Appendix B

Albany Pool Communities
GI Code Audit Project "Road Map"

GI Model Code Road Map

This program would be modeled after to the Stormwater Coalition of Albany County Green Infrastructure Model Local Law Project in both scorecard and evaluation, but tweaked o provide more prescriptive GI code for the Cities of Troy and Rensselaer while encouraging a "next step" aspect of the program to further encourage the program.

Background:

In 2010, the Albany County Coalition applied for a NYSDEC Water Quality Improvement Grant to provide funding assistance to carry out several elements of the NYSDEC MS4 Permit. Among those elements is that municipalities are encouraged to review and revise, where appropriate, local codes and laws which preclude green infrastructure and, to the maximum extent practical, consider the principles of Low Impact Development, Better Site Design, and Green Infrastructure when developing planning documents and updating regulations. While MS4s already oversee compliance with the Construction Activity Permit and related green infrastructure requirements, these additional program elements further support the use of green infrastructure at the local level.

With funding awarded, in September 2011 the Coalition put out an RFP for a consultant team to assist with, and carry out, the Green Infrastructure Model Local Law Project which included:

- Inventory existing Comprehensive Plans and Local Laws for Green Infrastructure strategies and Smart Growth principles by using a modified Water Quality Scorecard (task completed by the Coalition)
- Identify green infrastructure local law "gaps" by reviewing the scorecards
- Research other green infrastructure local laws, and develop a Model Local Law or set of Laws beneficial to the unique needs of Coalition members
- Present these model local law(s) to the land use decision makers associated with each Coalition member municipality
- Solicit feedback from land use decision makers regarding the content of the model local laws and their intentions

The table below will illustrate the program phases of the Albany County Program (Left) and detail steps of the new program (right) as well as necessary modifications.

2010 Model Local Code Program	2015 Model Local Code Program
Step 1: Educate land use decision makers, Town and/or Town Designated Engineers in green infrastructure techniques. This will be accomplished by conducting a survey of all land use decision makers in each Stormwater Coalition municipality. The survey instrument will serve to identify knowledge gaps. From that, training workshops targeting the identified priority concepts will be developed and conducted. The workshops will be designed such that they also provide the required 4-hour NYSDOS	*Step 1:* Develop a survey instrument, similar to the instrument Albany County used, that will identify knowledge gaps. From that, training workshops targeting the identified priority concepts will be developed and conducted. The workshops will be designed such that they also provide the required 4-hour NYSDOS Planning Board member training. Expanding the core knowledge of municipal leaders will encourage a more in-depth review of development proposals, and assist in efforts to

Planning Board member training. Expanding the core knowledge of municipal leaders will encourage a more in-depth review of development proposals, and assist in efforts to update local land use laws to encourage green infrastructure.

Step 2: Inventory existing Comprehensive Plans and Local Laws for Green Infrastructure strategies and Smart Growth principles. This assessment may utilize guidance documents such as the list of New York State Smart Growth Principles, NY Code Ordinance Worksheet, LEED for Neighborhood Development (2009), and U.S. EPA Managing Wet Weather with Green Infrastructure Municipal Handbook-Water Quality Scorecard (April, 2009).

Step 3: Research other green infrastructure local laws. Based on the results of the local law inventory and research, as well as input from Coalition members and others, develop a Model Local Law or set of Model Laws beneficial to the unique needs of Coalition members. To assist in researching other local laws and drafting the model law(s) or guiding principles, outside counsel was hired with grant money.

Step 4: Within the context of the MS4 Permit requirements and anticipated changes to the Construction Activity Permit and NYSDEC Design Manual, present these model local law(s) to the land use decision makers associated with each Coalition member municipality. At that point, ask the Coalition member governing board members to consider adopting the green infrastructure model law(s), and solicit feedback regarding their intentions, both immediate and long term.

Scorecard

Prior to securing consultant services, Coalition members developed a Scorecard that drew from the Center for Watershed Protection Code and Ordinance Worksheet; the Code and Ordinance Worksheet for Development Rules in New York State (developed by the NYSDEC Hudson River Estuary Program, NYS Water Resources Institute in Cooperation with the Center for Watershed Protection); and the USEPA Managing Wet

update local land use laws to encourage green infrastructure.

