COUNCIL AGENDA: 10/7/08
ITEM: 7.2

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Vilcia Rodriguez

SUBJECT: **SEE BELOW**

DATE: September 9, 2008

Approved Deanna Santana Date 9/9/08

SUBJECT: RECOMMENDATIONS ON THE PRIVATE SECTOR GREEN BUILDING POLICY [Transportation and Environment Committee referral 09/08/08 – Item (h)]

On September 8, 2008, staff presented the recommendations on the Private Sector Green Building Policy to the Transportation and Environment Committee.

Upon motion by Councilmember Judy Chirco, and seconded by Vice Chair Sam Liccardo, the Transportation and Environment Committee accepted the status report and requested the report to be cross-referenced to the September 23rd Council agenda for full Council consideration. Attached is the report that was presented to the T&E Committee.

Vilcia Rodriguez

VILCIA RODRIGUEZ
Senior Executive Analyst

Attachment

T&E AGENDA: 9-08-08
ITEM: h (1) & (2)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Joseph Horwedel

SUBJECT: **SEE BELOW**

DATE: August 26, 2008

Approved Ashwini Kantak for Ed Shikada Date 8/29/08

COUNCIL DISTRICT: City-Wide
SNI AREA: N/A

RECOMMENDATION

1. Recommend Council adoption of the proposed *Private Sector Green Building Policy for new construction.*
2. Direct staff to draft an ordinance establishing mandatory green building standards for private sector development for Council adoption.

OUTCOME

Council adoption of the *Private Sector Green Building Policy for new construction (Attachment 1)* and direction to staff to develop an ordinance establishing mandatory green building standards for private sector development will advance the City's Green Vision Goal No. 4 of building or retrofitting 50 million square feet of green buildings within the next 15 years, as well as Green Vision Goal 2: reducing per capita energy use by 50%, Goal 3: receiving 100% of electrical energy from clean renewable sources, Goal 5: diverting 100% of waste from landfills and converting waste to energy and Goal 6: Recycling or beneficially reusing 100% of waste water.

EXECUTIVE SUMMARY

Staff is proposing a private sector green building policy for new construction. Retrofits shall be addressed through a Phase II policy at a later date. The proposed policy includes two rating systems: United States Green Building Council's Leadership in Energy and Environmental Design and Build It Green's GreenPoint Rated system. The policy requires a green building checklist for all new construction. In addition, the policy mandates specific certification and point levels in 3 categories: commercial and industrial (25,000 square feet and more), residential high-rise, and other residential (10 units and more). This Policy will provide a verifiable benchmark by which to measure progress toward the Green Vision goal of 50 million square feet of green buildings built or retrofitted within the next 15 years as well as further Green Vision goals related to energy efficiency, water efficiency, renewable energy, and waste reduction.

BACKGROUND

Green Building Principles and Rating Systems

Green building principles seek to ensure that the planning, design, construction, operation, and maintenance of a facility or group of facilities are conducted in an environmentally sustainable manner. These principles include the use of appropriate site selection and building orientation, increased energy and water efficiency, healthy living and working environments, conservation of natural resources, diversion of waste from landfills, reduced operational costs over the life of the facility and sustainable long term maintenance practices. Green buildings have proven to enhance economic competitiveness by reducing lifecycle costs, improving worker productivity, increasing property values, attracting higher rents, and helping with the attraction and retention of talent.

Green building rating systems have emerged as a way to communicate the extent to which green building practices have been incorporated into the design, construction and operation of a building. While several rating systems have been developed, the most recognized systems in California are the US Green Building Council's (USGBC) "Leadership in Energy and Environmental Design" (LEED) program, and Build It Green's "Green Point Rated" system. The City of San José is a member of both organizations.

The USGBC's LEED program was established in 1993 and has become a nationally and internationally recognized performance-oriented system designed for rating new and existing buildings or groups of buildings based on a variety of green building principles. USGBC provides a number of different rating systems designed for new construction, commercial building shell and interiors, neighborhood development, existing buildings, and residential. Escalating levels of LEED certification (Certified, Silver, Gold, and Platinum) are awarded based on the total credits earned. The application process for certification includes submittal of documentation regarding project details to USGBC. Certification is awarded after a project has been constructed and occupied to allow verification of construction materials and methods and building systems performance.

Build It Green (BIG) is a professional non-profit membership organization whose mission is to promote healthy, energy and resource-efficient buildings. BIG's focus is solely on residential construction and its rating system has been developed specifically in and for California. BIG's GreenPoint Rated certification label has gone through several years of program development and pilot testing, and local jurisdictions throughout the Bay Area have used BIG as a reference standard for measuring green residential construction. A home can be considered "Green Point Rated" after achieving 50 points on a scale that ranges up to 200 points (although many points are mutually exclusive). The BIG system uses Green Point Raters to verify that point-earning green building measures are implemented during construction. A Green Point Rater is an independent contractor, hired by the developer, who is audited by BIG, and who is authorized to submit paperwork and evidence of success in meeting the standards to Build It Green. BIG ultimately awards the point total to the project resulting in building certification shortly after project completion. The City of San José is a member of Build It Green, and City staff have contributed to the development of the Green Point Rated system.

San José Green Building Policy - History

In 2001, Council demonstrated national leadership by adopting a Green Building Policy (Policy No. 8-13). In March 2007, Council adopted an updated Green Building Policy that was more stringent

and mandated that City and Agency facilities of more than 10,000 square feet attain at a minimum, LEED Silver certification, and that encouraged green building in the private sector.

On October 30, 2007, Council adopted San José's Green Vision, establishing 10 ambitious goals that are intended to reduce the carbon footprint of the City of San José by more than half. Green Vision Goal No. 4 specifically states that over the next 15 years, 50 million square feet of buildings built or retrofitted in the City shall be "green". The City estimates that approximately 2 million square feet of municipal buildings will be certified green buildings within 15 years.

On February 1, 2008, as part of the Green Vision Implementation Plan presentation to Council, a workplan for the development of a private sector green building policy was presented and accepted by Council. The work plan laid out policy development for the private sector in two phases: Phase I would be applicable to all new construction and major renovation projects and Phase II would be applicable to all retrofit projects. The work plan proposed bringing forward a draft policy for Phase I implementation to Council in Fall 2008. Development of the private sector green building policy has been guided by five guiding principles presented to Council in February 2008:

1. Establish clear and consistent standards
2. Promote uniform regional policies
3. Raise awareness of green building practices
4. Balance incentives and mandated standards
5. Increase staff knowledge/ability to facilitate green building projects.

