



Alternative Planning Strategy (APS) Greenhouse Gas (GHG) Reductions & Options

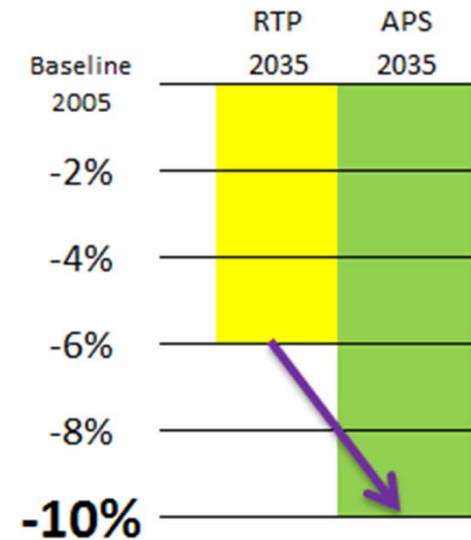
June 2015

APS Requirements

- Show how GHG target can be achieved
 - alternative development patterns and/or
 - infrastructure and/or
 - additional transportation measures or policies
- Identify the principal impediments to achieving the target in the Sustainable Communities Strategy (SCS)
- Why the APS choices are the most practicable choices for achieving the target

Scope & Approach

- Meet GHG target
- Base on adopted Regional Transportation Plan (RTP)
- Use already developed land use scenarios (B, C, “D”)
- Measure with approved tools
- Bridge the gap (6% to 10%)
- Options
 - Land Use Assumptions
 - Transportation Investments



Land Use Pattern – GHG Results

Scenario	Description	% SF	Density	2020	2035	
A	Trend	Historical pattern	90	5.4	-9.2%	-4.5%
B	Blueprint	More dense, more mix	73	7.4	-9.6%	-5.9%
C	Compact	Even more dense	56	9.0	-10.1%	-6.7%
D	“D”	...denser, and 1/3 infill	35	12.1	-11.8%	-9.3%

Land Use Scenarios A, B, and C were evaluated in the 2014 RTP and are consistent with local general plans. Scenario D is not.

GHG results are percent reduction in per capita GHG emissions from 2005 to 2020 or 2035. The 2035 **target is -10%**.

“% SF” is percent of **new residential** that is single-family detached.

“Density” is average density of **new residential**, in units per acre.

Transportation – Methodology

Moving Cooler An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions

Prepared for
Moving Cooler Steering Committee

Prepared by
Cambridge Systematics, Inc.

July 2009



California Environmental Protection Agency
Air Resources Board

The screenshot shows the California Air Resources Board website. The main heading is "Sustainable Communities". The page includes a sidebar with "Up Links" (Reducing Air Pollution - ARB Programs, Climate Change, SB 375 Implementation), "PROGRAM LINKS" (Background, Data, Regional Agencies, Resources, SB 375 Text, View Comments, Workshops / Meetings), and "RESOURCES" (EMFAC Post-Processor Tool, Active Transportation in California, Contact Us, Join the SB375 Email List, RSS / Newsfeed). The main content area discusses the Sustainable Communities Act, regional targets for GHG emissions, and the role of Metropolitan Planning Organizations (MPOs) in preparing Sustainable Communities Strategies (SCS) or Alternative Planning Strategies (APS). A "What's New" box highlights ARB staff's technical evaluation and ARB Resolution accepting SJCOG's determination. A "Sustainable Communities Strategies R San Joaquin Valley (SJV)" section lists several updates and reports.