Step 2: This program will also inventory existing Comprehensive Plans and Local Laws for Green Infrastructure strategies and Smart Growth principles. This assessment may utilize guidance documents such as the list of New York State Smart Growth Principles, NY Code Ordinance Worksheet, LEED for Neighborhood Development (2009), and U.S. EPA Managing Wet Weather with Green Infrastructure Municipal Handbook-Water Quality Scorecard (April, 2009).

Step 3: Research other green infrastructure local laws. Based on the results of the local law inventory and research, as well as input from municipal officials and others, develop a more targeted set of Model Local Laws beneficial to the unique needs of each city will be developed. To assist in researching other local laws and drafting the model law(s) or guiding principles, outside counsel would be hired with grant money.

Step 4: The proposed local laws will be presented to the land use decision makers associated with each city. Stakeholders will be identified and governing board members to consider adopting the green infrastructure model law(s), and solicit feedback regarding their intentions, both immediate and long term.

Scorecard

The consultant and CDRPC will utilize and evaluate the Scorecard that was developed during the 2010 GI code program, making changes where needed. The 2010 scorecard was developed to survey villages, towns, cities, the county, and the State University at Albany, and may have non-relevant questions for the two city entities on the east side of the Hudson.

Weather with Green Infrastructure Municipal Handbook – Water Quality Scorecard, October, 2009.

The purpose of the Scorecard was to evaluate existing municipal zoning ordinances, comprehensive plans, review procedures, and local laws against recognized green infrastructure practices. The overall intent was to identify obstacles to using green infrastructures and, based on information provided within the Scorecard, to develop language to remove those obstacles. This serves to actively encourage the use of green infrastructure independent of Construction Activity Permit requirements.

The Stormwater Coalition Scorecard combined features of the various local law assessment tools, such that both developing and developed municipalities can be evaluated using one, easy to use, Scorecard, suitable for all MS4 Permit regulated members of the Coalition.

The Scorecard resulted in an overall "Green Score" given to each MS4. In addition to overall scores, the total score was broken out into sub- scores for various green infrastructure topic areas within the Scorecard, as follows:

- Reduction of Impervious Cover
- Preservation of Natural Areas and Conservation Design
- Design Elements for Stormwater Management
- Promotion of Efficient, Compact Development Patterns and Infill

MS4s were provided with both the Scorecard, and a guidance document providing insight as to how to complete the Scorecard. They were instructed to first identify all the development rules that apply in their municipality. They were instructed to then identify the local, state, and federal authorities that administer or enforce the development rules within their municipality. The final instruction provided was to answer the questions within the scorecard and to score themselves according to their answers.

Completed scorecards were provided to the Co-Chairs of GILLAC, at which point the scorecards were

Similar to Albany county, the Scorecard will evaluate existing municipal zoning ordinances, comprehensive plans, review procedures, and local laws against recognized green infrastructure practices. This will identify obstacles to using green infrastructures and, based on information provided within the Scorecard, to develop language to remove those obstacles. This could serve to actively encourage the use of green infrastructure independent of Construction Activity Permit requirements.

The Scorecard will have a similar "Green Score" given to each city with sub- scores for various green infrastructure topic areas within the Scorecard, as follows:

- Reduction of Impervious Cover
- Preservation of Natural Areas and Conservation Design
- Design Elements for Stormwater Management
- Promotion of Efficient, Compact Development Patterns and Infill

The cities will be provided with both the Scorecard and a guidance document providing insight as to how to complete the Scorecard. They will be instructed to first identify all the development rules that apply in their municipality. Then they will be instructed to then identify the local, state, and federal authorities that administer or enforce the development rules within their municipality. The final instruction provided will be to answer the questions within the scorecard and to score themselves according to their answers.

reviewed and resulting scores corrected, as needed (see Appendix C).

The Project Team decided to use a numeric approach, based on percent of positive responses (response of "yes"), to analyze the data. With that being the chosen method of analysis, the percent data was grouped in various ways to provide a more precise illustration of the results. The Project Team did not believe that comparing all Coalition MS4's scores to one another would provide a consistent review approach. Traditional Non-Land Use and Non-Traditional MS4s, such as the County of Albany or University at Albany-SUNY, do not experience the same issues or have the same opportunities as other, traditional, MS4s such as the Cities, Towns, and Villages. Similarly, issues and opportunities experienced by Towns may vary from those experienced by Cities, which may significantly vary from those experienced by Villages. Therefore, the Team decided to not only provide an overall Gap Analysis incorporating all MS4s but also separate Gap Analysis for Cities, Towns, Villages, and Non-Traditional MS4s.

