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Thank you for joining today's webinar on [the] Sustainable Design and Green Building toolkit for local government.

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We invite you to ask questions throughout the webinar via the chat function. Due to the large number of people participating today, we are not able to answer all of the questions posted; any questions not answered during our call today will be answered via a Q&A document that will be e-mailed to all webinar participants within one week of today's call.

We would appreciate it if you would please mute your phone; this will help us to limit the amount of background noise coming over the line. If your phone does not have a mute feature you can manually mute your line by locating your name in the WebEx attendee list, clicking on your name, and then clicking mute or unmute as appropriate. And remember, please use mute, not hold, otherwise we all may have to listen to your hold music.

We also need to track accurate attendance numbers to report back to EPA, so we are going to run one quick polling question; we know that sometimes multiple people may view a training from one computer, so please let us know in the polling window on your screen how many people other than you are viewing this training from your computer. Once we get the information from you will close the poll and turn the presentation over to EPA.

This is Karen Bandhauer from EPA Region 4; and one of the team members that developed this toolkit. Thank you for joining us today. On today's webinar we will you be covering the following agenda items: we will be providing a brief background of the Sustainable Design and Green Building toolkit; we will define the components of the toolkit; talk about how it can be used by a local community; take a look at how it works; we will talk a little bit about our pilot community, the City of Roswell and the benefits that they've received from using the toolkit; we'll introduce Administrative Lean as a tool to help increase the green building practices; and then we'll also be talking about some upcoming opportunities for technical assistance.

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At the bottom of the screen, take a look and please note the link where you can download a PDF document of the toolkit at your convenience.

We have a quick poll that we'd like everyone to take, while we wait for everyone to respond to this poll I'll take a moment and introduce everyone that will be speaking today, including myself. As I mentioned, I'm Karen Bandhauer and I joined EPA in 2003; since that time I've worked in various EPA offices including the Chicago, Washington, DC and Atlanta offices; the majority of my work I EPA is focused on voluntary programs, including Land Revitalization and Brownfields redevelopment; program evaluation, and since 2007, sustainable materials management. My academic background is in Environmental Science and International Public Policy.

Suganthi Simon will be speaking a little later. She's been with EPA since 2000, and with EPA Region Four since 2005. She currently serves as pollution prevention coordinator, and in this capacity she works with states, industries, municipalities, and other institutions on reducing pollution at the source. She recently earned the LEED Green Associate credential; she has a bachelor's degree in environmental science and a master's degree in industrial environmental management.

Steve Smith will also be speaking on today's call; Steve has a degree from Clemson University in Civil Engineering, and has experience working in geotechnical and environmental engineering. Since starting with EPA in 1997, Steve has worked primarily in RCRA permitting and corrective action until he became involved with sustainable materials management in 2006. Steve works with the EPA's voluntary programs to promote the reuse and recycling of industrial materials and promote sustainable development.

So, a brief, high-level background on how we got here. Over the last 40 years, society has gotten pretty good at managing the things that come out of the end of the pipe. For the most part we know who is hurting what and where, and with some of the upcoming greenhouse reporting rules, we will also know how much C02 equivalent they produce.

Increasingly, we are learning that the built environment is one of the major sources of pollution in our communities. The location, construction, and ongoing maintenance of buildings in the surrounding site

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significantly impacts both human health and the environment. For instance, buildings account for 39% of total energy use, and carbon dioxide emissions. They account for approximately 68% of total electricity use. Americans spend the majority of their time indoors, approaching nearly 90%, meaning that the indoor environment has a substantial and important impact on health and productivity. Up to half of the total solid waste generated comes from construction and demolition materials at building sites; and non-point source runoff is one of the leading sources of water quality impairments, with 10% of freshwater usage being consumed in buildings and surrounding sites.

