GREENBELT ALLIANCE

Walnut Creek Office
1601 N. Main St., Suite 105
Walnut Creek, CA 94596
(925) 932-7776

February 2, 2016

Ross Chittenden, Deputy Executive Director
Contra Costa Transportation Authority
2999 Oak Rd, Suite 100
Walnut Creek, CA 94597

Dear Mr. Chittenden:

RE: Request for Information on Growth Management Policy Recommendations

Greenbelt Alliance appreciates the opportunity to provide further information and rationale behind the growth management policy recommendations contained in the "Community Vision and Transformative Policies for a New Transportation Sales Tax."

The level of receptivity from Contra Costa Transportation Authority (CCTA) commissioners, staff, and consultants is encouraging as we participate in the development of a new transportation sales tax measure. In addition to the following recommendations and maps, please review Greenbelt Alliance's recent white paper, "Shaping our Growth: How Urban Growth Boundaries strengthen communities and protect greenbelts" (**Attachment A**). These documents demonstrate the critical importance of smart and managed growth at both the local and regional level to protect our environment, strengthen our economy, and advance social equity.

Greenbelt Alliance also reaffirms our recognition that CCTA is building on significant leadership managing growth and encouraging infill development over the last 30 years. Yet despite this important progress, significant problems exist in our current transportation and land use systems, and many of these problems will worsen if immediate remedies are not implemented. Greenbelt Alliance hopes that collectively we can harness our previous success to address the challenges of the next 30 years.

While this letter focuses on recommendations to enhance the Growth Management Program (GMP), Greenbelt Alliance looks forward to providing more information on how to incentivize infill development in the near future.

Background

Smart Growth, conservation, and transportation are inextricably linked in Contra Costa. With the passage of Measure C-1988, Contra Costa became the first county in the state to plan and invest in the transportation, land use, and growth management connection—now central to planning efforts at all levels of government in California. The success of the GMP was a key component to voter approval of the County Urban Limit Line (ULL) in 1990. With the success of Measure J in 2004, voters enhanced the ULL and created the Transportation for Livable Communities (TLC) program, which directed transportation investments to encourage development near transit and downtown centers. These and other measures have made achieving initial greenhouse gas reduction goals much easier for Contra Costa, as CCTA has acknowledged. It's an ongoing process however, and the reduction goals will continue to tighten. Our efforts must continue to evolve in order to continue making progress.

Both Measure C-1988 and Measure J-2004 were built with strong participation from a coalition of stakeholders to advance good public policy that voters continue to strongly favor. A new transportation sales tax would provide an opportunity to build upon our success to enhance these popular programs.

The following four policy recommendations will provide the growth management enhancements that voters demand and deserve:

Recommendation 1:

Enhance our Urban Limit Lines (ULLs): *To prevent sprawl development, we must eliminate the loophole in Contra Costa County's Urban Limit Lines that allows 30-acre expansions without a public vote. And we must refine our existing ULL policies by defining key terms such as "urban" and "rural," in alignment with regional and state standards, clarifying which services must comply with our urban limit lines (water, sewer, etc.), and preventing major subdivisions outside the lines.*

Measure J-2004 made significant progress to reign in decades of poorly managed growth. All of Contra Costa's jurisdictions either adopted the County's ULL or their own voter-approved ULL (Pittsburg, Antioch, and San Ramon). Voters have defended the ULLs on each occasion that they have been challenged by expansion proposals (see **Appendix A**). While the voters have to-date been able to defend the ULLs, there is, however, a glaring and dangerous loophole to allow 30-acre expansions without a vote of the people. Contra Costa should immediately remove this loophole and ensure that any ULL adjustments are approved by a vote of the people—just like in Alameda County. The ULL is the central element of voter participation in growth management in Contra Costa County; we should be willing to trust the voters' judgment about future 30-acre adjustments.

This 30-acre loophole has to potential, once used, to pave the way for innumerable ULL expansions throughout Contra Costa County. As shown in **Appendix B**, 30-acre expansions could be applied broadly to the urban edge—chipping away at voter protections one proposal at a time. In total, more than **9,300 acres of land across Contra Costa County are at risk of development through 30-acre ULL expansions.** Each of these threats, even in isolation, encourages speculation of our natural and agricultural land—putting some of the best farmland out of production, driving up land costs, and destabilizing the agricultural heritage and economy of Contra Costa County. As a whole, this would be a disaster for our county and would jeopardize future efforts to manage growth.

Recent sprawl developments, particularly in the Tassajara Valley, have tested the ULL loopholes. The "New Farm" sprawl development project was able to advance because of the lack of clarity and definition of "urban" and "rural." This allowed for an egregious proposal that would have undermined the ULL broadly. Fortunately the proposal was withdrawn in 2013, but the lack of clarity remains a pressing issue. The current proposal for the "Tassajara Parks" development would use the 30-acre loophole for the first time to facilitate residential development outside of the ULL. The potential for an avalanche of 30-acre expansions throughout Contra Costa County is looming.

In addition, we must prevent major subdivisions of land—the division of large parcels into five or more smaller parcels—outside the ULL. The purpose of such subdivisions is to facilitate urban development. This is inconsistent with the intent of the ULL and would foster land speculation and development pressure.

Voters in Contra Costa—who have repeatedly defeated challenges to the ULL—will want to know that promises to prevent sprawl are kept in any new transportation funding measure, and that loopholes will be closed before it is too late.

