

Albany 2030 & Climate Action Planning

An Integrated Approach



Climate Smart Community Webinar

January 24, 2013

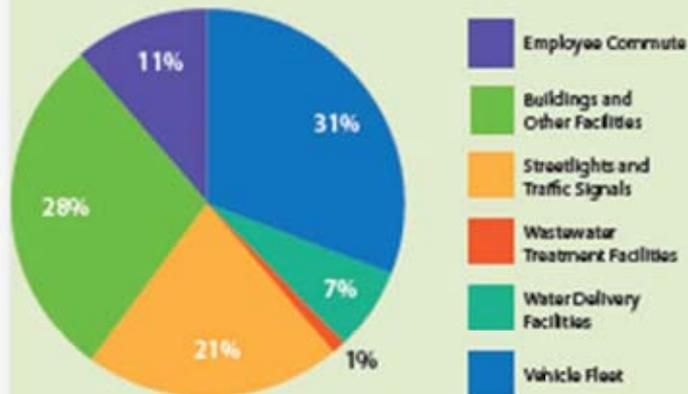
- Created September 2010
- Funded by Energy Efficiency and Conservation Block Grant (EECBG)
- Builds on existing foundation established
 - Executive Order #422-09
 - Climate Smart Communities Pledge
 - ICLEI Membership
 - US Mayors Climate Protection Agreement

office of energy & sustainability.

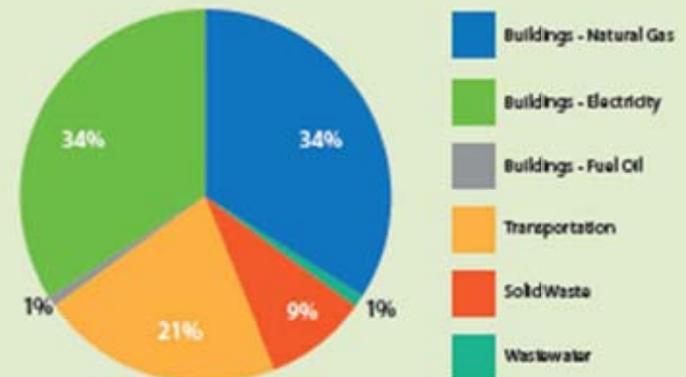
- Internal (within government operations)
 - Identify and support implementation of energy reduction strategies within government operations
 - Drive incorporation of sustainability principles into daily operations
- External (community at large)
 - Engage and educate community on energy & sustainability opportunities and benefits
 - Inform community of the actions taken by the City

GHG Emissions by Sector GOVERNMENT OPERATIONS

Excludes Landfill Emissions*



GHG Emissions by Sector COMMUNITY



2009
municipal operations
emissions

129,111
metric tons
CO₂e

Annual emissions
created by
providing energy
to over
11,000
homes

2009
community-wide
emissions

1,304,635
metric tons
CO₂e

Annual emissions
created by
providing energy
to over
111,000
homes

ghg inventory.

1st Comprehensive Plan in
400 year history

30+ member board (30+ meetings)