We are not separate from the ecosystem we inhabit, no matter how urbanized our surroundings become. And we realize that if we want to deal with those tough non-point pollution problems, we have to deal with the way we build our communities. But the good news is that building green can continue to move us forward by dramatically reducing the negative environmental pressures of where we work and live. This slide is from the U.S. Green Building Council and many of you may be familiar with it; according to the estimates cited in this slide, green buildings can reduce energy use by up to 50%, and some buildings are approaching or achieving that zero energy use. They can drive down CO2 emissions up to 40%, reduce water use by the same amount, and dramatically, they can lower solid waste generation by up to 70%.

So that's just a background on the environmental issues related to this project. Next, we want to talk a little bit about how we got involved in this project. Back in 2008, the City of Roswell approached EPA. The City of Roswell is located in the north part of Atlanta, and they are sort of like “Anytown, USA”; they have about 100,000 people, they pride themselves on a high quality of life, beautiful, historic areas that are located along the Chattahoochee River; they have a lot of water issues, a lot of interest in historic preservation, sustainable development and things like that.

The City of Roswell has developed a vision and mission statement around sustainability and green buildings, but when a developer wanted to build a very high-performing development, what they found is that the codes and ordinances process was onerous, and created barriers to developing some of those features. And there seemed to be a disconnect between the communities striving to be greener and setting up goals around that, and what was actually being encouraged through the permitting process. And so the City of Roswell approached EPA about the idea of developing a self-evaluation methodology that would allow communities to directly assess where they are in the permitting process and how their

permitting codes and ordinances measured up to the goals around sustainability that they have within their city.

And so, this is all--like I mentioned this grew out of the Roswell Green endeavor; and basically, what they were finding was that feedback from the developer that was mentioned that wanted to develop these Platinum LEED homes was that there were these barriers that were creating additional costs and time burdens on the developer, and we're making it prohibitive to develop the types of development that they had envisioned. And so from that, a multidisciplinary team was created and this project concept was born.

There were several goals that were established for this project from the outset. At first the goal was to create a flexible resource that was to build on best practices for sustainable design and green building; we didn't want to reinvent the wheel, rather we wanted to take a look at what was already out there and bring it together in one place. We wanted to create a resource that was particularly aimed at small to medium-sized communities, so they could evaluate their codes and ordinances without having to contract out the work. Larger cities were hiring contractors or consultants to develop green ordinances that could be brought before the city Council, but cities of Roswell's size, and some bigger and some smaller were wanting to do more of that work in-house, and get a better understanding of how their current ordinances either supported or detracted from their green building goals.

We wanted to bring together resources and connect them to the expected results. So, by providing this self-assessment methodology and then connecting it with those existing best practices, this could eliminate time-consuming searches for credible data in multiple green building areas.

There is a lot of good information out there on this topic in publications and online document; but the problem is that it's very scattered. Also, the information may be comprehensive on one topic, say protecting the night skies, or it may just give a brief overview of many different topics without going very in-depth into any one. This project hoped to bring relevant policy and tactical information to gather and bridge those gaps. The project team consisted of the City of Roswell, which was Alice Champaign, Brad Townsend, and Danelle Volpe; Region 4, which was myself, Steve Smith, MaryAnn Gerber, Suganthi Simon; we also partnered with the smart growth and green building programs that EPA's headquarters office in DC, and with a lot of other state, local and nonprofit partners. We also had a volunteer, Monica

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Gonzalez, who is a LEED AP, who is finishing up her master's degree in building construction at Georgia Tech. Monica spent many, many hours researching and writing the resources section of the Toolkit. The contractor for the project was ICF International, and you can find a complete list of partners and reviewers in the Acknowledgments page of the Toolkit.

This project was developed between EPA and Roswell, and in order to get it kicked off, we wanted to set up a workshop located in Atlanta so that was easy access to our offices as well as Roswell, but we wanted to bring in national experts on green buildings, specifically around the areas of codes and permitting; and so we hosted a workshop at the Southface Energy Institute in March 2009; which included a broad range of stakeholders including built environment experts, local governments, and others. It was used as a platform for identifying common barriers, and to determine the best approach for developing the toolkit.

