeways and support facilities, the plan offers recommendations for education, encouragement, enforcement, and evaluation programs. The plan accommodates National City residents with various skill levels and incentives for bicycling.

Plan goals:

- A city where bicycling is a viable travel choice for users of all abilities,
- A safe and comprehensive local and regionally connected bikeway network,
- Environmental quality, public health, recreation and mobility benefits through increased bicycling.

These goals are supported by the National City General Plan policies that will help bicycling become a more viable transportation mode for localized trips, connection to transit, commuting, and recreation.

Westside Specific Plan (2010)
In March 2010, the City adopted the Westside Specific Plan with associated General Plan Amendment and Zoning Designation Changes. The Westside area, also known as Old Town, is an area bordered on the west by Interstate 5 and the east by Roosevelt Avenue stretching from W. Plaza Boulevard south to W. 24th Street. Auto services, light manufacturing, and warehouses are interspersed throughout the residential community. The goal of the Westside Specific Plan is to comprehensively address environmental and land use issues, leading to a plan that reflects residents' interest to resolve the conflicting land uses. The plan states that "a successful neighborhood also relies on a safe and efficient pedestrian environment where people enjoy walking from their homes to community activity centers, schools, shopping, parks, and transit."

Guiding principles:
- Respect and encourage single-family homes and small residential development.
- Improve environmental health conditions for residents in the area.
- Limit uses adjacent to Paradise Creek to restoration, passive recreation, and open space.
- Enhance pedestrian safety and promote the walkability of the community.

Chapter 5 defines the "Community Corridors" as focused roadway and pedestrian improvements that address neighborhood circulation and traffic safety correlated with neighborhood centers, parks, and transit.

Paradise Creek Revitalization Plan
The Paradise Creek Revitalization Plan (PCRP) incorporates two City Specific Plans, the Downtown Specific Plan and the Westside Specific Plan. PCRP includes 6,425 new residential units at full buildout with 20 percent being affordable. PCRP is compact mixed use, transit oriented redevelopment. This transit-oriented community development project will remediate existing underground contamination, and build 201 affordable rental homes and a public park. Active transportation and recreation amenities include a community park, playground, access to walking and bike paths and trails. The development received a Silver Catalyst Award for California's Sustainable Strategies Pilot Program and was selected as one of five federal Sustainable Communities Partnership Pilots in the country by the Environmental Protection Agency in partnership with HUD and the Department of Transportation.

Downtown Specific Plan (2005)
The Downtown Specific Plan (February 2005) calls for reinforcing downtown as the heart of the City. The central theme of the revitalization effort is to create a momentum of new development that will generate a mix of office, retail, entertainment, educational, and high-density residential uses. Significant new activity is planned around National City Boulevard and 8th Street, envisioned as downtown's "grand boulevards." Civic life – anchored by Kimball Park, the Education Village, Brick Row, and the new City Library – plays an important role in downtown's future. Buildout of 9,448 residential units are recognized in the Specific Plan. Overall, these proposed projects range in height from 5 stories to 22 stories and, when completed, will create a strong skyline for National City.

The National City Downtown Specific Plan amends the adopted General Plan and serves as a refinement of the goals of the General Plan by affixing precise design and land use standards to development and redevelopment proposals within Downtown National City. This plan includes substantial and well-considered street improvements that will serve to weave together the diverse elements of the downtown with a streetscape of unified design and enhanced character.

Relevant Pedestrian Goals
- Create and maintain a continuous, convenient network of pedestrian facilities throughout the downtown to reduce dependence on the automobile.
- Provide pedestrian amenities, including street furniture, landscaping, lighting, and trash receptacles, to make walking more attractive and convenient.
- Design and locate pedestrian facilities and amenities to promote the uninterrupted flow of pedestrian traffic.
- Create pedestrian links to transit and bicycle facilities to increase the convenience of transit and bicycle travel.

The plan includes general design guidelines that apply to pedestrian facilities and amenities on pages VI-11 through VI-18.

Relevant Recommendations
The City of National City is considering various improvements to their downtown area, including:

- Construction of various improvements, including raised, landscaped medians along National City Boulevard between 7th and 12th Streets

- Reconfiguring/reorienting the Main Street/National City Boulevard at Division Street intersection to eliminate the diagonal, creating a standard intersection
- Enhancing pedestrian crossings at A Street at Civic Center and A Avenue at 8th Street
- Addition of a third lane cross section on 7th Street between National City Boulevard and D Avenue
- Removal of on-street parking along Plaza Boulevard from the 1-5 freeway to D Avenue (to allow for wider sidewalks)
- Addition of two traffic signals on A Avenue at 8th Street and Plaza Boulevard

The impact of the proposed improvements was evaluated for the surrounding street system. The improvements were found to improve traffic at all locations and not create any impacts to the roadways, except for the intersection of Main Street and Division Street. For this location, the following improvement is recommended.

- Installation of a traffic signal at the intersection of Main St. and Division St.

Westside Infill Transit Oriented Development
National City is developing the Westside Infill Transit-Oriented Development Project (WITOD) as part of its larger Paradise Creek Revitalization Plan (PCRP). WITOD will include 201 affordable units in four residential buildings and will expand and existing Adult Education Center. WI-TOD is adjacent to the 24th Street Trolley Station with trolley and transit access located within one-quarter mile of residential development and employment opportunities.

Old Town Action Plan (2010)
The Old Town Action Plan is a Neighborhood Action Plan (OT-NAP). It is an action-oriented document developed as a way to implement long-range planning goals found in the Westside Specific Plan (WSP). The OT-NAP provides a list of steps for neighborhood participants to follow in order to achieve desired outcomes. Several actionable items that pertain to bicycle and pedestrian mobility can be found on page 7 of the OT-NAP. Page 10 of the plan lists steps to increase access to parks, open space, and neighborhood gardens.

Safe Routes to Schools
Rady Children's Hospital and National City are working together to bring Safe Routes to School initiatives to all of the elementary schools in National City. The city and hospital hope to improve health, safety and activity levels of the students in National City through an extensive outreach and encouragement program. Three sites have been selected for this program as the primary focus of education and outreach efforts. This model mirrors the plan adopted under the National City General Plan, which breaks the City into three communities named after the three community parks.

Within this grant, one park, and the associated schools, will be addressed per year over a three year work plan. All community-focused education events (i.e., pedestrian and bicycle rodeos/trainings, gang awareness workshops, etc.) will be held at these sites. Education and encouragement activities will also be scheduled at each of the schools. Additionally, incentive programs will be implemented at each school, which will be paired with opportunities to educate students on the health, economic, and environmental benefits of choosing active transportation.

Harbor District Specific Area Plan (1998)
The Community Development Commission of the City of National City has prepared this specific area plan for the City's Harbor District to fulfill the requirement of the certified National City Local Coastal Program. This documentprovides a detailed, resource-based, environmental implementation plan to establish site specific conservation and development standards in the OSR (Open Space Reserve), CT (Tourist Commercial), MM (Medium Industrial), and OS (Open Space) districts.

The Harbor District Specific Area Plan Objectives are:
(a) The conservation of Paradise Marsh, adjacent delineated wetlands, and associated plant and animal species, in coordination with the USFWS, CDFG and interested non-governmental organizations and persons.

(b) The design and implementation of permanent functional habitat buffers around Paradise Marsh and adjacent wetlands, in cooperation with the National Wildlife Refuge.

(c) Attractive, convenient, environmentally sustainable, and safe multimodal public access to existing, approved, or planned recreational facilities within the Harbor District, and in adjacent Port Planning Subareas 58 and 59, including through the extension of the Harrison Avenue Public Access Corridor and appropriate linkages with the San Diego Bayshore and Sweetwater River Bikeway systems.

(d) Site- and development-specific conservation and development standards that protect coastal habitat, public access, recreational, visual, and cultural resources, contribute to high quality appearance and design, and provide for economically feasible commercial recreational facilities and uses.

(e) Appropriately sized and located infrastructure, including traffic circulation and parking, to support permitted density and intensity of uses within the Harbor District and adjacent priority uses.

(f) Participation by the CDC in specific area planning, inter-agency coordination, property acquisition, and pre-project feasibility analyses to lead and assist in achieving the objectives and standards of the plan.

Final Climate Action Plan

This Climate Action Plan (CAP) addresses the major sources of greenhouse gas (GHG) emissions in National City and sets forth a detailed and long-term strategy that the City and community can implement to achieve GHG emissions reduction target. Implementation of this climate action plan will guide National City's actions to reduce its contribution to global climate change and will support the State of California's ambitious emission reduction targets. The CAP serves as the CEQA threshold of significance within the City for climate change, by which all applicable developments within the City will be reviewed. National City has adopted a reduction target of 15 percent below 2005/2006 baseline emission levels by the year 2020, with additional reductions by the year 2030, for both community-wide and government operations.

The following list is a selection of project relevant greenhouse gas (GHG) emission reduction measures that the City of National City will implement in order to achieve the emission reduction target for the year 2020 and additional reductions by the year 2030.

• A2.b.2 Implement bicycle corridor improvements and supportive infrastructure.
• A2.b.5 Encourage employers to institute programs that provide financial incentives for commuters to reduce their vehicle trips and use alternative transportation modes like walking, bicycling, public transit and carpooling, often as an alternative to subsidized employee parking.
• A2.d.1 Implement neighborhood traffic calming projects (e.g., replace stop controlled intersections with roundabouts).

AB 32 Global Solutions Act (2006)

AB 32 requires California to lower greenhouse gas emissions to 1990 levels by 2020, the equivalent of taking approximately 15 million cars off the nation's roads. To meet reduction targets, the California Air Resources Board (CARB), the lead agency responsible for implementing the act, is following a blueprint known as the AB 32 Climate Change Scoping Plan. The plan lays out the strategy and a comprehensive set of actions including the establishment of targets for transportation-related greenhouse gas emissions for regions throughout California, and pursuing policies and incentives to achieve these targets. Because transportation accounts for 38% of the state's GHG levels, lowering transportation related GHGs is a primary focus. Increasing active transportation levels is one of the key strategies for lowering transportation related GHGs.