Recommendation 2:

Prohibit sprawl-inducing projects: *These include, among others, the James Donlon Extension, Camino Tassajara Expansion, and Highway 239 alignments. Projects that are listed as poor performers in MTC's Regional Transportation Plan as well as those identified by CCTA's forthcoming performance-based project assessment will not be eligible for sales tax revenue or bond funding.*

Contra Costa voters are fed up with congestion. And congestion is getting worse by the day as the economy improves. New transportation investments should not burden residents with additional congestion. Yet poorly planned transportation projects do just that, by encouraging new sprawl development that adds thousands of new drive-alone commuters onto our existing overcrowded streets, roads, and highways.

Unfortunately, the CCTA is currently contemplating funding some of the worst sprawl-inducing projects in the Bay Area, which could have substantial impacts on future congestion. Contra Costa deserves better investments that will reduce congestion, provide competitive opportunities to access transit, and protect our farms and natural lands from further sprawl.

The Community Vision recommends prohibiting all sprawl-inducing transportation projects, including the following three projects, all of which would have disastrous effects on Contra Costa's transportation system and quality of life:

- Widening Camino Tassajara outside of the ULL would significantly increase the pressure and capacity for new sprawl development, in the rural Tassajara Valley. Contra Costa County residents have repeatedly voted to protect this flashpoint area from sprawl development and their desire to see the area remain rural should be respected.
- The James Donlon Boulevard Extension's environmental consequences are so egregious that MTC's Regional Transportation Plan lists it as one of the worst-performing proposals in the entire Bay Area and denied State and Federal funding for the project.
- Finally, the proposal to create a new major highway expansion through East County, SR 239, could lead to significant and irreversible impacts on natural and agricultural lands. Funding SR 239 would also signal a major deviation from SB 375 and recent direction from CalTrans to discourage new major highway expansions. With many details of the project still undefined, the project can be assumed to induce sprawl in the Contra Costa Agricultural Core, significantly impact prime farmland and sensitive habitat, and increase congestion in the I-580 corridor, thereby creating regional commuter tensions between Contra Costa and Alameda counties. While we recognize the importance of goods movement and the need for economic development opportunities in East Contra Costa County—the environmental impacts from this project must be analyzed to allow voters to make informed decisions about the consequences of a major highway expansion.

Appendix C maps these three projects in relation to the ULL and current infill housing opportunity sites. As it clearly demonstrates, these particular projects threaten to undermine growth management protections and redirect transportation investments away from areas where infrastructure and infill housing opportunities already exist.

In additional to specific prohibition on these sprawl-inducing projects, Greenbelt Alliance also recommends that CCTA adopt a Countywide Transportation Plan (CTP) and accompanying environmental review documents before finalizing the Transportation Expenditure Plan (TEP). The CTP should include a **performance-based project assessment** to determine appropriate projects and prioritize investments that best meet the goals and vision of Contra Costa voters, as well as meet the requirements of

local, county, regional, and state policy. Using a performance-based model will help to identify and eliminate other sprawl-inducing road projects. Additionally, any proposals for new major highway expansion must include design parameters that eliminate the possibility of sprawl inducement and provide protections and mitigations for impacts on natural and agricultural lands.

Recommendation 3:

Ensure agricultural protections: *All jurisdictions with agricultural land within their planning area, including rangelands, must adopt an Agricultural Protection Ordinance, which mitigates for the conversion and cumulative impacts on those lands, to receive return to source funding.*

Contra Costa County's farms and ranches are some of the Bay Area and California's most fruitful, contributing $225 million annually.[1] The county is rich with an abundance of Brentwood sweet corn, U-Pick cherries, and a diverse array of crops available locally and nationally.

Distressingly, Contra Costa County has lost almost 40% of its prime farmland to sprawl since 1990. As the Bay Area housing market soars, much of what remains is still threatened by development pressure—particularly within Special Planning Areas as identified in Brentwood's General Plan. In fact, Contra Costa County has the most open space land at risk of development in the entire region: over 18,000 acres or the equivalent of 18 Golden Gate Parks.

Despite the protection provided by voter-approved urban limit lines (ULLs) and the Ag Core, the county's agricultural and open space lands are at the frontline of development pressure. It is critical that Contra Costa step up agricultural protection and mitigation policies to ensure that we continue Contra Costa's strong agricultural heritage and prevent further loss of farms and ranches. The City of Brentwood is currently the only jurisdiction in Contra Costa County that has an agricultural mitigation policy, but this only applies within city limits. To ensure adequate mitigation throughout the county, all jurisdictions with agricultural lands (both crop and ranching lands), including the County, should be required to adopt mitigation policies to receive return to source funding.

Recommendation 4:

Establish new Growth Management Program standards: *To reduce vehicle miles traveled (VMT), greenhouse gas emissions (GHG), and impacts on wildlife habitats and agricultural lands, while increasing*

[1] http://www.co.contra-costa.ca.us/DocumentCenter/View/39556

carbon sequestration, all jurisdictions must have the following policies in place to receive return to source funding:

- *Hillside development ordinance*
- *Ridgeline protection ordinance*
- *Open space system with major ridgelines defined*
- *Protection of wildlife corridors*
- *Plan to conserve buffers around open space and agriculture*
- *Prohibitions on culverting blueline creeks for anything more than road crossings in the shortest length possible*
- *Prohibition of development of major subdivisions, urban development, or urban services allowed in non-urban Priority Conservation Areas*

Contra Costa is fortunate to have such majestic landscapes and diversity of natural resources. To ensure that those resources continue to serve future generations, there is a critical need to institute basic growth management policies across the county. This has the added benefit of leveling the playing field between jurisdictions and creating greater policy parity and uniformity to help resolve longstanding land use conflicts.

