



PLAN BAY AREA 2050

Plan Bay Area 2050 Draft Blueprint: Update on Environment Element

BARC Governing Board
January 24, 2020

What is Plan Bay Area?

- The regional plan is a **blueprint for growth and infrastructure** for the next 30 years.
- The regional plan is **updated every four years**, with this major update due in 2021.
- The regional plan is a reflection of **the shared priorities of the diverse nine-county San Francisco Bay Area**.
- The regional plan is **fiscally-constrained**, even as it aspires to tackle the Bay Area's big challenges with specific strategies.
- The regional plan is **not an expenditure plan**; it is focused on setting priorities and over the long term and looking holistically across “silos”.





**Spring 2015 to
July 2017**



**February 2018 to
October 2019**



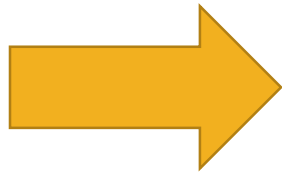
**September 2019
to June 2021**

High-performing strategies and projects from *Horizon* - those that are resilient to uncertainties - **will be recommended for inclusion in the Plan Bay Area 2050 Blueprint.**

Vision for Plan Bay Area 2050



To ensure by the year 2050 that
the Bay Area is **affordable**,
connected, **diverse**, **healthy**
and **vibrant** for all.



Similar to *Horizon*, *Plan Bay Area 2050* is integrating **four core topic areas**, as we work to create a long-range integrated regional vision for the next 30 years.

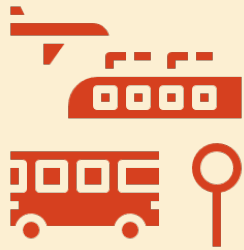
Cross-Cutting Issues



Equity



Resilience



Transportation



Housing

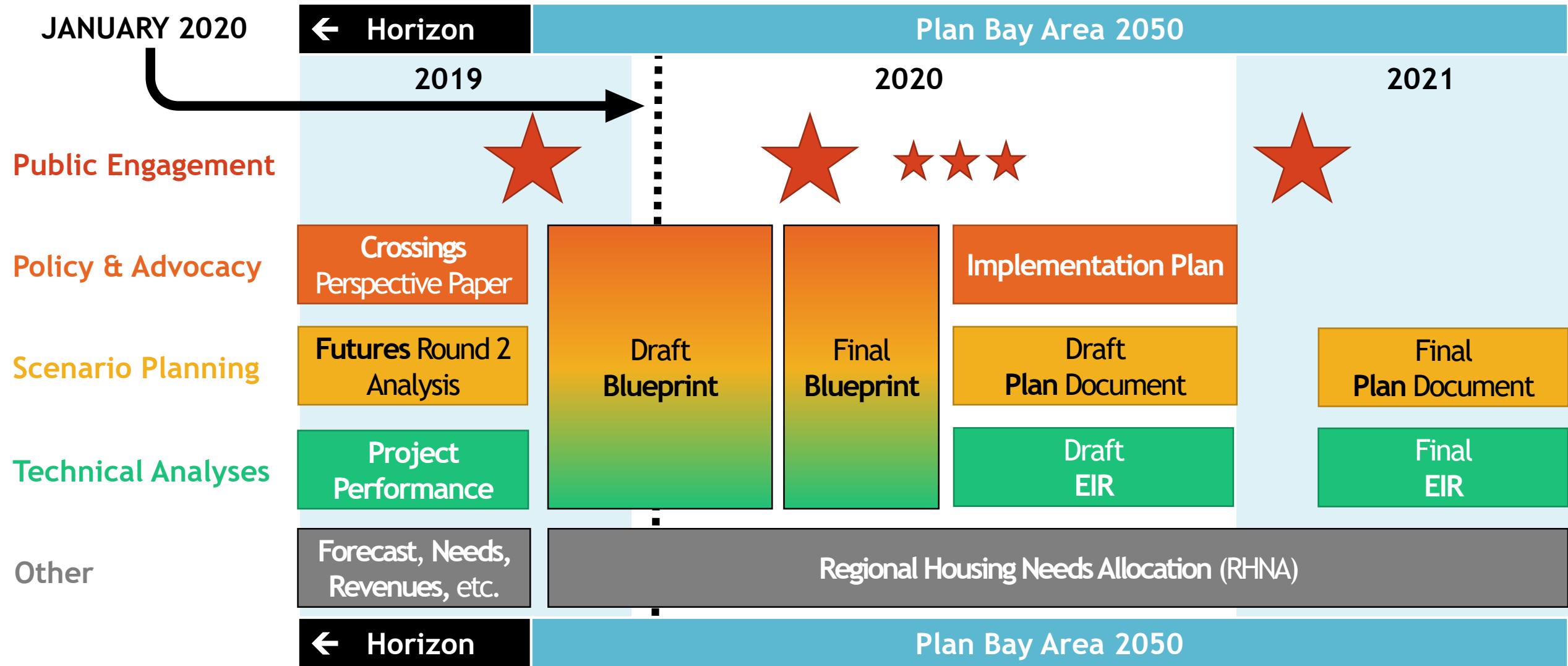


Environment



Economy

Plan Bay Area 2050 Schedule



The Draft Blueprint will integrate complementary strategies to achieve improved regional outcomes.



Plan Bay Area 2050 Blueprint

- **Transportation** Investments & Strategies
- **Housing** Geographies & Strategies
- **Economic** Geographies & Strategies
- **Environmental** Strategies

Three Topics to Think About...

- **EQUITY.**

Plan Bay Area 2040 performed **much better on environmental goals than on equity goals**; in concert with the Equity Platform effort, staff proposes to **prioritize equity to a significantly greater degree** this cycle.

- **GREENHOUSE GASES.**

The new **19 percent per-capita greenhouse gas emissions reduction target** will require **ambitious strategies** going far beyond *Plan Bay Area 2040*; adopting a Plan that does not achieve the target puts the region's access to state funding sources at risk post-2021.

- **NEW REVENUES.**

The Blueprint may be able to **incorporate significant new revenues** that could fund transportation, housing, economic, and/or environmental strategies.



Building Upon Horizon...

Horizon:
Futures, Project
Performance, etc.

