Commercial and Multi-family BMPs: Permitting and Maintenance

Louis Cariola
Tahoe Regional Planning Agency
Commercial / Multi-family sites:

- Do your research! Other permits/compliance actions?
- Call us, check with jurisdictions!

Recall that QE work cannot be staged to stay under 7 cubic yards

-subject to fine and definitely work stoppage

STOP
BMP Retrofit

Commercial and multi-family sites typically have:

• more area
• more coverage
• higher pollutant loads/pretreatment

Often require Coverage/Land Capability, which needs to be completed first
-to be discussed in greater detail later by Shay
Could a single family home project require a BMP Retrofit Permit?

Why?
Recall limits of Small BMP Retrofit Plan:

• Engineered structures: retaining walls > 3 feet
• Extensive grade alterations
• Infiltration systems for >2,500 square feet
• Excavation > 5 feet
• Paving
• Subsurface piping and drop inlets
• > 7 cubic yards of grading (some exceptions)
**BMP Retrofit Permit**

<table>
<thead>
<tr>
<th>Water quality improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage will not be created, relocated or banked</td>
</tr>
<tr>
<td>Requires cost documentation as permit condition.</td>
</tr>
</tbody>
</table>
Do I need an Engineer?

- > 2500 ft$^2$ of impervious surface
- Traffic-rated, subsurface systems
- Retaining walls/structural features
- Specified by TRPA Staff
- Codes/local jurisdiction requirements
BMP Retrofit application checklist is more involved; review takes longer

<table>
<thead>
<tr>
<th>Applicant</th>
<th>TRPA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>1.</td>
</tr>
<tr>
<td>Complete Application with original signed authorization and checklist.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>Three (3) Site Plans, minimum 11” x 17” showing the following.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>a. Parcel boundaries.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>b. Map scale and north arrow.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>c. Assessor’s Parcel Number (APN) and property address.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>d. Location and description of all BMPs to be implemented.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>e. Delineation of land capability districts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>f. Location of all trees greater than 6” diameter at breast height (dbh), including which, if any, trees are proposed to be removed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>g. Existing coverage (building footprint, driveway, walkways).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>h. All major utilities (sewer, water, gas, telephone, and electricity) must be clearly marked.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
<tr>
<td>For excavations greater than 5 feet in depth, a soil/hydrologic scoping report. Scoping report may also be required when evaluations of depth to groundwater or an impermeable layer such as bedrock, a hardpan or fragipan are needed to properly design and implement BMPs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.</td>
</tr>
<tr>
<td>Copy of current assessors parcel map or site vicinity map.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>Engineer stamped plans and calculations for the following (if applicable). Please note that this is not a comprehensive list. Other complex BMP designs may require engineered plans:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>a. Retaining walls more than three feet in height.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>b. Storm water treatment systems (e.g. sand/soil separator).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>c. Infiltration basins.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>d. Infiltration systems capturing runoff from areas greater than 2,500 square feet.</td>
<td></td>
</tr>
</tbody>
</table>
BMP Retrofit Permit Application

$0 – Currently no fee for property owner

- Cost Documentation

Application requirements - typical

- BMP Site Plan – coverage and surveyed site plan
- Calculation Spreadsheet
- Treatments Page/Narrative/Re-vegetation notes
- Complicated/Commercial projects may require more information per the planner - land use, hazardous materials, staged projects, etc.....
BMP Retrofit requires owner authorization

AUTHORIZATION FOR REPRESENTATION (Original signatures required):

The following person(s) own the subject property (Assessor’s Parcel Number(s)_____________________) or have sufficient interest therein to make application to TRPA:

Print Owner(s) Name(s):

__________________________________________

__________________________________________

__________________________________________

We authorize ________________ to act as my/our representative in connection with this application to TRPA for the subject property and agree to be bound by said representative. I understand that additional information may be required by TRPA beyond that submitted by my representative, to review this project. Any cancellation of this authorization shall not be effective until receipt of written notification of same by TRPA. I also understand that should any information or representation submitted in connection with this application be incorrect or untrue, TRPA may rescind any approval or take other appropriate action. I further accept that if this project is approved, I, as the permittee, will be held responsible for any and all permit conditions.

Owner(s) Signature(s) (Original signature required.)

__________________________________________ Date: __________________________

__________________________________________ Date: __________________________
www.tahoebmp.org

home page

BMP HANDBOOK

BMP RESOURCES

MULTI-FAMILY & COMMERCIAL PROPERTY OWNERS

BMP Retrofit Application

Commercial Brochure

BMP CONTRACTORS & PROFESSIONALS

Small BMP Retrofit Plan

NRCS Standard Drawings

Calculation Spreadsheet
Questions on TRPA permitting?
BMP Inspection and Maintenance

• In 2012, TRPA’s new Regional Plan challenged in court by Sierra Club and others
• Specifically called out the lack of a program to verify that installed BMPs are maintained
• Currently TRPA is coordinating with Washoe and Douglas counties to notice property owners and managers
Chapter 60.4.9 of TRPA’s Code of Ordinances:

Maintenance of BMPs

• BMPs shall be maintained to ensure their continued effectiveness
TRPA has started sending letters

• Commercial/multifamily parcels per County approval assists in meeting TMDL goals
• Currently for certificates over 5 years old
• Property Managers may be contacted also
• Know the expectations
• Make this part of your business
New tabs added to www.tahoebmp.org
New Resources