Appendix D shows where Planning Area and Sphere of Influence boundaries extend beyond the ULL, demonstrating intentions for future expansions, often in conflict with neighboring jurisdictions. These inter-jurisdictional conflicts extend throughout the county. Within the last few years, development proposals on the hills between Concord and Pittsburg escalated tensions around the future of urban development and the proposed Regional Park at the Concord Naval Weapons Station. In East County, Brentwood and Antioch have attempted to annex the same hillsides and open space in an apparent race for sprawl development outside of the ULL. These land use tensions would be eased, if not resolved, with clear and consistent policies adopted by the various jurisdictions. Preventing localized land use conflicts will also ensure greater consensus and targeting of limited transportation funds.

Ultimately, it is in each jurisdiction's interest to maintain natural amenities that increase economic prosperity and quality of life. The aforementioned growth management standards would provide the needed framework for smart planning uniformity throughout the county. Naturally, jurisdictions without these natural resources would not be required to adopt further requirements. Furthermore, jurisdictions that have already adopted such policies would not need to adopt further requirements.

Conclusion

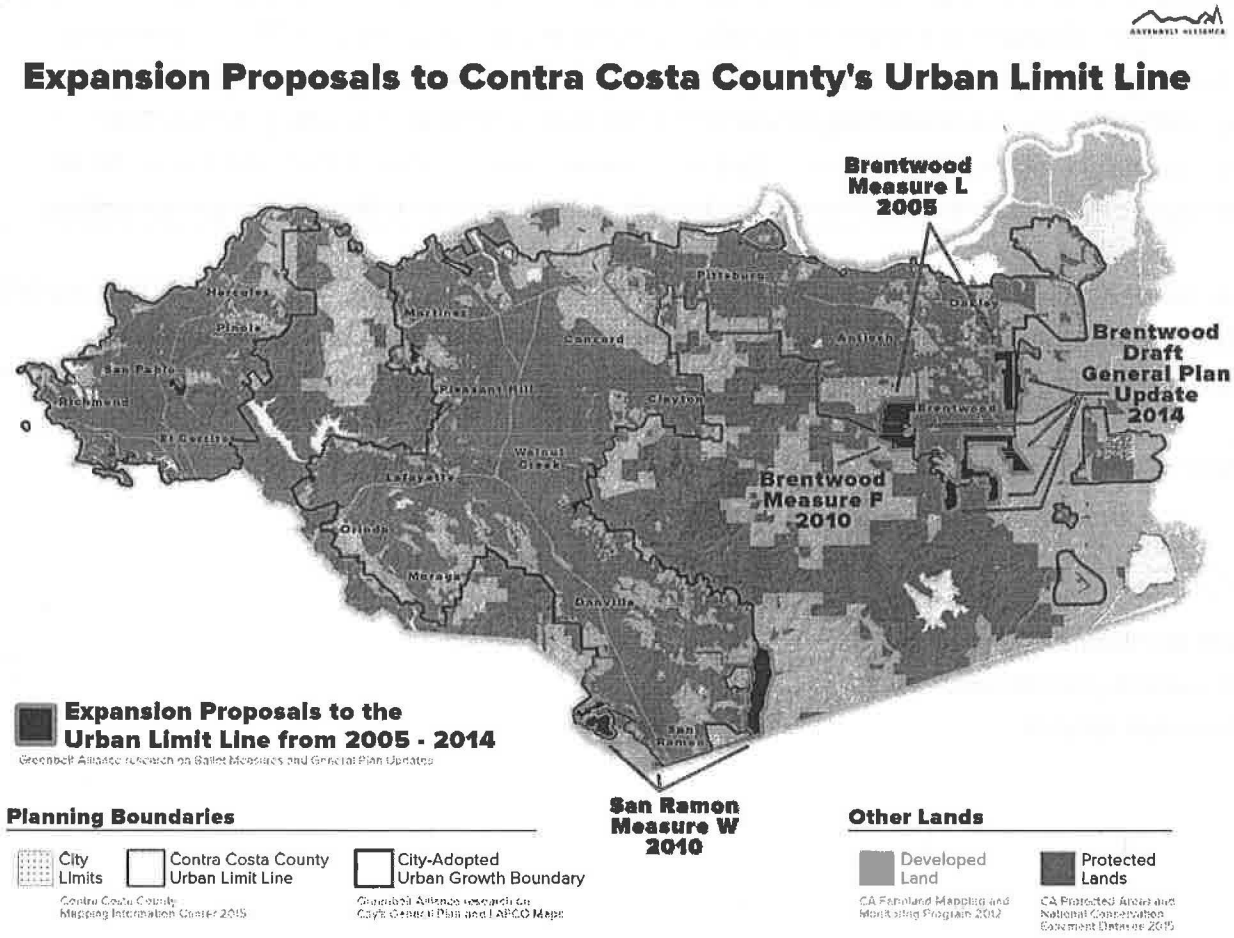
Greenbelt Alliance strongly recommends enhancing the Growth Management Program and Urban Limit Line as central policies in a new transportation sales tax. In particular, Greenbelt Alliance recommends removing the 30-acre ULL expansion loophole, prohibiting sprawl-inducing projects, protecting agricultural lands, and establishing greater uniformity in smart land use planning practices. These enhancements will create better protections for the natural and agricultural lands that voters cherish, encourage the right kind of development in the right places, and prevent the worsening of congestion.

Greenbelt Alliance appreciates the opportunity to share our recommendations and rationale with the CCTA Commissioners and we are looking forward to presenting this information and answering further questions at the February 3, 2016 Transportation Expenditure Plan Special Session.