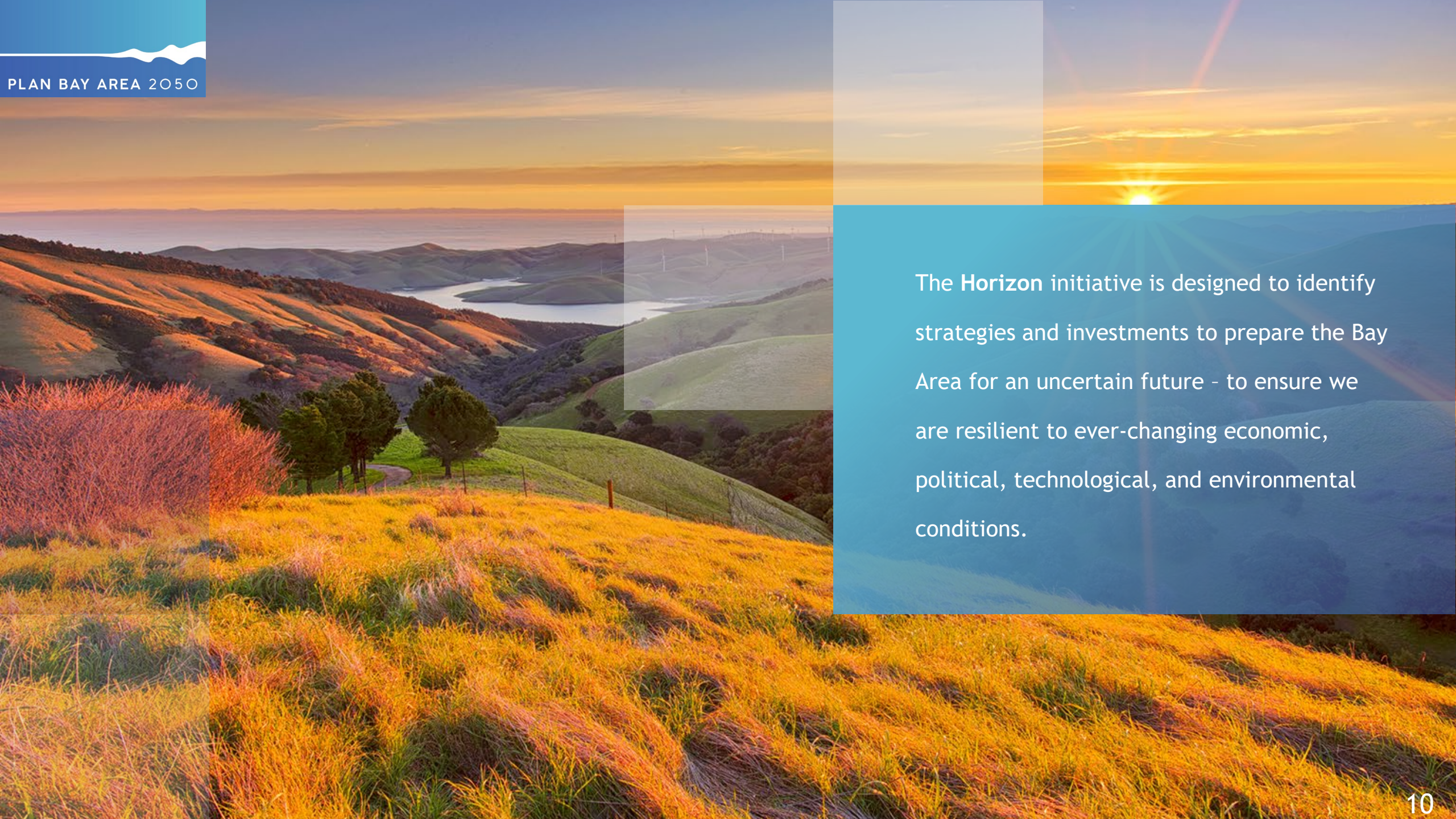
February 2018-October 2019
*Robust scenario planning,
project evaluation, and policy
analyses*

Plan Bay Area 2050:
Blueprint
(previously Preferred Scenario)

September 2019-Summer 2020
*Selection of resilient and
equitable strategies to create a
more comprehensive regional
plan*