TECHNICAL EVALUATION OF THE GREENHOUSE GAS EMISSIONS REDUCTION QUANTIFICATION FOR THE FRESNO COUNCIL OF GOVERNMENTS' SB 375 SUSTAINABLE COMMUNITIES STRATEGY

FEBRUARY 2015



Merced County Association of Governments

Transportation – GHG Results

GHG reductions from potential Transportation and Land Use measures and assumptions

Draft: June, 2015 APS Steering Committee

APS Survey Question #	Measure or assumption	Survey Points	2035 GHG reduction	Method (MC = "Moving Cooler")	Rough Estimate of Annual Investment
Already included in RTP/SCS:					
n/a	"Expanded" urban transit				\$1 million
n/a	"Expanded" bicycle (new areas)				\$0.8 million
n/a	"Expanded" pedestrian (new areas)				\$0.8 million
n/a	More compact growth (RTP scen. B)			MCAG modeling	not quantified
Transportation Measures					
1	"Aggressive" urban transit	2	0.9%	MC	TBD
2	"Maximum" transit fare reduction	1	0.4%	MC	TBD
3	Express transit	1	0.3%	MC	TBD
4	Vanpools	4	1.5%	150 more vanpools	\$1.5 million
5	"Aggressive" bicycle (and retrofits)	2	0.7%	MC	\$2 million
6	"Aggressive" pedestrian (and retrofits)	2	0.8%	MC	\$1.5 million
7	Additional alt. fuel / EV subsidies	1	0.5%	Bay Area's SCS	\$2.5 million
8	Fee on gas cars ("feebates")	1	0.5%	Bay Area's SCS	not quantified
9	Passenger rail commutes (Amtrak & ACE)	2	0.7%	300 passengers per day	\$3 million
	<i>sum of all transportation measures</i>		6.3%		
Land Use Measures and assumptions					
10	"Aggressive" parking restrictions & pricing	3	1.1%	MC	not quantified
11	Smaller lots (RTP scen. C)	2	0.8%	MCAG modeling	not quantified
12	Denser, plus infill (about 1/3)	6	2.6%	MCAG modeling	not quantified
	<i>sum of all land use measures</i>		4.5%		

Creating an APS scenario

- The Committee creates a scenario
 - Three sample scenarios on next slide – simply to spark the discussion
- Identify a way to get to 10% or more
 - APS can go further than the minimum
 - need at least 4.1% “more” in reductions
- Now: Discussion, questions, ideas
- July: APS committee recommend a preferred scenario to use in the Draft

Sample Scenarios

Three SAMPLE scenarios that meet or exceed the 10% target

To get to a 10% reduction instead of a 5.9% reduction requires at least another 4.1%.

APS Survey Question #	Measure or assumption	Survey Points	2035 GHG reduction	Method (MC = "Moving Cooler")	Rough Estimate of Annual Investment
Land Use "C" plus a mix of transportation measures:					
1	"Aggressive" urban transit	2	0.9%	MC	TBD
4	Vanpools	4	1.5%	150 more vanpools	\$1.5 million
5	"Aggressive" bicycle (and retrofits)	2	0.7%	MC	\$2 million
6	"Aggressive" pedestrian (and retrofits)	2	0.8%	MC	\$1.5 million
11	Smaller lots (RTP scen. C)	2	0.8%	MCAG modeling	not quantified
		Sum	4.7%		
	Total Reduction		10.6%		
Land Use "D" plus Transit					
1	"Aggressive" urban transit	2	0.9%	MC	TBD
2	"Maximum" transit fare reduction	1	0.4%	MC	TBD
3	Express transit	1	0.3%	MC	TBD
11	Smaller lots (RTP scen. C)	2	0.8%	MCAG modeling	not quantified
12	Denser, plus infill (about 1/3)	6	2.6%	MCAG modeling	not quantified
		Sum	5.0%		
	Total Reduction		10.9%		
Land Use "C" plus long-trip reduction					
1	"Aggressive" urban transit	2	0.9%	MC	TBD
2	"Maximum" transit fare reduction	1	0.4%	MC	TBD
3	Express transit	1	0.3%	MC	TBD
4	Vanpools	4	1.5%	150 more vanpools	\$1.5 million
9	Passenger rail commutes (Amtrak & ACE)	2	0.7%	300 passengers per day	not quantified
11	Smaller lots (RTP scen. C)	2	0.8%	MCAG modeling	not quantified
		Sum	4.6%		
	Total Reduction		10.7%		