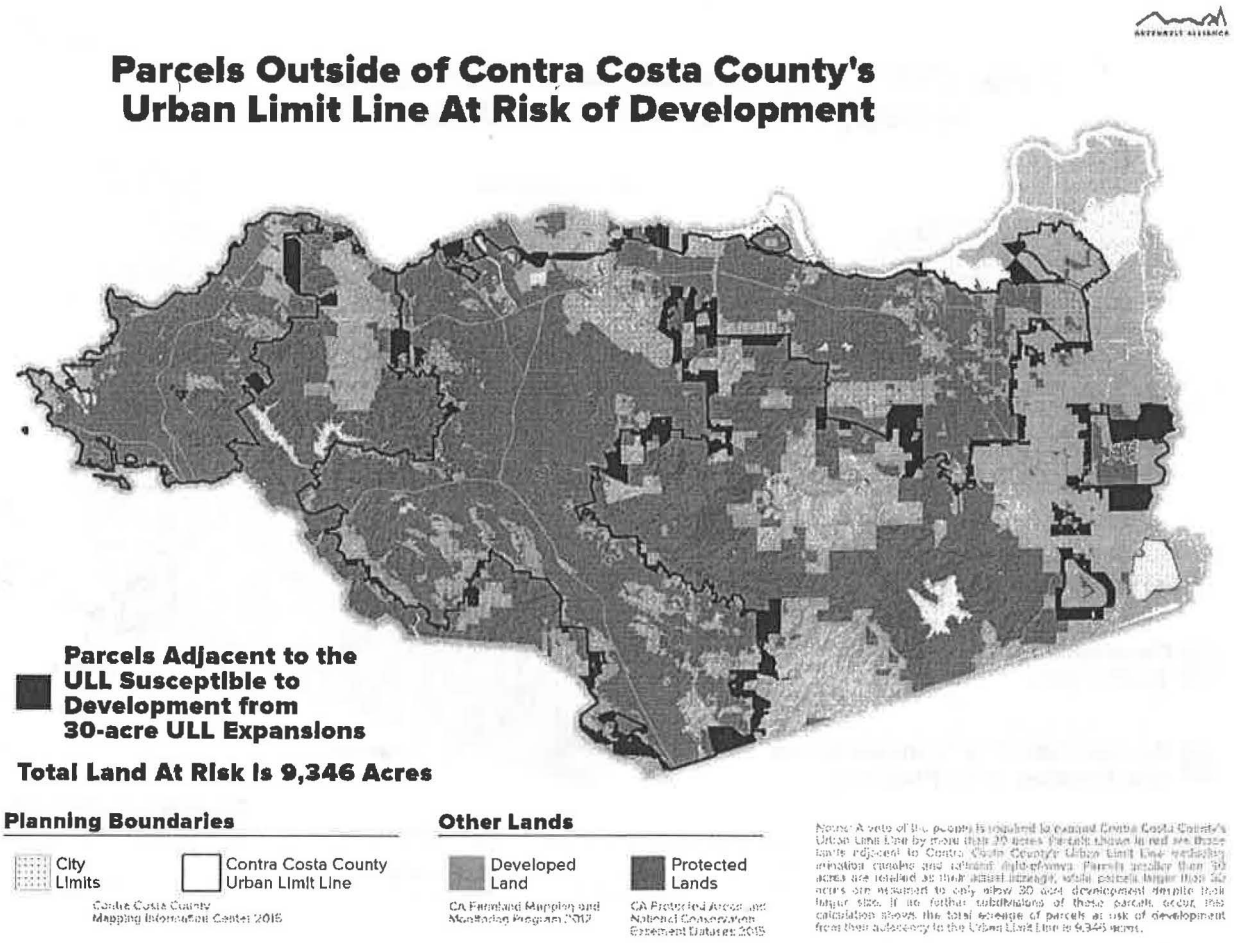
Sincerely,

Joel Devalcourt
Regional Representative, East Bay
Greenbelt Alliance

Appendix A

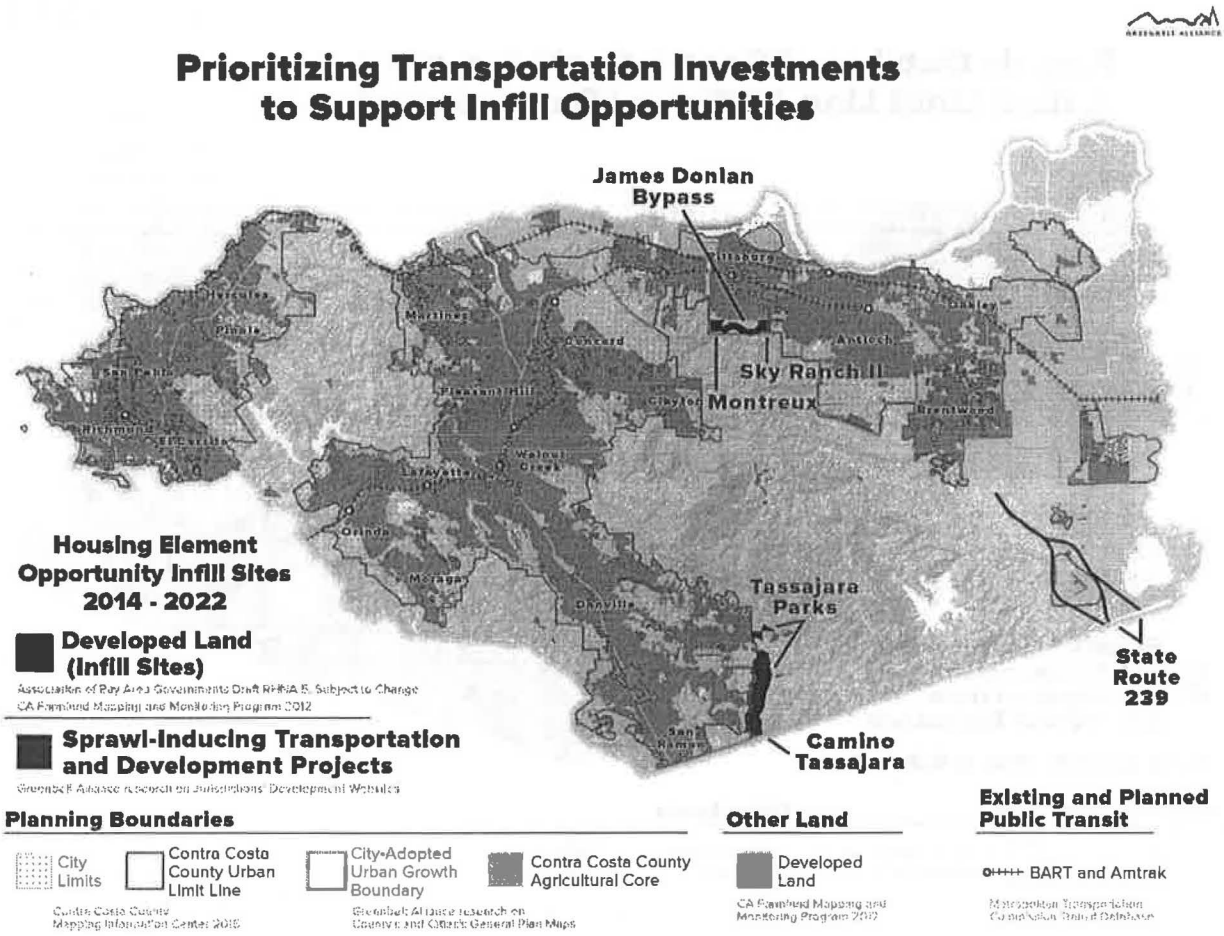

Expansion Proposals to Contra Costa County's Urban Limit Line
Brentwood Measure L 2005
Brentwood Draft General Plan Update 2014
Brentwood Measure P 2010
San Ramon Measure W 2010
Hercules
Pinole
San Pablo
Richmond
El Cerrito
Martinez
Pittsburg
Concord
Antioch
Oakley
Pleasant Hill
Clayton
Brentwood
Walnut Creek
Lafayette
Orinda
Moraga
Danville
San Ramon
Expansion Proposals to the Urban Limit Line from 2005 - 2014
Greenbelt Alliance research on Ballot Measures and General Plan Updates
Planning Boundaries
City Limits
Contra Costa County Urban Limit Line
City-Adopted Urban Growth Boundary
Contra Costa County Mapping Information Center 2015
Greenbelt Alliance research on City's General Plan and LAFCO Maps
