



2009 Survey of Interest in Green Building Incentives & Barriers: Bellingham, Washington

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This report was prepared as part of Sustainable Connections' 5/12 Green Building Program.



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Executive Summary

This report was created in conjunction with the City of Bellingham and Sustainable Connections' FIVE/12 Green Building Incentive Program, which intends to reduce green building barriers by creating at least five tangible green building incentive success stories by January 2010. As part of this process, this report documents Bellingham building professionals' interest in green building incentives proposed by the City of Bellingham and Sustainable Connections (SC). It also evaluates current barriers to green building based on these individuals' experiences with the City of Bellingham.

A total of fifty interviews were conducted in early 2009 with building industry professionals who worked in Bellingham and were interested in green building practices. The interviewees spanned the architecture, engineering, planning, development and construction fields. During the interviews, respondents were asked to quantitatively rank and make open-ended, qualitative comments about eighteen incentives and three barriers to green building. These incentives and barriers were suggested by programs successfully employed in other jurisdictions.

The highest ranked incentives were:

- 1) increasing flexibility in code standards to allow for LID design strategies
- 2) reducing or eliminating the need for large scale stormwater strategies in return for using smaller scale methods
- 3) reducing minimum parking requirements

Several distinctive and frequently heard remarks from the interviews are listed below:

- A lack of consistency in code interpretation has hindered the absorption of green building into the market.
- Future incentives and related legislation should be heavily publicized in order to increase their use.
- When incentives are created, the possibility of "greenwashing" – the existence of projects which appear to be sustainable but are not – must be addressed.

The results of this survey should be used to inform future decisions regarding which incentives and barriers to prioritize. The City has an extraordinary opportunity to promote innovative design and building strategies in Bellingham. Bellingham is increasingly cited as a regional and national leader in sustainable development practices and encouraging and enabling innovative green building practices is an important part of deepening that commitment. This commitment is most clearly stated in the Bellingham Comprehensive Plan Community Design Goal 1: "promote improvement in the quality of public, residential, commercial and industrial development and maintain a high quality environment by ensuring that new construction and site development meets high standards."

This survey reveals that the building industry is encouraged by the City's interest in this matter. It is thus recommended that the process of identifying and correcting green building barriers continue in a clear and publicized manner.

Any questions or feedback regarding the information found herein should be directed to Sustainable Connections Green Building Program and Policy Managers Nick Hartrich and Alex Ramel.



Process

Survey questions were compiled in late 2008 by Nick Hartrich (SC's Green Building Manager), and Alex Ramel (SC's Policy Manager), in conjunction with Kim Weil and Steve Sundin (City of Bellingham Planning Department). The group sought to develop a survey that would provide the City with additional information regarding which incentives to implement. Several leading green building professionals were asked to provide feedback and insight into the survey design. Sustainable Connections interns Noe Penney and Ethan Rommen then conducted fifty interviews with green building professionals from the construction, engineering, architecture, and other related fields.

Interviewees were asked to quantitatively rank each incentive based on how likely it was that they would use the incentive in their projects. Thus a score of 8 means that the interviewee believed it to be 80% likely that they would take advantage of the incentive. In some cases, the score also reflected the interviewee's belief that their colleagues in other building fields would use these incentives. For instance, many architects rated low impact development incentives based on their knowledge of working with others in the industry, even if they had not directly participated in stormwater management. Interviewees were then asked to give qualitative feedback on each incentive. Interviewers took careful notes, asked follow up and clarifying questions and following each interview categorized the comments for tracking purposes.

Below are descriptions of incentives, as given to survey participants.