Various green building practices were identified in the categories listed on this slide. Some specific instances include: unintended consequences; for instance, wells for geothermal have often been difficult to permit in places with groundwater drilling restrictions; changing the terminology could make approval easier in those cases. In other examples presented, communities with tight restrictions or limits may create barriers for green features placed atop buildings; for instance photovoltaic uses or shading device atop buildings could be viewed as architectural features and therefore subject to height restrictions. Something else we heard was that many times, communities would always require a variance; so these green practices would be permitted but there would have to be extra steps or hoops that people would have to go through and as a result the technology gets permitted but you don't have the long-term impact of changing anything, therefore the upfront costs of going to the process stays high for projects using the same technology in the future.

There is a pretty extensive report that was put together from this conference that could be made available if you are interested that goes into these and other barriers as well, so we just wanted to mention a few for the purposes of this webinar.

An initial draft of the toolkit was developed and provided to Roswell for clinical review. From that review process, we had to pretty dramatically reframe and reformat the assessment methodology. A follow-up review by Roswell indicated that the second version hit the mark much better with the target audience.

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We also conducted a Lean Kaizen event which Suganthi will talk about in greater detail a little later in the presentation. But for now I wanted to mention that we did conduct a lean event as part of the toolkit's development. We also had to external review periods, with a diverse range of experts providing helpful feedback. The toolkit was finalized in June 2010, and now we're just going to talk for a minute about the pilot process.

The first version of the toolkit focused more broadly on codes, but Roswell made it clear that for the assessment to be truly useful for local government, they needed to shift the focus to ordinances and policies that local governments can control. Additionally, the first version only contained the assessment and resources piece, but it was lacking the “what's next?” on how to create change with local elected officials. And so, from that we decided to add an action plan framework at the end of the toolkit. And then an additional part of that “what's next” section also highlighted the fact that the toolkit required some kind of metric that would allow the user to bring the results to their city council or county commission and visually illustrate how the community is faring under each section. This would allow the community to track changes over time. And so as a result of that we developed a red-yellow- green progress indicator which will talk about a little later. And finally, Roswell pointed out that the tool would be much more functional if it was in a web based format that would allow the user to plug and play online. This suggestion prompted the creation of a spreadsheet version of the assessment tool, which will be demonstrated later in the webinar. EPA has also secured additional funding to create a web-based version of the toolkit. There'll be more on that later too. I will now turn the presentation over to Steve Smith.

Thank you, Karen. Okay, the toolkit consists of two major sections: the assessment tool and resources guide forming one section, and the action plan is the second. We subsequently added a spreadsheet format to enhance usability. Three resources were used to develop the various components of the assessment tool. The LEED 2009 Green building rating system for new construction and renovations; the draft international green construction code version 1.0; and ASHRAE 189.1 Standard for the Design of High performing green buildings.

These resources were selected because they contain a comprehensive overview of sustainable design principles and objectives; are meaningful to architects, developers, and local government officials; include relevant technologies and techniques; and they have been extensively researched and reviewed.

The resource guide was developed by conducting extensive research; however it is not designed to be a definitive list of resources, but was developed to give local officials a quick reference guide to additional resources for a given sustainable design topic.

The action plan was developed using approaches based on collaborative decision-making, change management, communications techniques, and by evaluating best practices from other local communities.

Given all of that, we want to be clear that the toolkit is not a model green building code or ordinance, there are examples of green building ordinances, like the model municipal ordinance on green buildings that was developed by the Columbia Law school; and resources like the Rocky Mountain Land Institute sustainable community development code. Some communities have developed their own green building ordinance or require that certain types and sizes of development needs certain minimum levels of LEED certification. This toolkit is not a pathway to development of a code or ordinance. It also is not a prescript give guide of how communities should regulate their building and design process. While it uses LEED to structure and frame some of the assessment methodology, the toolkit is not a performance or leadership program. If a community scores well on every section of the methodology, it does not guarantee that every building will meet the requirements of a performance standard like LEED. The toolkit is also not an official EPA position or statement on what constitutes sustainable design or green buildings.