3 year start-up

2 year plan

Thousands of participants

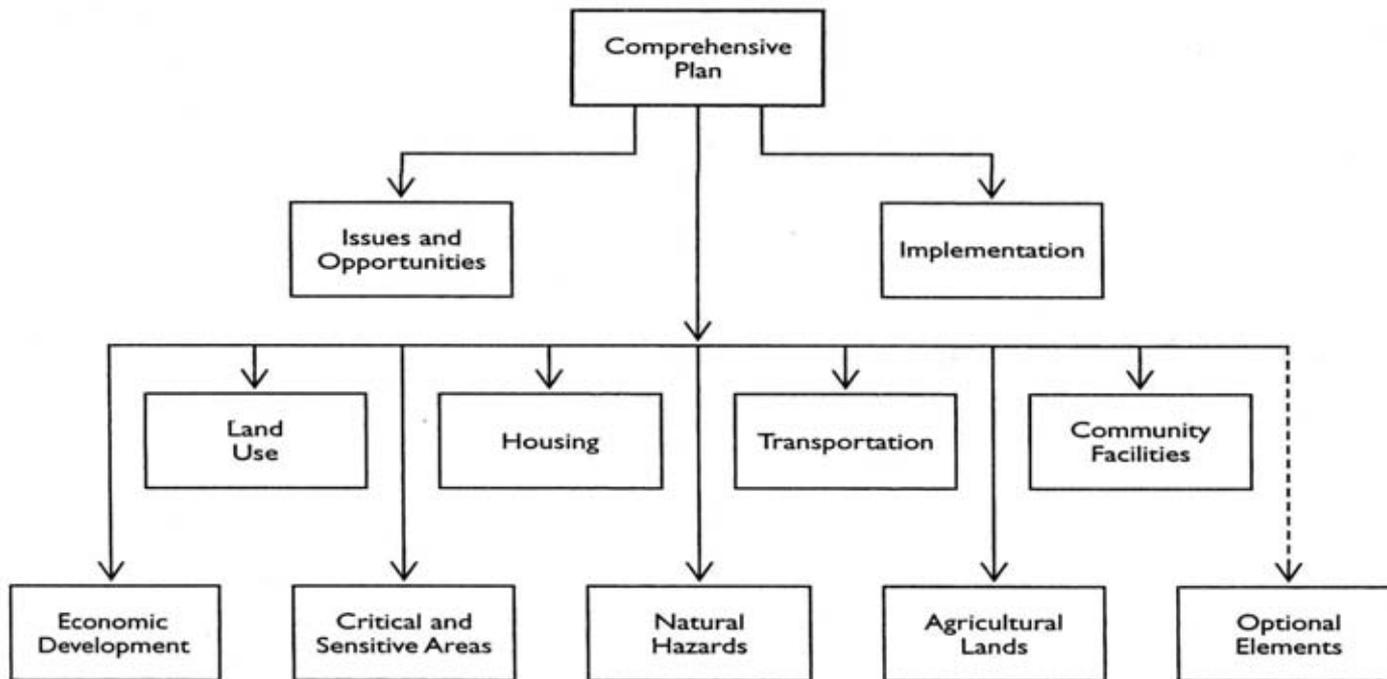
Grant-Funded

- NYS DOS–Quality Comm.
- NYS DOS–BOA
- NYS DOS–LWRP
- US DOE–EECBG
- Hudson River Greenway
- Capitalize Albany Corp.





the systems approach to
comprehensive and climate planning.



Integrated Design Process

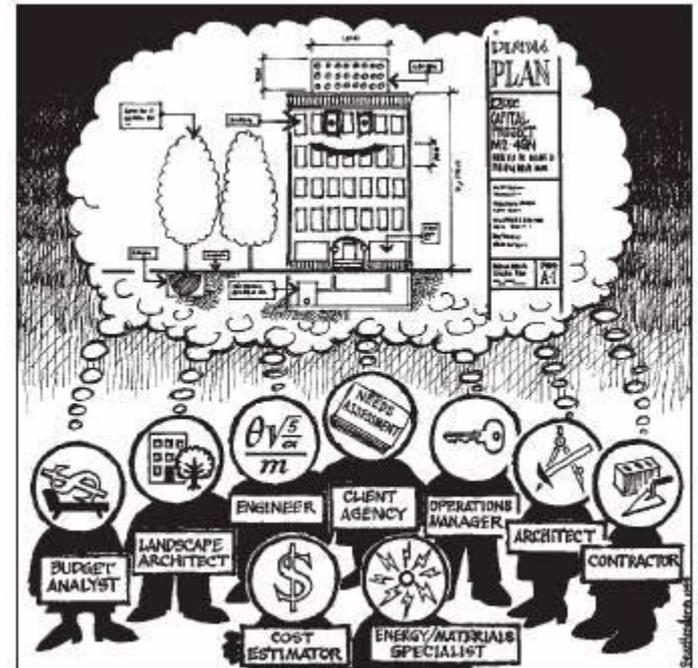
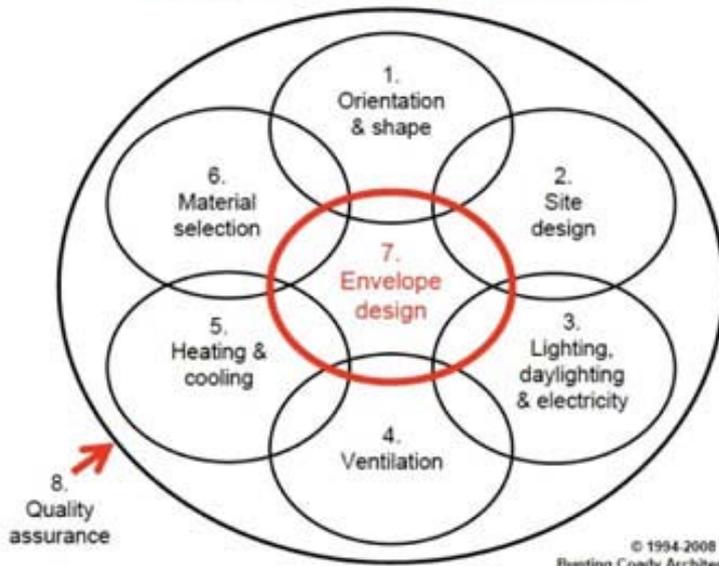