Reduced Permit Time Incentives

1. Green building review team - Dedicated City staff could use integrated permit review specifically dedicated to green projects as opposed to review taking place through individual departments for non-green projects. This integrated approach would save applicants time and provide additional opportunity for allowable code interpretations.
2. Reduced permit times for green projects - Sustainable building projects that meet specific green building performance levels such as LEED, BuiltGreen and ENERGY STAR would be prioritized for review, resulting in a significant reduction in building permit review time. All new construction residential projects would be eligible and are encouraged to contact the City of Bellingham early in the design process. The program would be administered so as to ensure appropriate review times for all projects.
3. Expedited permitting for infill projects - Projects that are designed on an identifiable and approved infill lot in the City of Bellingham that incorporates use of the Infill Toolkit. Projects would be prioritized for review, resulting in a significant reduction in building permit review time. The program would be administered so as to ensure appropriate review times for all projects.

Tax /Fee Incentives

4. Feebate program - This incentive would impose a fee on projects built to minimum energy code standards. Those that exceed by 30% state energy efficiency standards for new commercial and residential construction would pay no fee. Those developers who exceed the standard by 45% would get cash rebates. Fees would be structured to keep the program revenue neutral.
5. Permit/Zone fee reduction - In return for reaching specific levels of LEED or comparable green rating systems, the city would waive or partially reimburse the application, building or permit fees charged.
6. Tax Incentives - Examples of green building tax incentives could include exemption from county tax abatement for LEED buildings, reduction in B&O tax, real estate or property tax exemption or a business energy tax credit.
7. Grants and Cash incentives - Cash and grant incentives between \$1,000 - \$30,000 could be available for projects seeking Built Green or LEED certification. Grant award would be based on performance level achieved.

Technical Assistance Incentives

8. Energy conservation rebate assistance - Technical assistance could be provided by city of Bellingham staff to help applicants take advantage of existing utility efficiency incentives offered by PSE and CNG. "Technical Assistance" includes staff resources to complete paperwork, rebate analysis, ability to clearly identify which bonuses are applicable to your project, provide resources to additional rebates, etc.
9. Free sustainable development consultants - Professional consultations for developers with projects interested in certifying under the Built Green and LEED programs, could be provided at no charge for project applicants. Consultations typically would involve a brief workshop with the project architect and developer that cover incentives, cost-effective energy and water technologies and design considerations, materials, construction recycling and indoor environmental quality measures.

Low Impact Development Incentives

10. LID Incentive No. 1 - Free design consultations with city staff and access to LID design tools.
11. LID Incentive No. 2 - Flexibility in code standards to allow for LID design strategies (e.g. reduced street widths and use of pervious pavement materials).
12. LID Incentive No. 3 - Reduced or eliminated need for large-scale stormwater infrastructure such as detention ponds and water quality treatment by crediting smaller-scale LID techniques, thereby reducing stormwater infrastructure development costs.
13. LID Incentive No. 4 - Lower annual stormwater utility fees based on reductions in impervious surfaces on the property (there is currently a reduced fee in place, is it strong enough?).
14. LID Incentive No. 5 - Additional incentives could be given for reduced water use through either onsite infiltration or greywater reclamation.

Other Incentives

15. Green Factor - This program would be designed to improve the quantity and quality of planted areas while allowing greater flexibility for developers and designers to meet open space requirements. It would apply to the Infill Toolkit as well as new development in commercial and neighborhood commercial zones outside of downtown as well as for multifamily residential zones. Projects would be rated on a scoring system which is set up to encourage larger trees, tree preservation, permeable paving, green roofs and vegetated walls. Bonuses could be provided for food cultivation, native and drought-tolerant plants, and rainwater harvesting. Projects would have to meet a minimum green factor score, but there is flexibility on how to achieve the requirements.
16. Zoning changes for height & density bonus - This incentive would provide zoning changes that create a height and density bonus within urban villages. The bonus would allow for an increase in height and/or density for projects that contribute to the city's affordable housing stock and provide other public amenities. Projects would be required to achieve a LEED Silver certification. A penalty could be assessed for failure to comply with the LEED requirement after receiving the bonus.
17. Minimum parking requirements - Reduced parking requirements could be used for development that encourages transit oriented design, include additional bike lanes, provide residents bus passes or access to a shared vehicle (such as Community Car Share).
18. Free home energy audits - This incentive would identify a home's energy deficiencies and provide homeowners with cost-effective, energy improvement recommendations.