On April 7, 2008, the Transportation and Environment committee accepted a status report on the development of the City's green building policy for private development, and on April 22, 2008, adopted a resolution recognizing BIG's Point Rated and LEED as reference standards for new residential and non-residential construction, and requiring a green building checklist for new applications.

State and Regional Context

AB32 The California Warming Solutions Act of 2006

In 2006, the State of California adopted AB32, which requires by law a reduction in greenhouse gas emissions throughout the state to 1990 levels by 2020. According to the California Air Resources Board's draft scoping plan for AB32 (http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm), buildings are the second largest contributor to California's greenhouse gas emissions. Approximately one-quarter of the greenhouse gases emitted in 2004 can be attributed to buildings (Draft Scoping Plan, California Air Resources Board).

State of California Green Building Standards Code Adoption

In July 2008, the State of California Building Standards Commission adopted a Green Building Standards code outlining voluntary green building measures. The state intends to make some of the standards mandatory by the end of 2010. The adopted voluntary standards specifically state that these standards should be viewed as minimal standards, and that local government entities retain their discretion to exceed the standards.

Santa Clara County Cities Association (SCCCA)
In April 2008, the City of San José became one of 11 cities to adopt SCCCA recommendations regarding reference standards for green building. The City of San José continues to work with the SCCCA in developing a recommendation in an effort to promote regional consistency.

Other Cities
There have been a number of jurisdictions across the country, state, and region that have adopted private sector green building requirements. According to the California Attorney General's office, at a minimum 25 cities in California require LEED, GreenPoint Rated, or other point requirements for private sector development (See Attachment 2). Most notably, the following cities adopted private sector green building policies in 2008: Los Angeles on April 22, Palo Alto on June 2, and San Francisco on August 4. Nationally, many major cities (Austin, TX, Portland, OR, Chicago, IL) are incorporating mandatory private sector requirements into voluntary green building programs.

STAKEHOLDER INPUT

During the policy development process, staff collected input from a variety of stakeholders in an extensive outreach effort. The first round of outreach to industry stakeholders including developers, architects, engineers, contractors, building trades groups, affordable housing groups, and environmental groups began in April and ended in June 2008. Staff conducted 15 meetings with approximately 200 stakeholders to collect feedback on the proposed private sector policy.

The following comments and concerns were raised during this outreach effort:

- No new fees
- No new review cycles
- No new inspections and associated inspection fees
- Policy should not impact issuance of Building Permit or Certificate of Occupancy
- Developers would like to choose the most applicable rating system
- Concern about availability of "green" building products such as paints, carpets and lumber
- Desire for predictability and consistency across jurisdictions
- Provide incentives such as expedited building plan check for green projects
- Learn from Step 1 of the Phase I implementation prior to transitioning to Step 2.

As a result of the first round of outreach, staff made adjustments to the timing and performance levels of the policy proposal and has been working on developing an implementation method that does not include additional review time, fees, or inspections.

These changes are being presented to stakeholders during the second round of outreach being conducted throughout August 2008. Staff is distributing the proposed policy matrix during these meetings, and will provide a summary of feedback prior to the T&E and City Council hearings to consider policy adoption.

ANALYSIS

Summary of the Policy
The proposed *Private Sector Green Building Policy* (see Attachment 1) would complement Green Building Policy 8-13 applicable to municipal buildings by requiring green building certification in

specified private sector development projects. The Policy will address only new construction; a subsequent amendment to the Policy would establish standards for building renovations, tenant improvements and other "retrofit" projects as referenced in Green Vision Goal No. 4.

The Policy is designed to take effect in two steps: Step 1 would establish standards for a three year term after which Step 2 would introduce a lower threshold for affected projects and increase the performance requirements for particular types of development. This phased approach is intended to accommodate growth in the green building industry and ensure that its performance standards are in line with the availability of green building technology, materials and rating resources.

The Policy's requirement for all new construction projects to prepare and submit a green building checklist is intended to 1) serve as an information resource by exposing project developers to the range of green building measures available, 2) inform decision makers about the green building measures included in a particular project not subject to specific performance standards, 3) encourage developers to voluntarily include additional green building features in a project to achieve a particular green building standard.

Thresholds and Performance Levels
Building size thresholds for both residential and commercial development were determined based on historic development data showing that the majority of square footage of new development comes from projects of 25,000 square feet or 10 units and above.

The performance level of LEED Silver for commercial is being recommended based on feedback from stakeholders about current trends within the commercial real estate market. The performance level of 50 points for residential construction is a standard supported by the Northern California Homebuilders' Association, and sets an achievable baseline for green building for all applicants. It includes a requirement for improved energy efficiency as a prerequisite for achieving a rating.

These requirements were developed to create green building requirements that fit the type and size of construction specific to the City of San Jose. There are other California cities that have both higher and lower requirements than the proposed policy, however the proposed policy is meant to create a baseline standard based on local conditions.

Implementation
During the first three years of the policy (2009, 2010, 2011), all new construction projects will be required to submit a green building checklist with their building permit application. Although all projects are encouraged to incorporate green building practices, the checklist is for educational purposes only and is meant to familiarize the development community with common green building practices. These applicants will not be required to provide verification on the incorporation of these practices into their project nor will they need to meet any minimum threshold or point level.

Projects proposing 10 or more residential units or 25,000 square feet or more of commercial space will be additionally required to meet a performance level as specified in the policy. In 2012, the Policy will lower the threshold for commercial projects from 25,000 to 10,000 square feet, which is equivalent to the standard that the City of San José has established for municipal buildings. The Policy proposes these changes in 2012 in order to allow time for evaluation and any necessary

adjustments. It will likely take two years at a minimum for a project to complete the city process, finish construction, and become certified.

Projects will be subject to the policy at planning permit submittal for the project. Staff proposes to ensure compliance with the policy through the use of a green building deposit made during the building permit process, similar to the existing Construction Demolition Debris Diversion (CDDD) deposit program. This would require applicants to submit a deposit at the beginning of the building permit process, and would allow them to receive the deposit back after proof of certification is submitted at project completion. Forfeited deposits shall be deposited into a special account and used for the purposes of green building education and other activities promoting green building in the City.

