
Consumer Survey 2007: Green Building Awareness



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Consumer Survey 2007: Green Building Awareness

By

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Executive Summary

The Washington State Department of Ecology, in response to the requirement to update the state's solid and hazardous waste management plans, developed the Beyond Waste Project. Beyond Waste, launched in 2004, is based on the principal that managing waste will not lead to long-term environmental sustainability goals, but *eliminating* waste will.

Beyond Waste identified Washington's primary waste streams and created 'initiatives' for each. It sets forth a group of 30-year goals and intermediate milestones to eliminate each waste stream. Beyond Waste consists of the following initiatives: Hazardous Waste, Solid Waste, Industries, Moderate Risk Waste, Recycling Organics, Green Building, and Measuring Progress (Data).

The long-term goal of the Green Building Initiative in the Plan is "for green building to be a mainstream and usual practice throughout the state." Per the background paper, green building will meet this goal if the following 30-year milestones are achieved:

1. Reuse of buildings and recycling of construction materials are normal business practices.
2. Green building standards are main-stream.
3. Buildings and materials are designed for human, economic, and environmental health.

Building consumer awareness and, as a result, building demand among Washington residents is critical in reaching these goals. A survey to gauge consumer's current awareness was determined to be an effective first step.

The survey would provide the Green Building Group with information related to effective avenues for outreach, areas of particular interest to Washington residents, and information on regional differences. The data could be used to tailor outreach programs to people's actual interests and to regionally specific interests.

The project was presented to BuiltGreen Washington and all BuiltGreen Chapters across the state. BuiltGreen Washington is a cooperative of Washington's regional green home building programs. Their goal is to help home builders and buyers get the information needed to buy and build green. BuiltGreen Washington offered to collaborate with Department of Ecology on this project.

A survey of randomly selected¹ Washington State residents was conducted to determine their awareness of and interest in green buildings and products. The project sought to complete 500 surveys statewide with an *equal* number of respondents selected from each county in the state (13 respondents were needed from each county).

¹ A truly randomized sample was not possible due to the economic constraints of the project.

This method, rather than weighting number of respondents based on population densities in specific counties, was chosen to avoid giving the Seattle area a stronger voice than the rural parts of the state. In order to obtain data that will allow for the establishment of regionally sensitive, consumer demand building strategies throughout Washington, it was important that equal voice be given to each county.

BuiltGreen chapters across the state offered to make random phone calls of residents in their respective counties to survey. The survey was conducted from February through September of 2007. Due to economic and time constraints, 500 surveys were not able to be conducted.

A total of 268 surveys were completed. Five-hundred interviews would have allowed for statistically significant results. Since this was not possible, this piece of research is an exploratory study of consumer interest in and awareness of green building in Washington State. It can provide a starting point for future inquiries into the topics covered by the survey.

Understanding of Green Building Programs and Principles

Survey results indicate Washington residents can fairly consistently identify Energy Star as a green building related program in the state. Energy Star may be an effective partner for outreach efforts to raise awareness of the other aspects of green construction and home maintenance.

Interviewees in the Southwest Region seemed to know about the BuiltGreen program. The Olympia Region Chapter of BuiltGreen has received over \$100K of Public Participation Grant money through the Department of Ecology. The funds have gone toward education and outreach to Southwest Region residents. The results seem to indicate that the efforts have been effective.

The interviewees, both statewide and in the regions, did not identify LEED as a green building program of which they were aware. This is interesting since Washington State currently requires that all capital-funded projects be built to LEED standards and several cities and counties have required it on a county level.

A number of people interviewed identified organizations other than Energy Star, BuiltGreen, and LEED as having to do with green building. The survey did not capture what these programs were. Additional research that looks into these other programs could be useful in identifying regionally appropriate partners for future outreach efforts.

When asked what 'green building' meant, people consistently indicated both that the building was environmentally friendly and that it was made with recycled materials. An alarming number of people interviewed indicated that they didn't know what it meant.

Even though the green building market share is continuing to grow rapidly, the lack of understanding of what it means points to the need for continued outreach efforts.²

Outreach and Marketing Avenues

When evaluating where to prioritize funding for green building education and outreach efforts, based on the survey results, television, magazines and newspapers appear to be effective as both initial and continued contact with consumers. Brochures, websites and radio advertisements, although popular, don't appear to be effective in articulating green building related concepts.

Ecology's Public Participation Grants (PPG) program has funded several radio campaigns in the Southwest Region. Based on feedback from the grantee, it was not effective. The survey confirms this.

The survey results point to an opportunity to highlight green building and green building related programs at home shows and parade of homes, as these are avenues that access people who have some interest already in home building/remodel/maintenance. The lack of first or continued contact in these areas could be increased at a marginal cost.

A further exploration of point-of-sale (sales offices, builder/contractor, real estate agents) education and outreach options is necessary. Workshops for real estate agents and offices, and builders can help educate industry members and better allow them to explain options to potential customers. Additionally, having literature available on green building at real estate agents and builders offices can provide a stimulus for the consumer to initiate a conversation about green options available to them as they consider buying or building a new home.

Finally, the results indicate that differences exist between consumers on the east and west side of the Cascades. Home shows, although not effective to date in the western regions, appeared to be an effective source of information in the Central Region. Additionally, focusing on television advertising in the Eastern Region may be useful since the majority of people interviewed there had both initial and follow-up contact that way.

Perspectives on Green versus Conventionally Built Homes

This group of questions is important as they can inform future outreach and education needs across the state. Since homes certified to a green standard, at this point in time, cost significantly more than a home not built to a green standard, it is important that the public have at least basic understanding of what underlies the added costs.

Central Region appears to understand green building the least. Concerted efforts and resources in this region to build understanding could have significant impacts on market share of residential green buildings statewide. An effective point-of-entry could be to

² Based on survey results, outreach efforts that focus on durability and maintenance are needed, as they appear to be the most misunderstood components of a green building.

clearly make the connection between water conservation and green building practices, as water quantity is one of the Central Region's primary environmental concerns and has tremendous impacts on the cost-of-living.

Although climate change and energy issues have received tremendous media attention recently, the connection to these issues have with the built environment could be stronger statewide. A startlingly low percent of interviewees perceived energy efficiency and water conservation as key components of a green home. This, of course, would provide the rationale for only a small percentage of people interviewed linking green homes with lower utility costs.

As programming is developed for the next biennium and beyond, continuing to link green homes with energy/water efficiency and lower utility bills is crucial.

Washington State's current water policy is restrictive to certain energy/water conserving strategies (i.e. rainwater catchment). This could underlie the fact that fewer people interviewed linked green homes with water conservation than with energy efficiency. Specific thoughtful policy revisions could help the public learn about practices that could drastically reduce their water consumption.

Across the state, there appeared to be confusion as to whether green certified homes were both better built overall and built with high quality materials. There currently exists tremendous opportunities in the manufacturing sector for products that can be used in green homes and achieve credits in green building rating systems. Data indicates, however, that more attention could be paid to clarify to consumers that the products used to construct green homes are durable as well as environmentally friendly.

Finally, a deeper exploration of what is meant by 'environmentally friendly' could be a useful exercise as future marketing campaigns are developed. It is curious that even when prompted, interviewees were not clear about whether green homes were energy/water efficient, built with high quality materials or better built overall. Most, however, did perceive green homes to be environmentally friendly.

It appears that the connection between environmentally friendly and the other questions this section of the survey explored were not strongly connected in the minds of the interviewees. A deeper understanding of what they meant when answering that green homes were more environmentally friendly could provide useful information to guide outreach efforts.

Influence of Green on Buying Choices

New Home Purchases

Although the green building market is growing nationwide, data indicates that significant outreach efforts are needed to encourage demand for green homes in Washington. The large percentages of interviewees that said that green was not and would not be a part of

their home buying decision points to the continued need for education on the benefits, both environmental and economic, of green homes.

Home Updates/Remodels

Home remodels may be an effective point-of-entry for outreach efforts. More interviewees indicated that green was important in their remodel/upgrade decisions than in their decision to buy a new home. Current green building standards do not offer a certification for ‘remodels.’

Data inferred that this could be a successful tool for residential contractors, as interest appears to be strong statewide. Additionally, since the current real estate market is such that demand for new homes is declining, the green remodel market could be an effective strategy for the building industry to maintain its vitality.

It may be useful to identify incentives for various aspects of green remodels. For example, if local utilities offer payback for renewal energy system installation, educating residents about the program(s) could encourage an increase in green modeling activities statewide.

Further exploration of what people understand ‘green remodel’ to mean could be useful to make sure resources are available to meet demand and to encourage people to incorporate additional measures.

The differences in response regarding past decisions and future priorities indicate that statewide people are interested in upgrading/remodeling their homes with green strategies. It is important that resources are available across the state to allow people easy access to resources that will allow this to occur. All data points to an interest in making future remodel/upgrade choices that are ‘green.’

Home Cleaning Products

In order to increase the purchase of non-toxic household cleaning products, additional research on what residents perceive as ‘green’ is needed to enable targeted marketing campaigns. It is important that strong links are made among cleaning products, human health, Puget Sound vitality, and climate change.

It appears that consumer education efforts in the Southwest Region of Washington on the importance of choosing ‘green’ household cleaning products has been effective. Identifying what these efforts are and replicating them statewide could be an effective means for helping residents in Central Washington, who appear to want the information, identify green cleaning products and make purchasing choices accordingly.

Finally, although demand for green homes and green remodels appears to be growing in the Northwest Region, data indicates that the same demand for maintaining the homes in a manner that is environmentally friendly is not present. Additional outreach to consumers in this region is necessary to make the argument that green homes are only as green as they are maintained.

Yard Maintenance Products

Data seems to indicate that residents are not clear on what ‘green’ means in reference to yard maintenance products. In regions where there exists a strong demand for green homes and remodels, there appears to be a lack of connection between a green home and maintaining it in a manner that is environmentally friendly. In regions where green building awareness is not strong, there appears to be an interest in understanding the what ‘green’ means in yard maintenance.

As future outreach and education efforts are developed related to green building, it is essential they include a component that educates the homeowner to green home maintenance methods. If they do not, the possibility exists that while homes become more energy efficient, they will continue to pollute the environment through toxics contained in maintenance (both cleaning and yard) products.

Conclusions

Research projects of this nature are useful tools in determining the most effective projects to allocate funds and other resources. The results of this exploratory study point to the following:

Label recognition for residential green building programs in Washington has room to improve.

Data indicated that Energy Star was the most recognized of all of the residential green home certification programs. Energy Star, although a good tool for measuring a home’s energy efficiency, does not provide verification that a holistic approach to home design – from building citing to product choices – has been applied.

Continued efforts are needed to build label recognition for the residential green certification programs currently available to Washington residents. This will help to explain the deeper meaning of green building to the public and also encourage continued market growth.

Definition of green building is still unclear.

Interviewees consistently said that green building was more environmentally friendly and used less waste. A large portion of people, however, said they didn’t know. Although the industry is quickly growing state and nationwide, responses indicate that education on what is meant by green building is still needed.

