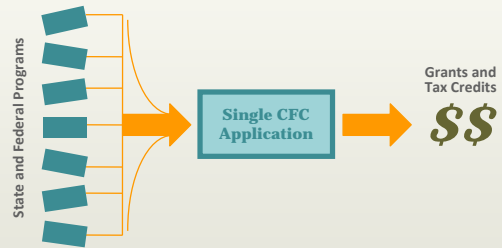


Green Building Services

Green Building Services (GBS) is a professional consulting firm dedicated to enhancing the **well-being of our communities and the environment** by helping our clients successfully adopt **sustainable development and property management practices.**



OHCS Consolidated Funding Cycle



Oregon's Sustainability Objectives

"Sustainability represents a significant economic opportunity for the State of Oregon. **Oregon prospers when the economy, the environment, and our communities support each other.**"

— Executive Order 06-02



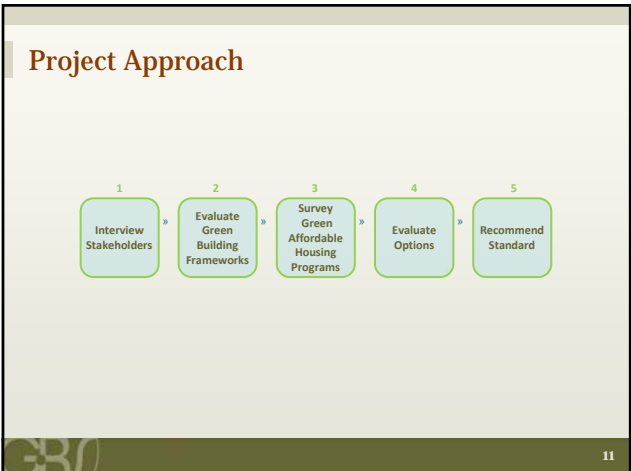
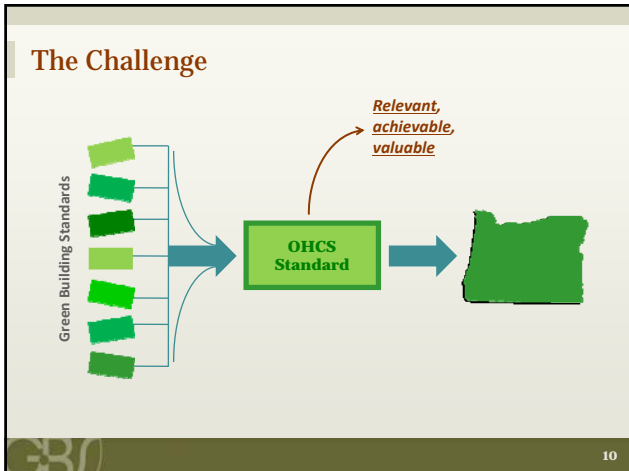
What is Green Building?

Implementation of "best practices" in building design, construction, operations and maintenance.





**Green building =
a tool to help OHCS
realize Oregon's
Sustainability Objectives**



Step 1, Stakeholder Interviews
Input Sought:

1. Green Building Priorities
2. Primary Influencing Variables
3. Approach and structure of Standard

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Priorities, Variables, Approach

- 15% energy reduction doable, 30% is tough...
- Durability, low utility costs, Indoor air quality...
- Education & Resources...
- 3rd Party Standard Adds Credibility...
- Help with "green costs"...
- Turnover is critical...
- Align with incentives...
- Location matters...
- Cost of certification...

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Step 1, Outcome-5 Key Stakeholder Concerns:

1. Costs
2. Relevance
3. Consistency
4. Support
5. Implementation

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Step 2, GB standards Evaluation:

- 1.Environmental concerns
- 2.Stakeholder concerns

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Standards Evaluated:

1. LEED-NC v2.2, H v1.0 and ND v. pilot
2. 2008 Earth Advantage Homes
3. 2008 Enterprise Green Communities Criteria
4. PDC 2003 Affordable Housing Guide

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Environmental Concerns:

1. Integrated Design
2. Location and Linkage
3. Site Development
4. Energy
5. Materials and Resources
6. IEQ
7. O&M

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Green Building Framework Performance in Areas of Environmental Concern

Environmental Concern	Green Building Rating Framework					
	Earth Advantage	Green Communities	LEED-Homes v1	LEED-NC v2.2	LEED-ND Pilot	PDC Affordable Housing Guide
INTEGRATED DESIGN PROCESS	2	4	3	2	3	1
LOCATION & LINKAGE	2	3	3	2	5	3
SITE DEVELOPMENT	2	4	3	3	3	4
ENERGY	4	3	4	4	3	3
WATER	2	3	2	2	2	3
MATERIALS & RESOURCES	4	2	3	3	2	4
INDOOR ENVIRONMENTAL QUALITY	4	5	4	3	1	2
OPERATIONS & MAINTENANCE	1	4	3	2	1	4
TOTAL SCORE:	21	28	25	21	20	24