Illustration: Bruce Hender

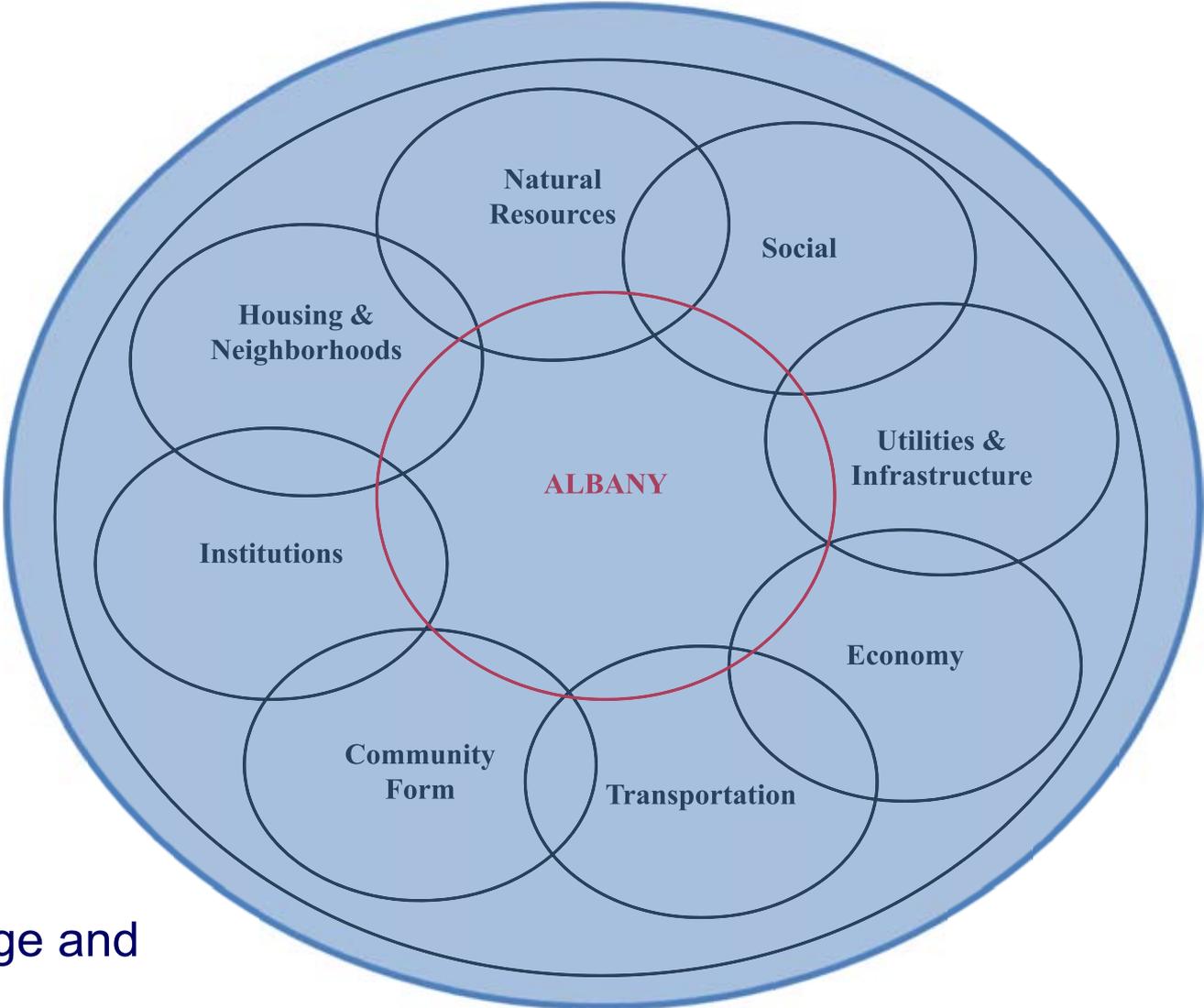
Integrated design.

To develop a resilient, **sustainable** community-based, long-term plan that utilizes a series of **systems** containing policies and actions developed and organized in a manner that allow for implementation based upon interrelationships.



objective.

system integration.



climate change and sustainability



engaging the community.
(the whole community)