Especially as people are made more aware of climate related issues and want to know what they can do as individuals to mitigate impacts, it will be important for a complete understanding of the relationship between the built environment and energy/water efficiency be clearly articulated.

Traditional media are the most effective means for outreach.

Although organizations seeking to educate the public on various aspects of green building often identify brochures, pamphlets, and home shows as effective methods, data showed

that using tradition media (television, newspapers, and magazines) are the means through which most people have learned about the industry. Focusing efforts and resources in mainstream media campaigns appears to be the most effective for reaching Washingtonians.

Additional education to point-of-sale contacts is necessary.

It doesn't appear that real estate agents and sales offices are articulating the message of green options to potential buyers. Since these contacts are the points at which home sales and remodel financing are occurring, it is important that consumers have easy access to information there. Additional resources are needed for real estate agents and sales offices on green home options.

Understanding the implied definition of "Environmentally Friendly".

When asked questions on how green homes compared to conventionally built homes, interviewees consistently indicated that they were more environmentally friendly. Their responses, however, were not as consistent with regard to water conservation, energy efficiency and material and building quality. This seems to indicate that residents do not link energy/water conservation and quality of materials with environmental quality.

A deeper examination into what is meant by "environmentally friendly" could be useful in identifying areas in need of further explanation to make sure links are effectively made among efficiency strategies and environmental friendliness.

Home maintenance products as a point-of-entry.

Responses seem to point to home maintenance products (cleaning and yard) as an effective potential point-of-entry into the larger discussion on sustainability in the home. Because people purchase these products regularly, providing them with information on why it is important to choose products with lesser impacts on the environment is critical. As people have a better understanding of the environmental impacts of small purchases, they will be more apt to apply this thinking to the purchase of a home or major remodel.

Part 1: Background

The Washington State Department of Ecology, in response to the requirement to update the state's solid and hazardous waste management plans, developed Beyond Waste. Beyond Waste, launched in 2004, is based on the principal that managing waste will not lead to long term environmental sustainability goals that *eliminating* waste will.

Beyond Waste urges residents, governments and business to move beyond the assumption that waste must be created to an assumption that almost all materials have value, even when they are residuals. Washington's Beyond Waste project is a strategy for moving from 'wasting' to 'reusing and recycling' in a closed-loop system, where products are designed to minimize consumption, toxicity, and residuals.

It is understood that the Beyond Waste strategy will take time and that its success relies on creating new systems that will eventually replace today's waste management systems, including:

- Product stewardship goals, policies, and programs.
- Closed loop infrastructure.
- Environmentally preferable purchasing (EPP) and stimulating market demand – incentives, removing disincentives, etc.
- Rate structures that do not encourage disposal and waste.
- Help develop and attract sustainable businesses.
- Replace the 'license to pollute' with an assumption that nobody pollutes unless absolutely necessary, and the regulatory structure to back this up.

Beyond Waste identified Washington's primary waste streams and created 'initiatives' for each. The initiative sets forth a group of 30-year goals and intermediate milestones to eliminate each waste stream. The Beyond Waste Plan consists of the following initiatives: Hazardous Waste, Solid Waste, Industries, Moderate Risk Waste, Recycling Organics, Green Building, and Measuring Progress (Data).

The Green Building Initiative 'offers a path to dramatically increase adoption of environmentally preferable building construction, operation, and deconstruction practices throughout the state and the region. The initiative adopted the United States Green Building Council's (USGBC) definition of green building:

Design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in (the) five broad areas (of):

- *Sustainable site planning.*
- *Conservation of materials and resources.*
- *Energy efficiency and renewable energy.*
- *Safeguarding water and water efficiency.*
- *Indoor air quality.*

The long-term goal of the Green Building Initiative is “for green building to be a mainstream and usual practice throughout the state.” Green building will meet this goal if the following 30-year milestones are achieved:

1. Reuse of buildings and recycling of construction materials are normal business practices.
2. Green building standards are main-stream.
3. Buildings and materials are designed for human, economic, and environmental health.

The Initiative provides eleven shorter term (5-year) goals which, if reached, will act as a gauge for progress in meeting the 30-year goals. These goals are:

- Washington State is a national leader in green building.
- All new state government buildings meet green building standards.
- Government has removed at least one major regulatory barrier to green building.
- At least two additional reuse and recycling facilities are in operation in underserved areas.
- The use of reused and/or recycled building materials has increased by at least 25%.
- 10% of new residential and commercial construction use green building practices.
- All accredited architectural programs in the state incorporate green building design.
- Ongoing industry-specific short-courses are available across the state.
- People working in building and building-related sectors in Washington State are familiar with green building practices.

- Product stewardship programs for carpet, paint, and mercury-containing building products are in place.
- Building material manufacturers are aware of what extended producer responsibility means.

Since the adoption of the Beyond Waste Plan, Washington has stepped forward as a national leader in green building. The state was the first in the country to adopt and implement green building policies in all levels of government:

- Adopted in February 2000, Seattle's Sustainable Building Policy was an integral part of the city's move toward sustainability. It called for new City-funded projects and renovations with over 5,000 square feet of occupied space to achieve a Silver rating using the U.S. Green Building Council's (USGBC) LEED Green Building Rating System™.
- In November 2001, a King County Executive Order required that the county incorporate and encourage LEED certified construction. King County was the first local jurisdiction in the country to require LEED certification.
- In 2005, the Washington State Legislature passed Chapter 39.35D RCW High Performance Public Buildings. This piece of legislation mandated that all new construction projects and major renovations that received state funds be built to a LEED Silver Standard. Washington was the first state to require LEED certification for public projects.

Numerous barriers to the successful implementation of all three initiatives have arisen as projects have been built to fulfill the requirements. In response, City of Seattle, King County and Washington State have needed to develop educational programs to overcome these obstacles and to see that the initiatives are successfully implemented. As the tools have been used and the programs have seen success, greater market transformation in the state has become possible.

In addition to working with state agencies affected by Washington's green building mandate, the Green Building Group in Department of Ecology's Solid Waste and Financial Assistance Program works with not-for-profit organizations and other citizen groups to encourage further market growth in the private sector: BuiltGreen Washington, Northwest EcoBuilding Guild, United States Green Building Council, Northwest Natural Resource Group, Habitat for Humanity, and others.

The group identified a need to build consumer awareness among Washington residents as critical in building demand for green homes, green home remodels and green home maintenance. A survey to gauge consumer's current awareness was determined to be an effective first step.

The survey would provide the Green Building Group with information related to effective avenues for outreach, areas of particular interest to Washington residents, and information on regional differences. The data could be used to tailor outreach programs to people's actual interests and to regionally specific interests.

The project concept was presented to BuiltGreen Washington and all BuiltGreen Chapters across the state. BuiltGreen Washington is a cooperative of Washington's regional green home building programs. Their goal is to help home builders and buyers get the information needed to buy and build green. They saw the value in the project and offered to collaborate with Department of Ecology.

Part 2: Methodology

This project sought to address the Green Building Initiative milestones on whose success relied on consumer demand for green homes and products. A statewide, county-by-county survey was conducted to collect this data.

It was assumed that, based on similar work previously done in the organic food industry, an increase in awareness would grow an increase in demand for green homes and home maintenance products. This will naturally result in attaining the goals set forth in the Green Building Initiative component of the Beyond Waste Project.

A survey of randomly selected³ Washington State residents was conducted to determine their awareness of and interest in green buildings and products. The project sought to complete 500 surveys statewide with an *equal* number of respondents selected from each county in the state (13 respondents were needed from each county).

This method, rather than weighting number of respondents based on population densities in specific counties, was chosen to avoid giving the Seattle area a stronger voice than the rural parts of the state. In order to obtain data that will allow for the establishment of regionally sensitive consumer demand building strategies throughout Washington, equal voice needed to be given to each county.

The survey (Appendix A) included all of the questions asked by Thomas, Taber & Drazen in their analysis of consumer interest/awareness of the BuiltGreen program in the Metro Denver area. This provided consistency in format with a similar study that was conducted and would allow for the first comparison of awareness of green buildings/products of two urban areas (Seattle/Denver). In addition to the survey questions asked by Thomas, Taber & Drazen, additional questions were asked regarding cleaning products, yard care products, and home remodels.

BuiltGreen chapters across the state offered to make random phone calls of residents in their respective counties to survey. The survey was conducted from February through September of 2007. Due to economic and time constraints, 500 surveys were not able to be conducted. A total of 268 surveys were completed in the following counties: Pacific (13), Grays Harbor (16), Thurston (13), Lewis (13), Mason (13), Benton (13), Clallam (13), Franklin (13), Grant (13), Island (4), Jefferson (13), King (13), Kitsap (13), Kittitas (13), Pierce (13), Spokane (14), Stevens (13), Walla Walla (13), Whatcom (12), Whitman (14), and Yakima (13).

Five-hundred interviews would have allowed for statistically significant results. Since this was not possible, this piece of research is an exploratory study of consumer interest in and awareness of green building in Washington State. It can provide a starting point for future inquiries into the topics covered by the survey.

³ A truly randomized sample was not possible due to the economic constraints of the project.

The results section of this report provides statewide results and results broken into Department of Ecology's four regions: Northwest (16% of total respondents, 42 interviews), Southwest (40% of total respondents, 107 interviews), Central (10% of total respondents, 26 interviews), and Eastern (35% of total respondents, 93 interviews).⁴

⁴ Northwest Region is comprised of the following counties: Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom. Southwest Region is comprised of the following counties: Clallam, Jefferson, Grays Harbor, Mason, Thurston, Pierce, Pacific, Lewis, Wahkiakum, Cowlitz, Skamania, and Clark. Central Region is comprised of the following counties: Okanogan, Chelan, Douglas, Kittitas, Yakima, Benton, and Klickitat. Eastern Region is comprised of the following counties: Ferry, Stevens, Pend Oreille, Grant, Lincoln, Spokane, Adams, Whitman, Franklin, Walla Walla, Columbia, Garfield, and Asotin.

Part 3: Understanding of Green Building Programs & Principles

Basic understanding of green building programs and concepts was explored through several survey questions: Can you name any programs that promote environmentally friendly, energy conservation practices in home construction? What does green building mean to you? Do you live in a green home?

These questions can serve as a starting point for outreach efforts. For example, if a region shows a high awareness of Energy Star programs, it makes sense to either explore the avenues that Energy Star used to educate people in that region or seek a partnership with Energy Star to deepen the understanding of green principles in a population.

Statewide

Energy Star was the program that most participants were able to identify as having a role in environmental and energy efficient building practices. Twenty-one percent (21%) of people interviewed identified the program as one they knew to be linked to green building.

Behind Energy Star, 12% of people interviewed said they had heard of BuiltGreen and 5% identified LEED as a green building program. More than any of the commonly known programs in the industry, however, more interviewees (25%) identified “other” programs in their regions that as being associated with green building: recycling companies, local utilities, and private businesses (ex. window companies).

After being asked to identify ‘green building programs,’ interviewees were asked to describe (unprompted) what green building meant to them.