1 = Insufficient → 5 = Well-Addressed

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Green Building Framework Performance in Areas of Environmental Concern

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Stakeholder Concerns:

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2. Relevance
3. Consistency
4. Support
5. Implementation

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Green Building Framework Performance in Areas of Stakeholder Concern

Stakeholder Concern	Green Building Framework					
	Earth Advantage	Green Communities	LEED-Homes v 1	LEED-NC v 2.2	LEED-ND Pilot	PDC Affordable Housing Guide
COSTS	4	4	3	2	2	4
RELEVANCE	3	4	2	2	2	4
CONSISTENCY OF REQUIREMENTS	4	3	3	3	2	3
ACCESS TO SUPPORT	2	3	2	2	2	2
APPROACH/IMPLEMENTATION	2	3	4	4	3	3
TOTAL SCORE:	15	17	14	13	11	16

1 = Insufficient • → 5 = Well-Aligned

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Green Building Framework Performance in Areas of Stakeholder Concern

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Step 2, Outcome

- Enterprise Green Communities
- PDC Guidelines
- EA and LEED-H...

...recognized as potential tools

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Step 3, Survey other programs:

1. City of Seattle- *SeaGreen*
2. City of Santa Monica, CA- *Checklist*
3. WA State- *Evergreen Sust. Dev. Criteria*
4. CA State TCAC- *Optional Elections/Checklist*

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Step 3, Outcome/Feedback

- » Third-party system, modified
- » Performance-based, supplemented with prescriptive
- » Provide oversight and require verification
- » “Sustainable Project Mgr”
- » Purposefully balance relevance and effectiveness

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Step 4, Options

3 primary approaches:

1. Adopt existing 3rd-party standard(s)
2. Develop a unique list of priority criteria
3. Combination of 1&2

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OPTION 1: Existing 3rd-party standard(s)

Benefits	Challenges
<ul style="list-style-type: none"> » Clarity » Simplified review process » Reduced oversight » No need to update 	<ul style="list-style-type: none"> » Inflexibility » Potential lack of expertise » Applicability » Lag between CFC award and certification

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OPTION 2: Unique set of prioritized criteria- PERFORMANCE
Example: "15% energy use reduction" to address energy efficiency

Benefits	Challenges
<ul style="list-style-type: none"> » Flexibility » Encourages creativity » Incremental awards » Ensures relevance » Easy to develop/maintain 	<ul style="list-style-type: none"> » Lack of direct guidance on 'how' » Potential higher costs » Verification

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OPTION 2: Unique set of prioritized criteria- PRESCRIPTIVE
Example: "Dual flush toilets" to address water use reduction

Benefits	Challenges
<ul style="list-style-type: none"> » Direct guidance » Predictability » Verification » Easier to apply 	<ul style="list-style-type: none"> » OHCS investment » High maintenance » Relevance » Higher performance not encouraged

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OPTION 3: 3rd Party AND Prioritized List

Benefits	Challenges
<ul style="list-style-type: none"> » Added flexibility » Increased relevance 	<ul style="list-style-type: none"> » Education » Need to update » Maintenance » Confusion » Cost-ineffective investment

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Step 4, Outcome

1. Leverage 3rd party programs
2. Purposefully pre-select options to balance flexibility and efficacy
3. Build in degree of self-modification to enhance relevance
4. Award, don't require, innovation

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Recommendation for OHCS CFC Green Building Standard

Adopt Earth Advantage and Enterprise Green Communities Criteria as baseline standards.

- Provide set number of exemptions with capacity to meet intent
- Identify set number of "priority criteria."
- Pre-approved innovations and exemplary performance.
- Allow automatic compliance for PDC Green Building Policy, LEED-NC and LEED-Homes projects.

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Earth Advantage Residential



- **Energy Star NW +...**
- **Health (25pts)**
- **Land (15)**
- **Materials (25)**
- **Water (15)**
- **+ 10 points**

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Earth Advantage Residential



Certification process:

- Plan review
- EA consultation on site design, materials, etc. if desired
- EA walk-through
- System performance testing
- Certification

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Enterprise Green Communities



- **Eligible projects:**
 - » 15 SF homes, 80% AMI (ownership)
 - » 25 units, 60% (rental)
- **Mandatory Criteria +...**
- **35 points (new)**
- **30 points (rehab)**

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Enterprise Green Communities



Certification process:

- Submit green building project to Enterprise for funding
- Commit to meeting Green Communities criteria
- Documentation and certification

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PDC Green Building Policy

Greening Portland's Affordable Housing

Coming Soon...

- AH Guidelines Update
- Project-specific standards

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Recommended Next Steps

1. Refine Standard with Stakeholders, Earth Advantage and Enterprise Community Partners
 - Compliance levels, priority criteria, exemptions
2. Development implementation strategy
 - Application, tracking and verification
 - Education, outreach and training

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Questions and Feedback?

Thank you.

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