So what is the toolkit, after we talked about what it is not? The toolkit is a methodology for communities to systematically look at their codes and ordinances from the perspective of green building and sustainable design objectives, and make some decisions on how they can influence change with their leadership. It provides a collection of policy and technical resources to help inform the user throughout the assessment process. While the toolkit was specifically developed for use by local government officials, it can also be used by members of the development community, local government Green teams, and other building professionals. There are three important questions it can help the user sort through and answer: what are your community's priorities? What really matters to you and your elected officials, your citizens? Are your ordinances supportive of your priorities? Can you do what you want? If for example, someone wants to use permeable pavement, can they? How can you communicate new opportunities, promote sustainable design and green building in your community?

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Are there open links between code officials and the builders, developers and industry? After another quick poll, I'm going to turn the presentation back to Karen.

Okay, the toolkit is a methodology, a tool for promoting change in target areas; a collection of policy and technical resources. Okay, let's go with the first poll here. Have you tried to foster sustainable design and green building practices within your local community? No you haven't tried, yes it went pretty well, yes but it was not successful. We'll give you a couple of moments to go through that first poll.

And for the poll, part two: for those who have succeeded in fostering sustainable design and green building practices, which approach did you use? Please select all that apply. Educational outreach, codes and ordinance review, providing incentives or mandating some type of green building program, or some other means.

During this portion of the webinar, we will walk you through the toolkit and then provide a brief illustration of the spreadsheet version. The assessment tool is divided into the following five categories, which were chosen because they have the greatest potential to reduce a buildings environmental impact, and remove the most commonly encountered code and ordinance barriers. Sustainable sites and responsible land use development; which addresses site development and minimizing the building's impact on the surrounding environment; materials and research conservation, which addresses and minimizing waste from the construction site and using green materials during construction; energy conservation and atmospheric quality, which addresses energy conservation, promoting the use of renewable and waste energy, and minimizing the building's impact on air quality and the environment; water efficiency, conservation and management, which addresses the building's water consumption, and minimizing its impact on water quality; and finally, indoor environmental air quality, which addresses technologies and techniques that would improve indoor air quality.

Each category is then divided into multiple subcategories. By dividing the assessment into multiple subcategories, the user can focus on specific areas that are the most relevant to their community, or complete the assessment as a whole. Each of these subcategories has an objective and a rationale that explains the importance of the subcategory. The rationale also gives the user background information about the Green initiative and a brief description of why it's important. This background information may not be news to the user, but it may be helpful for communicating to the public or elected official.

US EPA ARCHIVE DOCUMENT

Underneath the subcategories are overarching questions. These high-level questions addressed the green objectives and help provide direction on the importance of the sustainable design, and green building subcategory. The specific question relates to the sustainable design and green building category and subcategory, and it provides greater detail on the overarching questions. The specific question is one that the user will answer as part of the assessment. Underneath the specific questions are the tools and techniques that provide examples of the policies, ordinances, etc. that can be implemented to achieve the intended each subcategory. This column can also be a guide to identify which sections of the community's codes and ordinances should be evaluated.

This is not definitive, rather, it is demonstrative of common approaches that local governments might use to achieve a particular sustainable design objective. The users will determine if the sustainable design and green building approach is addressed by this specific question are one of three different things: either they are required by code of ordinance, they are incentivized, they are expressly allowed, the code of ordinance is silent, but the practice is typically approved, the code of ordinance is silent, but it's not typically approved, or it's approved only under special circumstances; or it's expressly prohibited within the codes and ordinances. This toolkit utilizes a red yellow green progress indicator, which I mentioned earlier; and that was added at the suggestion of the City of Roswell to help the communities visualize areas where they are doing particularly well or where they could use improvement.