Environmentally friendly	54%
Built with recycled materials	24%
No idea/Don't know	21%
Preservation of natural resources	15%
Energy efficiency	13%
Quality materials, construction	10%
Water efficiency	10%
Saves me money	9%
Healthy indoor air	8%
Houses cost more	7%
Better built homes	6%
Durability	5%
Easy to maintain	3%
Parks, greenbelts, hiking trails, landscaping	2%

Table 1. “What does green building mean to you?” – Interview response.

Over half said that green building was environmentally friendly, while only 6% indicated that green buildings were better built. These sorts of discrepancies provide useful

information when tailoring outreach programs – they indicate that consumers need more information on the quality of construction.

Of the people interviewed: 71% said they did not live in green homes, 8% said they did live in a green home, and 18% didn't know if the home they lived in was built in accordance with green building principles.

Northwest Region

In the Northwest Region, Energy Star was the program most participants were able to identify as having a role in environmental and energy efficient building practices. Twenty-one percent (21%) of people interviewed identified the program as one they knew to be linked to green building.

Behind Energy Star, 17% of people interviewed said they had heard of BuiltGreen and 12% identified LEED as a green building program. Ten percent (10%) of interviewees identified “other” programs in their region as being associated with green building.

After being asked to identify ‘green building programs,’ interviewees were asked to describe (unprompted) what green building meant to them.

Environmentally friendly	60%
Water efficiency	36%
Healthy indoor air	33%
Preservation of natural resources	33%
Built with recycled materials	31%
Houses cost more	29%
Durability	19%
Quality materials, construction	19%
Better built homes	19%
Saves me money	14%
Energy efficiency	14%
Easy to maintain	12%
No idea/Don't know	7%
Parks, greenbelts, hiking trails, landscaping	7%

Table 2. “What does green building mean to you?” – Interview response in Northwest Region.

Sixty percent (60%) of people interviewed in the Northwest Region said that green building was environmentally friendly. Thirty-six percent interviewed (36%) said that green homes were water efficient while only 14% said they were energy efficient.

There appear to be question as to the ease of maintenance of a green home, as only 12% of people interviewed said that green built homes were easy to maintain. Very few people said they had no ideas about what was meant by green building (7%).

Of the people interviewed: 81% said they did not live in green homes, 10% said they did live in a green home, and 7% didn't know if the home they lived in was built in accordance with green building principles.

Southwest Region

In the Southwest Region, 20% of interviewees demonstrated awareness of the BuiltGreen program. Energy Star, with 17% of people identifying it as a program that was related to green building practices, was a close second. Only 7% of interviewees identified LEED as a green building program and 9% identified “other” programs in the region as being associated with green building.

The Olympia Master Builders chapter of the BuiltGreen program has been conducting active outreach campaigns (some of which has been funded through Ecology’s Public Participation Grants Program) over the past several years. This could account for the relatively high number of interviewees identifying BuiltGreen as a program that encourages green building practices.

After being asked to identify ‘green building programs,’ interviewees were asked to describe (unprompted) what green building meant to them.

Environmentally friendly	46%
Built with recycled materials	27%
No idea/Don't know	26%
Energy efficiency	16%
Preservation of natural resources	15%
Quality materials, construction	10%
Water efficiency	9%
Better built homes	6%
Saves me money	5%
Durability	4%
Easy to maintain	3%
Healthy indoor air	3%
Parks, greenbelts, hiking trails, landscaping	2%
Houses cost more	2%

Table 3. “What does green building mean to you?” – Interview response in Southwest Region.

Over half said that green building was environmentally friendly, while only 6% indicated that green buildings were better built. These sorts of discrepancies provide useful information when tailoring outreach programs – they indicate that consumers need more information on the quality of construction.

Of the people interviewed: 71% said they did not live in green homes, 8% said they did live in a green home, and 18% didn't know if the home they lived in was built in accordance with green building principles.

Central Region

In the Central Region, no one indicated that they had heard of BuiltGreen or LEED programs. Only 15% of people interviewed identified Energy Star as a green building related organization and 38% identified an “other” organization as being related to green building practices.

After being asked to identify ‘green building programs,’ interviewees were asked to describe (unprompted) what green building meant to them.

No idea/Don't know	35%
Environmentally friendly	35%
Built with recycled materials	23%
Preservation of natural resources	8%
Better built homes	4%
Durability	
Easy to maintain	
Quality materials, construction	
Saves me money	
Energy efficiency	
Healthy indoor air	
Water efficiency	
Parks, greenbelts, hiking trails, landscaping	
Houses cost more	

Table 4. “What does green building mean to you?” – Interview response in Central Region.

Equal numbers of people indicated that they didn't know what green building was and that green building was more environmentally friendly (35%). As Table 4 shows, there does not seem to be an understanding of green building principles in this region and points to the need for outreach efforts.

Of the people interviewed: 81% said they did not live in green homes, no one said they did live in a green home, and 19% didn't know if the home they lived in was built in accordance with green building principles.

Eastern Region

Energy Star was the program that most participants were able to identify as having a role in environmental and energy efficient building practices. Twenty-one percent (20%) of people interviewed identified the program as one they knew to be linked to green building.

Behind Energy Star, 3% of people interviewed said they had heard of BuiltGreen and 2% identified LEED as a green building program. More than any of the commonly known programs in the industry, however, more interviewees (46%) identified “other” programs in their regions that as being associated with green building.

After being asked to identify ‘green building programs,’ interviewees were asked to describe (unprompted) what green building meant to them.

Environmentally friendly	52%
No idea/Don't know	19%
Built with recycled materials	18%
Saves me money	13%
Energy efficiency	13%
Preservation of natural resources	9%
Houses cost more	5%
Quality materials, construction	4%
Healthy indoor air	4%
Water efficiency	3%
Better built homes	2%
Parks, greenbelts, hiking trails, landscaping	1%
Durability	
Easy to maintain	

Table 5. “What does green building mean to you?” – Interview response in Eastern Region.

Over half said that green building was environmentally friendly, while only 2% indicated that green buildings were better built. Again, similar to the statewide findings, these sorts of discrepancies provide useful information when tailoring outreach programs.

Of the people interviewed: 63% said they did not live in green homes, 6% said they did live in a green home, and 29% didn't know if the home they lived in was built in accordance with green building principles.

Summary

Survey results indicate the Washington residents can fairly consistently identify Energy Star as a green building related program in the state. Energy Star may be an effective partner for outreach efforts to raise awareness of the other aspects of green construction and home maintenance.

Interviewees in the Southwest Region seemed to know about the BuiltGreen program. The Olympia Region Chapter of BuiltGreen has received over \$100,000 of Public Participation Grant money through the Department of Ecology. The funds have gone toward education and outreach to Southwest Region residents. The results infer that the efforts have been effective.

The interviewees, both statewide and in the regions, did not identify LEED as a green building program of which they were aware. This is interesting since Washington State currently requires that all capital-funded projects be built to LEED standards and several cities and counties have required it on a county level.

A number of people interviewed identified organizations other than Energy Star, BuiltGreen, and LEED as having to do with green building. The survey did not capture

what these programs were. Additional research that looks into these other programs could be useful in identifying regionally appropriate partners for future outreach efforts.

When asked what ‘green building’ meant, people consistently indicated both that the building was environmentally friendly and that it was made with recycled materials. An alarming number of people interviewed indicated that they didn’t know what it meant. Even though the green building market share is continuing to grow rapidly, the lack of understanding of what ‘green building’ means points to the need for continued outreach efforts.⁵

⁵ Based on survey results, outreach efforts that focus on durability and maintenance are needed, as they appear to be the most misunderstood components of a green building.

Part 4: Outreach and Marketing Avenues

Two questions were asked in an effort to gauge where people are hearing about green building: How did you first learn about ‘green building’? Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it? These questions can allow organizations promoting green building to both identify avenues that are already effective and also show where additional effort may be needed.

From the standpoint of the Department of Ecology, this information is also a useful tool in evaluating grant applications that are geared toward education/outreach: we can encourage applicants to go through avenues that have proven to be effective.

Statewide

Results show that television, newspaper and magazines are the primary ways through which people first learned about green building. A very small portion of interviewees first learned about green building through more expected industry means: parade of homes, real estate agents, sales offices. People were then asked if they had heard anything recently about green building.

Consistent with where they had first heard about it, results show that ‘traditional’ avenues such as television, newspaper, and magazines were where they had recently heard about green building, too. Home shows, however, seem to rise higher in this category. This is consistent with the fact that a lot of home shows across the state have begun to feature green building programs as an addition to their programs.

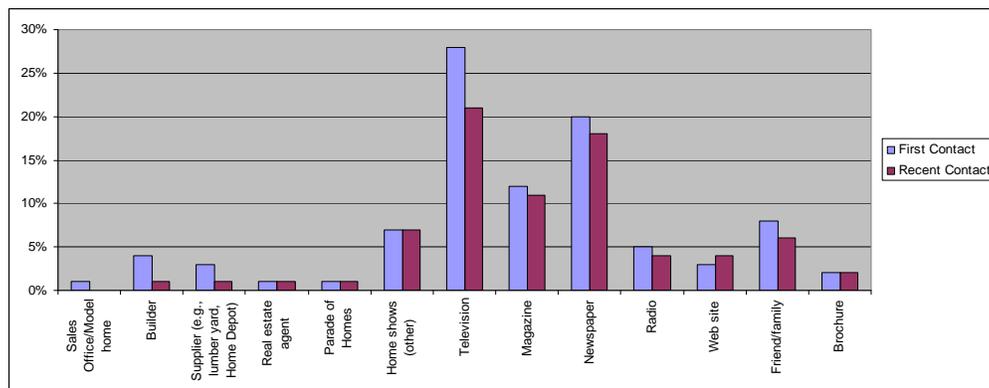


Chart 1. “Where did you first learn about green building” & “Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?” – Statewide results.

Northwest Region

Similar to the statewide results, the interviewees in the Northwest Region indicated that initial awareness of green building was through mass media outlets: television, magazine, and newspaper. Home shows appear to be a venue for effective contact between builder and consumer in this region. There seemed to be more initial education through both the

contractor/building and friends/family in the Northwest Region that in the rest of the state.

Also similar to the statewide results, points of sale (real estate agents and sales offices) do not appear to be clearly communicating the green home option. Parade of homes and brochures do not appear to be the most effective method for communicating about green building to people in the Northwest Region.

