

Summary of Available Climate Action Plans – Their Relevance for the Town of Chevy Chase

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Background

The Town of Chevy Chase is in the process of finishing its greenhouse gas assessment and preparing a climate action plan to fulfill the commitment we made when Mayor Bill Hudnut signed the U.S. Mayors' Agreement on Climate Protection in 2006. As of April 25, 2008, 839 mayors representing close to 80 million U.S. citizens in 50 states have signed the agreement. Signing the agreement commits the signatory to reduce its greenhouse gas emissions (GHG) at least as much as the Kyoto Protocol (ratified in Feb. 2005) would have done (7% below 1990 by 2012). The Town can set its own goals and deadline, however. ICLEI (International Council for Local Environmental Initiatives) is the body that supervises and supports compliance with the Agreement and the Town is a member of ICLEI. Membership commits us to a five stage process to achieve reductions in GHG emissions:

1. Carry out a greenhouse gas assessment
2. Set goals for reducing greenhouse gases
3. Establish a Climate Action Plan (CAP) to achieve those goals
4. Implement the CAP
5. Monitor and report on progress

A climate action plan is a medium term (5-10 years) strategy for reducing greenhouse gas emissions. It defines actions, estimates CO₂ reductions, and (usually) calculates the cost of the actions. To help the Town develop its CAP, this review was done to provide residents with a better idea about what is contained in a CAP, to summarize common actions taken, and to provide a springboard for brainstorming by town staff, Town Council members, residents, and authorities in the large institutions in town. This summary was prepared based CAPs available over the internet discovered through ICLEI and internet search engines.

Format of Climate Action Plans

Most CAPs have a standard format. First they review the greenhouse gas assessment, including some projection back to an earlier date (usually 1990) and forward to a later date (usually 2010 or 2020). The GHG assessment is generally divided into a "corporate" section (that looks at municipal operations) separately from the "community" section (that includes commercial, residential, industrial, solid waste disposal, transportation, and land use/trees). They usually disaggregate GHG by source (electricity, gasoline, natural gas, etc.) and by end use or sector (commercial, residential, etc.). Generally the climate action plan itself is divided into separate substrategies for the government of the jurisdiction, industry, commercial, power, and residential sectors.

CAPs were examined only for the smallest jurisdictions available (except for Seattle, which is seen as a model). Nonetheless none were as small as Chevy Chase. The characteristics

of the CAP cities and towns are shown in Table 1 and the gross parameters of their climate action plans are shown in Table 2. Detailed summaries of the salient points of the CAPs are presented in the appendix.

Observations on Action Plans Relevant to the Town of Chevy Chase

The residential and government sections of other jurisdictions' CAPs had the most obvious relevance to the Town, but there are useful ideas proposed for other sectors that are appealing as well. Many recommendations would need to be adapted for Chevy Chase. For instance, many municipalities seek to improve fleet fuel efficiency. In the town's case (with only four vehicles) this would mean translating vehicular energy conservation into contractual conditions for town contractors.

Listed below are some ideas from the CAPs that Chevy Chase might find useful. Many more ideas are available in the Appendix (a separate document):

Residences

- Improving energy efficiency of old houses through audits and retrofits
- Improving energy efficiency of new houses using LEED or Energy Star certification
- Disclosure of energy usage at time of home sales (County also will require this)
- Promoting geothermal, solar and solar hot water for old and new homes.
- Promoting, facilitating funding, and/or subsidizing energy and water audits and follow up actions.
- Promoting home composting
- Bulk purchase and installation program for common energy efficiency materials

Town Operations

- Energy conservation through type, spacing, hours, and power of streetlights
- Tool sharing library (including watt meter)
- Promoting, cofinancing or subsidizing energy audits of homes with follow-up action to get energy efficiency upgrades;
- Town contractors: improving energy efficiency of vehicles (requiring ultra low sulfur fuels, biodiesel (maybe) or higher efficiency vehicles; enforcing no idling; routing and scheduling for greater efficiency; reward program for energy reductions from benchmarks).
- Solid waste: improve Trash and Treasure to recover more goods and send hard to recycle items to right place.
- Pay as you throw garbage collection; promote greater recycling
- No waste town events; local foods for town events
- Monitor local energy and water use, recycling, waste volume. Report on energy and water consumption by contractors.
- All town office operations examined for energy efficiency and changed accordingly (lights, heat, machines, paper, waste); foot and bike vs. car travel within town for town business
- Promote and update CAP, publicize implementation progress, and milestones

Transportation

- Enforcing no idling laws
- Shuttle bus services to Metro, grocery stores, etc.
- Reduce short haul car use: work with Bethesda to encourage bicycle friendly visits (bike racks), Save the Trail, and education/incentives to residents
- Reduce or offset excessive air travel: education about GHG impact of vacation choices and business air travel; encourage offsets through town carbon market
- Encourage carpooling by linking to local resources; links among town residents