Barriers to Green Building

19. Rainwater reuse for non-potable uses - Currently, there is a permitting barrier to using reclaimed rainwater for such uses as toilets, washing machines and irrigation.
20. Dual solar permit removal - Currently, an electrical permit and a separate building permit are required to install a photovoltaic system of any size in the City. There is a perceived barrier that the redundancy of applying for a separate building permit adds significant cost to a project and adds an additional financial challenge for those seeking affordable renewable energy options.
21. Lack of green building knowledge for permit review staff - As local industry knowledge about green building continues to grow and more projects submit for building permits, the greater need for knowledgeable staff on the forefront of green building practices. Currently, there is a perceived barrier to green projects due to a lack of staff knowledge, either by challenging proven (and permitted) green building strategies (waterless urinals) or extending permit times while staff searches for proven methods.



Findings

There were several comments that consistently came out of the interviews. They include the following observations:

- Green building's integration into the market has been delayed by a lack of consistency in code interpretation.
- Future incentives and related legislation should be heavily publicized in order to increase their use.
- Incentive creation should take into account the possibility of “greenwashing” – the existence of projects which appear to be sustainable but are not.
- Terms such as “green” or “low impact development” should be clearly defined to maximize their absorption into the market.
- The perceived cost of various incentives was a deciding factor for many interviewees who wanted the City to receive the greatest value possible out of implemented incentives.
- Incentives should be closely tailored to desired outcomes.

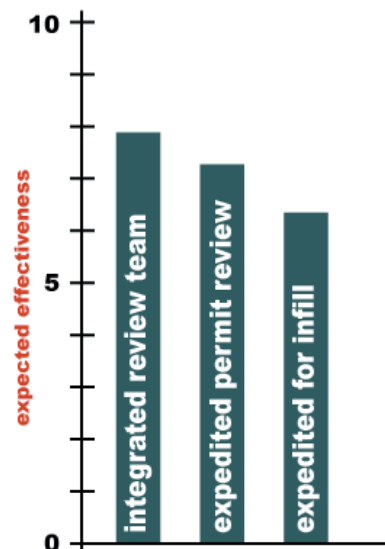
The following is a detailed analysis of the incentives and barriers that interviewees were asked to rank. These are separated by the type of incentive. As noted above, comments on each incentive were left open-ended. Hence, the information below is a summary of the typical comments, with each comment reported by at least 6% of participants, unless otherwise stated. When percentages are used, they represent the proportion of open-ended remarks which expressed the same sentiments.

Part One: Reduced Permit Time Incentives

These incentives would reduce the amount of time needed for green building projects to receive permits by implementing integrated permitting processes, or by expediting permits for green building or infill projects. A common theme heard throughout this category was that the current permitting process takes far too long. Many respondents also noted that saving time is often equivalent to saving a significant amount of money.

The incentive favored above all others in this section was an integrated green building review team. Several interviewees noted that this incentive would address some of the unique challenges of green building at the outset, such as its integrated nature. In the words of one survey participant, this incentive “would get everyone from different city departments talking about green building issues, ensuring that potential problems were discussed from the start”. Sixteen percent of respondents made similar comments, though three individuals cautioned that this incentive may

#1 Permit Time Incentives



be challenging to implement due to the number of different offices permits go through. Several stated that integrated permit processes should be available for all projects so that each could benefit, not just green building projects. Others noted that additional green building education for staff will be required in order to implement this incentive.