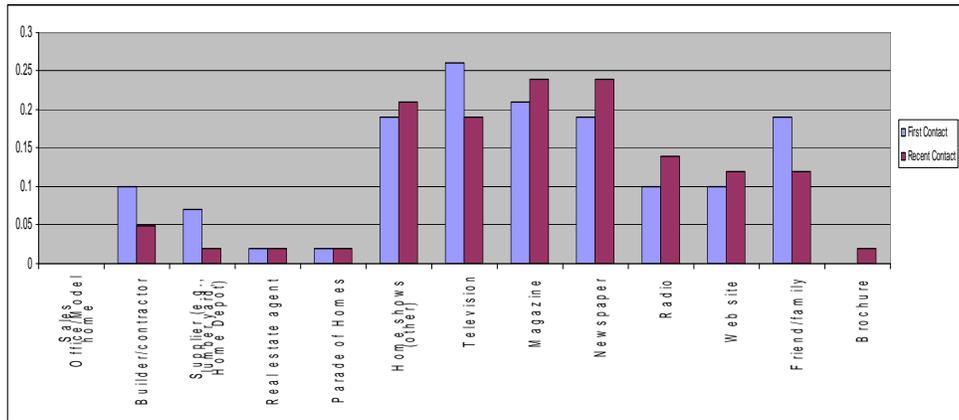


Chart 2. “Where did you first learn about green building” & “Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?” – Northwest Region results.

Southwest Region

Similar to the statewide results, the interviewees in the Southwest Region indicated that initial awareness of green building was through mass media outlets: television, magazine, and newspaper. There also seemed to be more initial education through friends/family in this region than in the rest of the state.

Also similar to the statewide results, points of sale (real estate agents and sales offices) do not appear to be clearly communicating the green home option. Parade of Homes and Home Shows do not appear to be highlighting green building options in this region, as no one indicated that these were either the initial or a recent contact with green building information.

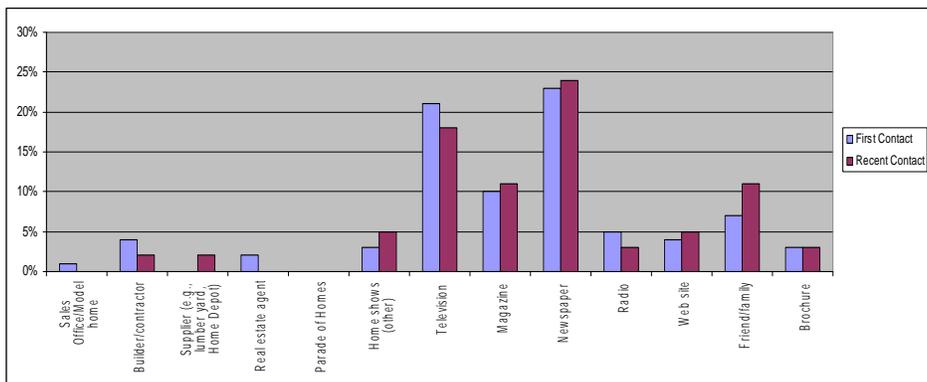


Chart 3. “Where did you first learn about green building” & “Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?” – Southwest Region results.

Central Region

Central Region results appear to be somewhat different than the rest of the state. A higher percentage of interviewees in the Central Region indicated that home shows were where they first learned about green building. Similar to the rest of the state, however, television, magazines, and newspapers appear to be an effective first point of contact. No one interviewed in this region first learned about green building through points of sale avenues, brochures, or websites.

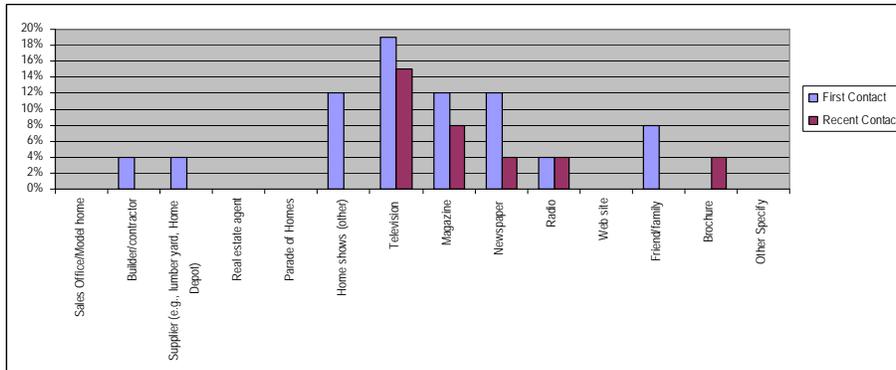


Chart 4. “Where did you first learn about green building” & “Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?” – Central Region results.

Eastern Region

In the Eastern Region, television appears to be the most effective method for both initial and follow-up contact with residents. Newspaper and magazines, similar to the rest of the state, appear to be the next most effective method of communicating. Interviewees in the Eastern Region, unlike the rest of the state, indicated virtually no contact by any other means.

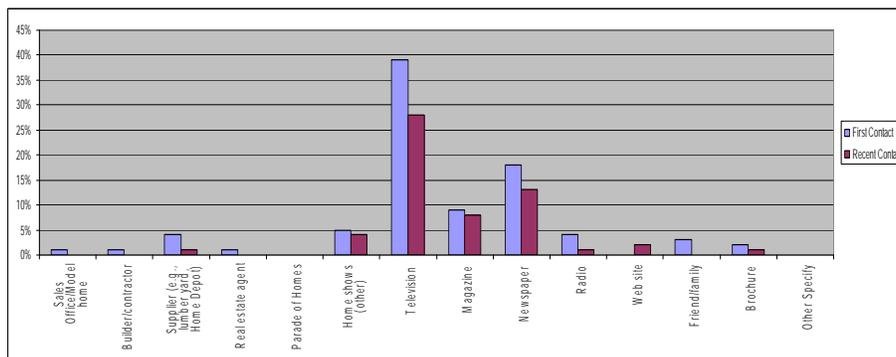


Chart 5. “Where did you first learn about green building” & “Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?” – Eastern Region results.

Summary

When evaluating where to prioritize funding for green building education and outreach efforts, based on the survey results, television, magazines and newspapers appear to be effective as both initial and continued contact with consumers. Brochures, websites and radio advertisements, although popular, don't appear to be effective in articulating green building related concepts.

Ecology's Public Participation Grants (PPG) program has funded several radio campaigns in the Southwest Region. Based on feedback from the grantee, it was not effective. The survey confirms this.

The results point to an opportunity to highlight green building and green building related programs at home shows and parade of homes, as these are avenues that access people who have some interest already in home building/remodel/maintenance. The lack of first or continued contact in these areas could be increased at a marginal cost.

A further exploration of point-of-sale (sales offices, builder/contractor, real estate agents) education and outreach options is necessary. Workshops for real estate agents and offices, and builders can help educate industry members and better allow them to explain options to potential customers. Additionally, having literature available on green building at real estate agents and builders offices can provide a stimulus for the consumer to initiate a conversation about green options available to them as they consider buying or building a new home.

Finally, the results indicate that differences exist between consumers on the east and west side of the Cascades. Home shows, although not effective to date in the western regions, appeared to be an effective source of information in the Central Region. Additionally, focusing on television advertising in the Eastern Region may be useful since the majority of people interviewed there had both initial and follow-up contact that way.

Part 5: Perspective on Green versus Conventionally Built Homes

The survey explored consumers' perspectives on green certified homes versus homes that were not built in compliance with green standards. The question asked interviewees to rate green certified homes versus non-certified homes in the following areas: energy efficiency, environmental friendliness, higher quality of materials, costs in utilities and maintenance, better built, resale value, and water conservation. People were offered options ranging from 'green built homes are much [option] than non-green homes' to 'green built homes are much less [option] than non-green homes' to 'don't know.'

Statewide

Energy Efficiency

Statewide, it appears that the majority of people understand that green homes are at least somewhat more energy efficient than non-green certified homes (74% - combined much more/somewhat more energy efficient). Given, however, the volume of attention that has recently been paid to climate change and to rising utility costs, it is a bit alarming that 22% of interviewees didn't know whether or not a green built home was more energy efficient than a home not built to green building standards.

Water Conservation

Although there appears to be a strong connection with green homes and energy efficiency, the link between green homes and water conservation does not appear to be as strong. Only 53% of people interviewed indicated that they believed green homes to conserve much/somewhat more water than conventionally built homes. Additionally, 31% of interviewees indicated that they didn't know whether green homes had water conservation benefits.

It appears as though more significant efforts are needed to educate Washington residents to the water conservation benefits of green homes. The data seems to indicate either a lack of outreach or a lack of effective outreach on this issue.

In Western Washington, green building practices can have a tremendous influence on meeting Puget Sound goals. In the eastern part of the state, green buildings can play a tremendous role in water quantity issues. Overall, the water conserving aspects of green buildings can have a significant impact on Washington's environment and, based on the survey results, it does not appear that this is being clearly explained to the public.

Utility Costs

The majority of people interviewed appeared to understand that utility costs of green certified homes were less than those of non-green homes. The results, however, were not as high as consumers' belief that green homes were more energy efficient. Fifty percent (50%) of people interviewed indicated that they thought green homes to be much more energy efficient, yet only 36% indicated that utility costs were much less.

The lack of understanding of the water conserving aspects of green construction could also contribute to people not universally understanding that utility costs in green built homes are much lower than that of conventionally built homes. It is curious that the link between energy efficiency, water conservation, and costs savings is not stronger.

Also similar to awareness of energy efficiency, a large number of interviewees (21%) indicated that they didn't know if green homes had lower utility costs. Again pointing to the fact that although climate change and energy issues are gaining significant media attention, more attention still needs to be paid to educating the general public to the links that their homes have with these issues.

Environmentally Friendly

More people interviewed indicated that homes built to green standards were environmentally friendly than were energy efficient (78% much more/somewhat more environmentally friendly). Further research on what people think 'environmentally friendly' means would be interesting. Again, given the tremendous attention that has been paid to climate change and energy, it is interesting that consumers do not link the two as at least having something to do with one another.

Similar to awareness of energy efficiency, 17% of people interviewed indicated that they didn't know whether a green built home was more environmentally friendly than a conventionally built home demonstrates the persistent need to continue to support education and outreach efforts statewide regarding the benefits of green building.

High Quality Materials

Based on the number of people interviewed that indicated that they didn't know whether or not green built homes were constructed with higher quality materials than not green built homes (31%), more attention is needed in educating consumers on the quality of materials going into green homes. In the industry, currently, materials are an area that is receiving quite a volume of attention.

This data demonstrates that existing confusion in the industry regarding best material choices is influencing consumers' perception of the durability and quality of materials being used in green homes. That only 39% of people interviewed thought green homes to be constructed with much/somewhat higher quality materials shows clearly that this part of the green building industry needs much more attention, both in research and in outreach.

Better Built

Survey results point to confusion on the part of the consumer as to whether green built homes are better built overall than conventionally built homes. Forty percent (40%) of people interviewed indicated that green homes were either much or somewhat better built than non-green homes. Twenty-nine percent (29%), however, indicated said they were either built the same or they didn't know. Nearly 30% of people interviewed perceived green homes to be built to the same quality overall as conventional homes. This

demonstrates the continued need to educate the public on what green building means from both a conservation and a materials standpoint.

Resale Value

Only 66% of people interviewed thought green homes had a much or somewhat higher resale value than homes not built to a green standard. Twenty-six percent indicated that they didn't know. This data is alarming since green homes are sold for a premium. It also demonstrates the need for the 'Valuation Initiative' work that is being funded largely by Ecology's Public Participation Grants program.