Common BMP Maintenance

- Soil Stabilization
- Bare Soil Protection
- Bare Soil Protection (video)
- Parking Barriers
- Parking, Dumpsters, Hazmat (video)
- Snow Storage
- Snow Storage (video)
- Capture and Conveyance
- Slotted Channel Drain
- Subsurface Drain
- Rock-lined and Vegetated Swales
- Drain Inlet
- Driveway Conveyances (video)
- Pretreatment
- Trash Rack
- Sediment Trap
- Battled Vault
- Infiltration
- Pervious Pavement
- Sweeping and Pervious Pavement (video)
- Infiltration Trench
- Infiltration Systems (video)
- Infiltration Basin
- Open Systems (video)
- Subsurface Infiltration System
- Subsurface Infiltration (video)

BMP Maintenance Log
BMP Maintenance Log Template
BMP Maintenance Log Example
BMP Maintenance and Monitoring Resources
- Small Residential Checklist
- Projects over 1 acre
- Projects over 5 acres

For more resources see Ch 6 of the BMP Handbook

If you have maintenance documentation to submit e.g. photographs, invoices, maintenance logs, or other documentation, please email bmp@trpa.org
Customizable, easy to use new BMP Inspection and Maintenance Log

BMP Inspection and Maintenance Log

BMP inspection and maintenance is necessary to ensure BMPs are functioning properly. Once inspection and maintenance is completed submit this form and documentation to TRPA and the BMP certificate(s) associated with the property will be updated with a new date. Email to bmp@trpa.org, fax to 775-588-4527, or mail to PO Box 5310 Stateline NV 89449

<table>
<thead>
<tr>
<th>APN:</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Address:</td>
<td>Contact Info (phone/email):</td>
</tr>
<tr>
<td>Land Use:</td>
<td>Date:</td>
</tr>
<tr>
<td>Site Description:</td>
<td></td>
</tr>
</tbody>
</table>

Refer to TahoeBMP.org and the BMP Handbook for additional information.

BMPs listed include the chapter number from the TRPA BMP Handbook. Using the Log Number note the location for all BMPs on the accompanying site plan. Documentation for contracted services should be noted and submitted with this inspection log. Note corrective maintenance actions for any items marked “No” in the Documentation/Corrective Action column. Use the “Other” field at the end of the log to complete any Corrective Action information that does not fit into the Documentation/Corrective Action column.
Please reference hand out M

128 Market Street, Stateline, NV
Go to live demonstration of Log

### 4. Drop Inlet (Drain Inlet) - Chapter 4.3-e

<table>
<thead>
<tr>
<th>Location</th>
<th>Yes</th>
<th>No</th>
<th>Documentation / Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a-4j</td>
<td></td>
<td></td>
<td>All drop inlets inspected after precipitation events and are properly conveying storm water.</td>
</tr>
<tr>
<td>Is the drop inlet structurally intact and properly capturing and conveying stormwater?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the system clear of trash and debris? (Inlet, outlet &amp; within structure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has accumulated sediment from upslope contributing sources been cleared?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is standing water properly infiltrating/evaporating 96 hours after storm events?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5. Drop Inlet Insert (Drain Inlet Insert) - Chapter 4.4-d

<table>
<thead>
<tr>
<th>Location</th>
<th>Yes</th>
<th>No</th>
<th>Documentation / Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>4b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the insert in place?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the insert appear to be functioning properly? (Refer to manufacturer’s instructions.) If “No”, then state when the system is next scheduled for maintenance.</td>
<td></td>
<td></td>
<td>The insert will be inspected annually (by the manufacturer in Spring 2015) and filters will be replaced if necessary.</td>
</tr>
</tbody>
</table>

### 6. Slotted Channel Drain - Chapter 4.3-g

**Note:** Some drains that do not have removable grates will require service by a vactor truck to restore function.

<table>
<thead>
<tr>
<th>Location</th>
<th>Yes</th>
<th>No</th>
<th>Documentation / Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a, 6b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the drain structurally intact and properly capturing and conveying stormwater?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the drain clear of trash and debris?</td>
<td></td>
<td></td>
<td>Drains cleared in March 2015.</td>
</tr>
<tr>
<td>Has accumulated sediment from upslope contributing sources been beep</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Read through Log entries
- Discuss use of Other/Notes

21. Other/Notes: Describe any erosion issues, surface runoff problems, or other conditions relating to BMP compliance.

Items noted for inspection/maintenance in "Spring" will be addressed in April/May based on weather conditions.

Landscaped areas will all receive seasonal maintenance in the Spring. Sediment, dead vegetation, trash and debris will be removed and disposed of in approved locations, and new plants will be added where needed.

Documentation pending/Corrective Action notes:

12. Parking barriers locations to be inspected and re-oriented as needed when snow stakes are removed for season - Spring 2015.

13. Sand/oil separators, 13a and 13b, will be inspected Spring 2015 to assess service needs.

15. This pervious pavement test plot was not properly installed in 2004 and is not infiltrating storm water as intended, although run off is still captured, treated, and infiltrated by the larger BMP system. The location is up slope of drop inlets 4d and 4e, which direct storm water through sand/oil separator 13a before discharge to infiltration basin 2b.
Submit online or by mail

Declaration:
I hereby declare under penalty of perjury that all information submitted as part of this BMP Inspection and Maintenance Log is true and accurate to the best of my knowledge. I understand that should any information submitted be inaccurate, erroneous, or incomplete, TRPA may take appropriate action.

Signature: 

Submit to TRPA by Email
Download a Log

- You can download the Log template to a tablet or phone and use in the field
- Use as an inspection tool and create a Log in real time

Send to us first for approval - include site plan!
Current Planning/other permits

- All TRPA commercial/multifamily permits will now include requirements for BMP inspection/maintenance logs
- Planner will also request to have all existing BMPs on site noted on plans, not just in the area being improved/permitted
- TRPA to be meeting with Jurisdictional partners to ensure consist requests for BMP info
www.tahoebmp.org

THE source for all things BMP in Tahoe!