Other Lands
Developed Land
Protected Lands
CA Farmland Mapping and Monitoring Program 2012
CA Protected Areas and National Conservation Easement Database 2015

Appendix B



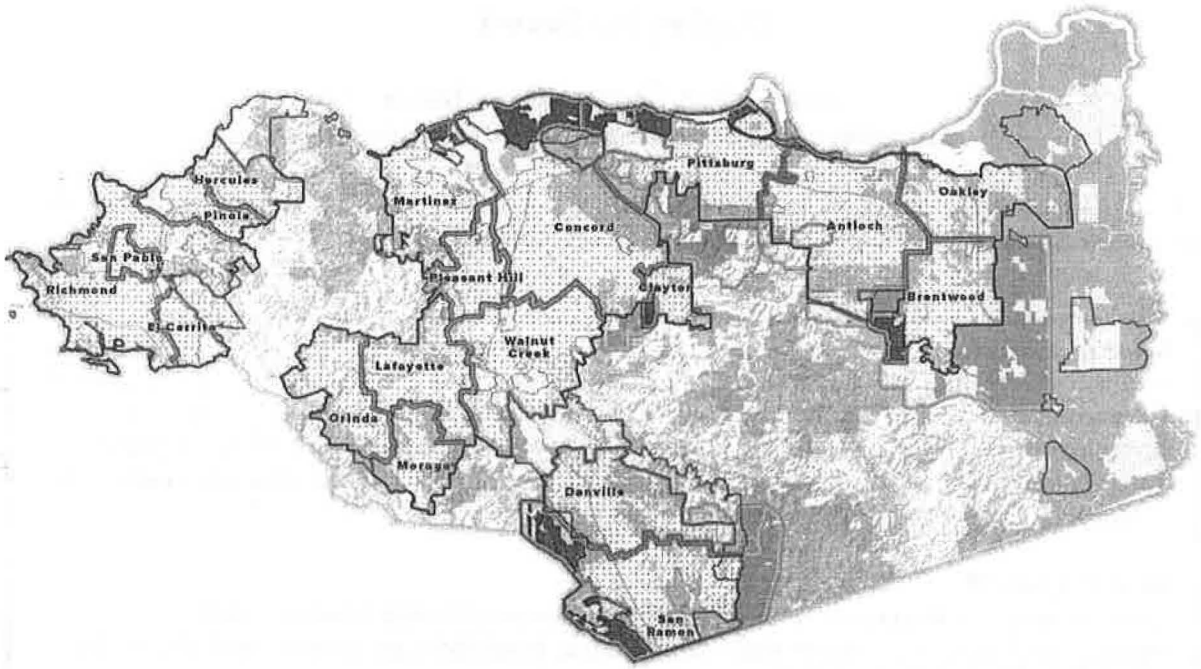
Note: A vote of the people is required to expand Contra Costa County's Urban Limit Line by more than 30 acres. Parcels shown in red are those lands adjacent to Contra Costa County's Urban Limit Line including annexation islands and internal right-of-ways. Parcels smaller than 30 acres are treated as their actual acreage, while parcels larger than 30 acres are assumed to only allow 30 acre development despite their larger size. If no further subdivisions of these parcels occur, this calculation shows the total acreage of parcels at risk of development from their adjacency to the Urban Limit Line is 9,346 acres.

