Growing Cooler: Addressing Climate Change through Demand/VMT Reduction

Rail-Volution 2008
Growing Cooler: Addressing Climate Change through Demand/VMT Reduction

- Transportation sector accounts for 1/3 of US GHG emissions. VMT is major component

- “Growing Cooler” describes how land use and transportation strategies can reduce VMT to address climate change

- What specific steps are communities taking to reduce driving impacts and GHG?
  - Australia
  - Berkeley
  - Boulder
Berkeley, CA - Growing Cooler: Climate Action Plan Development

Matt Nichols

- Principal Transportation Planner for City of Berkeley, California, 2002-present.


- Directs Parking & TDM policy, Bicycle and Pedestrian Plans, Carsharing. Active in Universal Access TOD, BRT, and funding.
Growing Cooler: Addressing Climate Change through VMT Reduction

Matt Nichols’ presentation:

- Berkeley, CA - Local Climate Action Planning for Transportation
- Critical review of GHG Inventory and Project Reduction methodology
- Strategies for funding and implementation
- Vision and Motivation. Hope and Fear.
Berkeley
CLIMATE ACTION
JOIN
the Movement to Reduce Greenhouse Gas
Local Measure G, 2006

81 percent of Berkeley voters supported Measure G in November 2006 which:
1. Establishes a target of reducing 2000 emissions levels by 33% by 2020.
2. Reach 80% reduction in greenhouse gas emissions by 2050.
3. Develop Climate Action Plan to identify municipal and resident actions to achieve targets.
2005 Berkeley GHG Inventory
634,798 tons
Transportation Reduction Targets

2020 Target (33%) - 95,421 tons/year

2050 Target (80%) - 289,620 tons/year
The Transportation Challenge

Strategies: Beyond Emission Standards

- Baseline VMT
- Baseline CO2
- CO2 New CAFÉ
- CO2 Pavley
- CO2 State 2020 Goal

Source: MTC
The Transportation Challenge

- Under California’s AB 1493, the average motor vehicle in 2020 will emit 16% less CO2.

- If VMT continues 1980-2000 trend, Berkeley transportation emissions will rise 9%.

- Berkeley residents will need to reduce vehicle travel by 78 million miles per year in 2020 to reach GHG target - 1,658 miles per household/yr, or 4.5 miles per HH/day.
Berkeley household and vehicle population since 1960
CO2 emissions from all home-based vehicle trips per person in Berkeley, by TAZ
Land Use: TDM Conditions of Approval

- Provide carshare membership fees (not usage) for all residents.
- Provide 3-4 carshare parking spaces at no cost.
- Unbundle residential parking.
- Do not provide free parking for any commercial tenants/employees.
- Require lessees to offer pre-tax commute benefits.
- Commute benefit shall include a transit subsidy of at least $2 per business day (CPI adjusted) per employee.
Bicycling and CO2

- Berkeley Bicycle Plan’s goal is to increase commute share from 5.62% to 10%, which would reduce 517 metric tons CO2/yr.
- If non-work weekday bike trips also double, it would reduce an additional 779 tons of CO2 per year.
Berkeley Bicycle Boulevards
TDM Outreach

• TravelChoice provides locally-customized information on alternative modes.
• Door-to-door outreach to 7,800 households.
• 1,500 travel diary surveys collected.
• Total car trips reduced by 8.2%.
• “Car-as-driver” trips reduced by nearly 14%.
• Bike/walk/transit trips increased by 6.2%.
TDM Outreach: TravelChoice

TravelChoice – Berkeley Phase I Behavior Shift

- Car/Truck/Van: -8.2%
- Environmentally Friendly Modes (Walk, Bike, Transit): +6.0%
Community Outreach: Car-Free Day
How Car-Free Can You Be?

WIN PRIZES!
Pledge to go car free on International Car-Free Day
Wednesday, September 22, 2004
www.CarFreeBerkeley.org
Universal Transit Passes

• An Eco Pass for all employees in Berkeley could reduce VMT 5,700,000 VMT/yr = 2,839 tons/CO2/yr = 3% of 2020 target.

• Current Universal Transit Passes in Berkeley:
  – UC Berkeley Class Pass
  – UCB employee Bear Pass
  – City employee Eco Pass
  – 500 low-income residents
Carsharing & CO2

• Each City Carshare member reduces gas consumption by 59%.

• Each member reduces .044 gal/day = .099 metric tons of CO2/day.

• If 5% of Berkeley drivers (4,455) became carshare members, it would reduce our emissions by 441 metric tons of CO2 per year.
Ed Roberts Campus: Universally Accessible TOD
Ed Roberts Campus: Universally Accessible TOD

- Accessible transit-oriented community center serving people with disabilities.
- New elevator, stairs w/ bike channels, new ramp, ped path, plaza, paratransit area, bus shelter, crosswalk w/ in-street lights, audible ped signals.
- Increase transit, bicycle and walking trips by 309 trips per day.
Safe Routes to Schools

cars please stop!
Pragmatism vs. Vision vs. Disaster Preparedness

- Incrementalism
- Fundraising takes years & huge effort
- Community Opposition
- Political courage
- Disaster Preparedness - Katrina
- Implementing a Vision – slowly vs. quickly
Thank you

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