The Policy would allow the City to measure progress towards achieving the Green Vision Goal No. 4 by establishing measurable green building standards. Combined with the estimated 2 million square feet of municipal green buildings, the Green Vision Goal No. 4 goal of creating 50 million square feet of green buildings in the City by 2022 would be substantially advanced.

Because several of the mandatory standards to be imposed under the policy would require stricter construction standards than are currently required under state law, staff is recommending that they be implemented by a Green Building Ordinance amending the San Jose Municipal Code. Following Council's approval of the Green Building Policy, staff will begin drafting an Ordinance to bring back to Council for final adoption before the end of November.

According to the California Department of Justice, cities across California have chosen different mechanisms to enforce green building requirements including requiring checklists, providing verification prior to issuance of building permit, restricting permits for non-compliant buildings, and enforcing penalties for violation of green building ordinances. San Jose would be the largest city to require certification and to require verification by using a performance deposit.

Key Elements
The following key elements of the proposed Green Building Policy address stakeholder input:

1. ***Verification by a Third Party***
   In order to avoid multiple review cycles, processing time, or inspections, the proposed policy recommends requiring 3rd party certification of green buildings. By requiring 3rd party verification, all projects are held to a consistent standard. The verification also reduces the amount of time or fees required for staff to confirm compliance with the proposed policy and prevents holding up the certificate of occupancy.

2. ***Post-Occupancy verification of compliance to City of San José***
   Staff is proposing implementation of a deposit program to ensure compliance with the proposed policy. The deposit proposal is modeled on the existing Construction Demolition Debris Diversion (CDDD) program, which collects a deposit based on building square footage which is then returned upon submittal of proof of recycling of 50% of construction debris. By submitting a deposit, there is no additional review time or fees.

3. ***Performance standard is determined at Planning Stage***
The policy proposes determining green building requirements for a project during the planning permit stage. This allows project proponents to integrate green building requirements into the project early in the design process.

4. ***Emphasizes LEED and Build It Green rating systems, but allows alternatives***
The LEED and BIG rating systems are proven and recognized rating systems that were developed by consensus of industry member organizations, and have been adopted locally and regionally as reference standards for green building. Also, alternative compliance proposal may be allowed in limited circumstances at the Director's discretion but will require additional fees and review cycle time.

5. ***Graduated phasing of requirements***
The proposed policy begins in 2009 with a baseline recommendation that increases in 2012 in order to provide predictability for future development planning. Prior to the 2012 phase-in of stricter standards, staff will provide a report on the effectiveness of the policy, as well as an examination of the effect of the requirements of the California Energy Code (Title 24), the adoption of mandatory green building standards at the state level, and the revisions to the individual rating systems.

6. ***Developer chooses appropriate rating system for project***
In April 2008, the San José City Council adopted LEED and GreenPoint Rated as green building reference standards, which is consistent with the recommendation made by the Santa Clara County Cities Association (SCCCA). The LEED rating system offers several project specific ratings systems including LEED for New Construction, LEED for Homes, or LEED for Neighborhood Development. Build It Green offers residential rating systems which include single-family and multi-family GreenPoint Ratings for new construction. The proposed policy allows applicants to choose the system that they believe is most appropriate to their project. All of the rating systems provide a consistent baseline standard.

7. ***Exemption provision***
The ordinance will outline criteria for exemptions and appeals.

Policy Development Guidelines
Staff has worked to develop the green building policy according to the five guidelines that were established by Council in February 2008.

1. ***Establish clear and consistent standards***
The policy establishes clear and consistent standards by using recognized reference standards with clear performance levels. The policy is consistent with the Northern California Homebuilders' Association recommendation to require Green Point Rated performance of 50 points for new residential construction, and is consistent with green building recommendations made to date by the SCCCA, and the Association of Bay Area Governments (ABAG).

2. ***Promote uniform regional policies***
The City of San José is working to promote uniform regional policies primarily by continuing to work with the SCCCA in developing a green building policy recommendation for adoption by member cities. Additionally, San José is a member of the Build It Green Public Agency Council, which is a collaborative effort of over 100 public agencies that meet quarterly to share information, create consistent regional green building standards, and support each others programs and initiatives.

3. ***Raise awareness of green building practices***
In order to raise awareness of green building practices, the City of San José is developing education materials for the municipal buildings that have been LEED certified or are pursuing certification. Additionally, requiring submittal of a completed checklist for all projects increases awareness of green building practices that may already be in use with small projects. In addition, staff is exploring incorporating a green building education center in the City of San José permit center which might include green building information, material examples, and a rotating display of exemplary green projects that have already been built within the City of San José.

4. ***Balance Incentives and Mandated Standards***
By requiring development projects to meet either the LEED or BIG standards, there is a fundamental requirement to improve energy efficiency. There are many existing incentive programs that work to encourage green building and specifically energy efficiency. By requiring development projects to meet either the LEED or BIG standards, many projects become eligible for existing incentive programs such as PG&E's Savings by Design program as well as free multi-family energy-efficiency design assistance, Energy Star grants, and tax exemptions. The policy does not propose any additional incentives for exceeding the policy requirements due to budget constraints.

5. ***Increase staff knowledge/ability to facilitate green building projects***
Staff is proposing 3rd party certification in order to ensure a consistent green building standard across project type by relying on consensus based industry proven green building ratings systems, and in order to reduce the amount of staff time required to implement green building policy requirements. With implementation of the proposed policy, it is expected that PBCE staff will receive questions and provide customer assistance on green building practices to the public. Staff has begun to implement green building training for development review and inspection staff throughout Planning, Building, and Code Enforcement Department, which to date includes formation of a "Green Team" in the Building Department, Certified Green Building Professional training for key staff, discussion of green building case studies during staff meetings, and planned attendance at the West Coast Green conference in San José in late September 2008.

COST IMPLICATIONS

The proposed policy has been designed to limit the impact on existing staff resources and avoid new development fees by having a 3rd party verify project compliance with the applicable green building standard. Implementation of the policy will still require increased staff time, including time for development of public information materials, staff time to update database software to include

tracking of green building square footage and other performance measures, staff time to incorporate new requirements into development application materials and websites, staff time for training on implementation of the proposed policy, and staff time expected to assist the public in completing the required green building checklists.