Expedited permitting for green building was also ranked highly as it was noted to be “a good trade-off for the extra amount of time, energy, and money” spent to implement green projects. Those who did not favor this incentive as much noted that fewer permit applications have been received recently, due to economic issues, making processing time less of an issue. Whatcom County currently implements an expedited permit review for projects meeting the intent of LEED or BuiltGreen.

Expedited permitting for infill projects was not as favored by participants as were the other two reduced permit time incentives. As one interviewee noted, “while implementing expedited permitting wouldn’t hurt, the permitting time in itself is not the problem”. Similarly, others pointed out that encouraging infill without changing the other barriers preventing it would be a moot point. This statement was echoed by 26% of those who commented on this incentive. The “other barriers” mentioned included neighborhood opposition to infill, often involving concerns about increased density or changes to neighborhood character which were “likely to prevent infill before it could even reach the permitting process”. Three interviewees also noted that higher taxes in the City compared to Whatcom County also make infill much less attractive.

The design standards associated with infill received mixed remarks by interviewees. Some supported such standards because it could save money and thus encourage infill while others cautioned that these standards could be difficult to enforce.

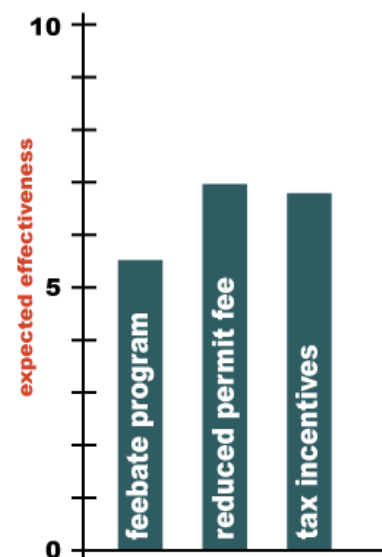
Sixteen percent of interviewees mentioned that these incentives would not be very effective because they were a temporary fix instead of a permanent solution to the lengthy permit process. The study’s authors note that there is not necessarily a conflict here. Integrated processing for green building projects could pilot an approach that could later be applied to all other projects.

Part Two: Tax /Fee Incentives

These incentives would reduce a variety of fees as well as provide a cash/grant program to support green building projects. They include an energy feebate program, a permit/zone fee reduction, and various tax reductions. As a group, these incentives were not as favored as were others. A lack of specific monetary figures for the permit/zone fee and tax incentives made it difficult for respondents to rate them. Multiple respondents stated that the types of fee reductions offered were not large enough. At the same time, many respondents expressed concern about where the City would find revenue to fund these programs.

One incentive would implement a feebate program. This program would create a revolving fund in which fees generated by those below a minimum energy efficiency would balance grants given to those above this minimum. This was the least favored of the eighteen incentives because, as one interviewee mentioned, “incentives punishing people for a lack of innovation are not as attractive as those that reinforce positive involvement”. In fact, 30% of respondents mentioned that they disliked this aspect of the feebate program. Several people noted that it could be difficult to achieve over 30% energy efficiency, which could make this rather challenging to implement. It was also mentioned that a feebate structure might be difficult to implement in practice as a building could be designed well but constructed poorly. Ten percent of interviewees suggested an increase in the energy standards would be a more appropriate solution to the problem than implementing the feebate program.

#2 Tax/Fee Incentives



The reduction of permit/zone fees were supported by some who felt that this could also encourage innovation. However, 14% of respondents thought that the permit/zone fee reduction would not be as effective of an incentive due to a decrease in the revenue received by reducing fees. Others commented that impact fees, such as storm water impact fees should be included in any reductions of this kind. Three interviewees believed that LEED or other rating systems should not be attached to this, due to concerns about favoring one rating system over another.

The creation of tax incentives was noted to be effective as a reward by three interviewees because it would lower costs over time. Fourteen percent of interviewees were concerned about a decrease in the City's revenue due to this incentive. Others felt that it might be abused by those who could use the incentive but didn't necessarily have a long term interest in the property.

