INSTRUCTIONS FOR RESIDENTIAL
STORM WATER MANAGEMENT PLAN
Effective August 18, 2020

Applicable Projects: New and existing Single-Family or Two-Family dwelling (SFD/2FD) Building Permit projects, in which the work will result in an increase or decrease in the total impervious surface area.

Purpose: Single-Family and Two-Family dwelling projects are required to manage the storm water by implementing Best Management Practices and reduce the total runoff generated on the site by reducing the total impervious surface area of the lot, not exceeding 75%, in accordance with the City adopted 2012 International Building Code, Section R107.5 and R107.5.1 (http://www4.honolulu.gov/docushare/dsweb/Get/Document-263063/ORD20-007.pdf) and Land Use Ordinance Section 21-3.70.1(G). A Storm Water Management Plan, in addition to the Appendix B – ESCP template with the $250 Erosion and Sediment Control Plan (ESCP) Review fee or the Minor Development Certification, is required.

Submittal Requirements:

Appendix G1 - Residential Storm Water Management Plan (RSWMP) template:

- Complete the Project Description. When the pdf template is used, the “Project Lot Size”, “Existing Impervious Surface Area (ISA)”, “ISA added”, and “ISA removed” inputted value will automatically populate the calculator in the Percent and Total Impervious Surface Calculation.
  - Impervious surface means a surface covering or pavement of a developed parcel of land that prevents the land’s natural ability to absorb and infiltrate rainfall or storm water. Impervious surfaces include, but are not limited to rooftop, deck, swimming pool, walkways, patio, driveway, parking lot, storage area, impervious concrete and asphalt, and any other continuous watertight pavement or covering.
  - Do not include the following in calculating the Impervious Surface Area (ISA):
    - Pervious surfaces such as grass, vegetated areas, mulch, gravel, or sand surfaces, and permeable pavers. However, if these surfaces are covered with a roof or other raised structure, these shall be considered impervious.
    - De minimis surfaces including fences, vertical walls, and natural rock outcrops.
  - Check the applicable boxes in Section i, Site Design Strategies and Section ii, Residential Source Control BMPs. For the description of each Site Design Strategies and Residential Control BMP, refer to page 2 of this instructions or Attachment B.

Attachment A: Site Plan(s) (11”x17” max size sheet) showing existing, added, replaced, and created impervious areas, including surface finishes (i.e.: grass, concrete, gravel, etc.) and the relevant Site Design Strategies.

Construction Plans: Add Residential RSWMP Notes (1-2) onto the SITE PLAN in the construction set, see page 3 of this instructions.

Revisions to Construction Plans that affect the RSWMP:

- Re-submit the completed Appendix G1 – RSWMP template, provide a narrative of the revisions in Section iv.
- Attach revised Attachment A: Site Plan(s).
- If the revision also requires a revision to an approved ESCP, a $100 review fee shall be submitted.

Provide the final copy of the Approved RSWMP with attachments A and B to the owner:

Attachment B, Site Design Strategies and Residential Source Control BMPs and The Green Infrastructure for Homeowners Guide. The homeowner shall implement the residential storm water management strategies and BMP.

All Forms are available on the DPP Website, Storm Water Quality page: http://www.honoluludpp.org/ApplicationsForms/StormWaterQuality
Site Design Strategies - The following general guidance corresponds to Section i of the RSWMP:

- **Landscaped Areas**
  - Minimize disturbance to existing natural areas, soils, and landscape areas.
  - Limit runoff from landscaped areas to hardscape areas.
  - Direct runoff from roof(s) and hardscape areas to landscaped areas.
  - Select native plants for landscaped areas.
  - Protect slopes and channels.

- **Storm Drain Inlets**
  - All storm drain inlets and catch basins, constructed or modified, within the Project area should be labeled with prohibitive language.
  - Do not place signage on the face of curbs where they may be damaged by vehicle traffic.

- **Automatic Irrigation**
  - Design irrigation systems for each landscape area’s specific water requirements and to minimize runoff of excess irrigation water.

- **Downspout Disconnect**
  - Downspouts should be disconnected from an underground connection and directed towards an adjacent vegetated area, planter box, or rain barrel instead. Caps are installed on the portion of the underground system (standpipe) that remains above ground.

- **Downspout Outlet Protection**
  - Install splash blocks, rock dissipaters, flexible/retractable extensions, or other outlet protection device(s) at the downspout outlet(s) to minimize erosion and/or help direct water farther from the house.

- **Permeable Hardscape**
  - Use turf blocks, porous pavers, or porous pavements for patios, walkways, driveways, and/or overflow parking.
  - Direct runoff from roof(s) and hardscape areas to permeable hardscape areas.

- **Rain Garden**
  - Direct runoff from rooftops, sidewalks, and driveways to a rain garden.
  - Select native plants for rain gardens.

- **Planter Box**
  - Direct runoff from rooftops to planter box.
  - Select native plants for planter boxes.

- **Minimize Soil Compaction**
  - Minimize disturbance to existing natural areas, soils, and landscape areas.
  - Prevent heavy equipment from driving over areas where permeable hardscape or rain gardens will be installed.

Residential Source Control BMPs - The following general guidance corresponds to Section ii of the RSWMP:

- **Gardening**
  - Minimize disturbance to existing natural areas, soils, and landscaped areas.
  - Sweep or use a mulching leaf vacuum to collect leaves, clippings and other yard wastes.
  - Mow grass high and leave clippings on lawn as a natural fertilizer.
  - Plant native plants to reduce fertilizer and herbicide uses.

- **Pesticides, Herbicides and Fertilizers**
  - Use pesticides, herbicides and fertilizers sparingly and switch to non-toxic products.
  - Avoid applying near driveways or gutters.
  - Never apply before or during a rain event or in high winds.
  - Store fertilizers, pesticides, and other toxic garden chemicals in a covered area and in sealed, waterproof containers.

- **Residential Car Washing**
  - Take vehicles to commercial carwash to clean.
  - Wash vehicles on grass, gravel or other pervious surfaces.
  - Use phosphorous-free soap, and a bucket, sponge, and nozzle on the end of the hose to minimize water runoff to storm drain when vehicle is washed on a driveway or street. Dispose of water in bucket into toilet or sink.

- **Residential Car Maintenance**
  - Take vehicles to a shop for maintenance.
  - Perform maintenance away from storm drains.
  - Have old rags or other absorbent material readily available to clean up a spill.
  - Use an “oil change box” if changing your own oil.
  - Recycle your waste oil and antifreeze/coolant. Return batteries to the place of purchase.

- **Swimming Pool Management**
  - Discharging pool water to a storm drain requires an effluent discharge permit from DFM- SWQ Division or the State Department of Transportation.
  - Dechlorinate swimming pool prior to discharging.
  - Discharge using a pump and hose directly into storm drain inlet or catch basin.

- **Trash Management**
  - Bag and tie trash securely before placing in trash container.
  - Cover trash containers with roofs, awnings, or attached lids.
  - Trash storage area should not drain to storm drain inlet.
RESIDENTIAL STORM WATER MANAGEMENT NOTES FOR SINGLE-FAMILY AND TWO-FAMILY DWELLING PROJECTS:

(i) USE SITE DESIGN STRATEGIES TO REDUCE THE IMPERVIOUS SURFACE AREAS TO THE MAXIMUM EXTENT PRACTICAL. THE TOTAL IMPERVIOUS SURFACE AREA FOR THE LOT MAY NOT EXCEED 75%, PER LUO SECTION 21-3.70.1(G).

(ii) TOTAL IMPERVIOUS AREA = ____%.