The Mayor's June Budget message included a specific allocation of $900,000 for implementing the Green Vision, of which $75,000 is dedicated for Green Building Policy Implementation/Staff Training. However, PBCE is evaluating whether additional funds are needed to support implementation of the policy. A preliminary analysis suggests that full implementation of the policy would require a one-time allocation of up to $100,000 to support the implementation tasks noted above and one FTE position to support front line administrative functions. PBCE will refine the estimate of resources needed during the implementation process and coordinate with the Budget Office to identify appropriate funding sources. Staff will report back during the mid-year budget process.

EVALUATION AND FOLLOW-UP

This policy addresses primarily Green Vision Goal #4 as well as contributes to implementation of the following Green Vision Goals:

Goal #2: Reduce per capita energy use by 50%
Goal #3: Receive 100 percent of our electrical power from clean renewable sources
Goal #5: Divert 100 percent of the waste from our landfill and convert waste to energy
Goal #6: Recycle or beneficially reuse 100 percent of our wastewater (100 million gallons per day)

A progress report on the implementation of the Private Sector Green Building Policy to City Council will be provided as part of the annual Green Vision report.

Per Council's direction in February 2008, staff has prepared a policy that addresses new construction. Retrofit of existing buildings is scheduled for Phase II of the policy, and will include extensive stakeholder outreach prior to proposal of green building requirements.

Private Sector Green Building Policy Next Steps	
Ordinance adoption by Council	November 2008
Implement new construction green building requirements (Phase I)	January 2009
Outreach begins for Phase II	July 2009
Adoption of amended policy and ordinance to include Phase II	Fall 2010
Implementation of Phase II	January 2011
Evaluation of progress of policy	Summer 2011
Adoption of amended policy and ordinance to include Step 2 for Phase I new construction	January 2012

POLICY ALTERNATIVES

Alternative # 1: Not adopt a Green Building Policy for the private sector

Pros:

- No additional requirements for developers other than State standards, including anticipated Title 24 and other Building Code revisions.

Cons:

- Does not further Green Vision Goal #4 of building or retrofitting 50 million square feet of green buildings over the next 15 years or related Green Vision goals.
- Does not reduce energy consumption, water consumption, or achieve other green building benefits.

Reason for not recommending:
Implementing measurable green building standards for the private sector will be needed to realize the Green Vision goal 4 as well as continue San José's leadership role in environmental sustainability.

Alternative #2: Set More Stringent Standards such as lower size thresholds and higher performance levels

All new development subject to the alternative Policy would have to achieve higher green building standards than those of the recommended Policy.

Pros:

- New construction projects would incorporate additional green building elements that may result in increased energy savings, water conservation and use of sustainable materials, as well as other fundamental green building benefits.
- Implementation of higher green building standards would help enhance achievement of Green Vision sustainability goals.
- San Jose would take on a greater leadership position in green building policy by requiring standards more stringent than its local counterparts.

Cons:

- Higher green building standards could create demand for green building resources such as energy efficiency technology and green building materials in excess of available resources.
- Higher green building standards would likely result in higher construction costs, to an unknown extent.
- Higher green building standards exceeding those of local counterparts may discourage development and adversely affect long-term achievement of Green Vision Goals by placing San Jose at a competitive disadvantage.

Reason for not recommending: The proposed green building policy is designed to create an accessible baseline standard for construction in San Jose and is the result of extensive stakeholder outreach. Raising required standards for the proposed green building policy could create demand for green building resources such as energy efficiency technology and green building materials in excess of available resources, result in higher construction costs, discourage development and adversely affect long-term achievement of Green Vision Goals.

Alternative #3: Certification by LEED or Build It Green Not Required

Verification of project conformance with the respective LEED or Build It Green standards would not be required. The City could ensure compliance with the green building standards through an alternate method, such as allowing a qualified professional (licensed architect or engineer) to submit documentation of project compliance with the standard. The City would review the documentation prior to issuance of building permits. The City might also conduct audits of completed projects to ensure the green building standards are met.

Pros:

- Projects would not incur costs of registering with LEED or BIG and completing required inspections and documentation,
- Projects would avoid the upfront cost of paying a deposit to the City.

Cons:

- Additional project review time and related fee for staff review of statement of compliance prior to issuance of Building Permit and to conduct audits of completed projects.
- Costs for compliance documentation and City review may be comparable to or more than LEED or BIG fees.
- City would need to create an audit process to ensure completed projects meet requirements. The resources required to accomplish this are unknown.

Reason for not recommending: During public outreach for the policy, the major concern was that implementation of the policy would increase review times and associated fees. Requiring staff to verify project conformance would increase the staff time needed for review cycles and the related fees would increase. Furthermore, the standard of consistency will be lower unless substantial additional resources are added.

PUBLIC OUTREACH/INTEREST

☐ **Criteria 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

☑ **Criteria 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criteria 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

In addition to the two rounds of public outreach conducted by staff, a hearing notice for the proposed policy was sent by e-mail to developers, consultants, engineers, representatives of environmental groups, and other stakeholders groups. The schedule of upcoming public hearings was also distributed at the Developer's Roundtable on August 1, 2008 and at all outreach meetings conducted during the month of August. Finally, notice of the public outreach meetings and public hearings were

posted on the Planning Department website. For a complete list of the outreach schedule and stakeholder groups contacted, refer to Attachment 2.

COORDINATION

Preparation of the Proposed Policy and this memorandum were coordinated with the City Attorney's Office, City Manager's Office, Environmental Services Department, Housing Department, and the Office of Economic Development.

FISCAL/POLICY ALIGNMENT

The proposed policy is consistent with the City of San José Green Vision and with General Plan policies regarding sustainability and protection of energy and water resources and natural resources. Additionally, green building practices are expected to reduce greenhouse gas emissions, in conformance with AB32 The California Warming Solutions Act 2006.

CEQA

The adoption of the proposed ordinance is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) per Section 15308 of the CEQA guidelines.

The policy is not expected to displace development to other areas in the South Bay due to increasing attention to green building among other neighboring cities. For example, the Santa Clara County Cities Association is making green building recommendations for all member cities in Santa Clara County, and other jurisdictions have adopted or are considering similar green building requirements. Additionally, green building standards will be mandated at the state level by 2011. It is unlikely that development will move substantially within the region or state, or out of state, to seek regulatory or market conditions with reduced green building requirements.