SB 375 Sustainable Communities and Climate Protection Act (2008)

Senate Bill 375, authored by Senate President Pro Tem Darrell Steinberg, was signed into law on September 30, 2008. SB 375 is an ambitious attempt by the State to forge a closer link between transportation investments and land use decisions. The bill integrates planning processes that are currently disjointed for transportation, land use, and housing, with the goal of reducing the amount that people have to drive, along with associated GHG emissions. Highlights of SB375 include:

- Created regional targets for GHG emissions reductions from cars and light trucks.
- Required regional planning agencies to create a land use and transportation plan, Sustainable Communities Strategy (SCS), to meet the GHG targets. An SCS for the San Diego region was adopted in 2011 as part of the 2050 Regional Transportation Plan.
- Reforms the Regional Housing Needs Allocations (RHNA) and Housing Element law to match regional planning processes.

- Made new California Environmental Quality Act (CEQA) exemptions and streamlining for certain projects consistent with a regional plan that meets the targets.

The first Sustainable Communities Strategy for the San Diego region was adopted in 2011 by the San Diego Association of Governments (SANDAG) as part of its 2050 Regional Transportation Plan. Goals and actions listed to implement the SCS included the provision of health principles in evaluation criteria for existing grant programs, encouragement of development patterns that promote walking, bicycling and access to public transit – especially in existing and emerging smart growth areas, and development of a regional complete streets policy. Technical data for the SCS and GHG target reductions included, among others, strategies to increase bicycling and walking in the region.

AB 1358 California Complete Streets Act (2008)
The Complete Streets Act of 2007, Assembly Bill 1358, requires the legislative body of a city or county, upon revision of the circulation element of their general plan, to identify how the jurisdiction will provide for the routine accommodation of all users of the roadway including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation.

For as much as the bill is about making streets safer and more convenient for everyone, other stated goals are to improve public health through increased physical activity, make efficient use of urban infrastructure, and reduce Green House Gas emissions.

In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging more physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled and to shift from short trips in the automobile to biking, walking and use of public transit. [1]

National City created a Complete Streets policy and other supportive policies in the adoption of their updated General Plan (2011).

[1] Assembly Bill 1358, Chapter 657, Statutes 2008.

SB 97 CEQA Directives for GHG (2007)
Known as a "companion" bill to AB 32 and SB 375, SB 97 affects how cities evaluate climate change in traffic impact studies and environmental documents. The bill required the Governor's Office of Planning and Research (OPR) to develop amendments to CEQA to address GHG emissions. These recommended amendments were then sent to the California Natural Resources Agency, the agency responsible for the CEQA Guidelines, for inclusion into the updated CEQA Guidelines that became effective March 18, 2010. As a result of SB 97, projects are now required to analyze and disclose whether they "generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment." The appropriate methodology for describing, calculating or estimating the amount of GHG emissions resulting from a project is left to the discretion of the lead agency.

Identify Future Initiatives

The following section are guidelines specific to neighborhood improvements through various topics set forth by the City's General Plan. These guidelines have been developed to provide residents the opportunity to implement and take initiative with assistance from the City. These guidelines have been divided into short-term, mid-term and long-term goals. The suggested responsible parties are listed on page 1-10.

Table 1: Active Transportation Guidelines

Goal C-8 and C-9: Develop a universally accessible, safe and convenient pedestiran and bicycle system that encourages walking and bicycling		
Action #	**Actions and Action Steps**	**Responsible Parties**
SHORT TERM		
AT-1	Coordinate with the city to conduct regular bicycle and pedestrian counts	Community, NC-DS-E
AT-2	Participate in city-wide active transportation committee meetings.	Community, NC-DS-E
AT-3	Organize a neighborhood level walk or bike-to-school education and outreach event	Community, SD-NSD
AT-4	Establish a method for noting and reporting needed repairs, lighting or graffiti removal to the appropriate contact.	Community, NC-PW
AT-5	Organize a neighborhood clean-up event.	Community
AT-6	Organize a neighborhood fitness walking group that meets to walk in the neighborhood.	Community
AT-7	Look for opportunities to fill in gaps in sidewalks.The width of new sidewalks should be appropriate to the level and type of pedestrian traffic the sidewalk is expected to accommodate.	NC-DS-E
AT-8	Enhance connectivity by eliminating gaps and barriers in roadway, bikeway, and pedestrian networks.	NC-DS-E
AT-9	Implement traffic calming measures in areas near schools, parks and other sensitive facilities to reduce vehicle speeds and discourage cut-through traffic.	NC-DS-E
AT-10	Prioritize attention to transportation issues around schools to reduce school-related vehicle trips and increase safety around pick-up and drop-off zones.	NC-DS-E
MID TERM		
AT-11	Enhance community character and identity through good urban design that considers function, form, pedestrian scale, amenities, and aesthetics.	NC-DS-P
AT-12	Provide connectivity of wide, well-lit walking environments with safety buffers between pedestrians and vehicular traffic, when feasible.	NC-DS-E
AT-13	Develop and maintain an interconnected grid or modified grid-based transportation system that sustains a variety of multi-modal transportation facilities.	NC-DS-E
LONG TERM		
AT-14	Promote the design of complete neighborhoods that are structured to be family-friendly, encourage walking, biking and the use of mass transit, foster community pride, enhance neighborhood identiity, ensure public safety, improve public health, and address the needs of all ages and abilities.	NC-DS-P, NC-DS-E

Table 2: Access to Parks and Open Space Guidelines

Goal OS-7: A well-maintained syatem of recreational trails and related facilities throughout the city that enhance and connect open space lands, parks and recreational facilities.		
Action #	**Actions and Action Steps**	**Responsible Parties**
SHORT TERM		
PO-1	Establish a regular schedule of neigborhood clean-up events at nearby parks.	Community, NC-PW
PO-2	Work with the city to coordinate park beautification and maintenance projects the neighborhood can contribute to.	Community, NC-CS
PO-3	Fill in missing links and correct barriers to walking or biking to neighborhood parks.	NC-DS-E
MID TERM		
PO-4	Encourage the creation of connected paseos and trails between community activity areas and schools and consider opportunities to enhance them with kiosks and rest stations.	NC-DS-E
PO-5	Provide a well-maintained system of recreational trails and related facilities throughout the city that enhance and connect open space lands, parks and recreational facilities.	NC-DS-E
LONG TERM		
PO-6	Provide additional recreational open space areas and connect these areas to trails, bikeways, pedestrian corridors, and other open space networks, where feasible.	NC-DS-P, NC-DS-E

Table 3: Access to Transit Guidelines

Goal C-7: Increase use of transit systems		
Action #	**Actions and Action Steps**	**Responsible Parties**
SHORT TERM		
T-1	Improve bus stop and shelter facilities to increase the comfort of all users.	NC-DS-E
T-2	Promote neighborhood involvement in keeping transit stops clean and safe with clean-up events and public outreach.	Community, NC-DS-E
T-3	Coordiante with MTS to learn how the neighborhood can be more involved with maintenance and beautification projects around stops.	Community, MTS
MID TERM		
T-4	Provide multi-modal support facilities near and to/ from transit stops for bicyclists and pedestrians, including children and youth, seniors, and persons with disabilities.	NC-DS-E
LONG TERM		
T-5	Allow, encourage, and facilitate transit-oriented development, mixed-use and infill projects in appropriate locations to reduce vehicular trips	NC-DS-P, NC-DS-E

Table 4: Access to Healthy Food Guidelines

Goal HEJ-4: Convenient access to fresh and healthy foods, water, fruits and vegetables for all segments of the community		
Action #	**Actions and Action Steps**	**Responsible Parties**
SHORT TERM		
H-1	Encourage the establishment of community farms and gardens.	Community, NC-DS-P
H-2	Encourage the development of community gardens in conjunction with school sites as an educational resource.	Community, SD-NSD
H-3	Ensure healthy food outlets are included as destinations in Safe Routes efforts.	NC-DS-P, NC-DS-E
MID TERM		
H-4	Identify potentially feasible site locations for urban agriculture, including locations for street conversions, and identify links between them in need of bicycle, pedestrian or transit faiclities.	NC-DS-P, NC-DS-E
LONG TERM		
H-5	Encourage farmer's markets, mobile vendors of healthy foods and healthy offerings in local stores.	NC-DS-P

Responsible Parties:
NC-PW - City of National City- Public Works
NC-DS-E - City of National City- Development Services- Engineering
NC-DS-P - City of National City- Development Services- Planning
SD-NSD - Sweetwater Unified School District- National School District
MTS - San Diego Metropolitan Transit System