Think of the assessment as rungs to a ladder. As you move up the ladder, you're moving closer to assurance that your community's environmental goals will be aligned to the type of development approved in your community. The more specific questions that fall under required by code, incentivized, the more one would expect to see sustainable design tools and techniques being implemented in the community. Conversely, if the greater number of specific questions ball under code of ordinance silent, allowed but not expressly prohibited, this could indicate barriers that hinder sustainable design implementation. A community that wants to expand green buildings within its jurisdiction would want to have many of the answers to specific questions ball under required and identified.

I want to speak specifically about the assessment choices that fall under the yellow -- the first two are in the green, the second two are in the yellow, and the bottom two are in the red. So these yellow choices expressly allowed or silent but typically approved, are important because they were designed to be left little bit open ended, and questionable for the community or what they think is more like a red or green;

US EPA ARCHIVE DOCUMENT

but if you're having other people fill out the assessment for you, say if you were coordinating the assessment and you're sending it to various departments and asking that they allow specific pieces that are relevant to their department, it will be important for you to define what you mean by those terms so that they are not answered inconsistently between users. For instance, you may want to be clear that by expressly allowed, it means that ordinances are specifically allowing a technology or practice that might otherwise be denied. In this case, it truly is closer to agreeing the red. For silent but allowed, this could mean that you do not haven't ordinance addressing a particular issue, but the objective of that subcategory is typically met in your community. Conversely, a user could interpret that to mean that the environmental objective is addressed in the ordinance but is not promoted or encouraged, therefore it is silent. We were not prescriptive with the tool on how to interpret the assessment questions, so this is an area that the user may want to give some thought, like I mentioned, especially if multiple people are filling it out. And if you have thoughts on this and how we've approached it, please do provide your feedback because based on the feedback that we received, we may add more clerk occasion on the assessment categories in an updated version of the toolkit.

The resource guide follows each of the five categories and contains links to resources that will help communities learn more about each subcategory in the assessment tool. If the user finds that they are a large percentage and that they have a large percentage of yellow and red responses in a particular category or subcategory, we would recommend that they consult the relevant section of the resources guide.

Once the assessment is complete and the resources have been consulted, the final step in the toolkit is to create an action plan that addresses the major focus areas identified during the assessment. The action plan framework presented in the toolkit is just one of many possible approaches to organizing a community's course of action. In general, to promote change, communities need to ask the following questions. Is the local government looking for opportunities to encourage sustainable design? Our policy or regulatory decisions consistent with the sustainability mission of the community, who are the local government champions, specific leaders, built environment professionals and the civic groups that can address permitting barriers in your community? Have local officials or staff taken any green building training? How does the local government synthesize and share information on permitting decisions? Is the review of plans internal or contracted out? The answers to these questions will influence your

US EPA ARCHIVE DOCUMENT

community's next steps after completing the assessment and in developing a more complete picture of where there may be opportunities for improvements in the permitting process.

I'm now going to turn the presentation over to Suganthi, who is going to walk us through some of the toolkit sections and the spreadsheet version of the toolkit.

Great, thanks Karen. The next two slides-- whoops, sorry. Not ready for that. Karen can you advance the slides for me please?