Part Three: Technical Assistance Incentives

These incentives would enable City of Bellingham staff to provide assistance with energy programs, low impact development programs, and other sustainable design programs. Respondents noted that this education could be very useful for homeowners. Six interviewees stated that educating the community on feasible and cost effective practices is key to incorporating green building on a larger scale. However, it was stated that "assistance for industry professionals who often already have more extensive green building knowledge-is less likely to be helpful". It is worth noting here that the group of professionals surveyed were those who have already sought this information and may not be representative of the entire spectrum of building professionals.

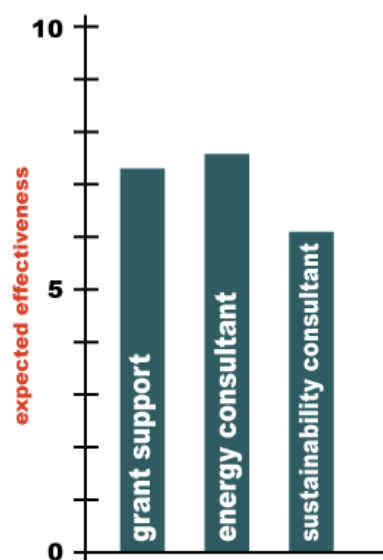
There was also a concern that free education may be unfair to those who have financially invested in continuing education. Others were in favor of leveling the educational playing field. Due to the City's role as a regulatory body, nearly 25% of respondents stated their preference for technical assistance given by a third party. Interviewees noted that technical assistance could be provided through a variety of means including booklets, kiosks, or internet resource links. Three interviewees also mentioned that a list of qualified sustainable development consultants should be provided to interested parties.

Energy conservation rebate assistance provided by the City was thought to be especially useful for homeowners. Twelve percent of interviewees noted that Puget Sound Energy (PSE) and Cascade Natural Gas (CNG) should implement energy conservation rebate assistance programs. This was based on the belief that "such a program" would be able to provide clear monetary benefits for PSE and CNG. The authors note that while both utilities offer rebate programs and maintain trade ally networks, the comments indicate difficulty for homeowners to understand the complexity of utility programs and an opportunity for the City to offer a meaningful service by facilitating the transfer of this information.

Part Four: Low Impact Development Incentives

These incentives would facilitate low impact development (LID) techniques including increased pervious surfaces and greywater reclamation. This was the highest ranked area of incentives. Many stated that these programs should be in place because this technology is proven and employed regularly in many parts of Washington and other states.

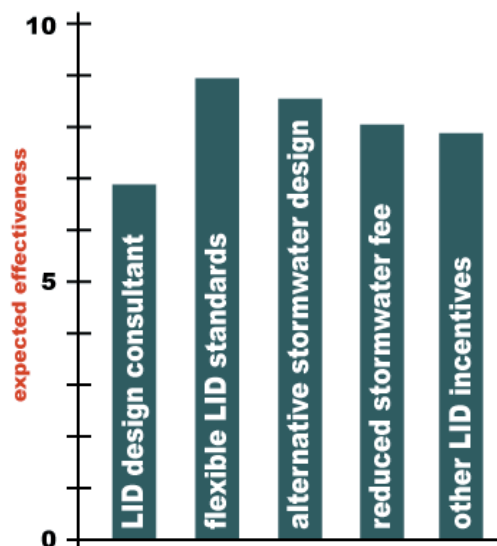
#3 Technical Assistance Incentives



Most respondents noted that free LID design consultations should be provided for “homeowner-builders instead of for building professionals,” if they were provided at all. Others were in favor of third parties providing these consultations. Respondents also suggested that the city provide pamphlets for existing consultants in the greater Bellingham area rather than create a separate consulting branch within the City.