Dozens of neighborhood association meetings

Radio PSAs

Posting in City Hall and newspapers

1,000+ member distribution list

30+ Board meetings

Department head meetings

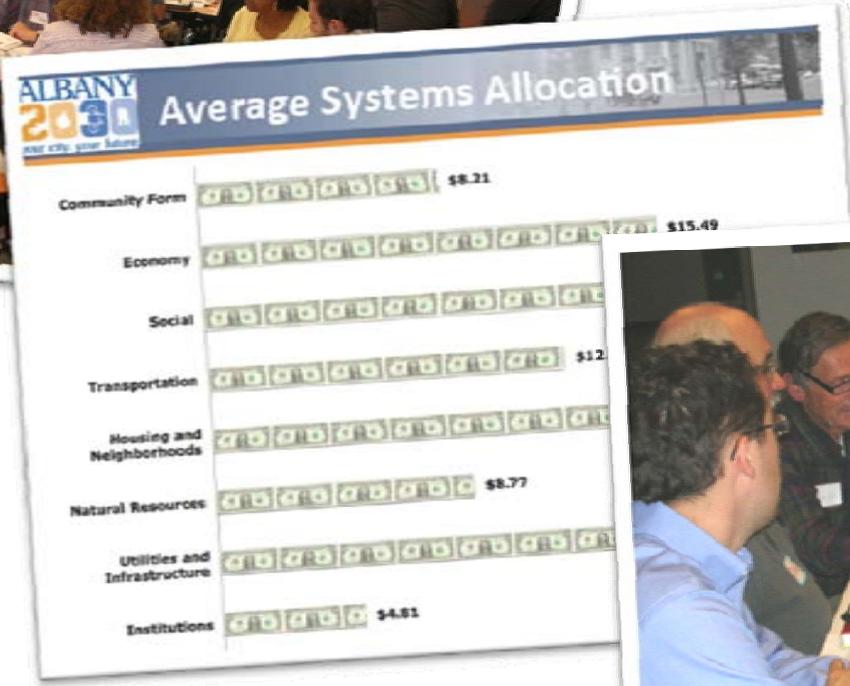
Stakeholder interviews

Targeted emails

Email address

Thousands of Fliers

traditional/no-brainer



3 rounds of public forums.



Home Login Contact About Albany

LEARN

SHARE

PARTICIPATE



Home About Albany 2030 Upcoming Events City of Albany FAQs Contact Us Get Involved

Upcoming Events

Stoop Surveys: South End
08/17/2010 - 5:30pm - 7:00pm
Read more and signup for this event

Albany 2030 Board Meeting
Repeats every month on the Tuesday until Sat Jan 01 2011 except Tue Aug 17 2010.
09/21/2010 - 5:30pm - 7:00pm
Read more and signup for this event

Community Forum 3: Setting Priorities
09/30/2010 (All day) -

Forum 2 Results Now Available!

The April Forums were a great success! Thank you to attendees for sharing Goals and Strategies for achieving the Draft Vision!



Click here to view a summary of the Forums and to see results. The input from Forum 2 will be combined with additional meetings now being held.



Receive updates by texting Albany2030 to 41411 or follow us on Twitter @albany2030

Citizen Journal

The text below was submitted via the Share link above. [Click here](#) to submit YOUR ideas, stories, memories, video, or photos or [read others' thoughts](#).

My Visions and Experiences of ALBANY

I was raised and grew up in the region I have only lived in Albany for about 5 yrs, growing up in Rensselaer County out in Greenbush, NY, I have lived in the area alot but I think it could use many improvements esp



social media & website.



HOST A HOUSE PARTY!

We invite you to host an Albany 2030 House Party! An Albany 2030 House Party is a great way to get together with friends and neighbors to discuss the future of the City. Some may be hosting a House Party in your home, but be creative and have fun!

1) Create Your Guest List
Think about people you know who might be interested in talking about Albany now and the City's future. Perhaps try to invite neighbors or acquaintances you don't know well, in addition to your friends, or invite people whose views are different from yours.

2) Meet and Greet
At your House Party, spend a little time meeting and greeting and getting to know any new acquaintances. Provide food and drink, as you are able, and just spend some time relaxing with your guests. Then get down to business!

3) Discuss the Workshopped Questions
Go through the questions on the attached House Party Worksheet and ask for one or two volunteers to be room leaders to capture the main points of the conversation. Ask everyone to quickly read over the notes at the end of the chat to make sure they are accurate. Please note the conversation is respectful and a chance to contribute. More information is available at www.albany2030.org. Participate and



Join us for a
Walk-shop
and celebrate Albany 2030 success for the City's neighborhoods & your planet on the way!

ALBANY 2030
your city, your future.
www.albany2030.org

South End
Tue, August 23
6:00 - 8:00pm
Albany Branch
General Walk Shop



supplemental direct address.

Climate Conversations



How will climate change affect Albany?

What can the City do to protect its citizens, buildings, roads, and water supply?

How can residents and businesses help?

The Mayor's Office of Energy and Sustainability invites you to enjoy light refreshments while you participate in a conversation about climate change as we prepare the City's first Climate Action & Adaptation plans as part of Albany 2030.