The 'Valuation Initiative' will provide quantitative information to show the value of green buildings, both residential and commercial, over buildings not built to green standards. As we continue to encourage developers and contractors to implement green building strategies into their standard practices, it is important they know that the additional work will build value into their projects.

Northwest Region

Energy Efficiency

People interviewed in the Northwest Region appear to understand that green buildings are more energy efficient than buildings not built to a green standard. Eighty-one percent (81%) of interviewees said they believed green homes to be much/somewhat more energy efficient than homes not built to a green standard. Only 17% of people interviewed indicated that they didn't know.

Significant outreach efforts have been in place for several years in this region by organizations such as BuiltGreen, Cascadia Region Green Building Council, Northwest EcoBuilding Guild, and other public agencies. Results indicate that efforts have been successful in communicating the connection between green building practices and energy efficiency.

Water Conservation

Similar to energy conservation, a majority of interviewees understood that green built homes conserved much/somewhat more water than conventionally built homes (73%). Only 17% said they didn't know. The awareness, however, of the link between green building and water conservation is not as keen as that of green building and energy efficiency.

As mentioned above, green building practices have a tremendous opportunity to help meet Puget Sound goals. Making the connection between water conservation and green building as strong as it is between green building and energy efficiency would a reasonable goal.

Utility Costs

Interviewees in the Northwest Region, although aware that green built homes conserved both energy and water, did not connect this with lower utility costs. Only 60% of

interviewees indicated that they thought utility costs were lower in green homes; 14% said costs were about the same; and 17% indicated that they didn't know.

The connection between energy/water efficiency and utility bills may be an effective point of emphasis for future outreach efforts in the region. As utility prices continue to rise, selling green homes/remodels based on lower maintenance costs may be an effective point-of-entry.

Environmentally Friendly

The majority of people (88%) interviewed in the Northwest Region understood green homes to be more/somewhat more environmentally friendly than homes not built to a green standard. Twelve percent (12%) said they didn't know. With the perceptions of environmental friendliness not matching the perceptions of energy/water efficiency or perceptions on quality of materials/construction, how people define environmental friendliness would benefit from a deeper examination.

High Quality Materials

The link between green construction and material quality, similar to statewide results, did not appear to be strong. Only 51% of interviewees indicated green homes were built using much/somewhat higher quality materials. An alarming 19% said material quality was the same and 19% said they didn't know. The message that green homes mean not only utility efficiencies but also durable materials is not being clearly explained.

Better Built Overall

Similar to perceptions on material quality, people interviewed in the Northwest Region did not appear to connect green construction practices with homes that are better built. Fifty-seven (57%) of interviewees in this region said green homes were much or somewhat better built. Twenty-nine percent (29%) said green homes and conventionally built homes were built about the same and 24% said they didn't know.

Again, data is pointing to people in the Northwest Region having a deep understanding of the energy/water conserving attributes of a green home, but not a strong understanding of the quality of construction/materials of the home.

Resale Value

Seventy-one percent (71%) of people interviewed said they thought green homes had a higher resale value than conventionally constructed homes. Eighteen percent (17%) said they didn't know. The connection between a home's value and the efficiency strategies/materials used appears to be relatively strong.

This connection is crucial if commercial developers are to adopt green building practices, as it is necessary they know there is a market for the product and an understanding that initial costs may be higher than those of a conventionally built home.

Southwest Region

Energy Efficiency

Similar to the Northwest Region, people interviewed in the Southwest Region of the state seemed to understand green homes were more energy efficient than conventionally built homes. Seventy-three percent (73%) said they thought green homes were much/somewhat more energy efficient. Twenty percent (20%) said they didn't know.

Water Conservation

Only 12% of people interviewed said green homes conserved much more water than conventionally built ones; 35% thought they conserved somewhat more. A striking 50% said they didn't know. Consistent with statewide trends, the water conservation capacity of green homes is not being clearly articulated to the general public. Fifty percent didn't know. This points to a tremendous lack of information available to the people living in this region.

Adding to this is the fact that the Southwest Region of Washington is home to the largest portion of Puget Sound. If Puget Sound goals are to be met, consumers need to understand the impacts their home purchase/remodel can have. There is clearly a need for additional resources focused on water conservation education related to the built environment.

Utility Costs

Fifty percent of people interviewed in this region understood green homes to result in much/somewhat less utility costs. A surprising 16% thought green homes resulted in higher utility costs and 35% didn't know. Again, the link between energy efficiency and utility cost reduction does not appear to be communicated effectively.

The apparent lack of understanding about the link between water conservation and green construction could contribute to the weak connection people are making between utility costs and energy/water efficiencies.

Environmentally Friendly

Interviewees in the Southwest Region perceived green homes to be much/somewhat more environmentally friendly (70%). Only 14% of people interviewed indicated they didn't know. Again, since people are not making a strong connection among green homes and water conservation, higher quality materials and building quality, it is curious what is thought to be 'environmentally friendly.'

High Quality Materials

People interviewed in the Southwest Region did not appear to strongly connect green homes with high quality materials – 50% said they thought green homes were built with much/somewhat higher quality materials. The lack of understanding was demonstrated by the 35% of respondents who said they didn't know.

Better Built Overall

Only 44% of people interviewed in the region thought green homes were better built. An alarming 24% of interviewees thought green homes were built on par with homes that did not comply with residential green building standards. Twenty seven percent (27%) said they didn't know. Coupled with the lack of understanding about material quality, outreach efforts focused on materials and construction quality appears to be needed in the Southwest Region.

Resale Value

Over half of interviewees understood green homes to have a higher resale value (57%). However, 26% of interviewees in the region indicated they didn't know. Similar to statewide data, the connection between a home's value and the efficiency strategies/materials used could be expanded.

This connection is important if commercial developers are to adopt green building practices: they must know there is a market for the product and an understanding that initial costs may be higher than those of a conventionally built home.

Central Region

Energy Efficiency

Only 62% of those interviewed in the Central Region of the state appeared to understand a benefit of green homes was energy efficiency. Thirty-five percent (35%), however, indicated they didn't know. This region had the largest percentage of interviewees indicate they didn't know there was a connection between green building and energy efficiency. This uncovers an opportunity to increase the number of people aware of the connection by focusing efforts to the Central Region.

Water Conservation

Similar to energy efficiency, only 47% of people interviewed connected green building strategies with water conservation, while 50% indicated they didn't know if there was a connection. The majority of the Central Region is agricultural; water quantity is a major issue. Focused outreach on the water conserving aspects of green homes could be an effective step toward building demand in the region.

Utility Costs

Although large portions of people interviewed in this region indicated they were not aware of the connections between green homes and energy/water efficiency, 50% said green homes would lower utility costs. This points to at least a general understanding that green homes save money; it appears that what is not understood is through what means this savings occurs.

Thirty-five (35%) of people interviewed said they didn't know if green homes saved in utility costs. And an alarming 16% said green homes cost more. It could be useful to explore where this assumption finds its justification in the region.

Environmentally Friendly

Sixty-six (66%) of people interviewed said they thought green homes were more environmentally friendly. Again, analysis of what is meant by 'environmentally friendly' would be helpful, as the data does not seem to indicate it is synonymous with either energy/water efficiency or quality of materials.

A large percentage of people interviewed in this region (31%) said they didn't know if green homes were more environmentally friendly. Data appears to show that overall education on green building in the Central Region could be improved.

High Quality Materials

There seems to be a significant lack of understanding on the durability and quality of materials used in green homes. Only 23% of respondents indicated green homes were built with much/somewhat higher quality materials and 35% indicated the quality was the same and 42% said they didn't know. If the market transformation the green building movement seeks is to be successful, a deeper understanding of the quality of materials going into the homes is necessary.

Better Built Overall

The majority of people interviewed in this region (77%) thought green homes were either built about the same as conventionally built homes or didn't know if there was a difference. Only 24% said they were much/somewhat better built. Again, results show an overall lack of understanding of green building principles in this region.

Resale Value

In contrast to the lack of understanding about what comprises a green home, people interviewed in the region seemed know green homes had a higher resale value (46%). Because of the lack of awareness of energy/water efficiency and material quality, it could be interesting to explore on what basis they perceive the added value to rest.

Eastern Region

Energy Efficiency

The majority of interviewees in the Eastern Region (72%) demonstrated knowledge green homes were more energy efficient than homes not built to comply with green standards. Only 23% of people interviewed said they didn't know. Data indicates that outreach efforts related to energy efficiency in green homes is effective. As more green building programs in the region continue to gain momentum, it will be interesting to see how this number changes.

Water Conservation

Similar to statewide results, the connection between water conservation and green homes is not as strong as it is to energy efficiency. Only 45% of people interviewed said green homes were conserved much/somewhat more water. Thirty-three percent (33%) said they didn't know.

Again, due to regional water quantity issues in the Eastern Region, expanding the understanding of green building and its relationship to water conservation could help to further stimulate demand.

Utility Costs

The connection between energy/water efficiency and lower utility costs appears to be strong in the region. Sixty-seven percent (67%) of respondents said they thought green homes cost much/somewhat less in utility bills. Only 21% said they didn't know.

Surprisingly more people interviewed in this region knew green homes saved on utilities costs than in all of the other regions. This infers that outreach efforts related to energy efficiency have been effective.

Environmentally Friendly

In addition to understanding the energy/water efficiency, a large portion of interviewees perceived green homes to be more environmentally friendly (78%). Only 19% said they didn't know and 3% said about the same. Similar to statewide and results from other regions, what is meant by 'environmentally friendly' is curious.

Eastern Region data would infer that it is defined by energy and water efficiency, as the connection to high quality materials and construction quality does not seem to be as strong.

High Quality Materials

Only 34% of interviewees thought green homes were built with higher quality materials; 29% said they didn't know and 31% said they thought the quality of materials was about the same. Again, there appears to be a statewide lack of understanding about the quality of materials going into green homes in relation to the quality of materials going into homes not built to green standards.

Better Built Overall

Thirty-nine percent (39%) of people interviewed thought quality of construction of both green and non-green homes were about the same. Only 32% thought green homes were better built, while 28% said they didn't know. If the building industry in the Eastern Region wants to promote green homes as being better built, they will need to focus more attention in this area, as data seems to point to a lack of understanding on the part of the consumer.

Resale Value

Exactly 50% of interviewees said green homes had a higher resale value. Given that a large percentage of people knew green homes were more energy efficient, it invites the question as to whether energy efficiency strategies are given appropriate cultural value to result in a higher value on the home overall.

Summary

This group of questions is important as they can inform future outreach and education needs across the state. Since homes certified to a green standard, at this point in time, cost significantly more than a home not built to a green standard, it is important that the public have at least basic understanding of what underlies the added costs.

Central Region appears to understand green building the least. Concerted efforts and resources in this region to build understanding could have significant impacts on market share of residential green buildings statewide. An effective starting point could be to clearly communicate the connection between water conservation and green building practices, as water quantity is one of the Central Region's primary environmental concerns and has tremendous impacts on the cost of living for residents.