Sorry about that. The next two slides are screenshots of the toolkit, and this is one section that was taken from our sustainable site, this is on the promote infill and redevelopment subcategory. And you'll see as Karen mentioned there is an objective and a rationale, and these are high-level explanations, again, this is not for the practiced or experienced practitioner in this field but really to help explain what you're doing and why this is important to your local community. If you look in the box it will say A.2.1, and actually gives you the overarching questions, and underneath that are the specific questions, of the potential tools and techniques that you would need to accomplish -- to help you accomplish the objectives. So you see that some of the potential tools are techniques under this subcategory are density bonus incentives, streamline permitting, special tax zones or tax increment finance districts, and mixed use development ordinances and criteria. And these are tools and techniques that might help the community encourage infill or redevelopment. On the right side you'll see the green yellow and red, and those are the assessment results for those specific tools and techniques and for that specific question. So you would go through your codes and ordinances and look through and see if you offer any of those tools and techniques, or you may have additional tools and techniques to your community offers; and you should feel free then to give yourself a score based on how much you offer and whether it's expressly allowed or prohibited, and so on and so forth.

As Karen mentioned there're going to be some subjectivity to this, so we ask that as you have different people in their departments who might be helping you with this assessment, that you make clearer how you are interpreting the greens yellows and reds for your community, and that everyone uses the same interpretation and the same type of scoring. You'll see at the bottom of the page, for each subsection and section you'll see a total. So for section A, you'll see a green yellow and red and that is where we

US EPA ARCHIVE DOCUMENT

hope to make this a web-based tool that will be able to incorporate where there are new resources into this resource section of the toolkit.

So the next slide is another screenshot of the toolkit, this is from the instruction phase, solution control, and you'll see again the greens yellows and reds that are side-by-side with the specific questions and potential tools and techniques; so you'll see this sustained type of page throughout the toolkit for every topic area, subsection and then the overarching questions and the specific questions.

And again, this is a sample page of the resources associated with erosion and sediment control, and this is just a screenshot of some of the resources we have, and some of them are EPA resources and many are not. There is also a general resource section that had some broader information on green development for users, and that is also part of this toolkit on the PDF.

So for the next slide this is a screenshot of the spreadsheet, and as we mentioned, we developed a spreadsheet as kind of an interim step between the hardcopy toolkit, which is the PDF version, and what we hope will be a web-based version. And the City of Roswell had asked us if we could develop this, so again we had something that they could modify and use and that they could answer in real time, generate and tabulate results. They were also looking for a graphical presentation of their results that they could use -- city officials and elected officials -- to help explain how their community is doing. And they had indicated that their city officials are very responsive to charts and metrics that they could then use as a basis for saying we need to make some changes or that were doing really well in our community. So this again is a screenshot and what I'm going to do is show you a live version of the toolkit, so, if everyone can see this is a fairly small screen, I'll see if I can make a little bit bigger, so on the Excel version of the toolkit, this is just the assessment portion. So we have not put the whole toolkit into an Excel-based, this is just the assessment portion, the resources section of the toolkit still exists in hard copy. The first tab in the spreadsheet version is the user's guide, it again explains the assessment and how to proceed with the assessment, the results portion, the greens yellows reds, and how to use the Excel version of the assessment tool. None of the cells are locked, which would help you then modify it accordingly. On the flip side, if you do overwrite some of the formulas behind the cells, then you would have to download a new version of the Excel spreadsheet to copy and paste some of those formulas. You can also just make sure you save the clean version of the Excel spreadsheet, this way if you do by mistake overwrite some formulas you can then copy and paste very readily.