Attend a climate conversation:

- **Tuesday 6/28, 6-8 pm** Albany Public Library: Delaware Branch (485 Delaware Ave.)
- **Wednesday 6/29, 6-8 pm** Albany Public Library: Main Branch (161 Washington Ave.)
- **Thursday 6/30, 10 am to noon** College of St. Rose: Standish Conference Room in the Events and Activities Center

www.AlbanySustainability.org
518-434-2532
sustainability@ci.albany.ny.us

www.Albany2030.org



climate conversations.



the Albany 2030 Systems



Community Form



Natural Resources



Economy



Housing & Neighborhoods



Social



Utilities & Infrastructure



Transportation



Institutions

systems and strategy overview.



	NATURAL RESOURCES								Total
WW-1	Implement Long-Term Control Plan to mitigate water quality impacts of CDD's				WW-2		WG-1 SW-1 SW-2		4
WW-2	Control sources of negative environmental impact				WW-1 WW-3 TS-1		SW-1 WG-3		5
WW-3	Use zoning and environmental review to protect river and stream corridors				WW-2 TS-1		SW-3 SW-4		4
WW-4	Remediate brownfields to reduce runoff and water table contamination	LU-4 UD-4 ARCH-3	INV-1		TS-2				5
WW-5	Improve public access to waterways	UD-2	INV-2		MM-2				3
WW-6	Encourage water conservation						WG-2 EN-2 EN-4		3
UF-1	Develop an urban forestry program				AQ-2 UF-2				2
UF-2	Use zoning and environmental review to protect the urban forest				UF-1 AQ-2				2
NH-1	Limit encroachment into habitat areas through land use controls				DIC-2 PED-2	NH-2 OS-1		RP-2	5
NH-2	Implement the Albany Pine Bush Preserve Management Plan					NH-1 NH-3 NH-4			3
NH-3	Restore and maintain high quality natural habitat areas					NH-1 NH-2 OS-1			3
NH-4	Use existing environmental education centers to promote habitat protection					NH-2			1
AQ-1	Provide multi-modal transportation choices to reduce vehicle miles traveled	LU-2 UD-1	INV-1	CHR-2	MM-1 MM-2 BIC-1 TR-1 TR-2 VEH-3	NS-1 NC-2	EN-3		13
AQ-2	Enhance the urban forest to absorb CO2 and other pollutants						UF-1 UF-2		2



	TRANSPORTATION								Total
MM-1	Develop a Complete Streets policy				CHR-2	BIC-1 VEH-4	AQ-1	EN-3 SW-3	6
MM-2	Land use/transportation connection	LU-2 UD-1 UD-2	INV-1 INV-2		CHR-5 CHR-7	TR-2	AQ-1 WW-5	NS-2 EN-3 RP-2	12
PED-1	Maintain & improve sidewalk connections							NS-4	1
PCD-2	Expand greenways				CHR-7	DIC-2	OG-1		4
BIC-1	Promote and implement the Bicycle Master Plan				CHR-2	MM-1 VEH-3	AQ-1	EN-3	5
BIC-2	Connect to regional trails				CHR-1	PED-2	OS-1		4
BIC-3	Educate cyclists and drivers					BIC-1			1
TR-1	Establish an intermodal transit center	UD-3				TR-3 TR-4 AIR-1	AQ-1		5
TR-2	Promote Transportation Demand Management to improve transit choices	LU-1 UD-1				VEH-3	AQ-1	NS-2 EN-3	5
TR-3	Increase transit connectivity		EMP-1 INV-1		CHR-3 CHR-7	TR-1 AIR-1		NS-2 EN-3	9
TR-4	Explore transit expansion options				SS-4	TR-1 TR-3		EN-3	4

strategies.