Although climate change and energy issues have received tremendous media attention recently, the connection these issues have with the built environment could be stronger statewide. A startlingly low percent of interviewees perceived energy efficiency and water conservation as key components of a green home. This, of course, would provide the rationale for only a small percentage of people interviewed linking green homes with lower utility costs. As programming is developed for the next biennium and beyond, continuing to link green homes with energy/water efficiency and lower utility bills is crucial.

Washington State's current water policy is restrictive to certain energy/water conserving strategies (i.e. rainwater catchment). This could underlie the fact that fewer people interviewed linked green homes with water conservation than with energy efficiency. Specific thoughtful policy revisions could help educate the public about practices which could drastically reduce their water consumption.

Across the state, there appeared to be confusion as to whether green certified homes were both better built overall and built with high quality materials. There currently exists tremendous opportunities in the manufacturing sector for products that can be used in green homes and achieve credits in green building rating systems. Data infers, however, more attention could be paid to clarify to consumers that the products used to construct green homes are durable as well as environmentally friendly.

Finally, a deeper exploration of is understood by 'environmentally friendly' could be a useful exercise as future marketing campaigns are developed. It is curious that even though people, when prompted, were not clear about whether green homes were energy/water efficient, built with high quality materials or better built overall. Most, however, did perceive green homes to be environmentally friendly.

It appears the connection between environmentally friendly and the other questions this section of the survey explored were not strongly connected in the minds of the interviewees. A deeper understanding of what they meant when answering that green homes were more environmentally friendly could provide useful information to guide future outreach efforts.

For a table of complete results, see Appendix B.

Part 6: Influence of “Green” on Buying Choices

The final questions in the survey sought to gauge to what degree ‘green’ influenced interviewees *actual* choices to purchase homes/remodels/cleaning products/yard care products. It also sought to understand to what degree ‘green’ had to do with interviewees *thinking* about future home/remodel/cleaning product/yard care product purchases.

This data is important as it provides insight to both underlying justifications for past purchases and for future purchases. By better understanding the consumer, marketing can be tailored to existing interests and focus piquing new interests to support continued market growth.

Questions related to home cleaning and yard maintenance products were also asked. This data is informative on a number of levels. First, these products have profound impacts on the volume of toxins in the environment. Second, whether or not people are maintaining their homes and yards with environmentally sound products is a good indicator of their deeper understanding of environmental issues.

Finally, more people have to purchase cleaning/yard maintenance products than have the opportunity to purchase a new home or remodel their current home. By understanding the number of people for whom ‘green’ influences current buying choices, future market demand for homes/remodels can be estimated.

Statewide

A startlingly large percent of interviewees (15%) said ‘green’ was very much a part of their decision to buy their home. In 2007, new construction of certified green construction only comprised approximately 8% of the total market share for new residential construction⁶. Thirty-five percent (35%) said ‘green’ was not at all a part of their decision to buy their current home.

Whether current marketing efforts to promote green certified homes are effective would be shown in the data related to the degree to which ‘green’ would influence future home buying choice. Fewer of the people interviewed indicated ‘green’ would influence future decisions than those who said it influenced previous one.

This is curious as marketing ‘green’ products has significantly increase over the past few years which would lead one to think consumers would be more likely to choose green in future purchases.

When asked to what degree ‘green’ affected their decision to upgrade/remodel their home, it appears it played a larger role than it did in their decision to buy a home. Fifty percent (50%) of respondents said ‘green’ was very much or somewhat a part of their choice. Although a large portion of people indicated ‘green’ would influence their remodel decisions, the 21% of respondents who said they didn’t know point to the need for continued support for outreach efforts.

⁶ See the Beyond Waste Green Building Indicator.

Results imply that providing ease for consumers to purchase ‘green’ cleaning products could be an effective point-of-entry to the larger discussion on green building and green home maintenance. Forty-nine percent (49%) of interviewees indicated ‘green’ was currently a factor in their home cleaning product purchases, while 58% said it would be a factor in future purchases.

It could be useful to explore more fully the ease in which consumers currently identify environmentally friendly cleaning products. It’s important for people who indicated ‘green’ would begin to play a larger role in future buying habits are able to easily access the products they are looking to buy.

Also contributing to the conclusion that Washington residents will increasingly prioritize ‘green’ cleaning products is the difference in the number of interviewees who said ‘green’ was not at all a part of their decision to buy home cleaning products (19%) and the number who said it wouldn’t play a role in future buying decisions (10%).

Similar to home cleaning products, yard maintenance materials have a tremendous impact on the environment and human health. Statewide, 44% of interviewees said ‘green’ is very much/somewhat part of their choice in determining what yard maintenance products to buy. Fifty-six percent (56%) said it would influence future decisions, pointing to the need to identify what the barrier is between those who already do choose ‘green’ and those who would.

Nineteen percent (19%) of interviewees said they didn’t know if ‘green’ influenced their current buying choices and 21% said they didn’t know if it would influence future decisions. This data points to the still substantial number of people who don’t know what is meant by ‘green’ and, due to this lack of understanding, are unable to express it in their buying decisions.

Northwest Region

The Northwest Region had the highest percent of interviewees said ‘green’ was very much a part of their decision to purchase their current home (19%). This region also had the highest percentage of respondents say ‘green’ would play a significant role in choosing future homes to buy (17%). This data implies the outreach efforts in the Northwest Region have been effective to the degree people appear to value green in their home buying choices.

Continued outreach and education, however, is still necessary as this region also had the highest percent of respondents (40%) who said ‘green’ will not have any impact on future home buying choices.

Further exploration of why there is such a drastic discrepancy between those who will and those who won’t consider ‘green’ could be useful. Perhaps a perception of added costs of ‘green’ could impact people’s ability to think it is even an option in a real estate market that is already economically inhibitive to many.

Additionally, a large portion of people interviewed said they didn't know whether 'green' influenced past or if it will influence future buying decisions. This also points to the need for continued outreach and education efforts in the region.

Respondents in the Northwest Region continue to show significant interest in 'green' based on the high percent of respondents who said green had played a role in remodel choices (40%) and would play a role in future remodel choices (53%).

The increase between the number of people who had already done remodel/updates and those who would integrate 'green' into future choices is a good indicator that awareness is on the rise of more environmentally sound options for remodeling.

The difference among people who said 'green' was not at all a part of already completed remodel projects (33%) and those who said it would not play a role in future projects (17%) also shows the willingness to explore green options is on the rise.

Although interviewees in the this region more consistently said green homes and green remodels were a priority, this region was second to the Central Region in having the lowest percentage of interviewees say 'green' was currently a factor in their home cleaning product purchases (49%). Also second only to Central Region, 21% of interviewees in the Northwest said 'green' was not at all a factor in their home cleaning product buying choices.

The difference between current and future buying choices was marginal. Fifty-percent (50%) of people interviewed said green would play a role in future cleaning product purchases, up only 1% from those who said it currently did. The number of people for who 'green' was not at all a part of their current buying choices dropped to only 14% (from 31%) when asked about future decisions.

Half of the people interviewed in the Northwest Region said 'green' was very/somewhat important in their decision to buy yard maintenance products. Similar to other results, this is a strong number of people who understand the impacts of yard maintenance products on human and environmental health.

It is alarming, however, that 26% of the people interviewed said 'green' did not play a role in their yard maintenance product choices. This demonstrates that outreach is still needed to emphasize the impacts of some of the materials in yard maintenance products.

That the number of people that said that 'green' would play a role in future decisions didn't rise significantly (57%) from the number who said it played a role in current decisions implies people either fully understand the impacts of yard maintenance products or they don't understand that yard maintenance products play a significant role in toxics levels in the environment.

Also, the number of people who said they don't know if 'green' influences current buying decisions was the same as when asked if it would influence their thinking about

future purchases (12%). Again, demonstrating the need for outreach efforts focused on defining the role of yard maintenance products in overall human and environmental health and on providing tools to make 'green' choices.

Southwest Region

Fifteen percent (15%) of people interviewed in the Southwest Region said 'green' was very much a part of their home buying decisions. A large percent of respondents said 'green' did not have a role in their home buying decisions (36%). Only 2% said it would influence future home purchases.

Again, it may be useful to explore the discrepancy between the two responses. Large percentage of respondents said they didn't know if 'green' influenced their home buying decisions (20%).

Data from the Southwest Region related to future home buying show a lot of respondents didn't respond to the question. Future exploration of future decision-making factors would be useful to determine the most effective outreach methods to encourage 'green' to be seen as a factor.

Respondents in this region appear to have prioritized green in both past and present update/remodel choices. Fifty-four percent (54%) said it was very much/somewhat part of their decision to remodel in the past and 63% said it would be very/somewhat important to future remodeling decisions.

Data seems to show 'green', to some degree or another, has and will continue to play a role in home remodel choices as only 9% said it didn't play a role in past decisions and 8% said it wouldn't play a role in future decisions.

The Southwest Region returned the highest percentage of interviewees who said 'green' was currently very much or somewhat part of their household cleaning product buying decisions (62%). Only 17% said green was not currently a part of their current home cleaning product buying decisions, the lowest percentage in the state.

In addition to having a strong number of interviewees who said 'green' currently informed buying decisions, 70% said it would influence future decisions. Eight percent (8%) said it would not play a role at all in future cleaning product purchases.

Data seems to say residents in the Southwest Region of the state are aware of the importance in choosing environmentally friendly products for home cleaning. Understanding why 'green' is so important to residents in this region could be useful in developing outreach programs throughout the rest of Washington.

Similar to responses about the impact of 'green' on home cleaning products, interviewees in this region appear to understand the importance of 'green' yard maintenance. Southwest Region respondents had the highest percent of people say 'green' influenced

current yard maintenance purchases (52%) and would impact future ones (68%). This region also had the fewest number of respondents say 'green' did not impact current decisions (18%) or would not impact future ones (10%).

Data on both yard maintenance and home cleaning products seems to imply that outreach efforts on household toxics in this region have been effective. Identifying why the respondents who said they didn't know if 'green' played a role in current or future buying decisions could be a useful exercise in determining future outreach activities related to household toxics reduction.

Central Region

Consistent with the rest of the survey's findings, data from the Central Region points to the need for additional resources to educate people on what is meant by green building and how to incorporate the principals into their buying choices. Only 4% of respondents said 'green' played a role in purchasing their current home. This region had the largest percent of respondents (23%) say they didn't know if 'green' influenced their home buying choice.

Responses related to future buying choices also indicate a strong need exists to expand education and resources to in this region. Only 2% of respondents said 'green' would influence future home purchases; 35% said it would not be a part of the decision at all; 46% said they didn't know. Outreach that focused on reaching the 46% who didn't know could have tremendous impacts on increasing the total market share of residential green buildings in this region.

The responses to these questions from Central Region residents points to an apparent interest in 'green.' There exists a fairly large discrepancy between the percent of respondents who said 'green' was not at all a part of past remodel choices (35%) and those who said it would not be a part of future remodel choices (8%).

Data infers, with additional outreach efforts, green remodels could increase in number in the region if residents have access to sufficient resources.