Appendix C


Prioritizing Transportation Investments to Support Infill Opportunities
James Donlan Bypass
Sky Ranch II
Montreux
Tassajara Parks
State Route 239
Camino Tassajara
Housing Element Opportunity Infill Sites 2014 - 2022
Developed Land (Infill Sites)
Association of Bay Area Governments Draft RHNA 5, Subject to Change
CA Farmland Mapping and Monitoring Program 2012
Sprawl-Inducing Transportation and Development Projects
Greenbelt Alliance research on Jurisdictions' Development Websites
Planning Boundaries
City Limits
Contra Costa County Urban Limit Line
City-Adopted Urban Growth Boundary
Contra Costa County Agricultural Core
Contra Costa County Mapping Information Center 2015
Greenbelt Alliance research on County and Cities General Plan Maps
Other Land
Developed Land
CA Farmland Mapping and Monitoring Program 2012
Existing and Planned Public Transit
BART and Amtrak
Metropolitan Transportation Commission Transit Database

Appendix D

Planning Boundaries in Contra Costa County



UnDeveloped and UnProtected Land within Planning Boundaries Extending Past the County's Urban Limit Line

Note: Developed/Urban land used from CA Farmland Mapping and Monitoring Program 2012. Protected land used from CA Protected Areas and National Conservation Easement Database 2015

City Limits — Contra Costa County Mapping Information Center 2015

City-Adopted Urban Growth Boundary — Greenbelt Alliance research on Cities' General Plans and LAFCO Maps

Contra Costa County Urban Limit Line — Contra Costa County Mapping Information Center 2015

Sphere of Influence

Planning Area — Greenbelt Alliance research on Cities' General Plans

SAN FRANCISCO SAN JOSE SANTA ROSA WALNUT CREEK

GREENBELT ALLIANCE

San Francisco Office
312 Sutter Street, Suite 510
San Francisco, CA 94108
(415) 543-6771

Shaping our Growth:

How Urban Growth Boundaries strengthen communities and protect greenbelts

By 2040, the Bay Area will grow from 7 million to 9.3 million people. We must decide how to best make room for everyone to live, work, and play in our cities, towns and neighborhoods.

What is a UGB?
An urban growth boundary (UGB) is a planning tool for cities and towns that identifies the extent of where we locate our homes, schools, and businesses. A UGB separates an urban area from its surrounding greenbelt of natural and agricultural lands, and helps encourage infill development, especially near transit. UGBs are set for significant periods of time—typically 20 years or more. In the Bay Area, it's a proven tool to prevent urban sprawl.

What is sprawl?
Sprawl is the spread of a city away from central urban areas and transit into low-density communities, largely consisting of single-family homes in subdivisions, auto-centered strip malls, and parking lots.

Sprawl is an expensive proposition

As housing prices escalate, some are quick to blame smart growth and UGBs, and say that expanding our cities into open space and agricultural lands will solve our affordable housing crisis. The evidence doesn't support this view; rather, *multiple studies show that sprawl is far more expensive than smart growth.* A 2015 study found that sprawl costs America over $1 trillion, and can increase per-capita land consumption by up to 80% and car use by up to 60%.[i]

Providing water, sewer, roads, and other services to far-flung neighborhoods is very costly for local governments. Smart growth allows more affordable housing types at increased densities, reduces land requirements per household, has lower public service costs, and reduces transportation costs. The higher housing prices that urban residents may pay will be offset by lower transportation costs, energy costs, and better access to jobs, services, and amenities in more centralized locations.[ii]

Transportation costs rise as density decreases

Suburban residents are expected to drive three times as much as urban drivers, who rely more heavily on walking, biking, and public transit.[iii]

A San Francisco State University study found a 10% increase in compact development and smart growth amenities resulted in a 20% decrease in vehicle miles traveled.[iv] It also found that building compactly was more

successful in reducing vehicle miles traveled (VMT) than various taxing structures (such as a fuel charge). Furthermore, the estimated annual costs per household to provide roads in the most sprawled communities averaged $804.74 in comparison to $19.87 in the highest density communities.[v]

Sprawl causes more traffic

Building or expanding roads to serve new or existing sprawl only increases congestion through "induced demand."[vi] Adding road capacity encourages people to take longer trips or more trips by car. A recent $1 billion infrastructure investment to widen I-405 in Los Angeles resulted in commute times one minute *slower* than before the widening.[vii] This in turn only lengthens driver's commutes. Drivers with a 30-minute commute will spend on average 87 hours dealing with traffic delays over the course of one year.[viii] That's over 3½ days of sitting in congestion. Furthermore, the estimated annual costs per household to provide roads in the most sprawled communities averaged $804.74 in comparison to $19.87 in the highest density communities.[ix]