Capital Improvement Project List

Table 5: Capital Improvement List

	Project	Project Limits	Project Desciption	Project Status	Total Cost
1	Kimball Park	Kimball Park	Upgrades and expansion of facilities at Kimball Park include: • Shade structures for Kimball Bowl amphitheater; • Indoor-style soccer court; • Skate park; • Upgrades to the ball fields; • Playgrounds and picnic areas; • New restrooms; • Improved lighting; • Walking paths and ADA improvements; • Traffic circulation and parking improvements.	Preliminary design complete • Final design schedule: June 2012 – February 2013 • Construction schedule: April 2013 – December 2013	$3,130,000
2	4th Street Community Corridor	Roosevelt Ave and Harbison Ave	The project includes installation of bike lanes, enhanced signing and striping, traffic calming measures such as corner bulb-outs, ADA improvements, lighting and landscaping.	Preliminary design in progress • Final design schedule: September 2012 – June 2013 • Construction schedule: August 2013 – April 2014	$400,000
3	8th St Corridor Safety Enhancements	J Avenue and Palm Ave	The project includes the following traffic safety enhancements to calm traffic, reduce collisions and improve access for pedestrians: • Reduce travel lanes from four lanes to three lanes (two eastbound and one westbound) • Install left-turn pockets and a traffic signal at M Avenue to reduce rear-end and left turn vs. opposing thru traffic collisions, and provide positive protection for pedestrians at the school crossing; • Provide traffic signal modifications and ADA improvements at Palm Avenue; • Construct retaining walls for slope stabilization between K Avenue and L Avenue to enhance pedestrian safety and access by preventing soil from sluffing over the sidewalk	Final design in progress • Construction schedule: Currently underway, 2013	$430,000
4	8th St Corridor Smart Growth Revitalization	8th Street Trolley Station and K Avenue	Phase I of the project includes undergrounding overhead utilities between National City Boulevard and Highland Avenue, and replacing the sewer between the 8th Street Trolley Station and K Avenue, just east of Highland Avenue. Phase II of the project includes traffic calming, pedestrian and streetscape enhancements between the 8th Street Trolley Station and Highland Avenue.	Phase I – Utility Undergrounding and Sewer Replacement • Final design complete • Construction contract awarded • Construction schedule: April 2012 – June 2013 Phase II – Streetscape Revitalization • Final design in progress • Construction schedule: April 2013 – June 2014	$2,300,000

	Project	Project Limits	Project Desciption	Project Status	Total Cost
5	"A" Avenue Green Street and Pedestrian Pathway Project	8th Street and 16th Street	The primary objectives of the project are as follows: 1) Create a "Green Street" that implements Low-Impact Development (LID) infiltration measures to improve water quality of urban runoff. 2) Create a safe, environmentally friendly walking path along "A" Avenue to connect Historic Brick Row, Morgan Square and the 8th Street Revitalization District to City Hall, National City Public Library and Kimball Park. 3) Provide educational opportunities through implementation of interpretative signage and creek themed art."	Final design, environmental, and public outreach for the project are scheduled to start in Spring 2013.	$3,300,000
6	Aquatic Center	Pepper Park	This 4,663 square foot public facility will be owned by the City of National City upon leased premises (10,000 square feet) in Pepper Park, National City, under the jurisdiction of the San Diego Unified Port District. The structure will include: • Two multi-purpose classrooms that can be opened as one larger room; • Office for facility staff; • Storefront for National City Police and/or Harbor Police; • Locker, shower and restroom spaces; • Boat and equipment storage; • Decorative lighting, landscaping and Public Art."	• Final design complete • Construction schedule: November 2012 – July 2013	$3,500,000
7	Coolidge Ave Community Corridor	W. 18th Street and Plaza Boulevard	The project will deliver pedestrian enhancements and traffic calming measures to improve walkability, reduce cut-through traffic, vehicle speeds and collisions, and provide a safer environment to encourage more children from the Old Town Neighborhood to walk to and from Kimball Elementary School.	• Final design in progress • Construction schedule: October 2012 – June 2013	$1,253,663
8	D Avenue Community Corridor - Roundabout	Division Street and E. 30th Street	The project includes installation of bike lanes, signing and striping enhancements, ADA improvements, reverse angle parking adjacent to Kimball Park, lighting and landscaping to convert D Avenue into a "Community Corridor".	• Final design in progress • Construction schedule: December 2012 – August 2013	$600,000

	Project	Project Limits	Project Desciption	Project Status	Total Cost
9	Highland Avenue Safety Improvements	Division Street and E. 8th Street	The project includes the following traffic safety enhancements within the public right of way to calm traffic, reduce collisions and improve access for pedestrians: 1) Reduce travel lanes from four lanes to two lanes with protected left-turn pockets at intersections to reduce rear-end and left-turn vs. opposing thru traffic collisions; 2) Provide ADA improvements, enhanced signing and striping, corner bulb-outs and refuge islands to calm traffic and reduce pedestrian crossing distances at intersections; 3) Construct landscaped islands mid-block to calm traffic and beautify the corridor; 4) Convert parallel parking to angled parking on the east side of the street to provide more parking and improve access to local businesses.	• Preliminary design in progress • Final design schedule: September 2012 – June 2013 • Construction schedule: August 2013 – April 2014	$850,000
10	Las Palmas Park Improvements	Las Palmas Park	Three alternative concepts have been prepared based on funding opportunities. The list of proposed improvements is based on the most comprehensive alternative. • New YMCA Center; • Renovations to Community Pool and Camacho Gym; • Indoor-style soccer court; • Skate park; • Batting cages; • Playgrounds and picnic areas; • New restrooms; • Improved lighting; • Walking paths and ADA improvements; • Traffic circulation and parking improvements.	• Preliminary design complete • Final design schedule: June 2012 – February 2013 • Construction schedule: April 2013 – December 2013	$6,185,000
	SR2S	Citywide	Types of safety enhancements include in-roadway warning lights at crosswalks, flashing beacons, radar speed feedback signs, traffic calming bulb-outs and pedestrian refuge islands at school crosswalks, new sidewalks and ADA curb ramps, and enhanced school zone signing and striping. Grant funding has also been used to provide outreach, education and training for students and parents to encourage more families to participate in walk to school activities.	Amount awarded over the past five years.	$3,700,000
	Citywide Bus Shelter Project	Citywide	Installation of shelters, benches and trash receptacles • Shelters are solar powered • City logo to be installed on each shelter	• Construction complete	$129,147

Future Conditions Through Computer Modelling

Smart Growth means developing urban, suburban and rural communities with a compact and efficient development pattern that places housing and transportation choices near jobs, retail and schools. The primary focus is on the efficient use of existing infrastructure to preserve open space and natural resources.

SANDAG has characterized smart growth areas as more compact higher density development in key areas throughout the region that is walkable, bikeable, near public transit and promotes good community design. The results of smart growth are increased housing and transportation choices for those who live and work in these smart growth areas.

SANDAG has developed a Smart Growth Concept Map which identifies location in the San Diego region that can support smart growth and transit. The concept map is for planning purposes and for use in the TransNet Smart Growth Incentive Program. National City has three Smart Growth Concept areas as shown in Figure 1. These concept areas are described as:

Urban Center

- Subregional business, civic, commercial, and cultural centers
- Mid- and high-rise residential, office, and commercial buildings
- Medium to high levels of employment
- Draws from throughout the region, with many from the immediate area
- Served by transit lines and local bus services

Town Center

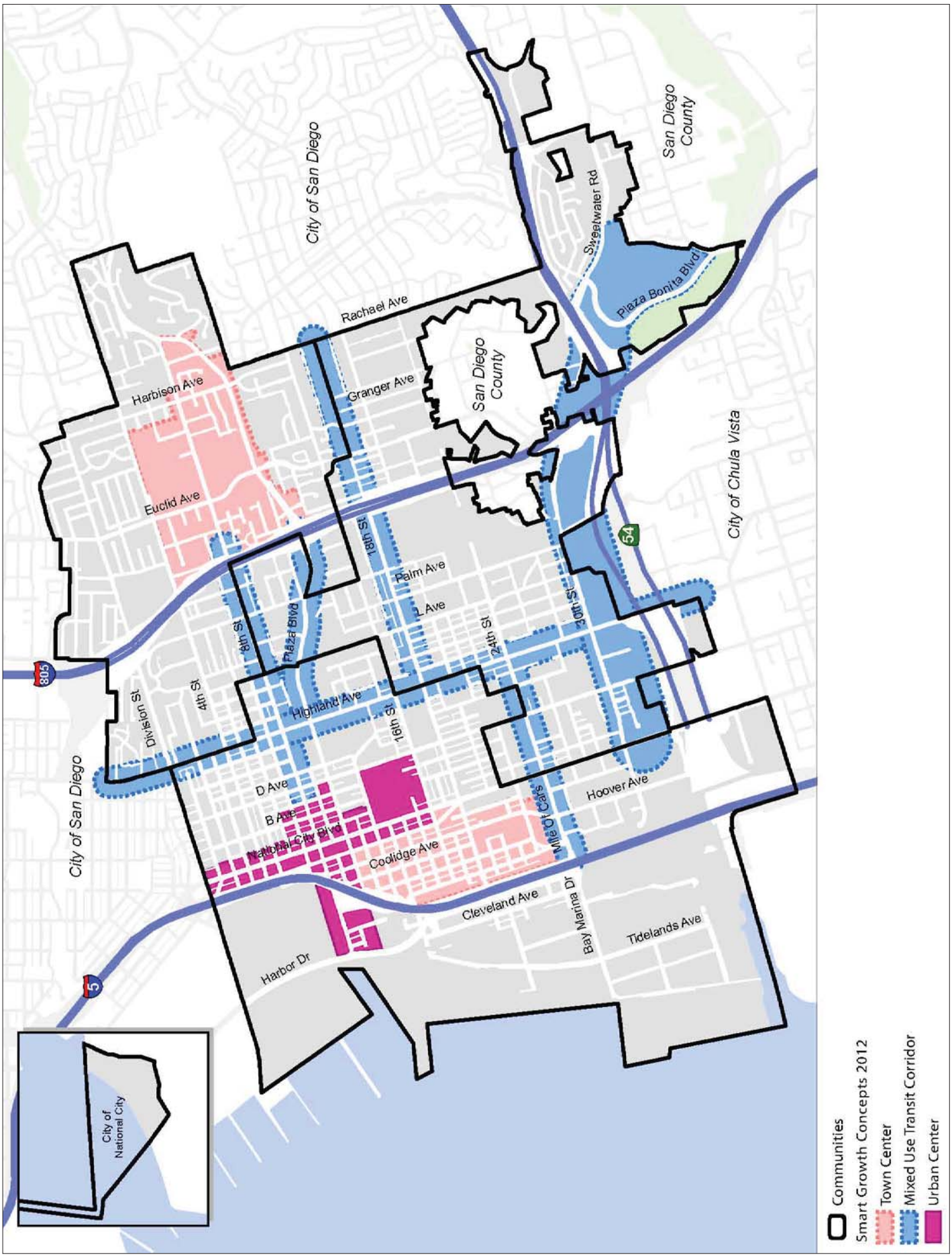
- Suburban downtowns within the region
- Low- and midrise residential, office, and commercial buildings
- Some employment
- Draws from the immediate area
- Served by corridor/regional transit lines and local services or shuttle services

Mixed Use Transit Corridor

- Areas with concentrated residential and mixed use development along a linear transit corridor
- Variety of low-, mid- and high-rise buildings, with employment, commercial and retail businesses
- Draws from nearby communities

In order to confirm these concept areas are suitable to accommodate smart growth, two separate GIS exercises were performed. These exercises consist of a City-wide Bicycle and Pedestrian suitability model and an Attractor Element Model. This analysis can also be used to identify areas for project prioritization because of the density of population and attractions. These exercise are described in the following sections.