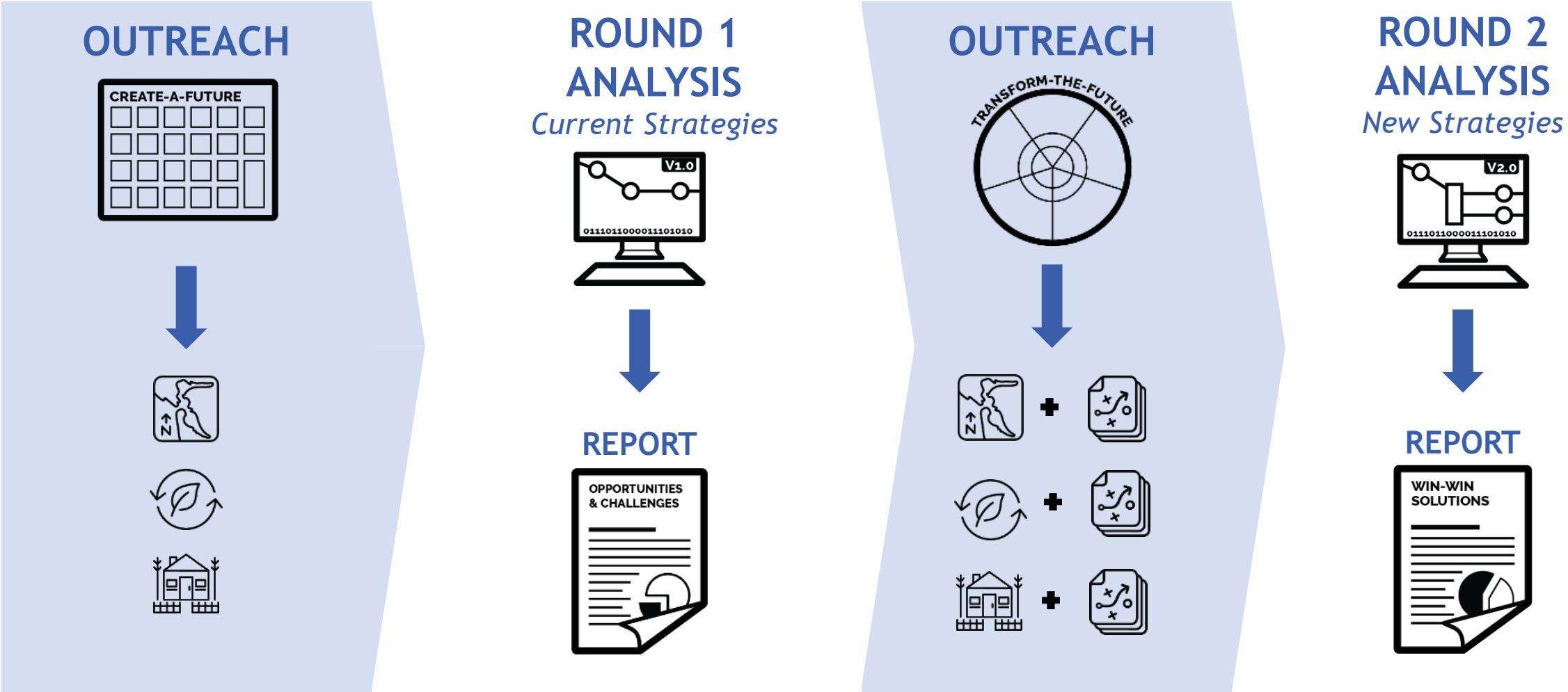
Plan Bay Area 2050:
Finalization

Summer 2020-Summer 2021
*Development of shorter-range
Implementation Plan +
environmental analysis*

The background of the slide is a scenic landscape photograph of rolling hills at sunset. The foreground is filled with tall, golden-brown grass. In the middle ground, there are green hills with a few trees and a winding path. In the distance, a body of water is visible under a sky with soft orange and yellow hues. A semi-transparent blue rectangular box is overlaid on the right side of the image, containing white text.

The **Horizon** initiative is designed to identify strategies and investments to prepare the Bay Area for an uncertain future - to ensure we are resilient to ever-changing economic, political, technological, and environmental conditions.

Futures Process



Three Futures - “What If?” Scenarios

A



Rising Tides,
Falling
Fortunes

What if... the federal government cuts spending and reduces regulations, leaving more policy decisions to states and regions?

B



Clean
and Green

What if... new technologies and a national carbon tax enabled greater telecommuting and distributed job centers?

C



Back to
the Future

What if... an economic boom and new transportation options spur a new wave of development?

35 Strategies Analyzed

Strategies were designed to support these nine priority areas, based on the Futures Interim Report findings. While new revenues were assumed in all Futures, fiscal constraint did mean that some strategies were omitted from Rising Tides, Falling Fortunes.



Improve Economic Mobility



Shift the Location of Jobs



Spur Housing Production



Retain & Expand Affordable Housing



Improve Access, Speed, and Reliability of Transportation



Prioritize Active Modes



Price Transportation Services



Reduce the Environment's Impact on Us



Reduce Our Impact on the Environment

Futures Round 2: Environmental Strategies

Recommended from *Horizon*



Reduce the Environment's Impact on Us

Adapt to Sea Level Rise. Fund a set of protective and adaptive systems to prevent flooding in areas expected to have the most significant impacts from climate change.

Modernize Existing Buildings with Seismic, Wildfire, Drought, and Energy Retrofits. Subsidize 50 percent of common earthquake, wildfire, energy and water retrofit strategies for residential structures.



Reduce Our Impact on the Environment

Expand Climate Initiatives Program. Increase funding for programs targeted to reduce greenhouse gas emissions, building upon existing initiatives such as bikeshare and electrification incentives.

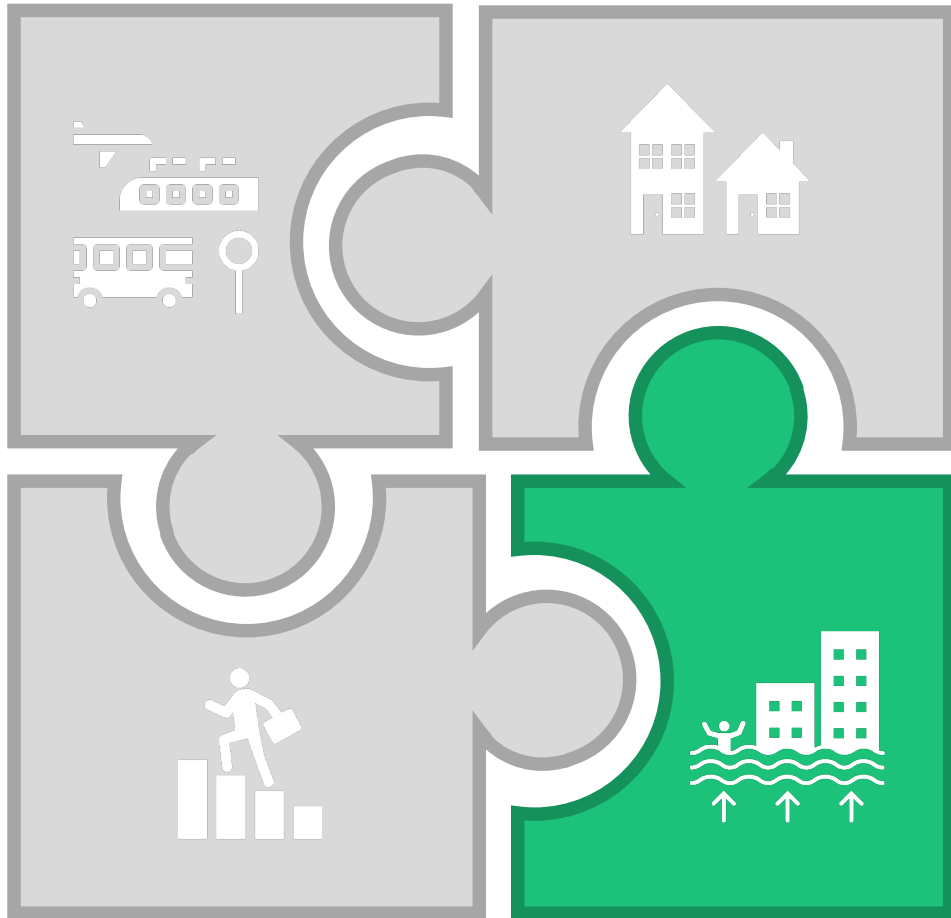
Keep Current Urban Growth Boundaries in Place. Maintain existing urban growth boundaries to restrict urban development on greenfields, continuing the Bay Area's recent commitment to reducing sprawl and protecting agricultural lands.