Short Term Projects	Project Type	Applicable System Strategies	System Interconnections	Targeted Keys	Lead Agency	Partnerships	Potential Funding Source(s)	
OT-5	Develop a Comprehensive Urban Agricultural Plan	Planning / Program	OHF-3, OO-2, OS-3, NI-3, NS-7, EMP-2, INV-2, DIV-1	47	Key 1	Albany Dept. of Development and Planning	Albany County Office of Natural Resource Conservation, the Food Trust, local farmers markets, Cornell Cooperative Extension of Albany County, Capital District Community Gardens, Albany County Dept. of Health	UGDA Community Food Projects (CFP) Grant Program, partner contribution, private foundation, Albany County Dept. of Health
ST-8	Expand the current street tree management plan into a comprehensive urban forestry program	Planning / Program	UF-1, UF-2, AO-2	6	Key 1 Key 4	Albany Dept. of General Services	Albany Dept. of Development and Planning, local institutions	NY DEC Urban and Community Forestry Grant, partner contribution, volunteers
IT-7	Develop a green infrastructure system	Planning / Capital	WW-1, WW-6, EN-1, WS-1, WS-2, WS-3, SW-1, SW-2, SW-3, SW-4	39	Key 1 Key 4	Albany Dept. of Water and Water Supply, Albany Dept. of General Services - Division of Engineering	Mayor's office of Energy and Sustainability, Albany County Dept. for Economic Development, Conservation and Planning, CDRPC, Albany County Soil and Water Conservation District, Division of Building and Codes, NYS DEC, NYS DOT	NYS DEC Water Quality Management Planning Projects, NYS DEC Water Quality Improvement Project Program; US EPA Community Action for a Renewed Environment (CARE) Grant, NYS Environmental Facilities Corp
OT-4	Implement the initiatives outlined in the Mayor's Office of Energy and Sustainability	Planning / Capital	EN-1, EN-2, EN-3, EN-4, EMP-5, MM-2, AO-1, WS-2, SW-1, SWM-1, SWM-2	67	Key 4	Albany Mayor's Office	CDRPC, Albany Dept. of General Services, NY Department of State, NY DEC, Albany County, CDTA	Climate Smart Communities Grants, NYSERDA Existing Facilities Program, NYSERDA New Construction Program, NYSERDA Alternative-Fuel Vehicle Program, NY DEC Waste Reduction, Recycling Household Hazardous Waste Program

A2030 projects.

ALBANY 2030
The City of Albany
Comprehensive Plan
Appendix D. Climate Action Plan



Solid Waste
GHG Emissions Baseline: 111,514 metric tons of CO₂e (9% of emissions)
2021 Target: Divert 65% of Solid Waste from the Landfill

Methane emissions from the Rapp/Ro landfill account for 111,514 metric tons, or 9% of the total community GHG baseline inventory for 2009. Divisions are associated with waste collected and processed by the City from all over the Capital District. In future inventory years, as a policy tool, the City will also attempt to extract and report emissions from municipal solid waste generated only by Albany City residents. This will enable the City to better track the impact of waste reduction measures.

Table 3: Solid Waste Diversion Mitigation Strategy

Solid Waste Strategies		
Strategies	Descriptions	GHG Benefits/Metrics
SW-1		
Monitor and expand waste reduction, reuse and recycling efforts, including recommendations set forth in the SWMP Modification	<p>Both the desire to reduce GHG emissions and the fact that the Rapp/Ro Landfill is running out of space are motivating factors in the City's 65% diversion rate target. There are obvious ways in which the City can expand its efforts:</p> <ul style="list-style-type: none"> • Applying for grants • Enhancing staff • Staffing a recycling center • Continuing to educate the public • Encouraging educational programs on compost 	<p>Benefits: A reduction in the amount of waste, particularly organic waste into the landfill will reduce methane emissions and increase the longevity of the landfill.</p>

Transportation
GHG Emissions Baseline: 279,297 metric tons of CO₂e (21% of emissions)
Target: Reduce VMT 20% by 2030

Transportation is the second largest contributor of greenhouse gases in Albany accounting for 21% of the total community inventory. The transportation sector generated 279,297 metric tons of CO₂e from 121,362,421 vehicle miles traveled. This includes emissions from gasoline and diesel of all private, commercial and public on-road cars, vans, buses, trucks, and heavy-duty vehicles. Per standard GHG accounting protocols, vehicle miles traveled were only calculated for trips within the geographical boundary of the City of Albany. The City has a great opportunity to reduce its emissions through planning for and around public transit and alternative modes of transportation.

Table 4: Transportation Diversion Mitigation Strategy

Transportation Strategies		
Strategies	Descriptions	GHG Benefits/Metrics
LD-1		
Land use transportation connection	Conduct land use patterns and the transportation network to increase transportation efficiency and reduce automobile dependency.	<p>Benefits: Increases opportunities to walk, bike, or take transit thereby reducing VMT.</p> <p>Metric: VMT</p>
UD-2		
Create multimodal design guidelines	Use urban design standards and guidelines as a way to support alternative modes of transportation (pedestrian, bicycle, transit and alternative fuel vehicles).	<p>Benefits: Increases opportunities to walk, bike, or take transit thereby reducing CO₂e and VMT.</p> <p>Metric: VMT, Transit Use, purchase of alternative fuel vehicles.</p>
CR-3		
Promote walkable neighborhoods and complete streets	Promote walkable neighborhoods and complete streets to encourage walking and cycling.	<p>Benefits: Increases opportunities to walk, bike, or take transit thereby reducing VMT.</p> <p>Metric: VMT</p>