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Let me just take you through the first tab which is sustainable sites, which is the first section of the toolkit. What I've done is I've pre-populated some of the answers that you have. This then translates into the next tab, which is a summary of sustainable sites, I apologize, this might come out very small in your computers, and it will create a pie chart of each subsection under the sustainable sites category. So you'll see again, I've pre-populated these graphs, and you'll see that it will give you the accounts and numbers of accounts that you have for every category. So if you have not answered some questions you'll see that the gray rating is still going to be a choice. So if you decide you don't want pie charts, you want bar charts for your community you have the flexibility to change this piece of the tool; the other piece I'd like to mention is the flexibility of basic cell toolkit. If you have some additional tools and techniques under each section, you can add those accordingly to your spreadsheet, you just have to make sure that you copy the right formulas into the spreadsheet so it translates. So this format carries over to every section of the assessment. So there is materials and resources, there is a summary page, there is energy and atmosphere, and a summary page. If you go to the end of the Excel workbook, there is a tab there that says all sections report. This all sections report is going to create a pie chart of your totals for the whole assessment toolkit. So if you complete every section of the assessment, then you will get a pie chart that tabulates. If you only complete some sections and it's not going to be representative of those sections you did not complete. It also creates a table report for every section of the toolkit, so you'll see sustainable sites, materials and resources, and energy and atmosphere; and the greens, yellows and reds or questions unanswered that you have for every section. So this is the Excel-based version, when the webinar is complete we will make sure that the Excel version is posted, and that will be posted online. You may also feel free to get in touch with us for any questions about the Excel version or any suggestions or feedback on this portion of the assessment tool. And I'm going to turn it back over.

Thank you, Suganthi. The City of Roswell helped us substantially in the development of this project as we mentioned already, and they provided some feedback to us on some of the benefits of the resource. Some of the things that they liked about it was that it was aimed at evaluating the part of the construction process that they have control love, and that's the ordinance piece. The metric can be modified by the user to make it more applicable to the individual location, and as Suganthi just mentioned, with the spreadsheet it's very easy to do. And you can answer that pieces that are relevant to your community. For instance, and Roswell they lived next to the Chattahoochee River, so one could

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assume that water issues would be important to them so they could maybe focus on that as their first order of business; but it really offers back flexibility that it doesn't have to be taken as one piece but can be taken in parts or in whole depending on local circumstances.

The red, yellow green results make it easy to communicate to both citizens and elected officials instead of having to go through the whole methodology and all of those things, you can just print out the pie chart or the bar graph, however you want to do it, and you have a very demonstrable and visual graphic to communicate the results. The action plan, which as we mentioned was a suggested piece from Roswell in the pilot process, provides a pretty detailed framework for moving forward, and this is also one of the tools that Roswell will be using to convince citizens and elected officials of the need to green up their ordinances. So we imagine other communities might find it to be in a similar position where they might have already gone through a strategic planning process around inability and they decided to make it a goal within their community, this can provide a neutral tool that many different departments can work on together to just evaluate and better understand if their ordinances are consistent with the ideals and objectives that they are trying to achieve in their communities.

So now I'm going to turn the presentation back over to Steve.

Okay. Now let's talk about what's next. The toolkit that was developed in Region 4 with significant support from other EPA offices and external partners is nationally relevant and part of a growing suite of tools and resources that communities can use to improve the sustainability of the built environment. For instance, complementary tools available on our website include smart growth guidelines for sustainable design and development, which promote both sustainable and affordable housing; and the essential smart growth fixes for urban zoning codes. And if you look at the websites there on your slide there are numerous other tools that may be useful for you. During the near-term, EPA will be turning the hard copy of the toolkit into a fully functional website. The website will allow the user to answer the assessment questions online, generate reports of the results, and automatically link to relevant resources. The toolkit is transitioning to the web-based platform, we will be using that as an opportunity to incorporate feedback for users to improve its overall utility and to ensure that it is up to date.

What else can we do for you? We are seeking a handful of communities that are interested in partnering with us over the next 5 to 6 months to go over some or all of the toolkit. We will be hosting a nuts and

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bolts webinar with those communities in April. During this webinar, we will be working with a section of the toolkit, allowing participants to ask questions and provide feedback in real time. We will follow up with another webinar in August. The same group of communities will participate in that webinar, which will be focused on troubleshooting feedback and reviewing resources and developing the action plan. After today, please contact Karen Bandhauer at the e-mail address on your screen. If you are interested in participating please contact us and we will give you a lot more information.

I'm now going to turn the presentation over to Suganthi to follow up a little more.