The Consultant Team reviewed the gap analysis spreadsheets to identify green infrastructure local law shortcoming, or "gaps". To provide a graphical representation, an Excel workbook titled "Sorted Final Gap Identification" (see Appendix K) was created. The spreadsheets in this workbook visually present the percentage of traditional MS4s (towns, villages, and cities) who answered positively to each question on the scorecard. Albany County and SUNY were removed from this final analysis because it was decided that, because of their unique needs, they required a separate, more customized, document as a project deliverable. On a bar chart that graphs scorecard questions against the percentage of positive results, three additional thresholds (lines) of 10%, 25%,and 50% were added to the graph to illustrate which scorecard questions were addressed by a majority (over 50%) of the MS4s. For ease of review, the questions were then sorted in in ascending order in terms of percent positive response. Those scorecard questions that were already addressed by a majority (over 50%) were determined to not be priority gaps areas for the Coalition as a whole.

Completed scorecards will be analyzed by CDRPC staff and the consultant team at which point the scorecards will be reviewed and resulting scores corrected, as needed, with consultation from Albany County where possible.

The Consultant Team will also use a numeric approach, based on percent of positive responses (response of "yes"), to analyze the data. With that being the chosen method of analysis, the percent data will be grouped in various ways to provide a more precise illustration of the results.

CDRPC and the Consultant team will review the gap analysis spreadsheets to identify green infrastructure local law shortcoming, or "gaps" in each of the cities.

The Project Team came up with 14 potential gaps, out of which only 8 would be addressed due to the project scope. Once they took the necessary time to consider the set of gaps, each MS4 ranked the 14 gaps in order of 1-14 (1 being the gap they feel most relevant and 14 being the gap they feel least relevant) and provided this to the GILLAC Chairs. The GILLAC Co-Chairs compiled all of the MS4 rankings that were provided to them, and they produced a summary ranking of all gaps which they then provided to the Consultant Team. Appendix L provides the gap ranking by all MS4s, as well as a more detailed document that illustrates the content of each scorecard question included within each gap. The content of the questions within each gap would ultimately serve as the foundation for development of the final gap language by the Consultant Team. The Consultant Team was then able to determine which of the 14 gaps were the Coalition's top 8, and those became the selected gaps.

Gap Research and Draft Language

With the gaps selected, the Consultant Team began to research relevant guidance, laws, and design standards throughout the state, as well as to document those that the Team has learned or developed through industry experience. In addition, the GILLAC Chairs provided documents they felt were useful and relevant to the process as well. Research was not performed for Gap 6, as that gap is the non-*Stormwater* traditional/traditional non-land use MS4 local guidance gap and will include the other 7 gaps.

Standards and guidance were recorded for each gap. Because of the desire for flexibility of each gap, all quantifiable measures (i.e. square feet of impervious area in a parking lot, diameter of a cul-de-sac, miles to mass transit, planting strip widths, etc.) were given in terms of "model community". MS4s were informed that the quantifiers provided were best numbers, and that they could choose to be more lenient. Additionally, each gap was written such that there was design guidance offered at three different levels of compliance. These levels were Minimum Action Level, Best Management Action Level, and Model Community Action Level. This afforded MS4s the

With the gaps selected, the Consultant Team will research relevant guidance, laws, and design standards throughout the state, as well as to document those that the Team has learned or developed through industry experience.

Gap Research and Draft Language

Standards and guidance will be recorded for each gap. Ideally, due to the physical similarities of the project, it may be possible to dial in quantifiable measures (i.e. square feet of impervious area in a parking lot, miles to mass transit, planting strip widths, etc.) for each of the two communities, avoiding the suburban bias for non-CSO communities.

opportunity to opt to enforce portions of each gap, or allow developers to select those guidance sections they felt were most feasible. The Consultant Team believed this approach would satisfy a majority of the MS4 green infrastructure needs relevant to the selected gaps, and would provide a varying level of accountability appropriate for the community leaders comfort level and unique community goals.