Many respondents noted that increased flexibility in code standards to allow for LID design strategies would encourage innovation. Meanwhile, 24% mentioned that so many code barriers prevent LID from being widely accepted and implemented that “the complete removal of these codes” would be more appropriate than a mere increase in flexibility. Some mentioned that current fire codes also make these barriers very difficult. While there was clearly some debate surrounding the best method of improving these codes, there was little doubt that they should be improved, as this incentive received the highest score of all incentives.

#4 Low Impact Development Incentives



Participants also supported reducing or eliminating the need for large scale stormwater strategies in return for using smaller scale methods. Several cited specific examples of planned projects which would have reduced or eliminated the need for large-scale stormwater infrastructure but could not be implemented under current codes.

Another LID incentive looked at the reduction of stormwater fees based on decreased impervious surfaces. Large numbers of respondents were in favor of reducing stormwater fees for those making an effort to mitigate their stormwater runoff, as evidenced by this incentive’s high numerical score. Several encouraged the city to directly reduce these fees based the level of mitigation (i.e., if 5% of the impervious surface is reduced, 5% of the fee would be waived.) It was also noted by 6% of respondents that this incentive would allow the consumer to take advantage of the benefits over a longer period of time.

Lastly, respondents gave their opinions on implementing additional incentives, such as greywater reuse. This incentive was generally supported, with interviewees noting again that it is important to push incentives over regulation. Three people also suggested installing water meters to measure water usage, which they felt would help control the amount of water being used.

Part Five: Other Incentives

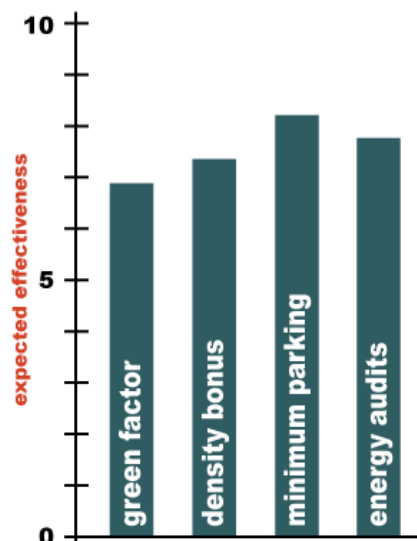
Green Factor

Several interviewees liked this incentive, noting that it would provide more reasons for vegetation to be preserved and maintained. Others were concerned that “it would be difficult for the City to keep track of this information” and keep up with changing scientific knowledge over time. It was noted that LEED also has its own landscaping criteria and credits, so the addition of a second system might confuse/deter developers. There were also concerns regarding a possible decrease in density due to the green factor.

Zoning changes for height & density bonus

Multiple respondents stated that this incentive would be useful if medium-sized buildings were encouraged. It was noted that implementing design

#5 Other Incentives



standards along with this incentive would be necessary. Three respondents stated that the requirement for LEED Silver certification in exchange for a height and density bonus should instead be increased to LEED Gold. Twelve percent of the interviewees had a negative outlook about the consequential “building up” that is associated with increased density.

Minimum parking requirements

The highest ranked of this category of incentives involved reducing parking standards. Eighteen percent of interviewees noted that this is necessary in order to reduce sprawl. However, another 18% of respondents felt that a balance needs to be struck between the ideal of reducing parking immediately and the reality that some parking is still needed. A number of interviewees also stated that “the reductions would have to be carefully matched to transportation alternatives”. Three interviewees mentioned that shared parking (wherein very different uses “such as churches and houses” could share spaces) was a particularly good solution to this issue.

Free home energy audits (existing homes)

Some respondents felt that this would be “the key to moving towards more energy efficient buildings”. Several were concerned about protecting the livelihood of current auditors, suggesting that the city pair up with non-profits or other third party agencies.

Part Six: Barriers

The following are perceived barriers. Interviewees noted the degree to which these affected them and why.