JOSEPH HORWEDEL, DIRECTOR
Planning, Building and Code Enforcement

For questions please contact Michael Rhoades at 535-7821.

Attachment 1: Draft Private Sector Green Building Policy
Attachment 2: Local Government Green Building Ordinances in California
Attachment 3: Schedule and Roster of Stakeholder Outreach

City of San José, California

COUNCIL POLICY

TITLE Private Sector Green Building Policy	**PAGE** 1 of 3	**POLICY NUMBER** 6-32
EFFECTIVE DATE	**REVISED DATE**	
APPROVED BY COUNCIL ACTION		

PURPOSE

This policy establishes baseline green building standards for private sector new construction and provides a framework for the implementation of these standards. This Policy is intended to enhance the public health, safety and welfare of San José residents, workers, and visitors by fostering practices in the design, construction, and maintenance of buildings that will minimize the use and waste of energy, water and other resources in the City of San Jose.

The green building standards required by this policy are intended to advance greenhouse gas reduction and other sustainability strategies outlined in the City's Green Vision. Green building reduces per capita energy use, provides energy from renewable sources, diverts waste from landfills, uses less water and encourages the use of recycled wastewater. Green building also encourages buildings to be located close to public transportation and services and provide amenities that encourage walking and bicycling and therefore offer further potential to achieve a healthy, environmentally sustainable city.

BACKGROUND

In 2001, the City Council of the City of San José first adopted a Green Building Policy (Policy No. 8-13), and in March 2007, City Council amended the Green Building Policy to mandate that City and Agency facilities over 10,000 square feet attain a LEED Silver certification through the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) program, and to encourage green building in the private sector.

On October 30, 2007, City Council adopted San José's Green Vision, establishing 10 bold goals for the City that serve as a roadmap for reducing the carbon footprint of the City of San José by more than half. Green Vision Goal No. 4 specifically states that over the next 15 years, 50 million square feet of buildings built or retrofitted in the City shall be "green". The City estimates that approximately 2 million square feet of municipal buildings will be certified green buildings by 2022.

In April 2008, City Council adopted recommendations from the Santa Clara County Cities Association to recognize Build It Green's (BIG) GreenPoint Rated (GPR) and USGBC's LEED green building rating systems as reference standards for new residential and non-residential construction, and to incorporate the use of a green building checklist for planning applications. City Council adopted these recommendations in order to promote regional consistency, raise awareness of green building practices, and to make progress on Green Vision Goal No. 4.

POLICY

This policy requires that Applicable Projects achieve minimum green building performance levels using the Council adopted reference standards as specified in Table 1. This policy applies to

those development projects meeting the thresholds for Applicable Project, that first make application for a development permit to the Planning Division on or after January 1, 2009.

New development projects subject to a mandatory green building standard shall demonstrate compliance with this Policy by submitting verification documents from USGBC or Build It Green to the Director of Planning, Building and Code Enforcement. The project proponent may determine the particular LEED or BIG rating program for their project.

Table 1

Applicable Project	Step I - January 1, 2009	Step 2 - 2012
Commercial/Industrial - Tier 1	< 25,000 square feet = LEED NC Checklist	< 10,000 square feet = LEED NC Checklist
Commercial/Industrial - Tier 2	≥25,000 square feet = LEED Silver	≥10,000 square feet = LEED Silver
Residential < 10 units Tier 1	< 10 units = GreenPoint or LEED Checklist	< 10 units = GreenPoint or LEED Checklist
Residential ≥ 10 units Tier 2	≥10 units = GreenPoint Rated 50 points or LEED Certified	≥ 10 units = GreenPoint Rated 50 points or LEED Certified
High Rise Residential (75' or higher)	LEED Certified	LEED Silver

For mixed-use projects, only that component of the project triggering compliance with the policy shall be required to achieve the applicable green building standard.

The Director of Planning, Building, and Code Enforcement shall ensure implementation guidelines and practices are developed and maintained to provide sufficient direction and clarity to carry out this policy in an efficient and accountable manner.

IMPLEMENTATION

In order to implement the Policy, the City will by ordinance create mandatory construction standards that utilize the LEED and Green Point Rated rating systems. The ordinance will establish a process for situations where the project proponent believes that circumstances exist that make it a hardship or infeasible for a project to fully meet the green building requirements, whereby they may apply to the Director for an exemption or alternative method of compliance when making application for a development permit. The Director shall consider the particular

circumstances of the project to determine if the green building standard may be waived or a less stringent standard may be required.

DEFINITIONS

Applicable Project - Projects meeting the size criteria established in Table 1 of this Policy.

Build It Green - A non-profit membership organization whose mission is to promote healthy, energy- and resource-efficient building practices in California. Build It Green publishes New Home Construction Green Building Guidelines, the New Home GreenPoints Checklist, and the Multi-Family GreenPoints Checklist.

Green Building - A whole systems approach to the design, construction, location, and operation of buildings and structures that helps to mitigate the environmental, economic, and social impacts of construction, demolition, and renovation. Green building practices recognize the relationship between the natural and built environments and seek to minimize the use of energy, water, and other natural resources and promote a healthy, productive indoor environment. A green building meets the criteria of the Council adopted reference standards.

Green Point Rated - Administered by Build It Green, GreenPoint Rated is a green building rating system which can be used to assess the environmental characteristics of a home. GreenPoint Rated assigns point values to recommended practices based on their benefits to the homeowner and the environment. If a home meets minimum point requirements in each category and scores more than 50 total points, it earns the right to bear the GreenPoint Rated label.

LEED - The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high performance green buildings. The LEED system offers levels of certification for new construction referred to as Certified, Silver, Gold, and Platinum.

U.S. Green Building Council - The U.S. Green Building Council is a non-profit community of leaders working to make green buildings available to everyone within a generation.

Verification - Submission of documents from USGBC or Build It Green stating that the completed project has achieved the minimum number of points or required level of certification under its' respective rating system.