Marketing and Promotion to Citizens

- Develop a marketing and communications plan for the CAP
- Giveaways (bulbs, shower heads, soaker hoses, weatherization packs, reusable bags)
- Education, marketing, promotion, and recognition of individual, organization, and neighborhood progress on reducing CO2.
- Providing information about rebates, energy efficiency loans, subsidies, and other incentive programs from business, utilities, and government.
- Encouraging renewable energy purchase

Big Institutional Buildings in Town

- For CCES: energy audit, enforce no idling in parents' cars and buses; biodiesel buses?; retrofit school for greater energy efficiency; educate children and parents; food garden; encourage walking to school discourage parent pick-ups; motion sensing lights, temperature-control, computer sleeping
- For 4H Center: energy audit, retrofit for greater energy efficiency; solar panels?; solar hot water? Enforce no idling for buses.
- For Leland Center: install separate metering, temperature control and billing Town Offices, Rec. Center, and Daycare Center to encourage self-control on energy use

Land Use

- Expanding, preserving, and stewardship of tree canopy

Leadership

- Make Town's voice, individually and corporately, heard in county, state, and national levels on global warming actions, plans, laws and regulations
- Town Council: take leadership role by example and in council actions

The Climate Protection Committee will use this list as a starting point for soliciting citizen input and developing the first draft of a Town Climate Action Plan.

Table 1. Climate Action Plan Municipalities' Demographics

	Popn	Area (sq. mi.)	Med HH Income	Housing units	Of which % single unit detached	Median # Rooms	Year housing unit built	Heating fuel	Commuting	Avg. commute time (minutes)	# vehicles in hh
Chevy Chase	2726	0.5	160,331	1024	100%	8.5	78% <1940, 18% 1940-1979	86% gas, 2% electricity, 9% oil	59% sov*, 9.5% carpool, 19% public trans, 3% walk or other, 9% worked at home	30.6	None: 2%, one car 32%; 3+: 12%
Takoma Park, MD	17299	2.1	48,490	7187	46%	4.9	27% < 1940, 69% 1940-1979	81% gas, 10% electricity, 7% oil	53% sov, 12% carpool, 25% public trans, 6.4% walk or other, 3.9% work at home	33.0	None: 16.2%, 1 car 44.8%, 3+: 8.6%

Seattle, WA	563,374	84	45,736	270,524	49.1%	4.4	32% <1940, 49% 1940-1979	36% gas, 49% electricity, 13% oil	56% sov, 11% carpool, 18% public trans, 10.1 walk or other, 4.6% work at home	24.8	None, 16.3%, 1 car 42.5%, 3+ 11.0%
Boulder, CO	94,673	25.4	44,748	40,726	43.9%	4.8	8.3% <1940, 62.5% 1940-1979	75% gas, 22% electricity, 0.3% oil, solar 0.2%	60% sov, 9% carpool, 8% public trans, 16.6% walk and other, 6% work at home	18.8	None, 8.7%, 1 car 40.8%, 3+ 15.0%
Newton, MA	83,829	18.2	86,052	32,112	55.5%	6.4	52.8% <1940, 37.9% 1940-1979	51% gas, 8% electricity, 40% oil	68% sov, 7% carpool, 12% public trans, 6% walk or other, 6% work at home	26.1	6.7% none, 34% one car, 13% 3+ cars

Amherst, MA	34,875	27.8	40,017	9426	44%	5.1	19% <1940, 57% 1940-1979	21% gas, 33% electricity, 37% oil, 5% bottled, tank or LP gas, solar 0.1%	53% sov, 7% carpool, 8% public trans, 27.2% walked or other, 5.3% work at home	18.0	9% no car, 41% one car, 14% 3+ cars
Anacortes, WA	14,557	14.2	41,930	6547	75%	5.7	17% <1940; 41% 1940-1979	71% gas, 23% electric, 2% oil	77% sov, 10% carpool, 1% public trans, 6% walk or other, 5% work at home	21.6	6% no car, 33% one car, 20% 3+ cars
Keene, NH	22,563	37.6	37,033	9295	48.9%	5.2	37.4% <1940, 44.3% between 1940-1979	Gas 7.4%, 10.9% electricity, 71.9% fuel oil, 6.1% bottled, tank or LP gas, 2.6% wood.	76% sov, 12% carpool, 1% public trans, 8.5% walk or other, 3.3% work at home	16.4	No car 9%, 1 car 39%, 12% 3+ cars.

Bellingham, WA	67,171	31.7	\$32,530	29425	50.2%	4.6	22.3% <1940, 39.3% 1940-1979	55% gas, 41% electricity, 1% oil, 1% bottled, tank or LP gas, 1% wood	70% sov, 12% carpool, 4% public trans, 11% walk or other, 4% work at home	17.8	10% no car, 39% one car, 16% 3+ cars
Homer, AK	3946	22.4	42,821	1872	60.4%	4.4	0.5% < 1940, 41.8 1940-1979	0.6% gas, 18.7% electricity, 60.8% oil, 14.8% bottled, tank or LP gas, 3.9% wood	66.7 sov, 11.6% carpool, 1.2% public trans, 11.8% walk or other, 8.7% work at home	17.9	5.9% no car, 42.9% one car, 14.7% 3+ cars
Brattleboro, VT	12,005	32.4	31,997	5686	42.3%	5.0	51.2% <1940, 31.9% 1940-1979	Gas 3%, electricity 10%, fuel oil 70%, bottled, tank or LP gas 12%, wood 2.6%, solar 0.1%	70% sov, 12% carpool, 1% public trans, 11.6% walk or other, 5.3% work at home	17.1	13.2% no car, 47.5% one car, 3+ cars 8.6%