Table 5: City of Albany 2028 Emissions Forecast

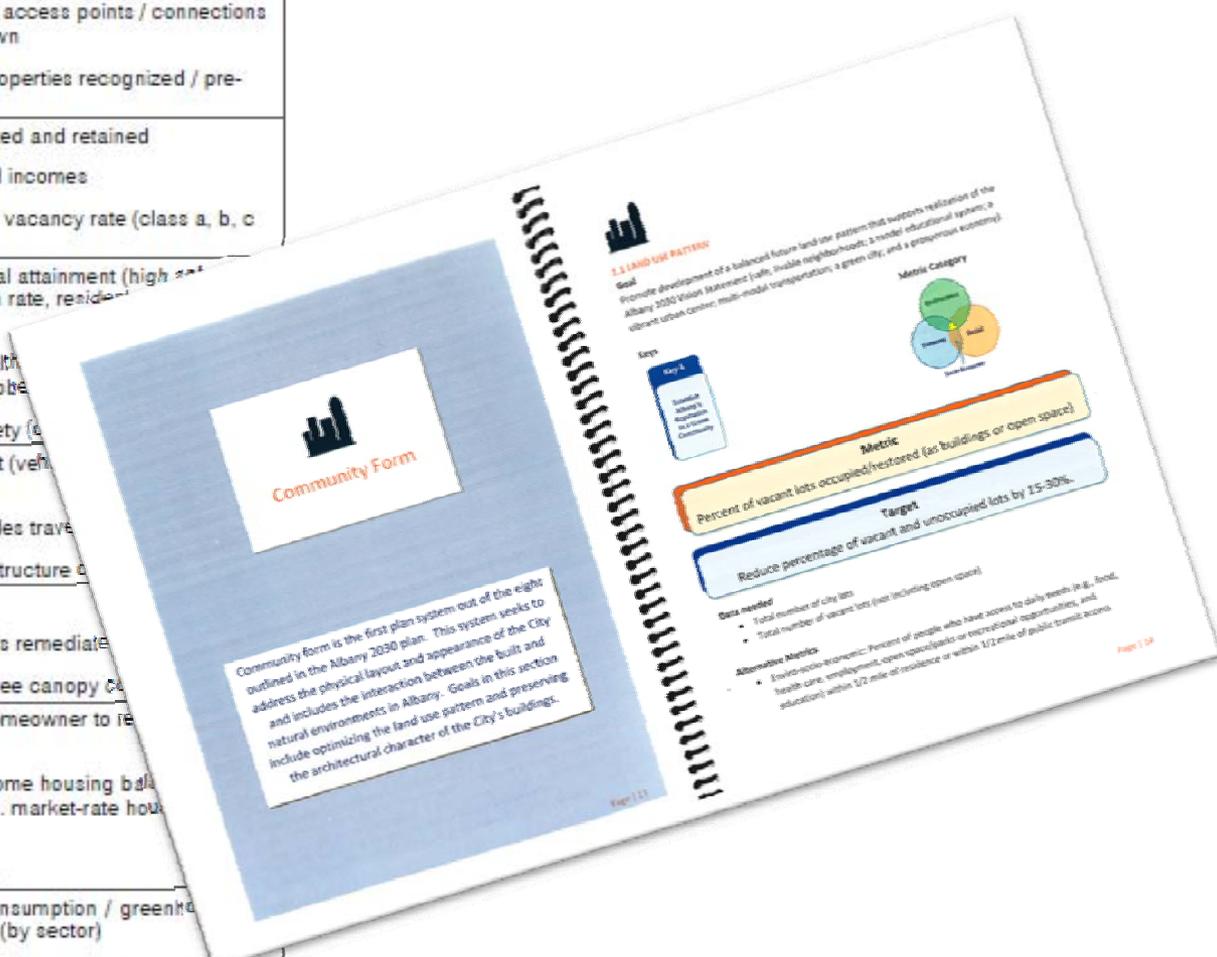
City of Albany 2028 Emissions Forecast					
Sector	Emissions Source	CY 2009 CO ₂ e (metric tons)	Change	Data Source	Projected CO ₂ e (metric tons) for 2028
Buildings and Facilities					
	Natural gas consumption	445,902	32% increase in emissions	Annual Energy Outlook 2011	619,889
	Fuel oil consumption	15,550	9% decrease	Annual Energy Outlook 2011	14,151
Wastewater					
	Process and fugitive emissions	13,797	0.11% increase based on population	Capital District Regional Planning Commission (CDRPC) Population Projections	13,812
Transportation					
	Mobile combustion of fuel	276,097	14% decrease in emissions	Annual Energy Outlook 2011	237,440
Landfill					
	Methane emissions from waste decomposition	111,514	meeting 65% diversion rate by 2020	Solid Waste Management Plan 2020	89,211
Buildings and Facilities					
	Purchased electricity	441,764	1% increase in emissions	Annual Energy Outlook 2011	446,152
TOTAL		1,264,885	reverts to an overall 9% increase in emissions		1,429,688

climate action plan.



plan monitoring.