Additional Strategies
Evaluated - Require
Further Refinements

Purchase Disaster Recovery Financing

Plan Bay Area 2050 Blueprint: Environment Element

Today we will focus on a critical plan component – the environment.



Reduce Transportation GHG Emissions

1. Expand the Climate Initiatives Program

Also: Achieve additional GHG reductions from Transportation, Housing, and Economy strategies

Conserve Agriculture Lands and Open Space

2. Keep Current Urban Growth Boundaries in Place

Address Climate and Hazard Impacts

3. Adapt to Sea Level Rise
4. Modernize Existing Buildings with Seismic, Wildfire, Drought and Energy Retrofits

The Role of “New Revenues”

Transportation



Housing



Economy



Environment



Plan Bay Area 2050 Blueprint Basic

Includes available revenues from Needs & Revenue assessments, but does not include New Revenues from future regional measures



Plan Bay Area 2050 Blueprint Plus

Includes available revenues from Needs & Revenue assessments + additional New Revenues distributed to one or more topic areas of the Plan

This approach will provide more flexibility over the next year, should the MTC/ABAG boards wish to integrate new revenues to create a more aspirational Plan.

Either could be adopted as the Preferred Alternative in 2020 or 2021.

What Questions Will the Environment Element of the Plan Address?



How do we equitably mitigate the GHG impacts of our travel choices within the region?

How do we limit urban sprawl to protect agricultural lands and open space?

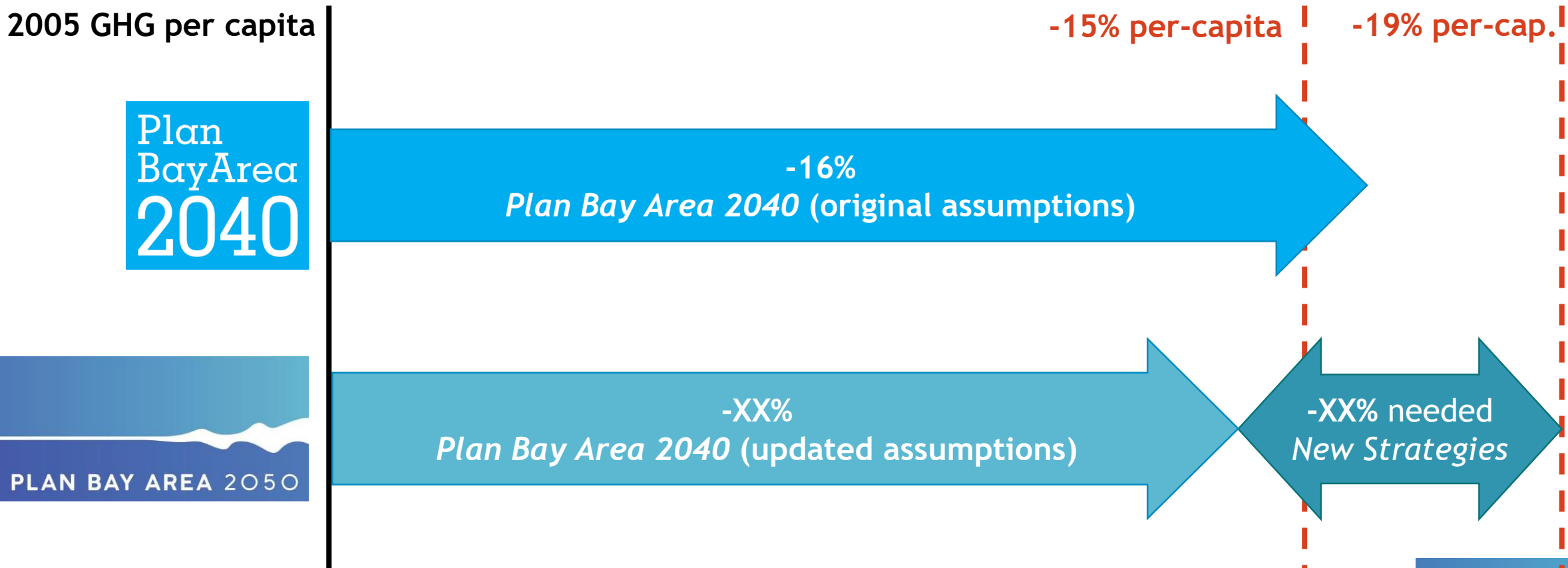
How do we adapt to hazards and climate change?

	Draft Blueprint <u>Basic</u>	Draft Blueprint <u>Plus</u>
	<i>Base set of strategies that can be funded with existing revenues.</i>	<i>Expanded set of strategies supported with the inclusion of new revenues.</i>
Advance GHG Reduction Strategies	✓ <i>TBD based on GHG target gap¹</i>	✓ <i>TBD based on GHG target gap¹</i>
Keep Current Urban Growth Boundaries in Place	✓ <i>No cost</i>	✓ <i>No cost</i>
Adapt to Sea Level Rise	~ <i>\$2 billion²</i>	✓ <i>\$20 billion²</i>
Modernize Existing Buildings with Seismic, Wildfire, Drought and Energy Retrofits	~ <i><\$1 billion²</i>	✓ <i>\$20 billion²</i>

¹ In Plan Bay Area 2040, the additional GHG reduction strategies needed to achieve the GHG target cost more than \$500 million.

² Based on draft Resilience Needs & Revenue Assessment released at the December Joint MTC Planning & ABAG Administrative Committee.

Horizon Finding - Meeting or exceeding the Plan Bay Area 2050 19 percent per-capita reduction target for transportation-related GHG emissions will require bolder strategies.



Advance GHG Reduction Strategies

Blueprint Basic:

In Plan Bay Area 2040, a package of strategies helped the region achieve the GHG reduction target. These strategies make up MTC's Climate Initiatives Program, which includes investments in transportation demand management (TDM) strategies and electric vehicle and charging incentive programs.

Blueprint Plus:

The Blueprint *Plus* will include many of the same strategies in the *Basic* version; however, if the additional strategies included in the Blueprint *Plus* reduce GHG emissions, this might be a rare example of where the *Plus* version is actually cheaper than the *Basic* version.