Attachment 2: Schedule and Roster of Stakeholder Outreach

Initial Outreach

1/11/08	Developer's Roundtable
3/26/08	Planning Commission
4/7/08	**Transportation & Environment**
4/8/08	Neighborhood Roundtable
4/11/08	Developer's Roundtable - Special Session
4/14/08	High-Rise Developers
4/17/08	BOMA
4/24/08	General Meeting
4/30/08	Construction Roundtable
5/1/08	AIA
5/2/08	High-Rise Developers
5/7/08	Pipefitter's
5/9/08	Housing Roundtable
5/14/08	Single Family
5/16/08	Multi-Family
5/28/08	Commercial
5/28/08	Sierra Club/Greenbelt Alliance
~~6/2/08~~	~~T&E - item deferred~~
6/13/08	Building Trades Council

Second Round Outreach

8/1/08	Developers' Roundtable
8/5/08	AIA Board
8/7/08	HBANC Board
8/15/08	Residential Focus Group
8/20/08	High Rise Focus Group
8/22/08	Commercial Focus Group
8/27/08	Construction Roundtable
8/28/08	General Meeting

Stakeholders

AGI Capital
AIA Silicon Valley
AMB Property Corp.
Anderson Brule Architects
Arcadia
AVANT
Barry Swenson Builder
BDE Architecture
Berliner Cohen
Bill Gould Design
Blach Construction
BOMA-SV
Boston Properties
Braddock & Logan
BRE Properties
Bridge Housing
Build It Green
Building Trades Council
Carpenters 405
CAS Architects
Castle Group
Charities Housing
Community Housing Developers (CHD) Inc.
Construction Employers' Association
CORE
CTE Energetics
Cupertino Electric
David J. Powers
Ecumenical Association for Housing
Eco Edge
ES Geotechnologies
Essex Property Trust
Fairfield Residential LLC
First Community Housing
Gensler Arch
Greenbelt Alliance
Hawley Peterson & Snyder
H3 Development, LLC
Homebuilders' Association - NC
HMH Engineers
IAC
IBEW
IDeAs
Jeff Jacobs/Building Advisory
Joint Venture Silicon Valley
JSM Enterprises
Kamachi Design Associates
KBM Workspace
KT Properties
Legacy Partners Residential
Lusardi Construction Company
Mesa Development
Mid Peninsula Housing
Mill Valley Bamboo
Mindigo & Associates
MPHLLC
One Workplace
OPI Builders
Osborne Architects
Pacific Geotechnical
Pinn Bros. Construction
Pipe Trades JATC
Plumbers, Steamfitters & Refrigeration Fitters Local 393
Project Management Advisors
Pulte Homes
Ray L. Hellwig Mechanical
Redwood City Electric
Reel Grobman
Regis Homes
RMW Architecture & Interiors
Robert A Bothman
ROEM
Rosendin Electric
Ruth and Going
Salvatore Caruso Design Corp.
San Jose Blue
Sausedo Co/NAIOP
Sheet Metal Workers' Local 104
Sierra Club
Silicon Valley Leadership Group
Sobrato Development Companies
Sprig Electric
Steinberg Architects/AIA
Summerhill
Tannerhecht Architecture
The Performing Home
TBI Construction & Construction Management, Inc.
Trammel Crow Residential
Terry J. Martin Associates
The Irvine Company
The Performing Home
USGBC
Webcor Builders
West Trust
Wilson Meany Sullivan
Working Partnerships USA

Local Government Green Building Ordinances in California

In recent years, numerous local governments in California have implemented "green" building ordinances. These measures can increase energy efficiency, reduce greenhouse gas emissions, and decrease other harmful environmental impacts. This document identifies the various approaches to green building ordinances that jurisdictions have taken and the most common features of the measures.

The following cities in California have enacted mandatory Green Building Ordinances:

City	Ordinance	Effective Date	Link
Albany	Ord. 06-016	July 2007	Here
Brisbane	Ord. 524	January 2008	Here
Calabasas	Ord. 2003-185	February 2004	Here
Cotati	Res. PC No. 06-24	January 2008	Here
Culver City	Ord. No. 2008-004	March 2008	Here
Livermore	Ord. No. 1804	January 2008	Here
Long Beach	Current Policy	Ord. Pending	Here
Los Altos	Ord. No. 07-315	December 2007	Here
Los Angeles	Ord. No. 179820	May 2008	Here
Novato	Ord. No. 1503	October 2005	Here
Palm Desert	Ord. No. 1128	February 2007	Here
Palo Alto	Ord. No. 5006	July 2008	Here
Pasadena	Ord. No. 7031	May 2008	Here
Pleasanton	Ord. No. 1873	January 2003	Here
Rohnert Park	Ord. No. 782	July 2007	Here
San Francisco	Ord. Pending	Ord. Pending	Here
San Rafael	Ord. No. 1853	August 2007	Here
San Mateo (Co.)	Ord. No. 04411	March 2008	Here
Santa Barbara	Ord. No. 5446	March 2008	Here

Santa Cruz	Ord. 2005-29	January 2007	Here
Santa Monica	Ord. No. 2261	May 2008	Here
Santa Rosa	Ord. No. 3869	June 2008	Here
Sebastopol	Res. 5454	March 2005	Here
Marin (Co.)	Ord. No. 3492 Code Ch. 22.42	June 2008	Here Here
Windsor	Ord No 2007-215	June 2007	Here
West Hollywood	Ord. No. 07-762	October 2007	Here

Green Rating Systems

The enactment of local green building requirements has been facilitated by the development of several independent rating systems increasingly used in the building industry to objectively evaluate "green" buildings. The most common system is Leadership in Energy and Environmental Design (LEED®), developed by the United States Green Building Council (http://www.usgbc.org). LEED has developed several rating systems with guidelines for different construction markets, including new nonresidential buildings, core and shell construction of commercial buildings, construction of commercial interiors, the construction of schools, health care facilities, and retail spaces, and a newly-developed system for homes (LEED-H), released in January of 2008. The LEED for Neighborhood Development Rating System is in the pilot program stage and should be released in 2009.

Under the LEED rating system, the use of specific green building practices or design elements, in addition to certain prerequisite practices, accrue "points" on a checklist. Depending upon the number of points earned, each project is given a rating which corresponds to a level of LEED certification. Projects which meet the minimum number of points are "Certified." Projects which accrue more than the minimum are rated "Bronze," "Silver," "Gold," or "Platinum," according to the number of points earned. Most cities require some level LEED-equivalent performance for some types of buildings, but do not require registration with the United States Green Building Council.

Another rating system used by local governments in their green building ordinances is the "GreenPoints Rated" program first developed by a coalition of Alameda County waste agencies (http://stopwaste.org) and promoted by Build It Green, a nonprofit organization based in Berkeley, California (http://www.builditgreen.org). The GreenPoints Rated system, while similar in approach to LEED, is focused on residential development, including separate guidelines for single-family and multifamily buildings. A building must attain at least 50 "GreenPoints" to be certified as "GreenPoint Rated."