Figure 1: SANDAG Smart Growth Concept Areas



Pedestrian and Bicycle Suitability Model Overview

The Pedestrian and Bicycle Suitability Model was developed to determine the routes within National City used by pedestrians and bicyclists that are most likely to be active. The model allows decision makers to prioritize those areas and projects which will benefit the largest number of non-motorized travelers. The Pedestrian and Bicycle Suitability Model identifies both existing and potential areas of pedestrian/cyclist activity using spatial data within a GIS database. This model is an initial run and will be modified as the project progresses.

Pedestrian and Bicycle Suitability Model Description

The overall Pedestrian and Bicycle Suitability Model is comprised of three basic models: the attractor, generator and detractor models. When these three interim models are combined, they create the Pedestrian and Bicycle Suitability Model.

The model identifies the characteristics of each particular area in geographic space and assigns it a numeric value based on those characteristics. The assigned score allows the area to be ranked, with the highest scores being areas of highest priority.

Attractor Model Methodology

Features or places within National City to which pedestrians and cyclists are likely to visit are considered "attractors." The attractor model identifies areas of high pedestrian/cyclist activity based on an evaluation of proximity to these attractors.

Typical bicycle and pedestrian commuter trips to nearby shopping centers, restaurants and work are very short, usually between 2-5 miles each way. School age children will normally ride or walk to school no more than a few miles round trip. Only the more avid cyclists will likely commute longer distances (~20 miles round trip). Thus, the closer attractors are to residents, the more likely the attractors are to inspire trips by bike or walking. Areas within close proximity to attractors are given a higher score then those farther from attractors. A one mile maximum distance in the model was given to encompass the majority of the shorter bicycle trips and maximum pedestrian trips.

Table 6: Mobility Attractors

Mobility Attractors	Weighting Points	Distance Multiplier				Max Points
Mobility Distance Multipliers		5 Min (2)	10 Min (1.5)	15 Min (1)	20 Min (.5)	
Elementary Schools	5	10	7.5	5	2.5	25
Regional Commercial and Retail	4	8	6	4	2	20
Transit Station	4	8	6	4	2	20
Middle Schools	4	8	6	4	2	20
Neighborhood Commercial (Strip malls, local retail)	3	6	4.5	3	1.5	15
High volume Bus Stops (>100)	3	6	4.5	3	1.5	15
Parks and Recreation (excludes non-useable open space)	3	6	4.5	3	1.5	15
Moderate Stops (50-100)	2	4	3	2	1	10
Neighborhood Civic Facilities (Libraries, Post Office & Religious Facilities)	2	4	3	2	1	10
Low volume Bus Stops (<50)	1	2	1.5	1	0.5	5
High Schools and Colleges	1	2	1.5	1	0.5	5

Figure 2: Attractors

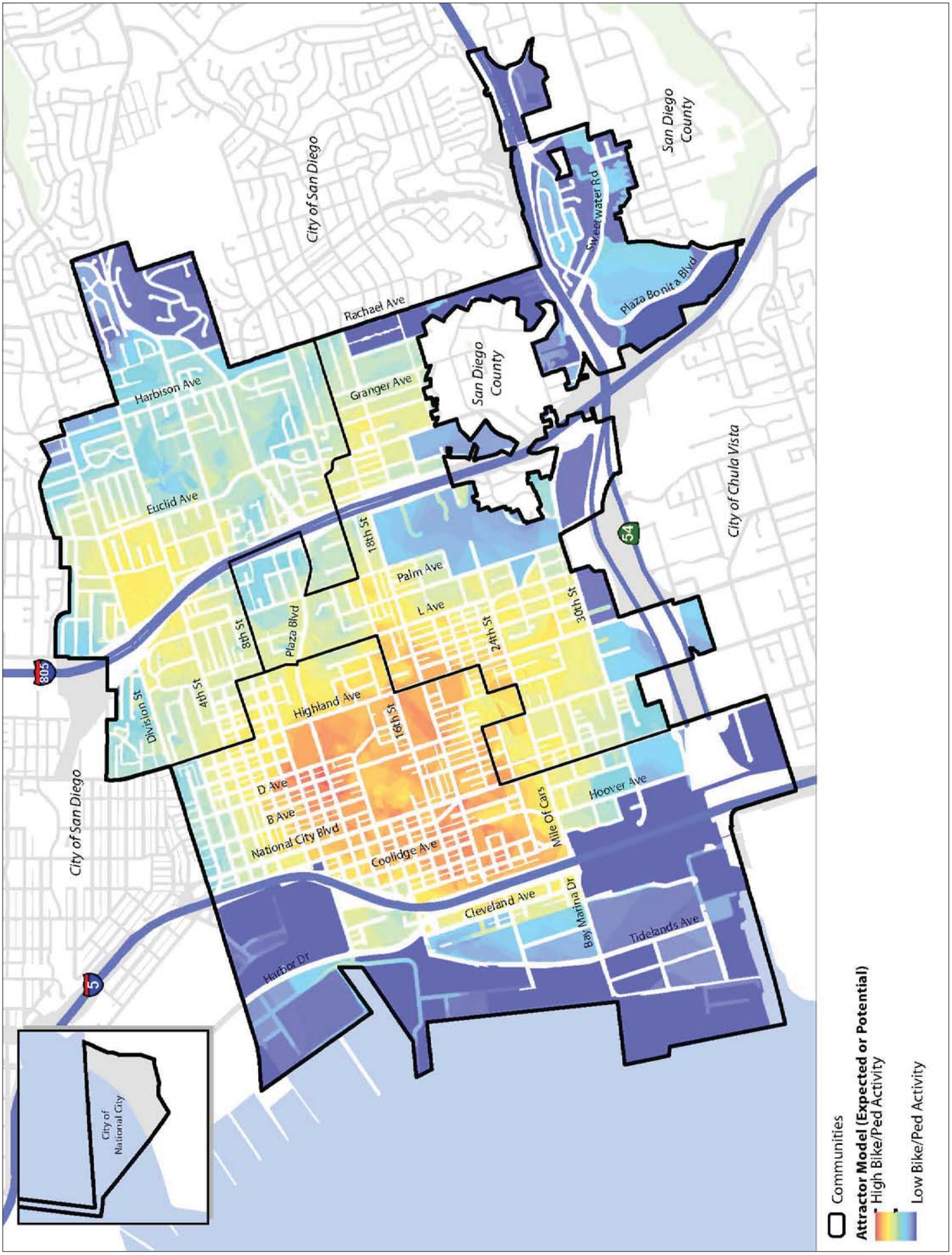
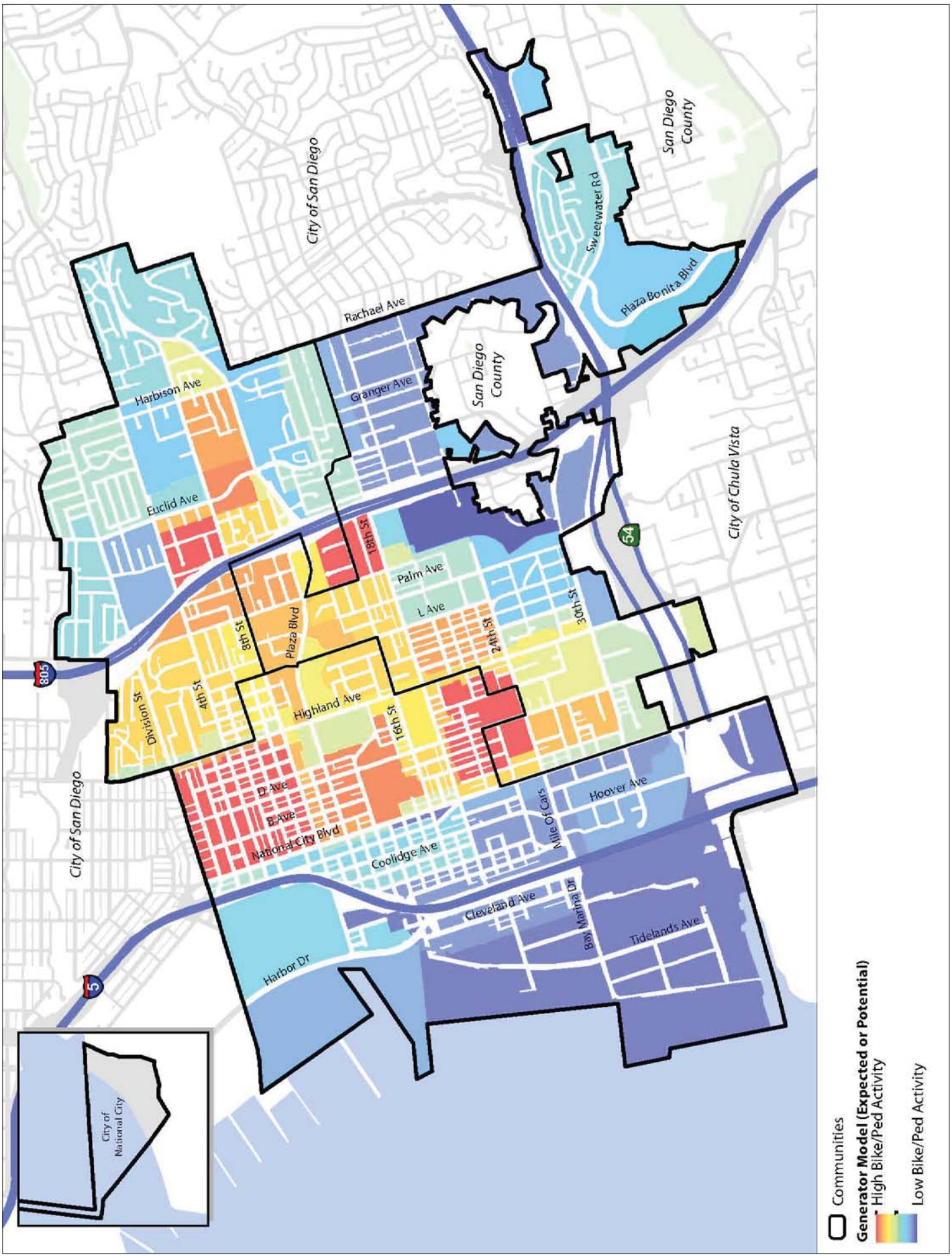