Plan System	Potential Indicators
Community Form	<ul style="list-style-type: none"> • Vacant and abandoned properties restored to productive use • Waterfront access points / connections to downtown • Historic properties recognized / preserved
Economy	<ul style="list-style-type: none"> • Jobs created and retained • Household incomes • Downtown vacancy rate (class a, b, c space)
Social	<ul style="list-style-type: none"> • Educational attainment (high school graduation rate, resident college) • Public health (diabetes, obesity) • Public safety (crime)
Transportation	<ul style="list-style-type: none"> • Modal split (vehicle, walking) • Vehicle miles traveled • Bike infrastructure
Natural Resources	<ul style="list-style-type: none"> • Air quality • Brownfields remediation • Citywide tree canopy
Housing and Neighborhoods	<ul style="list-style-type: none"> • Ratio of homeowner to rental holds • Mixed-income housing balance (affordable vs. market-rate housing development) • Population
Utilities and Infrastructure	<ul style="list-style-type: none"> • Energy consumption / greenhouse emissions (by sector) • Number of 'green' projects (buildings, infrastructure) • Combined sewer overflow flooding events
Institutions	<ul style="list-style-type: none"> • Payments in lieu of taxes by institutions • Number of partnerships/partners on City of Albany and regional initiatives • Institutional investment in Downtown and neighborhoods



indicators.



Recognitions & Certifications



3-STAR Community (200-199 points)
Recognized for sustainability leadership

4-STAR Community (400-399 points)
Recognized for national excellence

5-STAR Community (800+ points)
Recognized as the top tier achiever in national sustainability

Participating STAR Community: Registered intent to use the rating system

Reporting STAR Community (50-199 points): Registered intent to report and meet basic prerequisite of completing an objective in all 7 goal areas



STAR's Sustainability Goals

1	Built Environment	Achieve livability, choice, and access for all where people live, work, and play
2	Climate & Energy	Reduce climate impacts through adaptation and mitigation efforts and increase resource efficiency
3	Education, Arts & Community	Empower vibrant, educated, connected, and diverse communities
4	Economy & Jobs	Create equitably shared prosperity and access to quality jobs
5	Equity & Empowerment	Ensure equity, inclusion, and access to opportunity for all citizens
6	Health & Safety	Strengthen communities to be healthy, resilient and safe places for residents and businesses
7	Natural Systems	Protect and restore the natural resource base upon which life depends

Climate & Energy Goal Area Resource Efficient Buildings Objective

PURPOSE: Improve the energy and water efficiency of the community's residential, commercial, and institutional building stock

Community-level Outcomes

Outcome 1: Energy Efficiency

Demonstrate achievement of reductions in the energy use intensity of the community's building stock over time

Full credit: Awarded for maintaining the 80% by 2050 track

Partial credit: Awarded on a sliding scale for smaller reductions

Outcome 2: Water Efficiency

Demonstrate achievement of reductions in the water use intensity of the community's building stock over time

Full credit: Awarded for maintaining the 80% by 2050 track

Partial credit: Awarded on a sliding scale for smaller reductions

Outcome 3: Certified Building Stock

Overall increasing trend in the percentage of buildings that achieve certification in energy efficiency and green construction compared to a baseline year, not predating 2000

Local Actions

1. Adopt a building energy efficiency plan to improve the energy and water efficiency of commercial, residential and institutional buildings in the community
2. Adopt or upgrade building codes to ensure that new and renovated buildings are more water and energy efficient
3. Adopt an energy and water use information disclosure ordinance requiring energy and water users to disclose consumption levels
4. Create an education and outreach campaign or challenge to engage citizens and businesses in energy and water efficiency efforts
5. Establish a committee to provide recommendations on policies related to resource efficiency in buildings or integrate this role into the work of existing committees
6. Work with the local utilities to improve energy efficiency programs and increase sub-metering throughout the community
7. Train inspectors to enforce water and energy efficiency standards in adopted building codes
8. Incentivize energy and water efficient certified buildings
9. Create a program to help homeowners and renters upgrade to more energy and water efficient homes
10. Renovate local government buildings to improve energy and water use efficiency

star communities.

Annual Review

Planning Board's annual brief to Council

- Assessing trends for systems-based indicators
- Tracking annual progress on projects and strategies

5-year Assessment

DDP's formal report on plan's progress

- Compilation of briefs and projections
- Minor amendments and adjustments

10-year Update

Revise & adopt updated plan.

- Mid-way analysis
- Public process for full update

review, assessment & update.

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Climate Smart Communities Webinar



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