Several cities or counties have developed their own "points" systems using guidelines and checklists based on the GreenPoint Rated system. These include guidelines developed by the Sonoma County Waste Management Agency (http://www.recyclenow.org) and the City of West Hollywood (http://www.weho.org/greenbuilding/). These alternative systems award points for many of the same practices, such as the use of fly ash in concrete, the recycling of construction debris, and the installation of overhangs.

While the far majority of local ordinances require or permit the use of LEED ratings for public

and commercial projects, most local ordinances rely on GreenPoints or related systems for residential construction. In 2007, Build it Green signed a Memorandum of Understanding with Davis Energy Group (www.davisenergy.com) to calibrate the LEED for Homes and GreenPoints Rated systems for use in California, allowing for cross-training of building professionals, concurrent verification, and the possibility of "dual-branded" homes meeting the requirements of both systems.

As an alternative to the approach of LEED and GreenPoints Rated, the California Building Industry Association's Building Industry Institute has developed the California Green Builder program (http://cagreenbuilder.org) to help builders and communities introduce and verify green building practices. The California Green Builder program combines prescriptive green building measures with a performance-based verification system. Unlike LEED and GreenPoints Rated, the California Green Builder protocols do not use "points," but require specific practices and third party verification of a building's actual performance. The California Green Builder program ensures that buildings exceed state energy efficiency requirements by at least 15%, while verifying practices such as duct sealing and construction waste management. As of yet, no California city has required developers to use the Green Builder Program. However, cities such as San Bernardino, Riverside, and Cathedral City have passed ordinances that provide incentives for developers who use the system.

Examples of cities' minimum LEED, GreenPoint Rated, or other point requirements for private development:

City	Nonresidential Buildings	Residential Buildings
Albany	LEED Gold if over 5000 ft.^{2}	50 GreenPoints for single-family
Berkeley	Energy audit required if construction totals more than $50,000	Energy audit required if construction totals more than $50,000
Brisbane	LEED Silver if over 10,000 ft.^{2}	50 GreenPoints for multifamily
Calabasas	LEED Certified if over 500 ft.^{2}; LEED Silver if over 5000 ft.^{2}	
Cotati	60 GreenPoints	60 GreenPoints
Chula Vista		50 GreenPoints
Livermore	LEED Certified Equivalent	50 GreenPoints
Long Beach	LEED Certified if over 50 units	LEED Certified if over 50,000 ft.^{2}
Los Altos		50 GreenPoints
Los Angeles	LEED Certified if over 50,000 ft.^{2}	LEED Certified if over 50,000 ft.^{2} and at least 50 units.
Novato		50 GreenPoints
Palo Alto	LEED Silver if over 5,000 ft.^{2}	70 GreenPoints if over 1250 ft.^{2}

Pasadena	LEED Certified if over 25,000 ft.^{2}; LEED Silver if over 50,000 ft.^{2}	LEED Certified if over four stories
Pleasanton	LEED Certified if over 20,000 ft.^{2}	
Rohnert Park	LEED Silver	90 GreenPoints
San Francisco	LEED Gold	75 GreenPoints or LEED Silver
San Rafael	LEED Certified; LEED Silver if over 30,000 ft.^{2}	60 GreenPoints
San Mateo (Co.)	LEED Silver if over 3,000 ft.^{2}	50 GreenPoints or LEED Certified
Santa Cruz		10 GreenPoints + 1.5 GreenPoints for every 100 ft.^{2} over 350 ft.^{2}
San Francisco	LEED Gold (by 2012)	75 GreenPoints or LEED Silver (by 2012)
Santa Monica	7 LEED Points (all LEED prerequisites)	
Sebastopol	60 Sonoma County Points	60 Sonoma County Points
Hayward	LEED Silver if valued over $3,000,000	50 GreenPoints if more than 20 units
Windsor	20 LEED Points	50 GreenPoints
West Hollywood	60 City Points Or LEED Certified	60 City Points or LEED Certified

Prescriptive Measures

Rating systems offer flexibility for developers, since the developer can choose which green building practices will be used to meet the requirements. However, some cities have chosen to prescribe specific green building measures in lieu of or in addition to required ratings. These requirements address the particular resource needs of a community, and include measures such as the installation of water-saving plumbing fixtures, solar panels, or the use of energy-saving EnergyStar appliances.

Some cities that require specific prescriptive measures with examples:

City	Required Measures
Cotati	Pre-plumb for solar water heating; 30% fly ash in concrete; 50% native plants in landscaping; protection for 80% drought conditions.
Chula Vista	Pre-plumb for solar water heating
Culver City	1kw of installed solar panels

Palm Desert	Fluorescent, automatic-OFF landscape and utility lighting; NEMA premium electric motors and pumps; conduit for solar
Pasadena	Meet LEED credit 3.1 (water efficiency)
Rohnert Park	Variable speed pool pumps; EnergyStar exhaust fans
Santa Barbara	Variable speed pool pumps; EnergyStar appliances; NEMA premium HVAC motors
Santa Monica	Efficient water heating; EnergyStar appliances; light sensors/dimmers
Sebastopol	Dual flush toilets; low-flow showerheads
West Hollywood	Roof capacity for solar panels; bike parking; many others.

Performance Standards

Performance standards provide a way to measure the energy efficiency of a building. Tools and guidelines for assessing the performance of buildings have been developed to implement California's energy efficient building standards, and are available from the California Energy Commission (http://www.energy.ca.gov/title24/). Both the California Green Builder program and GreenPoints Rated systems require qualifying buildings to exceed Title 24 requirements by at least 15%, and buildings using the LEED system are awarded points for exceeding Title 24 requirements by more than 15%.

As an alternative to ratings systems such as LEED, GreenPoint Rated, or California Green Builder, which grant certification for specific actions designed to conserve resources, many local governments have chosen to directly implement performance standards as alternate means of compliance or as separate requirements from green building practices. Under California Public Resources Code § 25402.2(h), such requirements, when they relate to energy efficiency, must be approved by the California Energy Commission and must be more stringent than the requirements found in Title 24, Part 6 of the California Code of Regulations. Nearly ten cities have received approval from the Energy Commission to incorporate energy efficiency performance standards into their green building ordinances separate from incorporation of GreenPoints Rated or LEED.