Figure 3: Generators



The attractor model considers the different attractor types with individualized weighted scores. For example, all schools were considered as attractors, including elementary schools, middle schools, high school and colleges. However, it is assumed that more elementary school aged children walk or rely on their bicycle as a mode of transportation to get to school compared to high school students who hold a drivers license. Therefore, proximity to an elementary school is given a higher weighted score than proximity to a high school. The point system and weighted score multipliers were derived from City input, public input through previous surveys, past applications of the model and available City data. The attractors categories considered are listed in Table 6.

Generator Model Methodology

While the attractor model considers where pedestrians and cyclists are likely to travel to, the generator model considers those areas where pedestrians and cyclists are likely to travel from. Areas from which non-motorized travelers are likely to originate are referred to as "generators."

Table 7: Mobility Generators

Mobility Generators	Points	Weighted Multiplier	Final Score
Cycling Mobility: People who bike to work (1)			
> .6%	2	2	4
< .6%	1		2
Non-Vehicular Transportation: People who use public transportation to work (1)			
> 3%	2	2	4
< 3%	1		2
Walking Mobility: People who walk to work (1)			
> 3%	2	2	4
< 3%	1		2
No Vehicle Ownership (2)			
> 172	3	2	6
65 - 172	2		4
< 65	1		2
Median Income (5)			
> $23,500	3	2	6
$23,500 - $50,040	2		4
> $50,040	1		2
Age Density: Children per Acre (3)			
> 5	3	2	6
3-5	2		4
< 3	1		2
Age Density: Seniors per Acre (3)			
> 3	3	2	6
1-3	2		4
< 1	1		2
2010 Population (4)			
> 24	3	1	3
12-23	2		2
<12	1		1
Current Employment Estimates (4)			
>12	3	1	3
6-12	2		2
<6	1		1

Table 7: Mobility Generators (cont.)

Mobility Generators	Points	Weighted Multiplier	Final Score
2030 Population (4)			
> 30	3	1	3
16-29	2		2
< 16	1		1
2030 Employment (4)			
> 14	3	1	3
6-13	2		2
< 6	1		1

The generator model utilizes demographic data as indicators of potential sources of non-motorized travelers. Existing and projected total population and employment are used, as well as other demographic data such as age and use of public transportation.

Each generator was assigned an individualized weighted score derived from City staff and public input, previous applications of the model and the factors that most influence bicycle and walking trips within the City. The data analyzed by the generator model includes SANDAG-defined Transportation Analysis Zones (TAZs) and U.S. Census Bureau Census Block Groups. The generator categories considered are listed in the Table 7.

Detractor (Barrier) Model Methodology

Detractors discourage or deter people from walking or riding their bikes. Relevant factors used in the model are related to the vehicular intensity and the perceived safety along a route. Streets with high traffic volumes and high speeds tend to deter people from cycling and walking due to the amount of traffic related stress experienced while traveling along the route. Known areas of high crime and high bicycle and pedestrian related collisions are also deterrents since these issues may reduce the traveler's perceived safety in the environment. These deterrents may cause people to choose alternative routes to avoid certain streets and intersections where safety may be a concern. A weighted score was assigned to each detractor category, derived from City input, public input through previous surveys, past applications of the model, and available City data.

Final Composite Model

The Pedestrian and Bicycle Suitability Model is a summed composite of the generator, attractor and detractor models.

The combined grid cells of the generator, attractor, and detractor models were added together to provide a total composite value for each cell. The cells with a higher composite value indicate areas that are likely to have higher pedestrian/cycling activity or value. In some cases, the areas that have a high pedestrian/cycling activity score are areas that already have facilities, but further improvement can be made to enhance the non-motorized traveling environment.

Overlaying the SANDAG Smart Growth Concept Areas in Figure 6 shows that propensity of walking and bicycling does coincide with these areas. The Urban and Town Centers show the most coincidence, making their case strong as a Smart Growth Concept Area.

Figure 4: Barriers

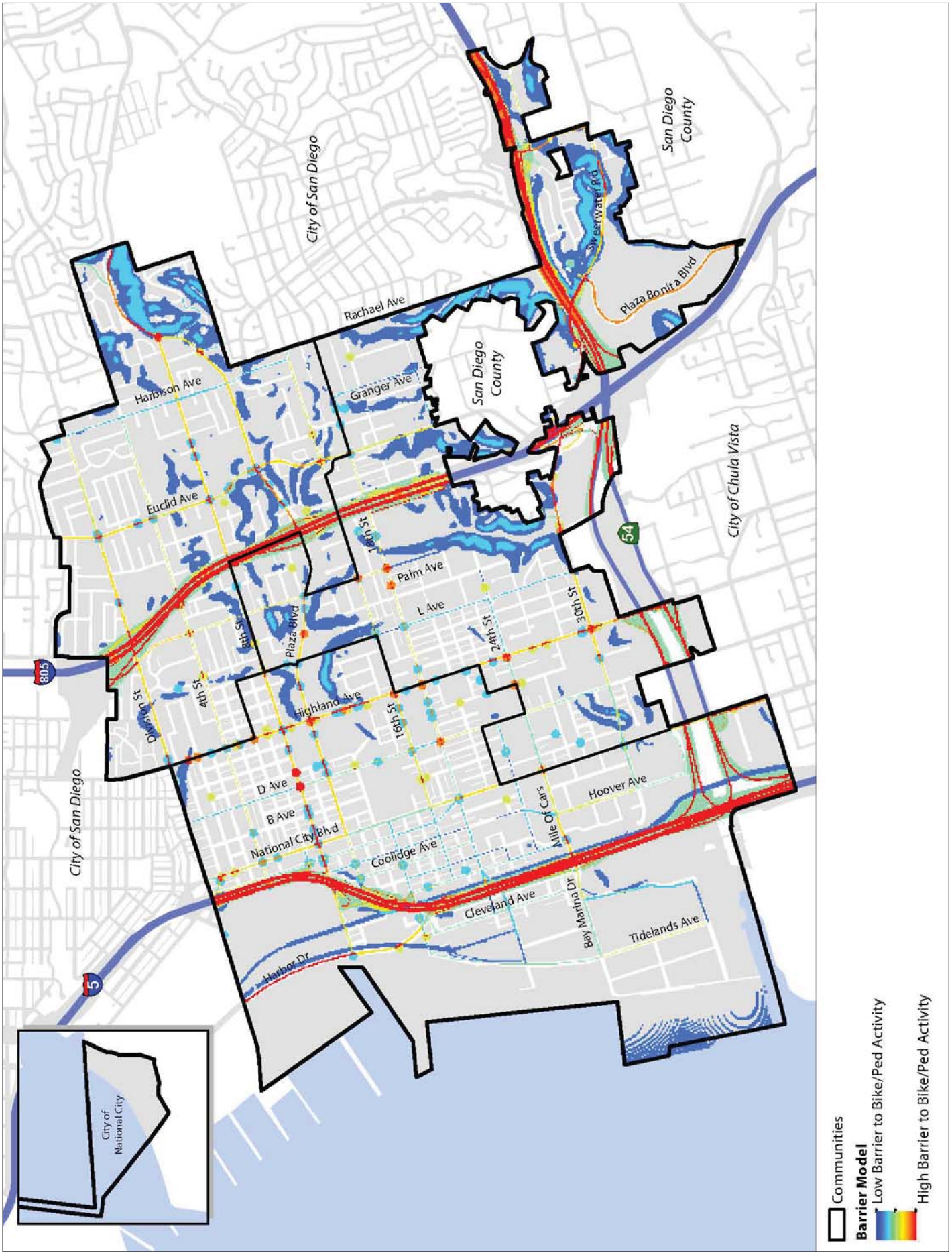


Table 8: Mobility Barriers

Mobility Barriers	Points	Weighted Multiplier	Final Score
Bicycle Related Collisions			
>= 2	-3	2	-6
1	-2		-4
Pedestrian Related Collisions			
>= 3	-3	2	-6
2-3	-2		-4
1	-1		-2
Freeway Crossings related to Cycling Travel			
	-3	1	-3
Traffic Volumes			
>20,000	-4	1	-4
10,000 - 20,000	-3		-3
5,000 - 10,000	-2		-2
1,000 - 5,000	-1		-1
Speed Limits			
45+	-3	1	-3
35-45	-2		-2
25-35	-1		-1
< 25 mph	0		0
Railroads and Light Rail			
	-1	1	1
Slope & Canyons as Barriers to Cycling Travel			
Landform Feature with Slope > 25%	-3	1	-3
Landform, Walkway or Street Slope 10-25%	-2		-2
Slope < 10%	0		0