\$TBD based on GHG gap

\$TBD based on GHG gap

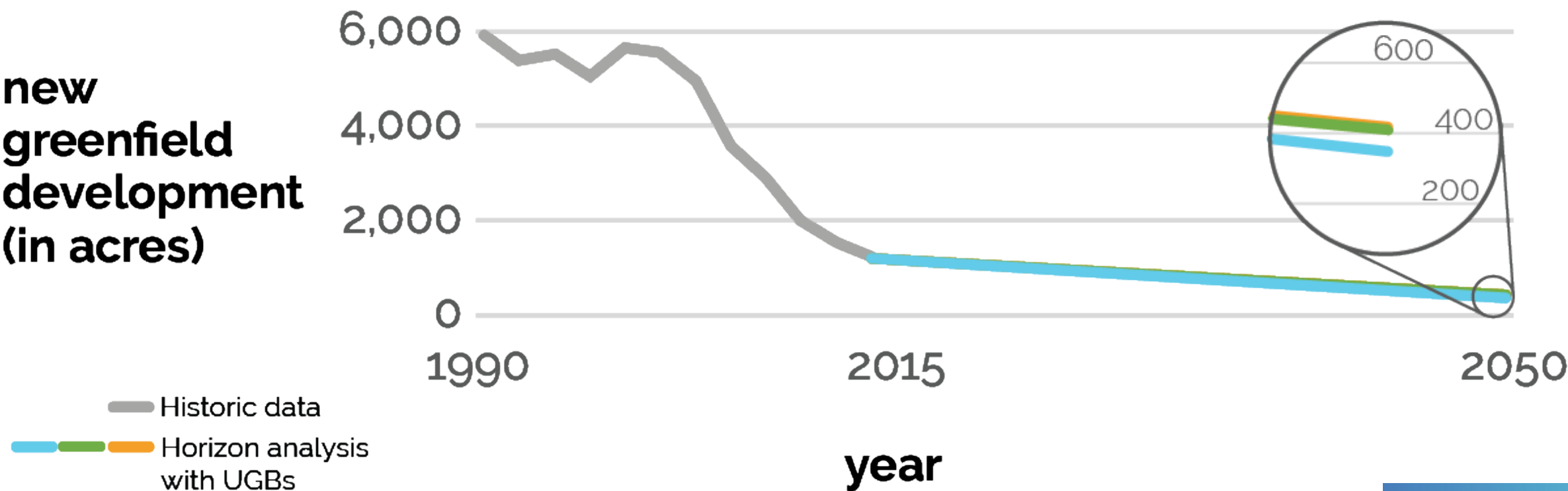
- *Regional Equity Working Group participants recommended that MTC's GHG reduction strategies target Communities of Concern and households with fewer resources.*

Integrated Strategies Part of MTC's Climate Initiatives Program

- Bikeshare
- Bike Infrastructure
- Carshare
- Commuter Benefits Ordinance
- Employer Shuttles
- Trip Caps
- Vanpools
- Regional EV Charger Network
- Clean Vehicle Feebate
- Vehicle Buyback Program
- Mobility-as-a-Service (*potential new strategy*)
- TNC ZEV Requirement (*potential new strategy*)

Horizon Finding - Past efforts to curb greenfield development from urbanization have been effective. Preserving existing urban growth boundaries should remain a key strategy.

Horizon Analysis - Acres of greenfield development annually - historic and projected



Keep Urban Growth Boundaries

Blueprint Basic:

Using urban growth boundaries, confine new development within areas of existing development or areas otherwise suitable for growth, as established by local jurisdictions.

No cost

Blueprint Plus:

Same as Blueprint Basic

No cost

- *Over 93% of comments approved of restricting new development to within the urban growth boundary.*
- *"Maintaining urban growth boundaries is a bare minimum 'must have' and even this could be difficult." - Pop-up Comment*



Horizon Finding - Unmitigated climate and hazard impacts would result in significant damage; adaptation and hazard mitigation measures reduce impacts.

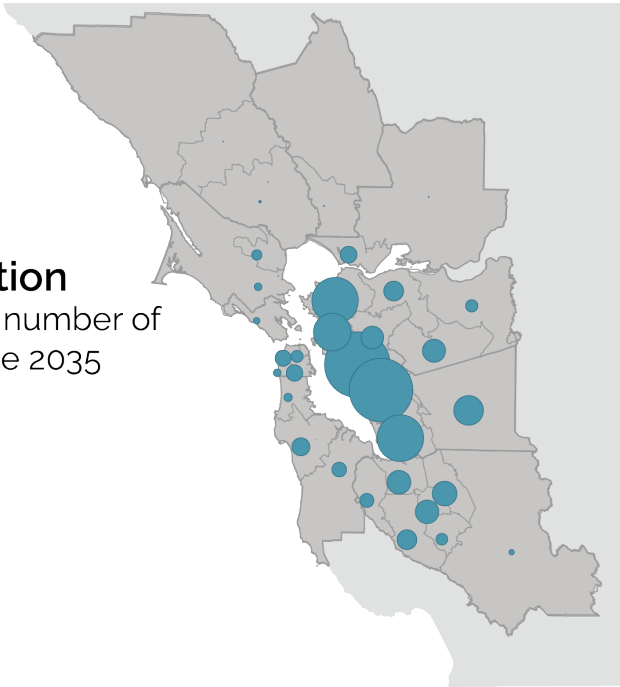
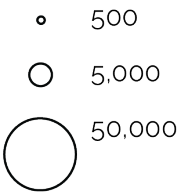
Rising Tides, Falling Fortunes

2035 earthquake

no retrofit in Round 2

Damage Distribution

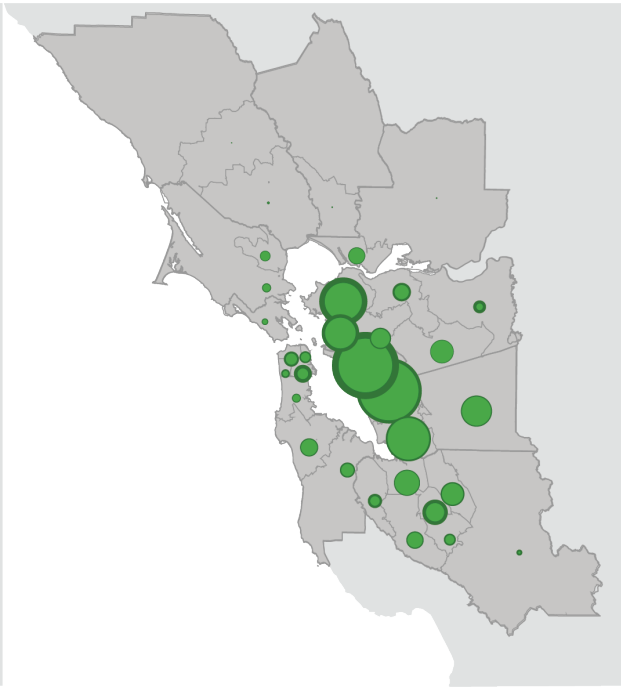
circle area represents number of damaged homes in the 2035 M7.0 earthquake