As Karen mentioned earlier, we held a Lean Kaizen event in Roswell, GA. And this event was aimed at working with the city to potentially develop a green permitting program. In many parts of the country green permitting programs exist for developers where the city offers some type of incentive; so they can offer reduced permitting review times if a developer chooses to develop “green” in certain areas; they might have a checklist and they might have to meet certain requirements; to meet green building requirements and meet that green building permit and receive those incentives. Roswell was interested in this potential idea and as we talked about it they said they were unsure if they actually had the capacity to meet expectations and offer those incentives to encourage green development. One of the tools that is available to us is called Lean Kaizen. Lean is a business process improvement method that was developed primarily in the automotive sector but has been used heavily in manufacturing and other process driven events. Lean has now been incorporated and adapted to meet administrative programs which may include state, city or local permitting processes.

So again, the toolkit could help create a foundation for the potential development of green permitting programs. And how it does that is because lean focuses on the elimination of wastes, and this does include environmental wastes through looking at reducing impacts on natural resources, so it could be paper, water, internal energy, etc. And lean looks at promoting a system that adapt to rapid change at the local government level; especially in those times of the boom and bust cycle of the economy right now. This city has the ability to spend a little bit more time looking at their permitting structure and doing some of this review, when the economy picks up hopefully very soon, the building boom might happen again and they will be flooded with permits and they will have to ramp up very quickly. It also looks at fostering a culture of continuous improvement, and this is not just for city employees but also

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for the customers, of creating that two-way dialogue to maximize customer value and increase satisfaction at the same time. And this is done at a process level.

The word “Kaizen” is Japanese, it means “change for the good of all.” This process is about a 3 to 4 day event, we use a training facilitator; and just to highlight some of the ways it looks at defects, overproduction, not utilizing existing people's knowledge and skills, transportation inventory, motion excess processing, and as I mentioned before, natural resources. And you can see on the right side column, examples in the permitting process; this gives you some examples that you can take a look at later; of what we mean when we say these are “waste” that we like to cover. So in the permitting process, for example, overproduction means generating on needed reports and copies, doing duplicative work is another type of overproduction, defects in the permitting process could also be customer driven, so if a builder, developer or engineer does not give you the information you need to assess how well they are doing according to your ordinances, this is also a waste of time and energy and this creates a lot of problems and backlogs in the permitting process.

So these are some of the things we looked at with Roswell and their construction permitting process. And actually, with that, there are just a couple of highlights of the lean process -- the City of Roswell found that going through this lean event for this three or four days actually help them improve communication and got the different departments together to look at how they could improve the process upstream, meaning working with developers, engineers early on in the process to work through issues. Because once the plans come and it's very difficult to either make sure that plans include the environmental attributes that were looking at, the green building design, and then having the developers work upstream in the process to help make things move quicker and more efficient and make a project potentially greener in the end then working through the traditional permitting process.

Karen, I’ll turn it back to you for any additional comments.

Thank you, Suganthi. I think you're still the presenter in WebEx but that's okay; we were just going to close out with one final polling question, where we ask everyone to please rate the degree to which this webinar has been useful to you. And again, I'd like to remind everyone to please contact me if you are interested in participating in the data test of the toolkit, if you need additional information, if you need a copy of the Excel spreadsheet or are unable to locate any of the information that we provided today in

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the webinar. And then, we wanted to close out by providing speaker contact information; you'll notice myself, Suganthi Simon and Steve Smith, please feel free to contact any one of us. In addition, we wanted to provide Danielle Volpe's contact information with the City of Roswell. Danielle was unable to join us today on the webinar, however, she would be available if there were specific questions for the City of Roswell related to any of the things that we talked about today, you can contact her with the information provided on this slide.

And just to close, we wanted to remind you once again, of the website where you can download a PDF document of the toolkit. We thank you for your interest in the sustainable design and green buildings toolkit for local governments and we look forward to hearing from you and learning how we can better serve your needs in the future with this resource.

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