Once the research and organization of the 7 gaps was complete, each gap was reviewed by a panel of industry professionals associated with the Project Team. (Project coordinators, county and municipal staff, planning board members, and the consultant team)

The panel of professionals included the following designations and certifications: CPESC, CPSWQ, CESSWI, LEED AP, PE, RLA, and AICP. The panel provided additional insight and recommendations based on their industry concentrations, and the draft gap language was distributed to the GILLAC Chairs. GILLAC members were asked to review the draft gap language, in preparation for a meeting with all GILLAC members to discuss the draft language and provide feedback and commentary. Comments and questions were provided verbally during a series of two meetings, where all GILLAC representatives were asked to attend. All comments were recorded at the time of the meetings and were provided to the Consultant Team. The Consultant Team was then tasked with reviewing and addressing the comments. During the review, the Consultant Team had several decisions to make regarding the feedback, including:

- Whether the feedback represented a want or a need;
- Whether the feedback provided substantive input that would serve to enhance the draft language;
- Whether the feedback could be addressed within the project scope and budget;
- Whether addressing the feedback would serve the majority;
- Whether anecdotal feedback was intended to be interpreted for implementation or if it was provided only for consideration if applicable;

Once the research and organization of the gaps are complete, each gap will be reviewed by the Project Team.

The project team will provide additional insight and recommendations. Meetings with each of the cities and staff will be held to get feedback on the draft language.

- Whether feedback was a result of a misunderstanding of project intent or how the gap was presented;
- Whether feedback between varying members of GILLAC were in conflict, or represented conflicting goals or ideas; and
- Whether implementing design-related feedback was feasible given industry knowledge.

Once all comments were reviewed, the Consultant Team addressed those that remained after considering the conditions presented above. The Consultant Team provided revised gap language to GILLAC, and identified which comments were not addressed and why.

Drafting of Local Laws

After addressing GILLAC's comments, the Consultant Team organized the language within each local law to ensure that the tiered approach ("plug-and play") the Team committed to at the onset were honored, and to increase customization opportunities for the Coalition members. This system of organization included separating the various requirements identified in each local law into one of three categories.

- *Minimum Action Level:* Language was considered minimum action level if the majority of MS4 communities incorporated, either by regulation or by unwritten policy of a local board, the topic area within the gap category.
- *Best Management Action Level:* Language fell into this category if the topic was included or considered in the review process by a few MS4s with newer code language. In this category, very few municipalities identified equivalent language in their policies and, in several cases, the existing language could better serve green infrastructure if strengthened or added to. This level assumes that MS4s have adopted the Minimum Action Level language.

Drafting of Local Laws

After addressing the community comments the Consultant Team will organize the language within each local law and develop suggested regulatory language that will be considered in the review process by the cities, based on the gap analysis and research of local plans and codes, as well as input received from stakeholder groups. The language for the two cities will go beyond Minimum Action Level, Best Management Action Level, or Model Community Action Level to be more prescriptive to the needs of the two east side cities.

- *Model Community Action Level:* Gap language was placed in this category if the language was regarding topics that are relatively new to be incorporated to municipal code based on new information in engineering design for stormwater or more recent land use planning ideas, or if it represents ideas that have traditionally been considered incentives within zoning ordinance language. This level assumes that MS4s have adopted each of the preceding levels.

In this way, the local law language represents a collection of codes that can be pulled from as deemed applicable, or used as a whole. Sections can be relaxed or made more stringent, and not all sections are necessary to use if not pertinent to a particular MS4. Each section represents a stand-alone suggested practice/language, and MS4s can decide which to implement. It is the goal of the project to provide user-friendly, customizable language to help provide the MS4 with the level of action they desire and can support internally.

Presentation and Implementation

After the gap language was created, and Coalition members had the opportunity to take the language back to their governing boards, a presentation was provided to Coalition members and anyone else interested. The presentation outlined the project purpose and background, as well as the project methodology.

Presentation and Implementation

After the gap language is created, Troy and Rensselaer representatives will have the opportunity to take the language back to their governing boards. A presentation will be provided to municipal leaders and staff members. The presentation will outline the project purpose and background, as well as the project methodology. The presentation will also be used as a tool to illustrate the CSO reduction benefits of GI and to encourage adoption of GI code and programs to reduce CSO discharges.
A decision matrix will provided to both Troy and Rensselaer to solicit feedback as to whether they intended to adopt the local law language. This matrix will be redistributed to the CSO communities on the west side of the River to solicit feedback about which laws have been passed if any, or what guidance has been included in local review or code.

Due to a variety of constraints to institute GI practices in an urban setting, the next step will be to investigate barriers to implementing GI in all of the APC Pool communities.