Clean and Green

2035 earthquake

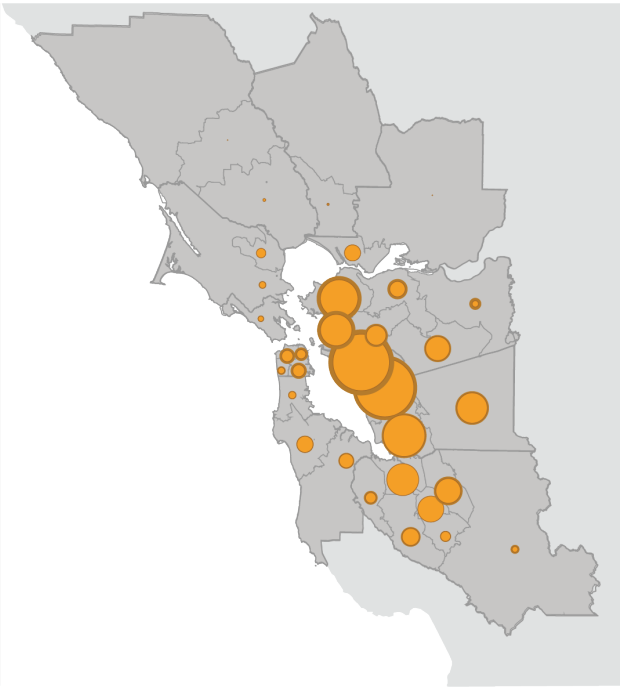
with retrofit in round 2



Back to the Future

2035 earthquake

with retrofit in round 2



Dark color shows Round 1 damage, lighter color shows Round 2 damage.

Retrofit Existing Buildings

Blueprint Basic:

Due to a lack of existing funding, the strategy would only entail a continuation of ad-hoc seismic, wildfire, water and energy upgrades. The strategy would have a very limited effect on the quality of existing Bay Area homes.

\$ <1 Billion

Blueprint Plus:

With new revenues, pair ordinance adoption and retrofit incentives to bring existing buildings up to higher seismic, wildfire, water and energy. Offer 50% subsidies to offset the cost of multi- and single-family home retrofits.

\$20 Billion

- *This was one of the most popular strategies in the Mayor of Bayville game, and it had the strongest pop-up support (97%).*
- *“Offer incentives to homeowners in the form of tax credits to encourage more retrofits.” - Pop-up Comment*



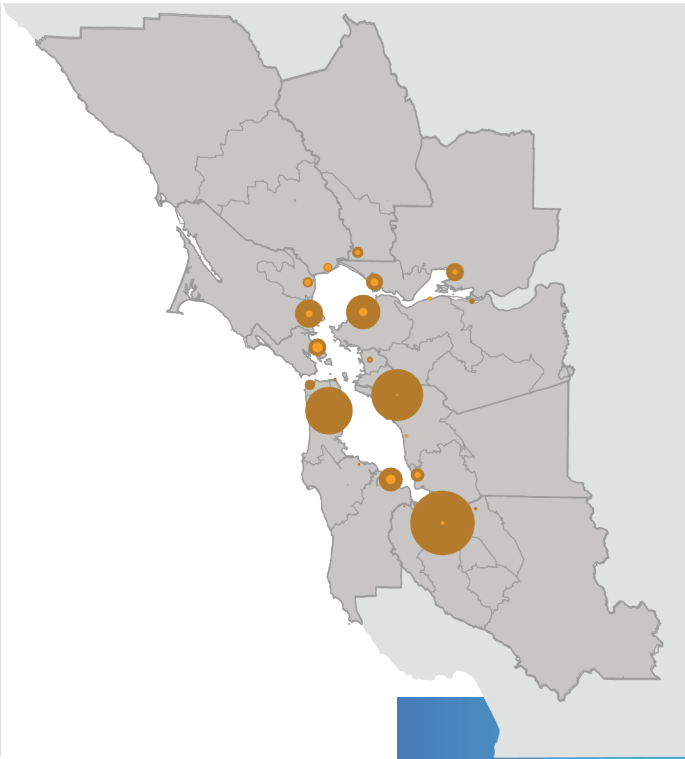
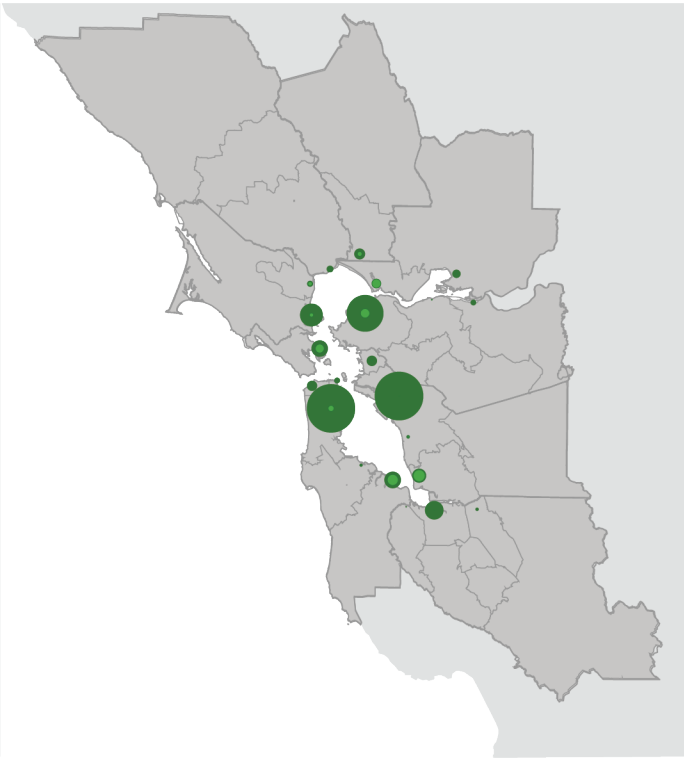
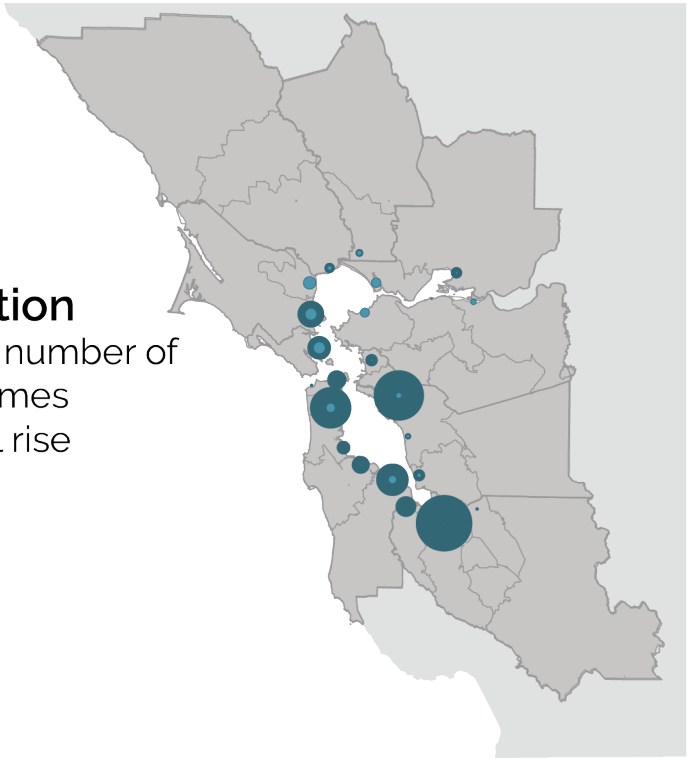
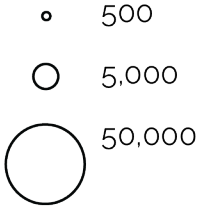
Horizon Finding - Unmitigated impacts from sea level rise and natural disasters resulted in significant damage across the region.