Rainwater reuse for non-potable uses

The current permitting barrier to using reclaimed rainwater for such uses as toilets, washing machines and irrigation barrier doesn’t affect everyone, but can be “debilitating” to some projects. Six people pointed out that the technology in question is proven, as evidenced by its use in Washington State and in jurisdictions across North America.

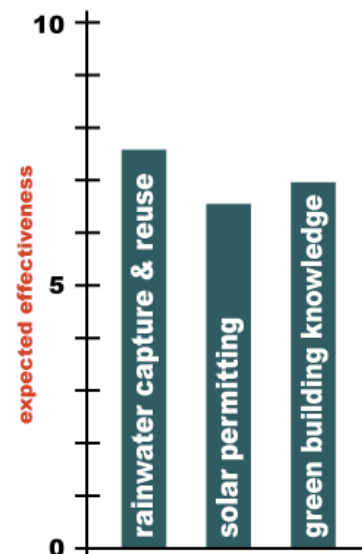
Dual permitting for solar installations

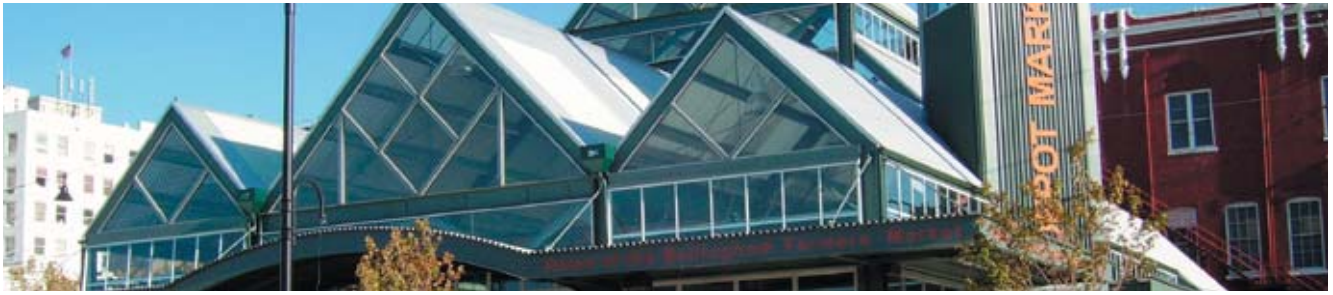
Currently, an electrical permit and a separate building permit are required to install a photovoltaic system of any size within the City. This barrier seemed particularly problematic to those who worked frequently with photovoltaics in terms of the “increased time, money, and energy” required to go through an additional permitting process. Twenty-five percent of respondents noted that they did not understand why two permits were required. However, this barrier was the lowest ranked priority out of the surveyed barriers, with three people commenting that they did not know it existed.

Lack of green building knowledge for permit review staff

Thirty-eight percent of respondents stated that increasing permit staff’s knowledge of green building practices would be very useful. However, twelve percent also noted that the staff was well trained, with fourteen percent stating that the true problem lies in “the restrictive codes which limit what the permit staff can do”. Another common issue raised was the length of time it takes to process permits.

#6 Green Building Barriers





Conclusion

The City of Bellingham has begun an important process in reviewing and updating its codes to allow for and encourage green building techniques. Bellingham is increasingly cited as a regional and national leader in sustainable development practices and encouraging and enabling innovative green building practices is an important part of deepening that commitment.

Although the information presented in this document is only one piece of the decision making process, it provides the City of Bellingham with a clear set of needs from the building community in green building implementation. The building industry is encouraged by the City's interest in this issue and many are eager to increase their sustainability practices. We recommend that the City continue to support and prioritize environmentally conscious and sustainable development. This process should continue, as it has begun, in a clear and publicized manner to encourage the involvement of all affected.

Acknowledgements

We would like to thank the many participants of this survey who helped make this innovative research possible. Their diverse backgrounds and opinions shaped this report and the future implementation of its final findings. In addition, the assistance of City staff in formulating and clarifying these incentives has been greatly appreciated.

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