Cities that have adopted performance-based requirements exceeding Title 24:

City	Energy Efficiency Requirement (increase over Title 24)
Cotati	15%
Los Altos	15% for non-residential buildings
Los Altos Hills	15% for residential buildings
Palm Desert	10% for residential buildings; 15% if over 4,000 ft.^{2}
Rohnert Park	10-15% for residential buildings based on size

San Rafael	All homes above 3,500 ft.^{2} must equal Title 24 energy use of a 3,500 ft.^{2} home
Santa Barbara	20% for residential buildings
Santa Monica	10% exempts projects from prescriptive requirements
Santa Rosa	15% for residential buildings

Municipal Buildings

Many ordinances in California require that municipal buildings and other city-sponsored projects promote green building practices. These are often the first and most stringent green building requirements passed by a city.

Examples of cities which have higher green building requirements for public buildings than for private projects:

City	Requirement for Municipal Buildings
Albany	LEED Gold if over 5,000 ft.^{2}
Berkeley	LEED Silver
Brisbane	LEED Silver if over 5,000 ft.^{2}
Livermore	LEED Silver
Los Altos	LEED Certified if over 7,500 ft.^{2}
Los Angeles	LEED Certified if over 7,500 ft.^{2}
Pasadena	5000 ft.^{2}; LEED Silver
Rohnert Park	LEED Silver
San Rafael	LEED Certified; LEED Silver if over 30,000 ft.^{2}
West Hollywood	LEED Certified
Livermore	LEED Certified

Enforcement

Cities have chosen many different mechanisms for enforcing green building requirements. Most cities require submission of completed checklists based on building plans at the permitting stage. In most cities, buildings permits are contingent upon a complete and sufficient checklist. Many cities, such as Rohnert Park, Santa Monica, and Palo Alto provide for green building verification prior to issuing an occupancy permit. The power to restrict permits for non-compliant buildings is an important part of ensuring compliance by private developers. San Mateo County requires builders to post a bond of $1.50 per square foot to ensure compliance with green building

requirements.

In addition to enforcement through the permitting process, some local ordinances provide for penalties for violation of a green building ordinance. Ordinances can provide for infractions or injunctions for violators, or even civil penalties. Criminal and civil sanctions are an important way of insuring that green building practices are followed even after the permitting process is complete.

Cities and their methods of green building enforcement:

City	Enforcement
Berkeley	Plan check at permit stage
Brisbane	Verification prior to occupancy permit
Cotati	Plan check and project inspection
Culver City	3rd party inspection
Livermore	Verification plan submitted at permit stage; inspection prior to occupancy permit; infraction or injunction for violation; violation is also public nuisance
Long Beach	3rd party inspection prior to occupancy permit
Los Altos	Verification prior to final inspection
Los Angeles	Plan check or LEED registration at permit stage
Novato	Plan check at permit stage
Palo Alto	Plan check and verification prior to final inspection
Rohnert Park	Plan check and verification prior to final inspection; infraction and civil penalty for violation
Pasadena	Verification at final inspection; additional inspections as needed
San Mateo (Co.)	Plan check at permit stage; bond required until 3rd party verification
Santa Cruz	Plan check at permit stage
Santa Monica	Plan check at permit stage and final inspection
Santa Rosa	Plan check at permit stage and final inspection

Windsor	Verification plan developed at permit stage
West Hollywood	Plan check at land use and permitting stages
Livermore	Verification at permit stage

Incentives

Many ordinances that codify mandatory green building requirements also provide incentives that encourage developers to meet or exceed the required standard. These incentives can take the form of rebates or reimbursements, or preferential treatment as expedited permit review, expedited inspections, or even permit variances such as increased floor-area-ratio (FAR) or unit density.

Examples of cities that provide incentives for green performance in addition to mandatory standards:

City	Incentives
Anaheim	Expedited permit processing and fee waivers
Costa Mesa	Expedited permit processing and fee waivers
Chula Vista	50 GreenPoints meets indoor air plan requirements; expedited permit processing
Los Angeles	Expedited permit processing for LEED Silver
Petaluma	Buildings attainting 50 GreenPoints get certificate, plaque, city recognition
San Francisco	Priority permitting for LEED Gold; FAR/height waivers for higher performance
San Rafael	Expedited permit, fee waiver, sign, plaque for 100 GreenPoints or LEED Gold
San Mateo (Co.)	Priority permitting for 75 GreenPoints or LEED Certified
Santa Monica	Permit processing for 35 GreenPoints or 33 LEED points
Marin (Co.)	Rebates for installation of home solar panels

Comprehensive Ordinances

As this document illustrates, there are a variety of approaches, methods, and measures to ensure that a city's development occurs in the most sustainable way possible. Required ratings, prescriptive measures, performance standards, powerful enforcement, and a variety of incentives can all work together to promote the effective and efficient shift to environmentally sensitive building. The most comprehensive programs combine all of these elements to establish minimum standards while encouraging innovation and voluntary commitment to green practices.

Cities and counties of all sizes can take ambitious action to combat climate change. Two such comprehensive programs are compared below:

	San Francisco (proposed)	**Rohnert Park**
Approximate population (U.S. census estimate)	764,000 in 2007	41,083 in 2006
Residential requirement	75 GreenPoints (by 2012)	90 GreenPoints
Nonresidential requirement	LEED Gold (by 2012)	LEED Silver
Examples of prescriptive requirements	On-site space designated for compostable waste, in addition to recycling (by 2012)	Variable speed pool pumps; Energy Star exhaust fans; mastic applied to duct joints
Incentives	For "significantly" exceeding requirements: -Additional building height or FAR -Priority permitting -Equalization of green assessment evaluations, avoiding increased taxes for green features -Rebate or refunds of project fees	None
Enforcement	Plan check and verification prior to final inspection	Plan check and verification prior to final inspection; infraction and civil penalty for violation

Several organizations offer information to local governments interested in developing green building initiatives. Model ordinances and resolutions covering city buildings and encouraging green building in the private sector are available at http://www.stopwaste.org. These resolutions are common first steps to developing mandatory green building requirements. Global Green USA (http://www.globalgreen.org) offers several publications and resources for local governments, including *Developing Green Building Programs: A Step-by-Step Guide for Local Governments*.