Figure 5: Composite Model

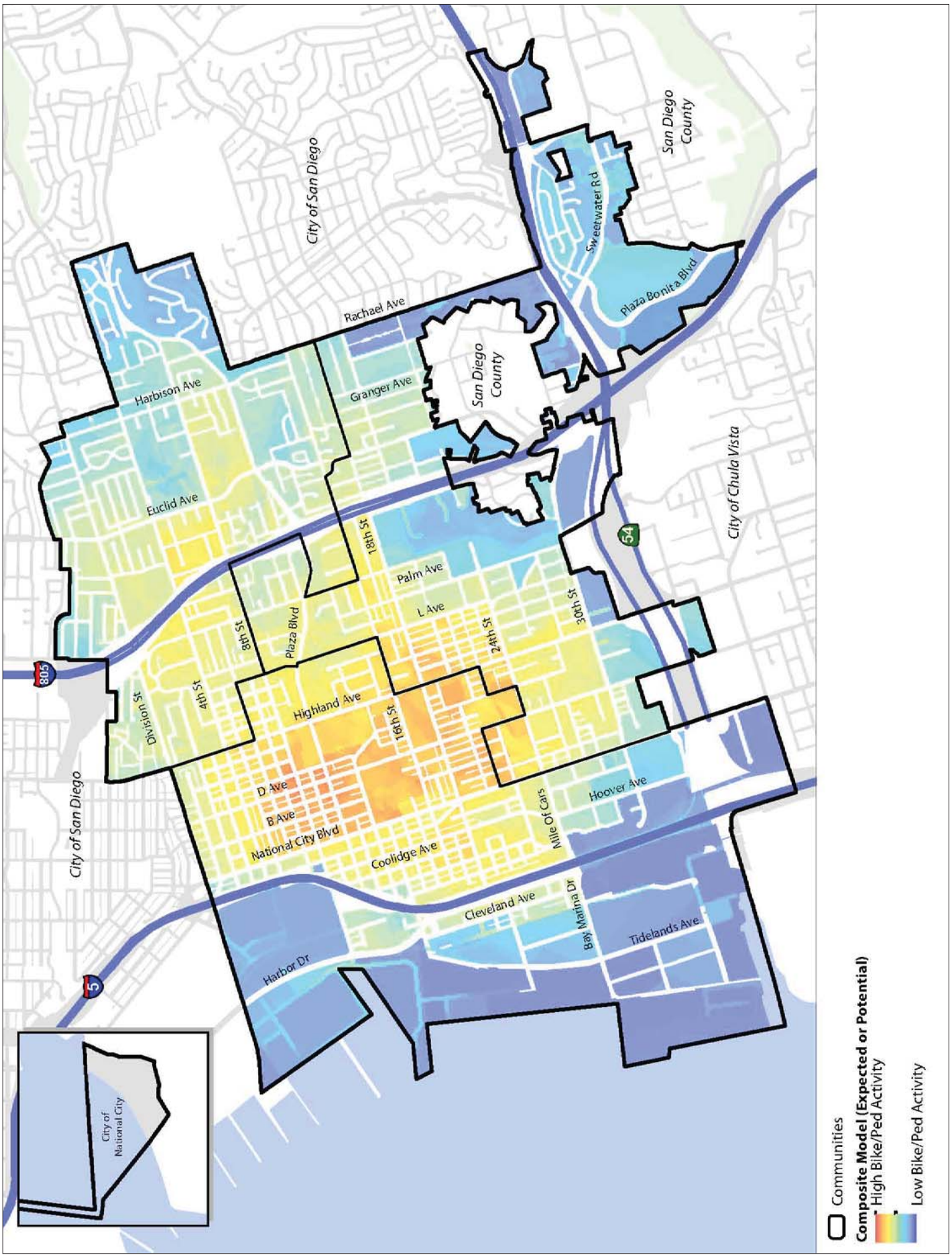
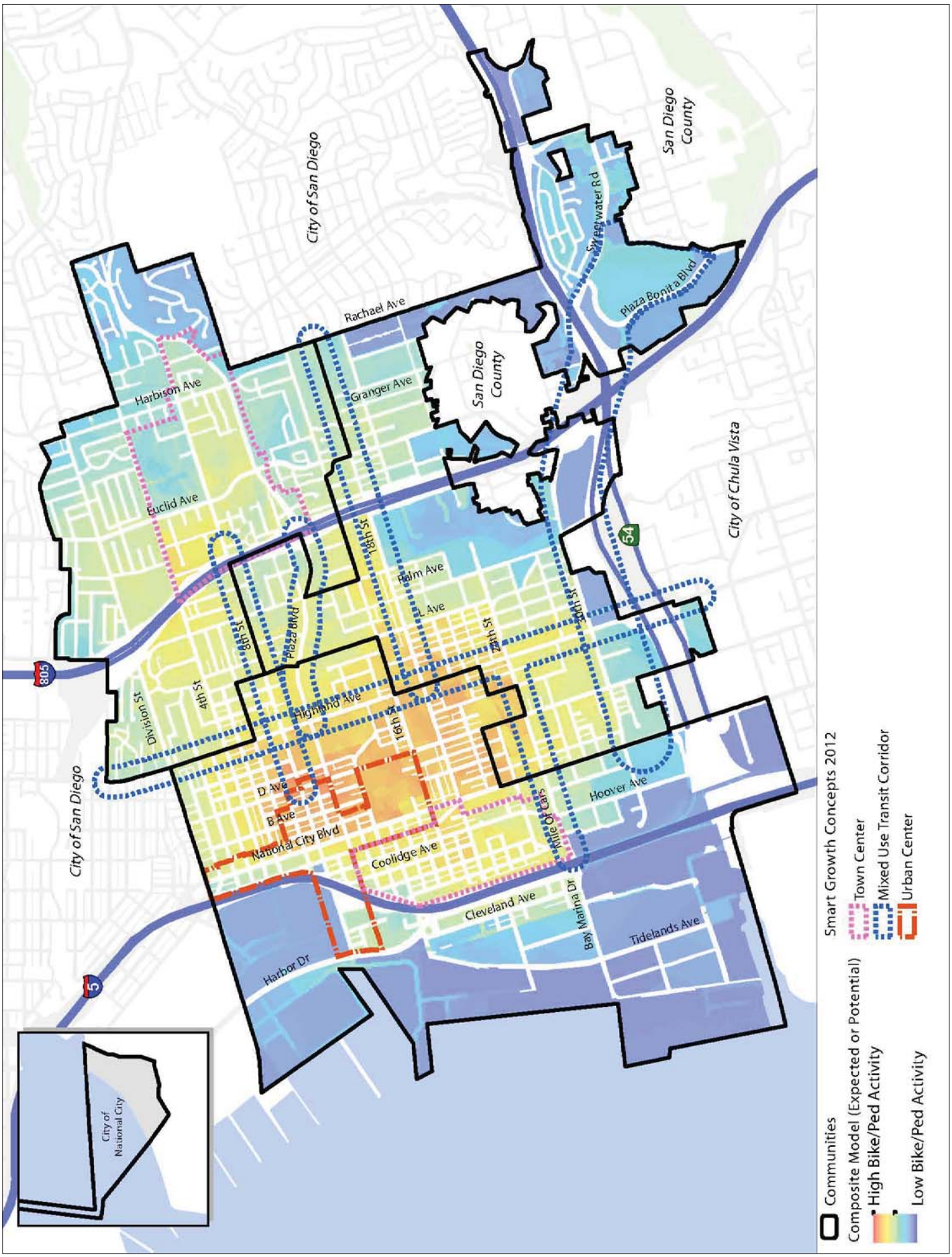


Figure 6: Composite Model with Smart Growth Concept Areas



Existing and Future Attractor Elements

The second model consists of developing five-minute, more compact walk sheds from the following existing and future attractors:

- Schools
- Parks
- Transit
- Retail
- Mixed use

This exercise looks at the proximity of each attractor to one another, similar to the Bicycle and Pedestrian Attractor Model.

Other inputs that were modified include adding future attractors where land use changes from a non-attractor, such as industrial land use, to an attractor, such as retail or mixed use areas. This helps identify where increases in land use density and walking destinations are likely to occur in the future. Identifying these future destinations provides foresight to improvements that will support these land uses from a pedestrian, bicycling and transit use.

To compare changes in land use for future planning efforts, zoning land use layers were compared with existing land use to identify areas where there were increases in commercial and mixed use land uses. These attractors are an important component of future smart growth areas and project prioritization. Projected increase in population change is another criteria used for the development of various smart growth areas.

Figure 7 Identifies the attractor land use changes between existing and planned land use. Identifying where residential density changes has also been identified.

Figure 8 Identifies the areas where population density increases between SANDAG's 2010 and 2030 estimates. The highest increases in population density occur along the northern end of National City Blvd and within the Urban Center Smart Growth Concept Area. Other pockets of growth are estimated to occur near the city's community parks.

Figure 9 is the five-minute walk sheds from existing attractors using an average 3 MPH walking speed. The densest areas of attractor overlap occur west of Highland Ave, between 8th St. and 18th St. and east of National City Blvd. Small pockets of dense attractors can be found along 8th St near Euclid Ave and around Sweetwater High School.

Figure 10 is the five-minute walk sheds from future attractors using an average 3 MPH walking speed. Pockets of dense attractors are similar to the existing attractor element however with future mixed use planned in the Westside Specific Plan.

Figure 11 is the composite of the existing and future walk sheds identifying dense areas of attractors.

Figure 12 overlays the SANDAG Smart Growth Concept Areas over the composite of future and existing attractors.

This attractor exercise strengthens the Smart Growth Concept Areas that have been identified by SANDAG. Utilizing just pedestrian accessibility also shows the areas where pedestrian improvements should be prioritized.