Sprawl is harmful to our health

Numerous studies have shown how urban sprawl negatively affects our health.[x] Cities built around automobile use provide fewer opportunities to exercise than walkable and bikable cities.[xi] Vehicles release air pollutants, including ozone, carbon, and airborne particulates, that are harmful to both wildlife and humans. Air pollution is a known cause of some respiratory problems, such as asthma and lung cancer.[xii]

Studies have linked increased VMT to rising obesity rates, diabetes potential, chronic illness effects, inactivity, and mental health impacts.[xiii] People living in less walkable communities have a 50% higher rate of diabetes as compared to the most walkable communities.[xiv] Thirty-five percent of people in walkable neighborhoods are overweight, compared with 60% in sprawl neighborhoods.[xv]

Another study found there was a positive correlation between the degree of sprawl and the amount of traffic and pedestrian fatalities in the largest 101 U.S. metropolitan areas.[xvi] For every 1% increase in the study's density metric, the traffic fatality and pedestrian rates decreased by 1.49% and 1.47%, respectively.

Sprawl makes us unhappy

One study found that people who endure a more-than 45-minute commute are 40% more likely to divorce.[xvii] People who live in car-dependent sprawl neighborhoods are much less trusting of other people than people who live in walkable, mixed-use, and transit-oriented neighborhoods.

Another study found that someone with a one-hour commute has to earn 40% more money to be as satisfied with life as someone who walks to the office.[xviii] For a single person, exchanging a long commute for a short walk to work has the same effect on happiness as finding a new love.

Sprawl residents pay more for public services

Sprawl requires more expensive public services than smart growth. For example, a new development on the outskirts of a city requires police and fire services. Because this development is more distant, more officers may need to be working at a time to cover the additional area. The further a home is from a fire station, the higher its property insurance rates to address a low fire rating.[xix]

One study found that a fire station in a low-density neighborhood serves one-quarter of households at four times the cost of an otherwise identical fire station in a more compact neighborhood.[xx]

Similarly, the costs of municipal services also rise as sprawl increases. Denser communities pay less to provide infrastructure and services including water, roads, solid waste, libraries, parks and recreation, governance, and more.[xxi] A city's annual average household cost for public services is $1,416 in high-density areas, and up to a whopping $3,462 in sprawling areas.

Sprawl uses more water

As lot sizes increase, water consumption increases largely due to the increased irrigation needs. In San Francisco, the average resident uses just 45.7 gallons of water per day, the lowest in all of California. Smart growth development tends to have less water-consuming landscaping. A 2015 report from Energy Innovation and Calthorpe Associates found annual per-capita water use almost doubled from 25,000 gallons in "urban" development to 44,000 gallons in "standard" development.[xxii]

An analysis comparing current Bay Area development trends to a more smart growth scenario for future development found that the smart growth scenario would reduce water consumption by 9%.

Denser development also helps reduce water lost to leaky pipes. A 2014 report from the American Water Works Association found that California leaks about 228 billion gallons of water per year from municipal water infrastructure—the pipes that move water to where we live and work. This represents 25% of the total water in the system, which is about the annual water demand for the entire City of Los Angeles. Building within our existing UGBs instead of expanding into open spaces or agricultural lands creates less opportunities for leaks simply because fewer miles of pipes will be necessary to serve development.

UGBs promote economic prosperity

Compact and contiguous development increases the ease of access to local businesses. Smart growth can lead to increased productivity and business activity, where people live within walking distance of more businesses, parks, and services. By reducing transportation costs, residents are more likely to purchase locally produced goods, which increases regional employment and productivity.[xxiii]

UGBs protect our natural values

The open space and agricultural lands next to our cities provide a vast range of ecosystem services. Water filtration, water storage and runoff, clean air, pollination, carbon capture, recreation, and natural beauty are just some of the services that our open space provides.

Without our natural and agricultural lands, we would have to cover the costs for providing these services. For example, if the City of New York did not protect its watershed and drinking water supplies, it would have to pay $6 billion to $10 billion in water filtration plant capital costs and more than $300 million per year in operations.[xxiv] There is also great economic value of open space and parks within cities. It is estimated that the parks within San Francisco alone provide $959 million in value (direct use, health, property values, tourism, cleaning and storing water, etc.) per year.[xxv]

Protecting our natural and agricultural lands from sprawl development also protects our water supply. In the Bay Area, about 30% of our water comes from local rivers, streams, and groundwater aquifers. More than a quarter of all the land in our region—1.2 million acres—serve as watersheds and groundwater infiltration zones that replenish these local water sources. Paving over critical water resource lands puts these local sources in jeopardy.

There's plenty of land available inside UGBs

Plan Bay Area, our regional blueprint for land-use and transportation planning, clearly shows we have enough space within our existing urban footprint to accommodate 100% of the region's future growth through 2040. This means **all** growth will be infill development or within established UGBs.

The methodology behind this analysis in Plan Bay Area was designed to meet the existing and projected housing needs of people at all income levels throughout the region. Our regional planning agencies, the Metropolitan Transportation Commission and the Association of Bay Area Governments, developed this methodology to achieve multiple goals, including increasing the supply, diversity, and affordability of housing; promoting infill development; promoting an improved intraregional relationship between jobs and housing; protecting environmental resources; and promoting socio-economic equity.

This analysis shows that there are many available opportunities for more housing within our existing urban footprint and inside our UGBs. We should focus efforts on building the region's next generation of new homes and new jobs within this footprint.

