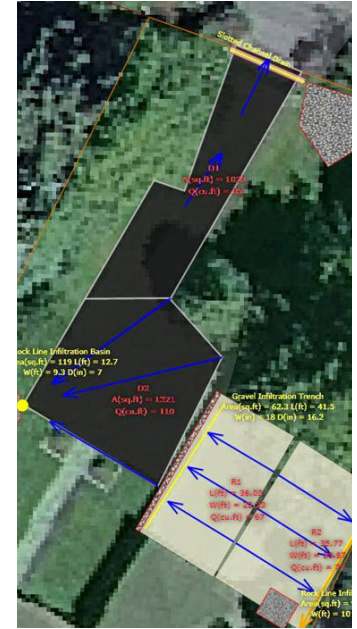


Stormwater Best Management Practices

Lake Tahoe, California and Nevada



Lake Tahoe is a world-renowned natural resource, as much appreciated for its beauty as its recreational possibilities. Home to 55,000 residents and 3 million tourists each year, it is essential that the lake be preserved for future generations at a regional level to protect economic prosperity and quality of life. Preserving, or future proofing, this important resource relies heavily on stormwater best management practices (BMPs) both regionally and locally/individually. Applied to individual properties, stormwater BMPs include structures such as gravel trenches placed under roof lines to catch rainwater before it can erode sediment and carry it to nearby Lake Tahoe.

Installation of required BMPs at the property level often requires a professional engineer or landscape architect and is an expensive prospect. The Tahoe Regional Planning Authority (TRPA) called upon Atkins' subject matter expertise in developing step-by-step tools, called "wizards," to help users understand complex regulatory, permitting, design, and decision-making processes as they relate to future proofing in a very cost-effective manner. This concept promotes the importance of community engagement in the future proofing process and putting easy tools in the hands of the most vital stakeholders—the residents themselves.

Now known as BMP Designer, the tool leads homeowners through a step-by-step process that starts with the entry of basic property information and general site conditions.

500:1 Return on Investment

If half of the homeowners in Lake Tahoe used BMP designer, they would save a total of \$60 million in design fees. That's \$500 saved for each dollar spent to develop BMP Designer.

Users can then leverage an embedded aerial map to outline a property's rooftops, driveways, decks, and other areas that can potentially drain stormwater too quickly. The BMP Designer automatically provides a selection of BMPs for each area—including average costs for installation and maintenance, allowing the property owner to select preferred BMPs and submit the plans to TRPA for review. Once TRPA approves the site design, the property owner can install the chosen BMPs, request a site inspection through the tool, and complete the BMP certification process.

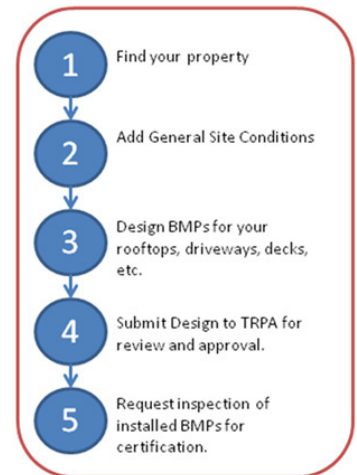
BMP Designer simplifies the process of planning and installing BMPs for Lake Tahoe area residents. Because the majority of Lake Tahoe properties are second homes, the tool provides an avenue for both out-of-basin and local property owners to participate in protecting the lake's future. This translates to a "right-sized" sustainable policy that promotes long-term resilience by reducing the number of staff hours the agency spends supporting the BMP program. Atkins continues to advise TRPA on concepts that expand the tool set to accommodate additional future proofing requirements to further the benefits already realized.

Client
Tahoe Regional Planning Agency

Completion date
2013

Services provided

- Workflow design
- Software development
- Data collection
- Data processing



Plan Design Enable

Future Proofing Cities

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