Consistent with responses to other survey questions, the large number of interviewees who said they didn't know if 'green' would influence both past (35%) and future (42%) remodel decisions shows the need for amplified outreach efforts to residents in this region on green building strategies and resources.

Interviewees in the Southwest Region continued to express their need for more concerted outreach in their responses to questions related to household cleaning products. No one interviewed in this region said 'green' was very much a part of their decision in cleaning product purchases and only 23% said it played 'somewhat' a role. Responses related to future purchases seem to show a desire for more information in this region. Sixty-one percent (61%) said 'green' would be very much/somewhat a part of future purchases.

The startling difference between current and future buying decisions seems to show residents in this region would make environmentally sound choices if given more information. A focused outreach campaign in the Central Region on the how to identify 'green' household cleaning products and the importance of choosing these products could provide the starting point for the larger discussion on sustainability.

The large portion of respondents in the Central Region who said they didn't know if 'green' was an influence on their yard maintenance product choices (35/38%) coupled with the drastic increase between those who said 'green' was very much/somewhat part of their current decisions (20%) and those who said it would be extremely/somewhat important to future choices (47%) continue to support the need for a drastic increase in education and outreach efforts in this region.

Responses from the Central Region related to yard maintenance product purchases seem to confirm the lack of understanding in this region on what is meant by 'green' and a desire to learn more. Additionally, data insinuates that if provided the information, buying choices would be made accordingly.

Eastern Region

Data from Eastern Region was almost as high as data from the Northwest Region, implying outreach efforts currently underway in the area are effective. Sixteen percent (16%) of interviewees said 'green' was very much a part of their decision making process in purchasing their current home.

This was matched with 15% saying it would be very much a part of future home buying decisions. Only 10% of respondents in the region said they didn't know if it impacted the choice to purchase their current home, while 27% said they didn't know if it would impact future buying decisions. Continued outreach efforts are still needed, however, based on the 34% of interviewees who said it wasn't a part of past decisions, and the 29% who indicated it would not be a part of future decisions.

Incorporating 'green' strategies into home remodels and upgrades appears to have been both a priority in past and in future decisions to Eastern Region interviewees. Fifty-six percent (56%) of people interviewed said 'green' was very much/somewhat a part of their previous remodel choices and 61% said it would be extremely/somewhat important to future ones.

Coupled with the consistently low percent of interviewees who said 'green' would not be at all a part of their remodel/upgrades (16% previous decisions/5% future decisions), data continues to show the efforts currently underway in the Eastern Region are effectively reaching residents.

The number of interviewees for whom green is very much or somewhat a part of their home cleaning product purchases currently and in the future is very similar. Forty-four

percent (44%) said 'green' currently influences buying choices and 48% said it was important when thinking about future purchases.

The portion of respondents who said 'green' was not currently part of their decision to buy household cleaning products (18%) and the number who said it would not play a role in future decisions (10%) demonstrates a need to expand outreach efforts on this topic. Identifying what is needed to access the 8% of potential future 'green' cleaning product buyers is important to assist this aspect of green building taking hold in this region.

Interviewees in the Eastern Region, similar to results from the Central Region, seemed to lack understanding of the role yard maintenance products have in 'green' decision making. Twenty-six percent (26%) of people interviewed said they didn't know if 'green' influenced their current choices and 30% didn't know if it would influence future ones.

The Eastern Region had the smallest number of people who said 'green' would be very/somewhat important in their thinking about future yard maintenance purchases (46%). The connection between green yard care and green building/remodel appears necessary in this region, as interviewees from this region had expressed interest in green homes/remodels in other questions asked in the survey, pointing to an interest in making environmentally sound choices.

Summary

New Home Purchases

Although the green building market is growing nationwide, data points to the need for significant outreach efforts to encourage demand for green homes in Washington. The large percentages of interviewees who said green was not and would not be a part of their home buying decision points to the continued need for education on the benefits, both environmental and economic, of green homes.

Home Updates/Remodels

Home remodels may be an effective point-of-entry for outreach efforts. More interviewees said green was important in their remodel/upgrade decisions than in their decision to buy a new home. Current green building standards do not offer a certification for 'remodels.' Data would indicate this could be a successful tool for residential contractors, as interest appears to be strong statewide.

Additionally, since the current real estate market is such that demand for new homes is declining, the green remodel market could be an effective strategy for the building industry to maintain its vitality.

It may be useful to identify incentives for various aspects of green remodels. For example, if local utilities offer payback for renewal energy system installation, educating residents on the available program(s) could encourage an increase in green modeling activities statewide.

Further exploration of what people understand ‘green remodel’ to mean could be useful to help make resources available to meet existing demands and to encourage people to incorporate additional measures.

The differences in response regarding past decisions and future priorities indicate that statewide, people are interested in upgrading/remodeling their homes with green strategies. It is important resources be available across the state to provide people easy access to resources that will allow this to occur. All data points to an interest in making ‘green’ choices in future remodels/upgrades.

Home Cleaning Products

In order to encourage an increase in the purchase of non-toxic household cleaning products, additional research on what Washington residents perceive as ‘green’ is needed to enable targeted marketing campaigns. It is important strong links be made among cleaning products, human health, Puget Sound vitality, and climate change.

It appears that consumer education efforts in the Southwest Region of Washington on the importance of choosing ‘green’ household cleaning products has been effective. Identifying what these efforts are and replicating them statewide could be an effective means for educating residents in Central Washington, who appear to want the information, on how to identify green cleaning products and make purchasing choices accordingly.

Finally, although demand for green homes and green remodels appears to be growing in the Northwest Region, data shows the same demand for maintaining the homes in an environmentally friendly manner is not present. Additional outreach to consumers in this region is necessary to make the argument that green homes are only as green as they are maintained.

Yard Maintenance Products

Data seems to show residents are not clear on what ‘green’ means in reference to yard maintenance products. In regions where there exists a strong demand for green homes and remodels, there appears to be a lack of connection between a green home and maintaining it in an environmentally friendly way. In regions where green building awareness is not strong, there appears to be an interest in understanding the what ‘green’ means in yard maintenance.

As future outreach and education efforts are developed related to green building, it is important they include a component that educates the homeowner to green home maintenance methods. If they do not, the possibility exists that while homes become more energy efficient, they will continue to pollute the environment through toxics contained in maintenance (both cleaning and yard) products.

For tables of results, see Appendix C.

Part 7: Conclusions

Research projects of this nature are useful tools in determining the most effective projects to allocate funds and other resources. The results of this exploratory study point to the following:

Label recognition for residential green building programs in Washington has room to improve.

Data indicated that Energy Star was the most recognized of all of the residential green home certification programs. Energy Star, although a good tool for measuring a home's energy efficiency, does not provide verification that a holistic approach to home design – from building citing to product choices – has been applied.

Continued efforts are needed to build label recognition for the residential green certification programs currently available to Washington residents. This will both help to explain the deeper meaning of green building to the public and also encourage continued market growth.

Definition of green building is still unclear.

Interviewees consistently said green building was more environmentally friendly and used less waste. A large portion of people, however, said they didn't know. Although the industry is quickly growing state and nationwide, responses show basic education on what is meant by green building is still needed.

Especially as people are made more aware of climate related issues and want to know what they can do as individuals to mitigate impacts, it will be important for a complete understanding of the relationship between the built environment and energy/water efficiency is clearly articulated.

Traditional media are the most effective means for outreach.

Organizations working to educate the public on various aspects of green building often identify brochures, pamphlets, and home shows to reach their target audiences. Data showed that using mainstream media (television, newspapers, and magazines), however, is how most people first learned about the green building. Focusing efforts and resources in mainstream media campaigns appears to be the most effective for reaching residents.

Additional education to point-of-sale contacts is necessary.

It doesn't appear real estate agents and sales offices are articulating the message of green options to potential buyers. Since these contacts are the points at which home sales and remodel financing are occurring, it is important for consumers to have easy access to information there. Additional resources are needed for real estate agents and sales offices on green home options.

Understanding the implied definition of “Environmentally Friendly”.

When asked questions to how green homes compared to conventionally built homes, interviewees consistently said they were more environmentally friendly. Their responses,

however, were not as consistent with regard to water conservation, energy efficiency and material and building quality. This seems to show that residents do not link energy/water conservation and quality of materials with environmental quality.

A deeper examination into what is meant by “Environmentally Friendly” could be useful in identifying areas in need of further explanation to explain the links among efficiency strategies and environmental friendliness.

Home maintenance products as a point-of-entry.

Responses seem to point to home maintenance products (cleaning and yard) as an effective potential point-of-entry into the larger discussion on sustainability in the home. Because people purchase these products more regularly than they buy new homes or remodel existing ones, making sure they are equipped with information on why it is important to choose products that will have a lesser impact on the environment is critical. As people have a better understanding of the environmental impacts of small purchases, they will be more apt to apply this thinking to the purchase of a home or major remodel.

Appendix A: Consumer Survey

**Washington State Department of Ecology Green Building Program
Consumer Survey**

1. Do you or anyone in your household work in any of the following occupations:

- Marketing research.
- Advertising agency.
- Building/construction/contracting/real estate or any related services.
- Home improvement/appliance related retail or services.
- Waste hauling/recycling.
- None of the above.

2. Can you name any programs that promote environmentally-friendly, energy conservation practices in home construction?

If yes, check all mentioned:

- Built Green
- LEED (Leadership in Energy & Environmental Design)
- Energy Star
- Other _____

3. What does “green building” mean to you?

- No idea/Don't know _____
- Environmentally friendly _____
- Durability _____
- Easy to maintain _____
- Quality materials, construction _____
- Better built homes _____
- Saves me money _____
- Energy efficiency _____
- Healthy indoor air _____
- Built with recycled materials _____
- Preservation of natural resources _____
- Water efficiency _____
- Parks, greenbelts, hiking trails, landscaping _____
- Houses cost more _____
- Other Specify _____

4. How did you first learn about “green building”?

- Sales Office/Model home _____
- Builder/contractor _____
- Supplier (e.g., lumber yard, Home Depot) _____
- Real estate agent _____
- Parade of Homes _____
- Home shows (other) _____
- Television _____
- Magazine _____
- Newspaper _____

- Radio _____
- Web site _____
- Friend/family _____
- Brochure _____
- Other Specify _____

5. Have you recently seen or heard any information, advertising or articles about green building? If so, where did you see it?

- Sales Office/Model home _____
- Builder _____
- Supplier (e.g., lumber yard, Home Depot) _____
- Real estate agent _____
- Parade of Homes _____
- Home shows (other) _____
- Television _____
- Magazine _____
- Newspaper _____
- Radio _____
- Web site _____
- Friend/family _____
- Brochure _____
- Other Specify _____
- IF NO, CONTINUE

6. When thinking about a “green” home compared to the same house that is not built to a “green” standard, how would you rate a green home on:

6a. Energy efficiency: Would you say a Built Green home is:

- [1] Much more energy efficient _____
- [2] Somewhat more _____
- [3] About the same _____
- [4] Somewhat less efficient _____
- [5] Much less efficient _____
- [6] Don't know. _____

... than a comparable house that is not built to a “green” standard?

