

Green Plan-IT
Technical Advisory Committee Meeting
Thursday December 15, 2016
A US EPA Region 9 WQIF Funded Project

In Attendance: Kristin Hathaway (City of Oakland), Keith Lichten (Regional Board), Jill Bicknell (EOA/SCVURPPP), Josh Bradt (SFEP), John Rozum (NOAA), Sam Ziegler (EPA region 9), Steve Carter (Paradigm Environmental), Elaine Marshall (City of Sunnyvale), Jeff Sinclair (City of San Jose), Dino Marchelonis (EPA region 10)

Item 1 Welcome and Introduction

Lester McKee welcomed everyone to the meeting and presented meeting objectives. This meeting is to gain feedback on toolkit functionalities, green infrastructure types, and outputs, as well as make critical decisions on project directions.

Item 2 Project Overview

Lester McKee provided an overview of the GreenPlan-IT project. GreenPlan-IT is part of the Urban Greening Bay Area WQIF project. The primary use of the tool is to help municipalities and other planning entities move from opportunistic to programmatic GI implementation with the goal of incorporating GI into city planning documents. The tool can be used by municipal agencies to locate and determine cost-effective, watershed-scale GI implementation scenarios and track progress towards programmatic goals. The toolkit has 4 stand-alone modules: site locator tool, watershed model, optimizer, and tracker. The value propositions of the toolkit includes: going from a landscape of 10s to 100s thousands of public and private parcels to a few thousand feasible locations; providing estimates of runoff and pollutant loads in the planning stage, RAA, and during tracking; reducing thousands of feasible locations to 100s of cost-effective locations; and communicating to stakeholders and regulators about what has been achieved while celebrating the return on investment.

On GreenPlan-IT progress, we are currently applying the toolkit in Sunnyvale, Oakland, San Jose, Richmond/Contra Costa County, and ABAG. We have enhanced both locator and optimizer and piloted the tracker in Richmond. Much of our web material were updated to reflect changes and progresses made since Phase I development. Some more updates are not live yet pending today's discussion and outcomes.

Comments: Good summary of the tool's value propositions

Item 3 Site Locator Tool

Pete Kauhanen presented a brief summary of the enhancements made to this tool since last TAC meeting, and highlighted two of them: new GI features and added ranking info to output locations. There was also status report of tool applications for ABAG, Sunnyvale, Oakland, and Richmond/Contra Costa.

Comments/questions

- ◆ Elaine asked about the basis for the acreage reduction for feasibility. Pete used Berkeley example to explain how the tool was used to reduce potential locations for the entire city.

Item 4 Modeling and Optimization

Jing Wu provided a brief summary of the modeling and optimization tool applications, enhancements made on optimization tool, and key GI design specifications.

Enhancements include:

- Addition of new GI feature types including vegetated swale/buffer strip, stormwater detention tree wells, and flow through planters.
- Changed tool structure to make it more flexible
 - GI design specs
 - Sizing criteria
 - Control of outputs
 - Script to run the tool
- Updated user manual

Comments/questions

- What about Control of Outputs? Besides standard cost-effective outputs, users now have the option to output any intermediate solutions that were generated during optimization process.
- GI specs (size, soil media depth, etc.) vary a great deal. How were they decided? Professional judgement. Need TAC input to finalize them.
- Is every unit the same design? Yes, once decided, the size of each GI will stay the same during the optimization process, what the optimization decides is how many of fixed-size units are needed to achieve certain reduction goals.
- GI sizing criteria. Theoretical model run for each of the scenarios with individual BMPs to see what the performance looks like. HSPF can do it. SWMM can do the same. Set up mini-models to play with the configuration, benchmark them, and gauge our confidence with the comparative value for each of the model runs. A sensitivity analysis.
- Do we need all SIX GI types in the tool? If everything but surface area is the same, then the model will treat them the same.
 - Vegetated swale has been installed in the past but going forward, there will not be vegetated Swales installed.
 - Tree-well. Filterra with 100 in/hr for the proprietary media

- Flow-through planters. they operate like bioretention and are not a meaningful distinction. Good to distinguish between lined and unlined bioretention.

Outcome

- Vegetated swale should be excluded from the tool
- Tree-well. Use proprietary media with high infiltration rate (100 in/hr by design, 50 in/hr if conservative). The cost will be high but it will be interesting to see how it plays out in the optimization.
- Bioretention and Flow-through planter. Use two types of Bioretention: Bioretention without underdrain and Bioretention lined with underdrain (as Flow-through planter).
- TAC members will have further discussion with project team through phone call or email to decide on GI specs and sizing criteria.

Item 5 GI Tracker

Tony Hale presented progress made on Tracker tool, including created online tool for use by Richmond and CC County; entered Richmond & CCC existing GI data (n=60+); refined map editor user interface, focusing on ease of use; and narrowed the portfolio of data collected to the information used in water Board reports and SWMM-based effectiveness calculation. He also used a demo to work the TAC through the key fields/functionalities of the tool.

Comments/Questions

- Tracker is coming together nicely
- Google street view is a very interesting and useful feature
- There is pros and cons of making mapping outputs embedded in municipal web sites. Need further discussion on whether it is desirable.
- BASMAA is having discussions about tracking but doesn't know about GreenPlan-IT tracker tool. SFEI should present the tracker tool to BASMAA's Development and Pollutants of Concern committees at one of their monthly meetings.
 - Contact Jeff Sinclair about next development committee meeting on Jan 5th
 - Find out who to contact for Pollutants of Concern committee
- Jill wishes we had more time and that the meeting was in person.

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