Utilizing two different analysis methods still showed similar results for where Smart Growth Concept Areas should likely occur in regards to Urban and Town Center designations. Not only are these areas good locations for future smart growth, they should also be looked at as areas of prioritized pedestrian, bicycle and transit improvements and maintenance priorities

Identifying projects within these areas because of the immediate use from a larger user group will assist the City in grant funding efforts. The opportunities for funding can assist in conceptual design to construction of non-motorized improvements.

Figure 7: Land Use Change

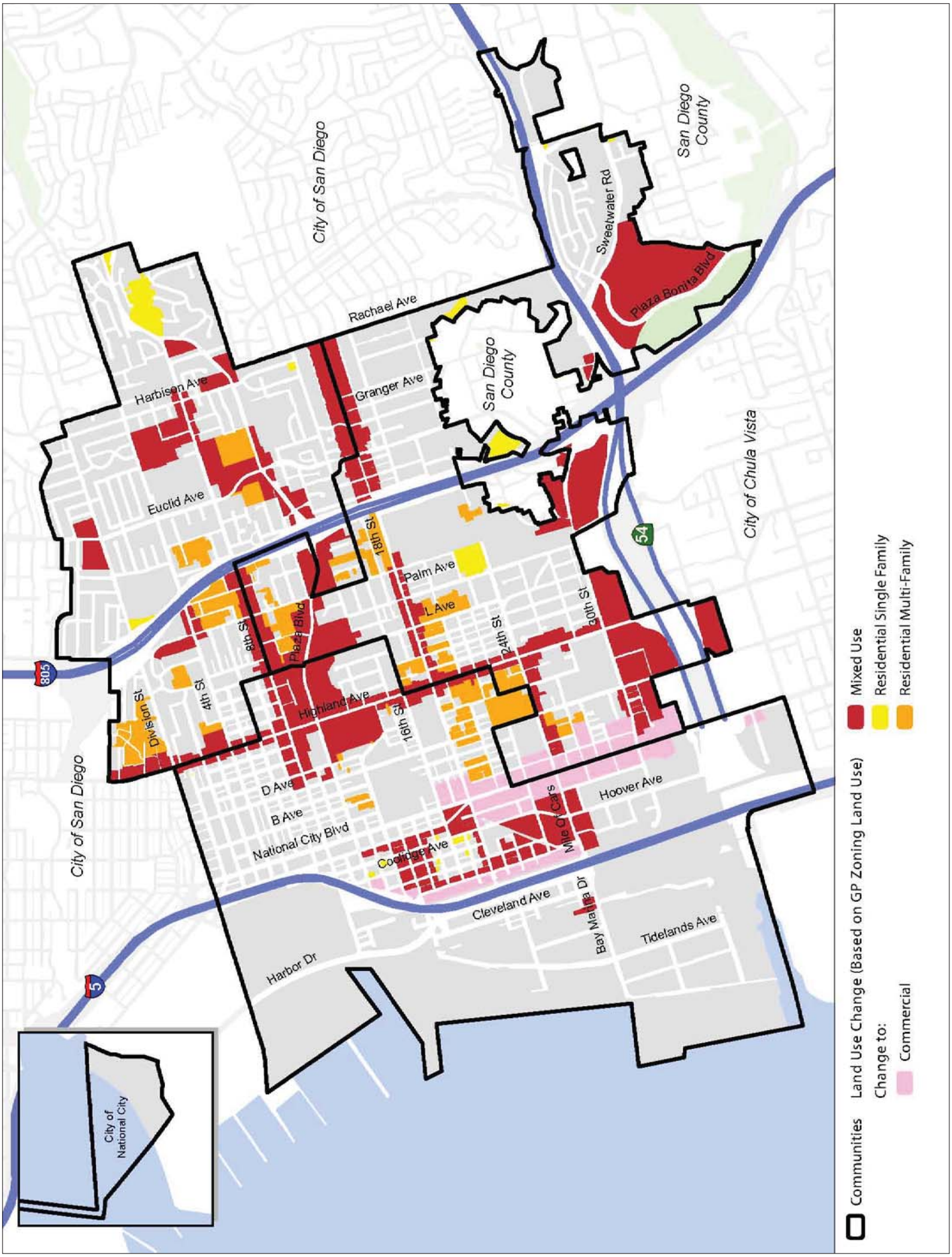


Figure 8: Population Growth

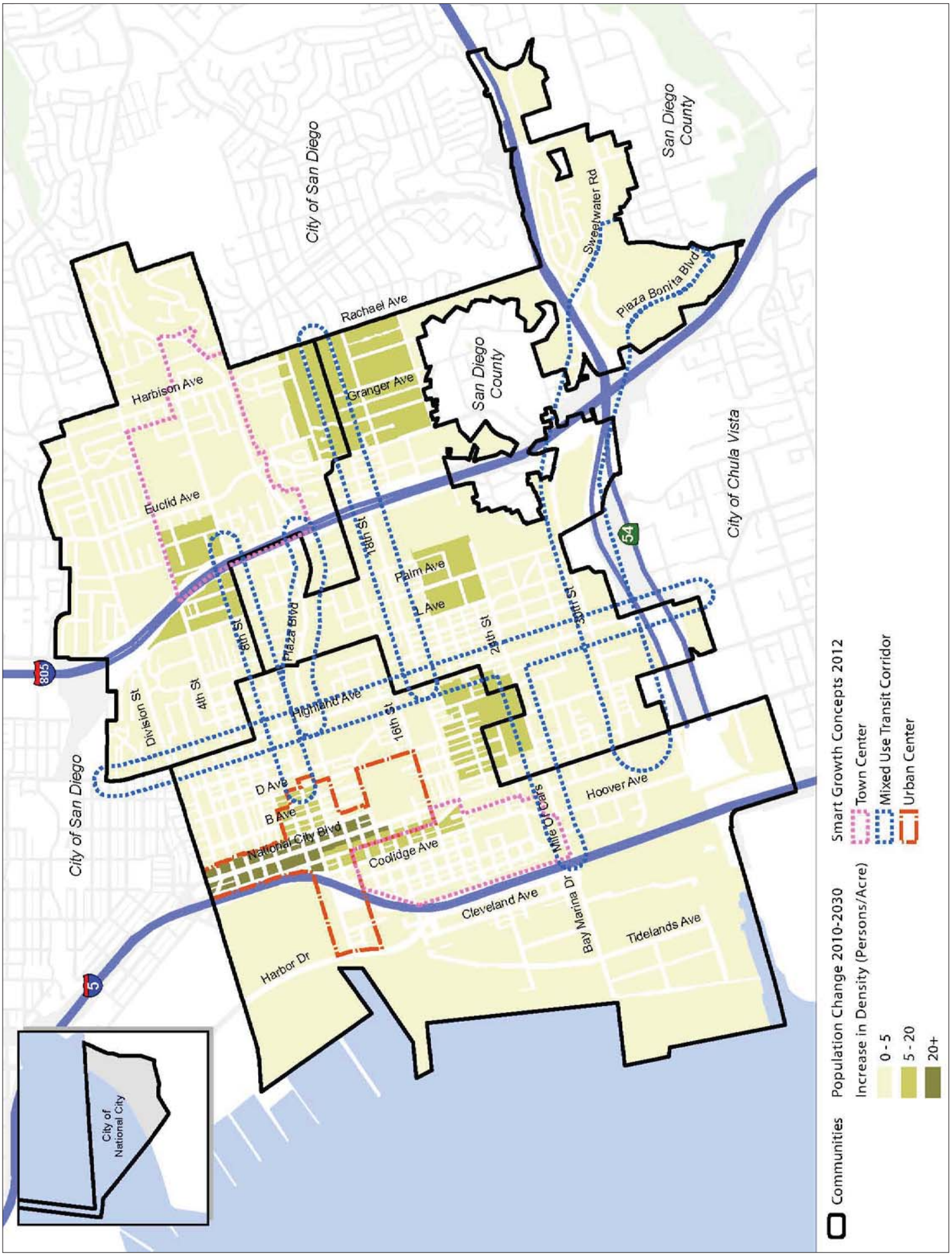


Figure 9: Existing Attractor Elements: Compact Walk

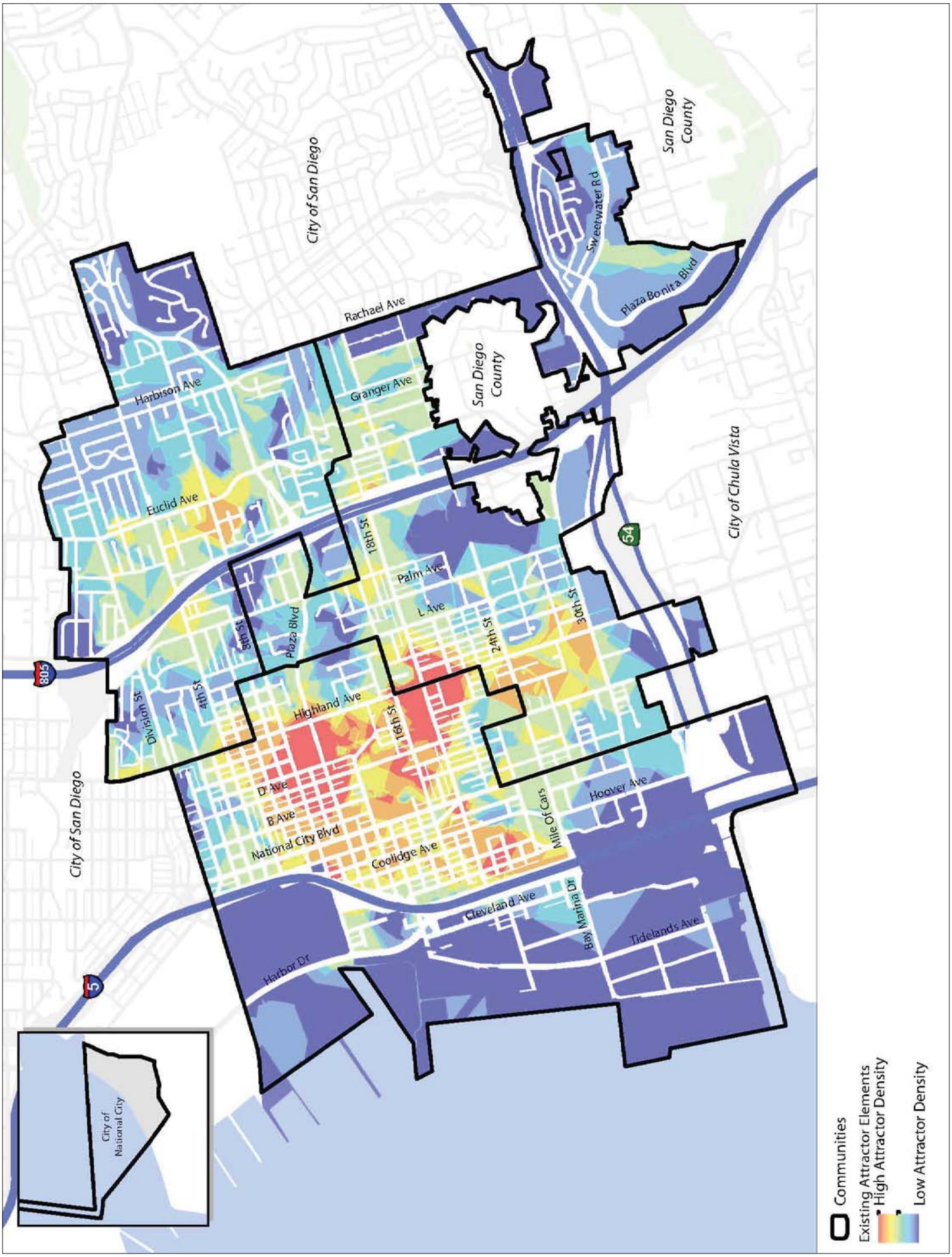


Figure 10: Future Attractor Elements: Compact Walk

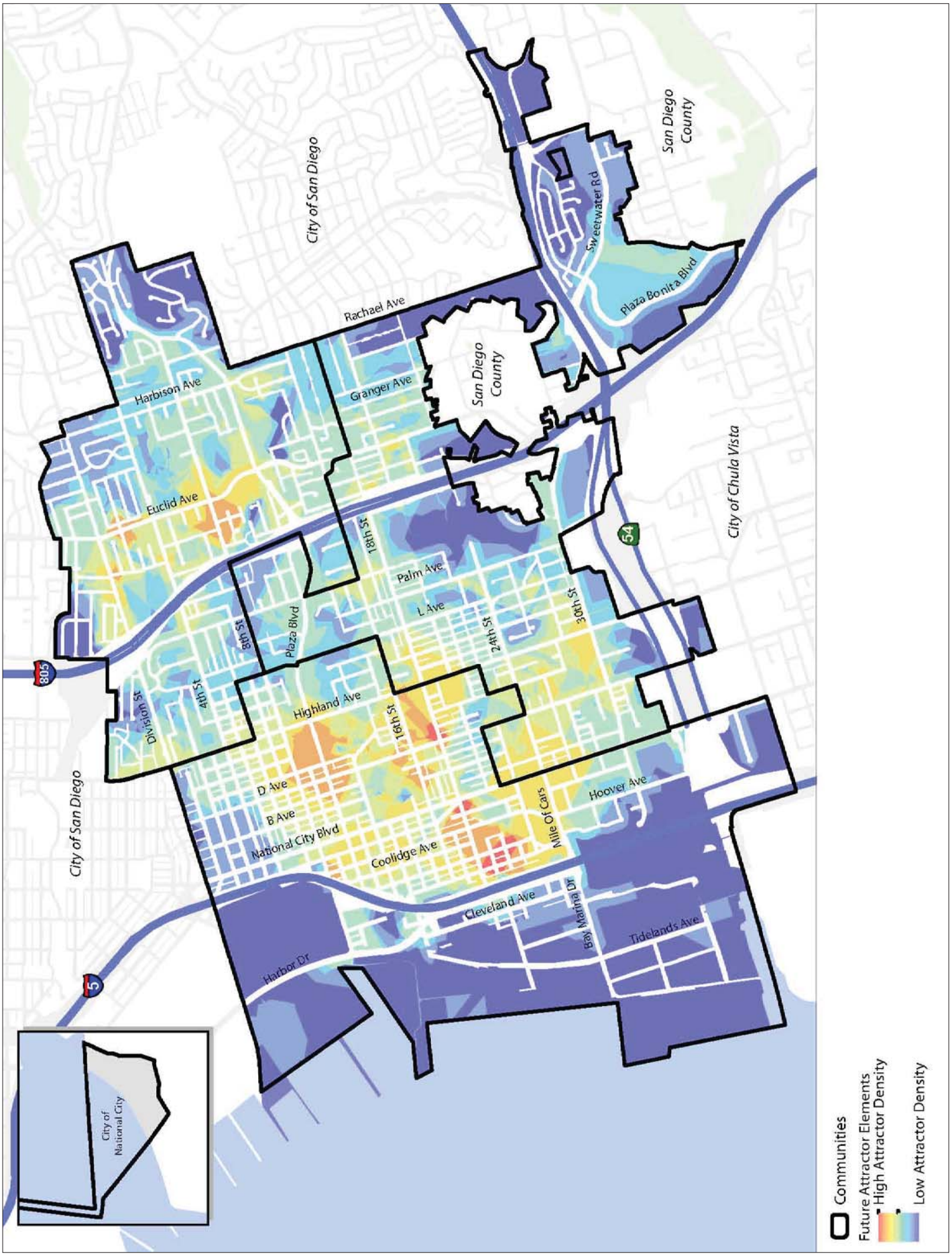


Figure 11: Composite Attractor Elements

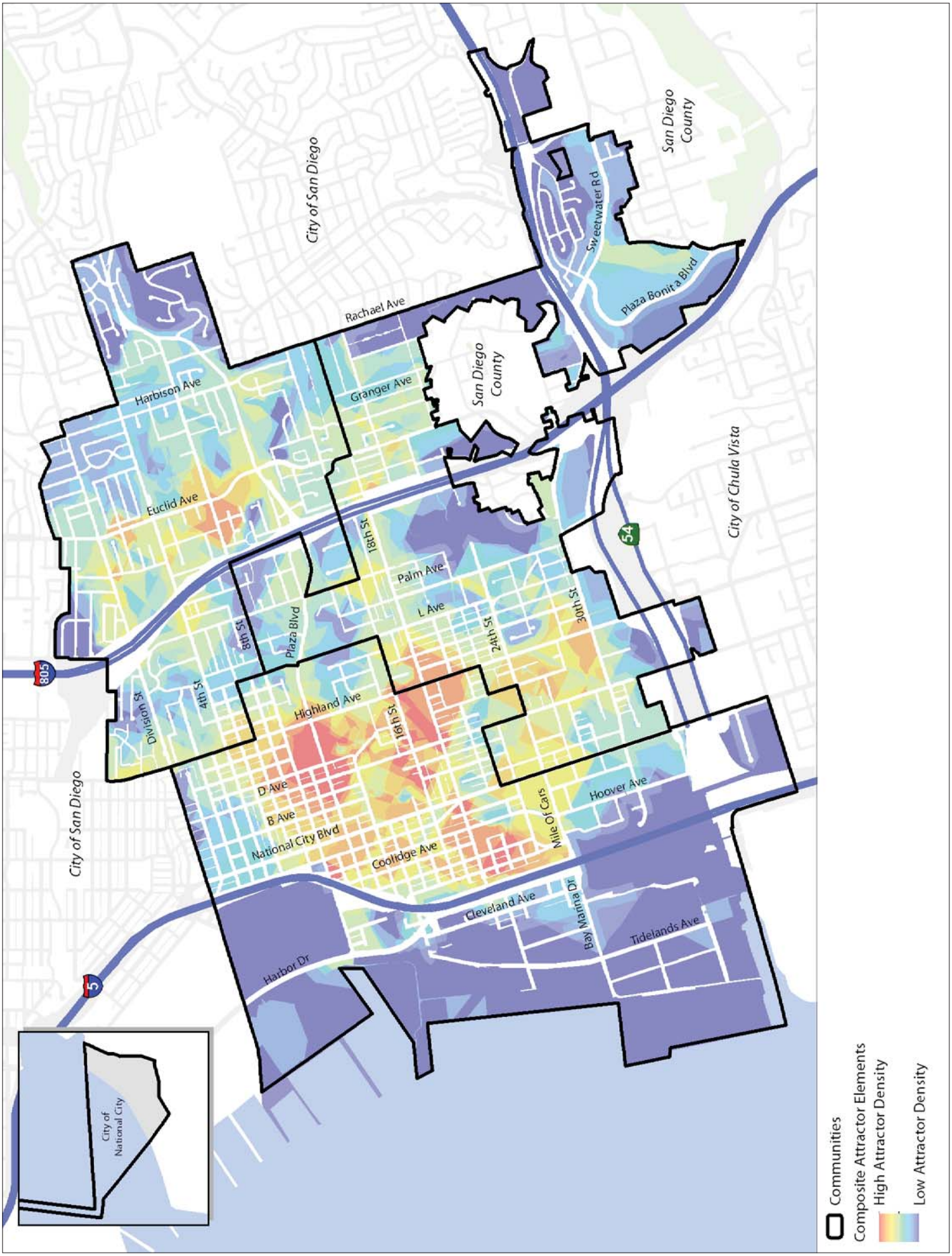


Figure 12: Composite Attractor Elements with Smart Growth Concept Areas