Rising Tides, Falling Fortunes
3 feet of sea level rise by 2050
with partial adaptation in Round 2

Clean and Green
1 foot of sea level rise by 2050
with “full” adaptation in round 2

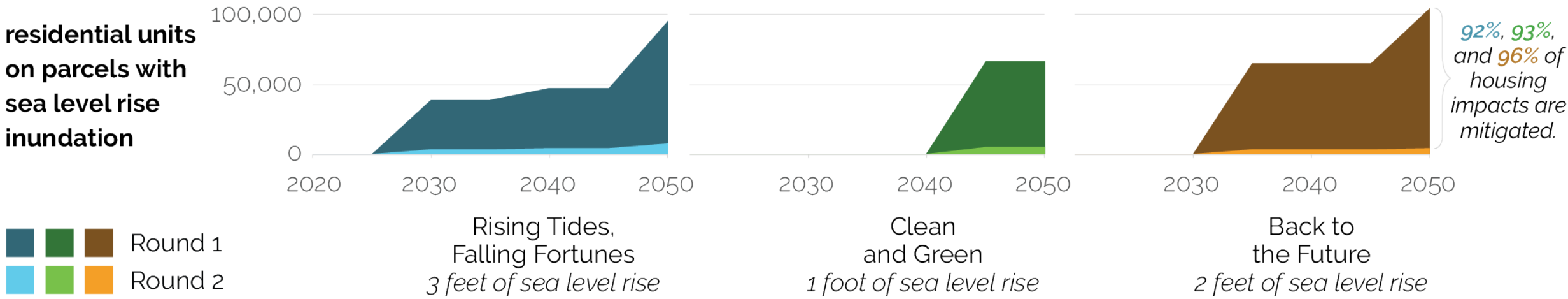
Back to the Future
2 feet of sea level rise by 2050
with “full” adaptation in round 2

Damage Distribution
circle area represents number of
existing and future homes
damaged by sea level rise



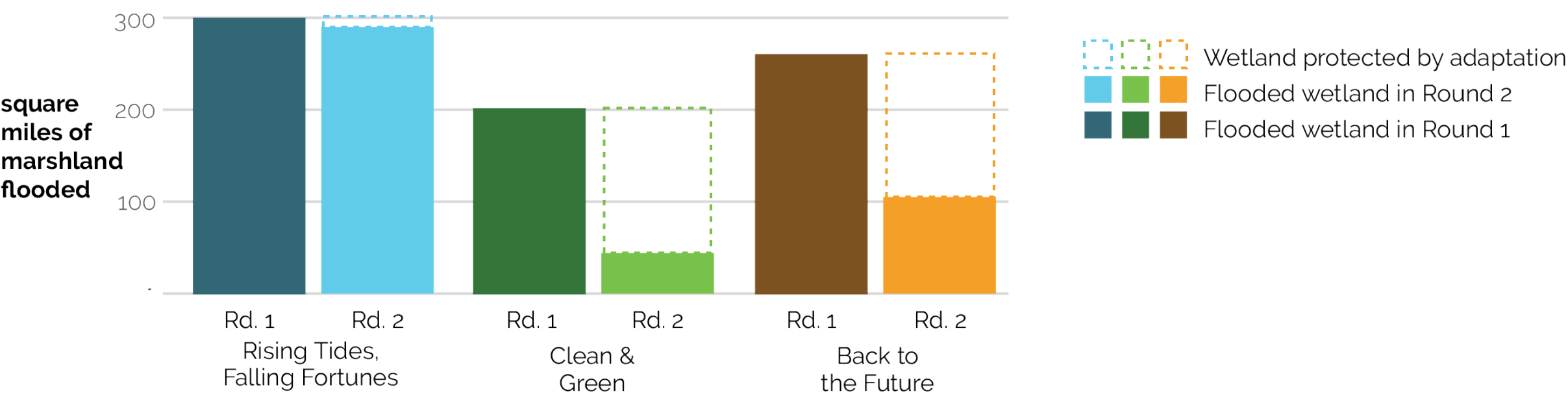
Horizon Finding - Adaptation strategies boosted our region's resilience.

Residential sea level rise impacts in Futures round 1 (without adaptation) and round 2 (with adaptation)



Horizon Finding - Climate change adaptation will be an equally important strategy to curb the loss of natural lands in the region.

Flooded and adapted lands in 2050



Adapt to Sea Level Rise

Blueprint Basic:

With forecasted revenues, the region could protect portions its most vulnerable shoreline. Strategies would prioritize on areas of low costs and high benefits, such as for key infrastructure or growth areas.