Belmont, MA	24,194	4.7	80,295	9980	46.6%	6.2	62.3% < 1940, 35.5% 1940- 1979	47.3% gas, 6.1 electricity, 45.1% fuel oil	70% sov, 10% carpool, 12% public trans, 3% walk or other, 5.3% work at home	26.4	6.6% no car, 39% one car, 10% 3+ cars
Kirkland, WA	45,054	11.0	60,332	21,939	44.3%	5.0	4% <1940, 48% 1940- 1979	44% gas, 53% electricity, 2% fuel oil	76% sov, 10% carpool, 6% public trans, 4% walk or other. 5.3% work at home.	21.9	4% no car, 41% 1 car, 14% 3+ cars
Fort Collins, CO	118,652	46.5	44,459	47,766	55.9%	5.4	7% <1940, 42.9% 1940- 1979	76% gas, 22% electricity,	75% sov, 10% carpool, 2% public trans, 8.6% walked or other means, 4.3% work at home	18.5	5% no car, 32% one car, 21% 3+ cars

Aspen, CO	5914	3.5	53,750	4346	26.5%	3.9	8% < 1940, 56.2 1940-1979	54% gas, 42% electricity, 2% bottled, tank or LP gas, 1% solar	43% sov, 7% carpool, 12% public trans, 27% walked or other, 11.5% work at home	12.8	8% none, 48% one, 12% 3+ cars.
Williamstown, MA	8424	46.9	51875	3053	64.2%	6	36% <1940, 50.2 1940-1979	36% gas, 6% electricity, 51% fuel oil, 5% bottled, tank or LP gas, 3% wood	60% sov, 6% carpool, 0.5% public trans, 28% walk or other, 5.2% work at home	13.6	8% none, 44% 1 car, 10% 3+ cars

*sov: single occupancy vehicle

Source: Census 2000 Demographic Profiles; land area comes from Wikipedia.

Table 2. Summary of Climate Action Plans

	Emissions per person (date)	Emissions by sector	Goal for decreasing GHG emissions (start & end dates)
Town of Chevy Chase			
Seattle, WA	18.1 (1990)		7% (1990-2012)
Takoma Park, MD	14.4 (1990)	Commercial and government: 40% Transport: 34% Residential: 25%	20% (1990-2010)
Boulder, CO	18.5 (1990)	Commercial 30% Transportation 28% Residential 17% Industry 15% CU 5% Waste 4% Streetlights 1%	24% (2004-2012)
Newton, MA	13.6 (2002)		7% (1998-2010)
Amherst, MA	9.5 (2000 extrapolated from 1997)	Residential 22% Commercial 50% Industry 1% Transportation 24% Waste 3% Town Operations 4%	35% (1997-2009)
Anacortes, WA	11.9 (2000)	Commercial 21% Industry 6% Transportation 40% Residential 39%	15% (2000-2020)
Keene, NH	9.0 (1995)	Residential 32% Commercial/Industrial 36% Transportation 31% Waste 1%	10% 1995-2015
Bellingham, WA	14.1 (2000)	Residential 24% Commercial 23% Industry 8% Transportation 45%	64% municipal 7% community (2000-2012)
Homer, AK	23.9 (business as usual prediction for 2012)	Residential 24% waste 2% Transportation 21% Marine 17% Commercial (includes municipal) 36%	12% (2000-2012)
Brattleboro, VT	16.3 (2000)	Waste 8% Transportation 45% Residential 19% Industry 19% Commercial 9%	10% (2000-2010)

Kirkland, WA	9.4*	n/a	10% (2000-2012) 20% (2000-2020)
Fort Collins, CO	15.5 (1990)	4% solid waste 23% residential 21% commercial 22% industrial 30% transportation	Increase 76% from baseline (1990-2010) 32% decrease from predicted.
Aspen, CO	50 (2004)	Electricity buildings 19.8% of which residential 46.7% commercial 50.8% municipal 2.5% Natural gas and propane 12.7% Ground transportation 25.1% of which Hwy 82 60% Around town 17.4% Tourist 19% Air travel commercial 22.2% Air travel private 18.8% Landfill 1.4% Nitrous oxide 0.04% (from fertilizers applied on city property)	30% (2004-2020)
Williamstown, MA	13.8 (2000)	Municipal energy use: 3% Municipal transportation: 0% Waste from all sectors: 1% Residential energy use: 33% Residential transportation: 20% Commercial energy use: 15% Commercial transportation: 5% Institutional energy use: 22% Institutional transportation: 1%	10% (2000-2010)

*assumes 450,000 tons CO2 e (from Exhibit 1) in 2002 and 3.16% popn growth since 2000 census