People want to live in multi-unit housing close to transit

Recent trends show people are increasingly attracted to living in dense urban areas, and urban populations are growing faster than suburban and rural areas. A recent analysis of U.S. census data shows that urban populations are growing faster than suburban or rural populations and employment centers in the country's major metropolitan areas have faster job growth.[xxvi]

In particular, those aged 25-34 with a bachelor's degree or higher level of education are migrating to the large metropolitan areas, stimulating economic growth. "In 2000, young adults with a four-year degree were about 77 percent more likely to live in close in urban neighborhoods than other metro residents. Now, these well-educated young adults are about 126 percent more likely to live in these close-in urban neighborhoods."[xxvii]

Younger adults prefer similar locations with urban amenities, and they prioritize short commutes. Currently, 34% of Millennials in the Bay Area live in apartments, compared to 21% of Gen Xers and 11% of Baby Boomers. The same number of millennials intends to remain in apartments in the future.[xxviii]

The Urban Land Institute found that the construction of multi-family housing in urban locations in the Bay Area increased from 35% of total housing construction in the 1990s to nearly 50% in the 2000s; in 2010, it represented 65% of all housing construction. It projects that demand for multi-family housing will increase as seniors downsize and seek greater access to shops and services. Indeed, the current single-family housing stock provides a large supply relative to future demand, and an oversupply is projected by 2040.

Greenbelt Alliance's Grow Smart Bay Area report found that if the Bay Area redevelops opportunity sites with homes and businesses in ways that are consistent with community visions, and if city plans succeed, our cities and towns have plenty of room to accommodate all our new residents and workers.

Done right, infill development will improve the quality of life in our neighborhoods, with safer streets, more homes people can afford, and more services close by. Focusing growth within our existing cities and towns will also protect the iconic landscapes that provide us with local food, clean water, and places to enjoy the outdoors.

[i] Victoria Transport Policy Institute and LSE Cities. *Analysis of Public Policies That Unintentionally Encourage and Subsidize Urban Sprawl.* March 2015.
[ii] The Brookings Institute. *The Link Between Growth Management and Housing Affordability: The Academic Evidence.* 2012.
[iii] Sustainable Prosperity. *The Cost of Sprawl.* 2014
[iv] Dr. Sudip Chattopadhyay. *Do Smart Growth Strategies Have a Role in Curbing Vehicle Miles Traveled in California? A Further Assessment Using Household Level Survey Data.* The B.E. Journal of Economic Analysis & Policy, 2012.
[v] David Thompson. *Suburban Sprawl: Exposing Hidden Costs, Identifying Innovations.* University of Ottawa, 2013.
[vi] Gilles Duranton and Matthew A. Turner. *The Fundamental Law of Road Congestion: Evidence from US Cities.* 2011.
[vii] Data analysis conducted by INRIX, a traffic data analysis corporation.
[viii] TomTom. *TomTom Traffic Index: Measuring Congestion Worldwide.*
[ix] David Thompson. *Suburban Sprawl: Exposing Hidden Costs, Identifying Innovations.* University of Ottawa, 2013.
[x] David B. Resnik. *Urban Sprawl, Smart Growth, and Deliberative Democracy.* American Journal of Public Health, Oct 2010.
[xi] Howard Frumkin, Lawrence Frank, and Richard Jackson. *Urban Sprawl and Public Health.* 2004.
[xii] David B. Resnik. *Urban Sprawl, Smart Growth, and Deliberative Democracy.* American Journal of Public Health, Oct 2010.
[xiii] Sustainable Prosperity. *The Cost of Sprawl.* 2014.
[xiv] A. Motluk. *Neighbourhood Health.* University of Toronto Magazine, Winter 2013. See also, for example, V. Russell-Evans. *Expanding cities and expanding waistlines: Urban sprawl and its impact on obesity, how the adoption of smart growth statutes can build healthier and more active communities.* 2009.
[xv] Howard Frumkin, Lawrence Frank, and Richard Jackson. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities.* 2005.
[xvi] R. Ewing, R. Schieber, and C. Zegeer. *Urban Sprawl as a Risk Factor in Motor Vehicle Occupant and Pedestrian Fatalities.* American Journal of Public Health, Sept 2003
[xvii] Erica Sandow, Umea University. *On the road: Social aspects of commuting long distances to work.* 2011.
[xviii] Alois Stutzer and Bruno Frey. *Stress that doesn't pay: the Commuting Paradox.* 2004.
[xix] Steve Mouzon. *Costs of Sprawl- Part 1.* Original Green, Mar. 2011.
[xx] Todd Litman. *Understanding Smart Growth Savings: Evaluating Economic Savings and Benefits of Compact Development, and How They Are Misrepresented By Critics.* Victoria Transport Policy Institute, 2015.
[xxi] Sustainable Prosperity. *The Cost of Sprawl.* 2014.
[xxii] Energy Innovation and Calthorpe Associates. *Moving California Forward – How Smart Growth can Help California Reach its 2030 Climate Target While Creating Economic and Environmental Co-Benefits.* 2015. "Urban" development is defined as moderate to high density urban centers, consisting largely of multifamily and attached single-family homes, with some smaller lot single-family homes. "Standard" development is defined in part as largely consisting of separate-use, auto-oriented development.
[xxiii] Todd Litman. *Understanding Smart Growth Savings: Evaluating Economic Savings and Benefits of Compact Development, and How They Are Misrepresented By Critics.* Victoria Transport Policy Institute, 2015.
[xxiv] See New York State Department of Environmental Conservation's New York City Watershed Program
[xxv] The Trust for Public Land. *The Economic Benefits of San Francisco's Park and Recreation System.* 2014.
[xxvi] Joe Cortright. *City Report: Surging City Center Job Growth.* 2015.
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