6b. Environmentally friendly: Would you say a “green” home is:

- [1] Much more environmentally friendly _____
- [2] Somewhat more _____
- [3] About the same _____
- [4] Somewhat less environmentally friendly _____
- [5] Much less _____
- [6] Don't know. _____

than a comparable house that is not built to a “green” standard?

6c. Built with higher quality materials: Would you say a “green” home is built with:

- [1] Much higher quality materials _____
- [2] Somewhat higher _____
- [3] About the same _____
- [4] Somewhat lower quality materials _____

[5]Much lower _____
[6] Don't know. _____
than a comparable house that is not built to a "green" standard?

6d. Costs less in utilities and maintenance: Would you say a "green" home:

[1]Costs much less in utilities and maintenance _____
[2]Costs somewhat less _____
[3]Costs about the same _____
[4]Costs somewhat more _____
[5]Costs much more _____
[6] Don't know. _____

than a comparable house that is not built to a "green" standard?

6e. Better built overall: Would you say a "green" home is:

[1]Much better built _____
[2]Somewhat better built _____
[3>About the same _____
[4]Somewhat less well built _____
[5]Much less well built _____
[6] Don't know. _____

than a comparable house that is not built to a "green" standard?

6f. The resale value of my home: Would you say a "green" home has:

[1]A much higher resale value _____
[2]Somewhat higher _____
[3>About the same _____
[4]Somewhat lower resale value _____
[5]Much lower resale value _____
[6] Don't know. _____

than a comparable house that is not built to a "green" standard?

6g. Water conservation: Would you say a "green" home:

[1]Conserves much more water _____
[2]Somewhat more _____
[3>About the same _____
[4]Conserves somewhat less water _____
[5]Much less water _____
[6] Don't know. _____

than a comparable house that is not built to a "green" standard?

7. To what degree was buying "green" part of your decision in purchasing a new home?

[1]Very much a part of my decision _____
[2]Somewhat _____
[3]A little _____
[4]Not at all part of my decision _____
[5] Don't know. _____

8. To what degree is buying "green" part of your decision in purchasing home cleaning products?

[1]Very much a part of my decision _____
[2]Somewhat _____

- [3]A little _____
- [4]Not at all part of my decision _____
- [5] Don't know. _____

9. To what degree is buying “green” part of your decision in purchasing yard maintenance products?

- [1]Very much a part of my decision _____
- [2]Somewhat _____
- [3]A little _____
- [4]Not at all part of my decision _____
- [5] Don't know. _____

10. To what degree is buying “green” part of your decision in remodeling/updating your home?

- [1]Very much a part of my decision _____
- [2]Somewhat _____
- [3]A little _____
- [4]Not at all part of my decision _____
- [5] Don't know. _____

11. To what degree was buying “green” part of your decision in purchasing a new home?

- [1]Very much a part of my decision _____
- [2]Somewhat _____
- [3]A little _____
- [4]Not at all part of my decision _____
- [5] Don't know. _____

12. Do you live in a “green” home?

- [1]YES _____
- [2]NO _____
- [3] Don't know. _____

12a. If Yes, to what standard was your home built?

- Built Green _____
- LEED (Leadership in Energy & Environmental Design) _____
- Energy Star _____
- Other _____

13. When thinking about purchasing home cleaning products, how important to you is it that it be a “green” product?

- [1]Extremely important _____
- [2]Somewhat important _____
- [3]Not very important _____
- [4]Not at all important _____
- [5] Don't know. _____

14. When thinking about purchasing yard maintenance products, how important to you is it that it be a “green” product?

- [1]Extremely important _____
- [2]Somewhat important _____
- [3]Not very important _____
- [4]Not at all important _____
- [5] Don’t know. _____

14. When thinking about purchasing products to remodel/update your home, how important to you is it that it be a “green” product?

- [1]Extremely important _____
- [2]Somewhat important _____
- [3]Not very important _____
- [4]Not at all important _____
- [5] Don’t know. _____

16. When thinking about purchasing your next/a new home, how important to you is it that the home is built to a “green” standard?

- [1]Extremely important _____
- [2]Somewhat important _____
- [3]Not very important _____
- [4]Not at all important _____
- [5] Don’t know. _____

17. Why do you say it would be (REFER TO IMPORTANCE RANKING ABOVE) that products/your home/etc. be “green”?
(RECORD ANSWER VERBATIM)

DEMOGRAPHIC QUESTIONS

18. Please indicate the bracket that includes your age:

- [1]18-24 _____
- [2]25-34 _____
- [3]35-44 _____
- [4]45-54 _____
- [5]55-64 _____
- [6]65-74 _____
- [7]74 or older _____
- [8] Refused to answer _____

19. Please indicate the bracket that includes your household income:

- [1]Less than \$30,000 _____
- [2]\$30,000 – 49,999 _____
- [3]\$50,000 – 74,999 _____
- [4]\$74,000 – 99,999 _____
- [5]\$100,000 – 149,999 _____
- [6]\$150,000 – 199,999 _____
- [7]\$200,000 or more _____
- [8] Refused to answer _____

20. What level of education did you complete?

- [1] Attended/graduated high school _____
- [2] Attended college, but did not graduate _____
- [3] Graduated college _____
- [4] Post graduate degree _____
- [8] Refused to answer _____

21. What is your marital status?

- [1] Never married _____
- [2] Married _____
- [3] Divorced/Separated/Widowed _____
- [4] Single, but living with a partner _____
- [8] Refused to answer _____

22. Gender

- [1] MALE _____
- [2] FEMALE _____

23. County of residence: _____

Zip code of residence: _____

Appendix B: Consumer Perspectives on Green vs. Conventional Homes

		Statewide	Northwest Region	Southwest Region	Central Region	Eastern Region
Energy Efficiency	Much more energy efficient	50%	38%	57%	35%	51%
	Somewhat more	24%	43%	16%	27%	21%
	About the same	3%	2%	5%	4%	2%
	Somewhat less efficient	1%	0%	0%	0%	1%
	Much less efficient	0%	0%	0%	0%	0%
	Don't know	22%	17%	20%	35%	23%
Environ. Friendly	Much more environmentally friendly	53%	57%	46%	35%	55%
	Somewhat more	25%	31%	24%	31%	23%
	About the same	3%	0%	5%	4%	3%
	Somewhat less environmentally friendly	0%	0%	0%	0%	0%
	Much less	0%	0%	0%	0%	0%
	Don't know	17%	12%	14%	31%	19%
High Quality Materials	Much higher quality materials	14%	21%	15%	8%	12%
	Somewhat higher	25%	40%	25%	15%	22%
	About the same	26%	19%	21%	35%	31%
	Somewhat lower quality materials	3%	0%	3%	0%	6%
	Much lower	0%	0%	0%	0%	0%
	Don't know	31%	19%	34%	42%	29%
Utility Costs Lower	Costs much less in utilities and maintenance	36%	29%	45%	31%	30%
	Costs somewhat less	30%	31%	26%	19%	37%
	Costs about the same	7%	14%	7%	4%	6%
	Costs Somewhat more	4%	10%	1%	12%	3%
	Costs much more	1%	0%	0%	4%	0%
	Don't know	21%	17%	18%	35%	21%
Better Built Overall	Much better built	18%	24%	21%	12%	15%
	Somewhat better built	22%	33%	23%	12%	17%
	About the same	29%	19%	24%	31%	39%
	Somewhat less well built	1%	2%	0%	0%	1%
	Much less well built	1%	0%	0%	0%	1%
	Don't know.	29%	24%	27%	46%	28%
Resale Value	A much higher resale value	21%	19%	20%	19%	22%
	Somewhat higher	35%	52%	37%	27%	28%
	About the same	14%	12%	11%	12%	19%
	Somewhat lower resale value	2%	0%	1%	0%	4%
	Much lower resale value	1%	0%	0%	4%	0%
	Don't know	26%	17%	26%	38%	27%
Water Conservation	Conserves much more water	25%	33%	32%	12%	17%
	Somewhat more	28%	40%	22%	35%	28%
	About the same	10%	10%	9%	0%	14%
	Conserves somewhat less water	3%	0%	0%	4%	6%
	Much less water	1%	0%	1%	0%	2%
	Don't know.	31%	17%	30%	50%	33%

Appendix C: Influence of Green on Buying Choices

New Home

To what degree was 'green' part of decision to buy....

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	15%	19%	15%	4%	16%
Somewhat	9%	7%	13%	0%	9%
A little	6%	12%	8%	4%	1%
Not at all part of my decision	35%	45%	36%	19%	34%
Don't know.	16%	17%	20%	23%	10%

To what degree will 'green' play in future home purchases...

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	9%	17%	2%	4%	15%
Somewhat	8%	12%	6%	4%	11%
A little	9%	14%	2%	12%	13%
Not at all part of my decision	23%	40%	8%	35%	29%
Don't know.	19%	17%	7%	46%	27%

Home Remodel

To what degree is 'green' part of your decision in updating/remodeling your home....

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	23%	19%	23%	12%	28%
Somewhat	27%	21%	31%	15%	28%
A little	7%	7%	7%	4%	8%
Not at all part of my decision	18%	33%	9%	35%	16%
Don't know.	21%	19%	21%	35%	18%

When thinking about updating/remodeling your home, how important is 'green'...

	Statewide	Northwest	Southwest	Central	Eastern
Extremely important	19%	17%	26%	12%	15%
Somewhat important	40%	36%	37%	31%	46%
Not very important	7%	17%	5%	8%	5%
Not at all important	9%	17%	8%	8%	5%
Don't know.	21%	14%	12%	42%	27%

Cleaning Products

To what degree is 'green' part of your decision in buying home cleaning products...

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	21%	17%	33%	0%	15%
Somewhat	28%	24%	29%	23%	29%
A little	17%	21%	9%	27%	20%
Not at all part of my decision	19%	21%	17%	23%	18%
Don't know	14%	10%	7%	31%	18%

When thinking about buying home cleaning products, how important is 'green'...

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	21%	14%	34%	19%	10%
Somewhat	37%	36%	36%	42%	38%
A little	11%	19%	7%	8%	13%
Not at all part of my decision	10%	14%	8%	12%	10%
Don't know.	17%	12%	9%	23%	27%

Yard Maintenance Products

To what degree is 'green' part of your decision in buying yard maintenance products...

	Statewide	Northwest	Southwest	Central	Eastern
Very much a part of my decision	25%	26%	35%	12%	18%
Somewhat	19%	21%	17%	8%	24%
A little	12%	14%	10%	23%	10%
Not at all part of my decision	21%	26%	18%	23%	23%
Don't know.	19%	12%	12%	35%	26%

When thinking about buying yard maintenance products, how important is 'green'...

	Statewide	Northwest	Southwest	Central	Eastern
Extremely important	24%	24%	35%	12%	15%
Somewhat important	32%	33%	33%	35%	31%
Not very important	6%	10%	2%	4%	9%
Not at all important	13%	21%	10%	12%	12%
Don't know.	21%	12%	11%	38%	30%