\$ 2 Billion

Blueprint Plus:

With new revenues, the region could more fully adapt to sea level rise. Most Bay Area communities and transportation facilities could be protected; this may include protecting SR-37, provided equity mitigation strategies are identified.

\$20 Billion

- *Over 90% of pop-up comments approved investing in sea level rise adaptation.*
- *“The best offense is a good defense. Investing in prevention is much better than retroactively trying to fix things.” - Mayor of Bayville Comment*

The Draft Blueprint aims to package complementary strategies; the Environment strategies will be made stronger when paired together with Transportation, Housing, and Economy strategies.



- **Transportation** investments need to align with the sea level rise adaptation strategy, given that not all assets may be able to protected without New Revenues.
- **Housing** preservation policies targeting affordability should align with existing building upgrades for health and safety, in order to minimize displacement risk.
- **Economic** strategies should consider how employers can assist in addressing commute-related GHG reductions, in part by encouraging growth in lower-VMT locations.

Agency Collaboration

Bay Conservation and Development Commission

California state planning and regulatory agency with regional authority over the San Francisco Bay, the Bay's shoreline band, and the Suisun Marsh

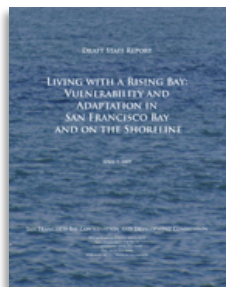


Adapting to Rising Tides

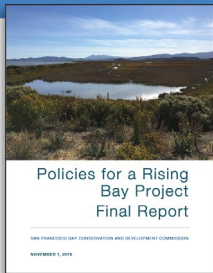
A regional program to lead and support efforts that increase the resilience of San Francisco Bay Area communities to sea level rise and storm events



Climate Change Planning



2011 Climate Change Policies



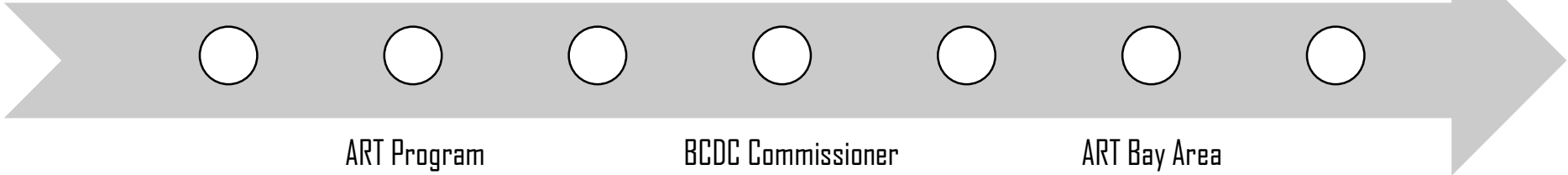
2015-16 Policies for a Rising Bay



2017 Raising the Bar on Regional Resilience



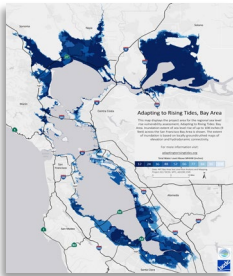
2018 - 21 Horizon/ Plan Bay Area 2050



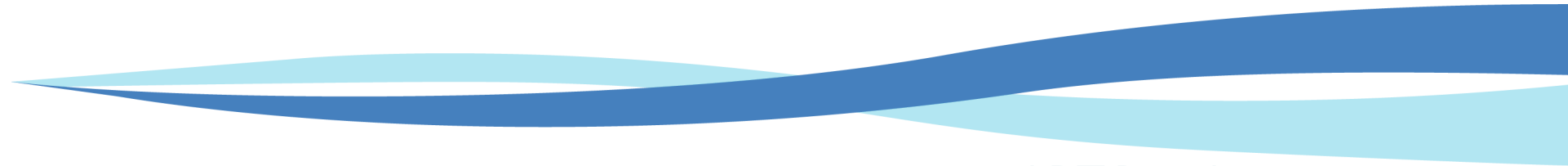
ART Program Established 2012

BCDC Commissioner SLR Workshops 2016-17

ART Bay Area 2016-19



Linking ART Bay Area and Plan Bay Area



Horizon Futures Planning

2018-2019

- Multi-topic broad regional stakeholder-driven initiative
- Used divergent scenario planning to study the effects of 1', 2', and 3' of inundation, not just on the region today, but with growth out to 2050.
- Outcomes
 - Integrated sea level rise into land use and travel models.
 - Incorporated a single high-level sea level rise adaptation strategy for consideration in Plan Bay Area.

ART Bay Area

2017-2019

- Sea level rise-focused regional stakeholder-driven initiative
- Studied the sea level rise impacts on future growth, vulnerable communities, ecosystem, and transportation systems across 10 water levels.
- Outcomes
 - Data on exposure and consequence for 30+ regional systems
 - Qualitative analysis of 30+ local "hot spots"
 - Identification of 8 regional-level common planning issues
 - 80+ adaptation strategies for local, regional, and state consideration

Linking ART Bay Area and Plan Bay Area



Plan Bay Area 2050 *through summer 2021*

- Build a 1.0 framework to incorporate sea level rise into regional planning and modeling.
- Develop a 1.0 regional level revenue and need assessment for sea level rise adaptation.
- Develop clear and actionable next steps for how MTC/ABAG can partner to advance adaptation from 2021-2025.

Regional Shoreline Adaptation Strategy *through summer 2020*

- Establish Guiding Principles for local and regional adaptation planning
- Establish consensus around a coordinated regional Action Platform to support local and regional adaptation

What's Next?

January 2020

Answer key environmental questions in advance of the February committee meeting.

- Are these the right strategies to include in the Environment element of the Plan Blueprint?
- How might we weave equity more substantially into the strategies?
- How might we fund these efforts?

February 2020

Finalize the strategies to test in the Draft Blueprint.

- At the February committee meeting, staff will present the full package of strategies proposed for the Draft Blueprint *Basic* and Draft Blueprint *Plus*.

Spring 2020

Share feedback on the Draft Blueprint results.

- Staff will present on the regional outcomes resulting from the Draft Blueprint *Basic* and Draft Blueprint *Plus* at committees and public workshops in spring 2020.
- Further refinements to all strategies can be made at this time in advance of the Final Blueprint.