Objective: Provide a simplified checklist / cursory level review to show competency in the provided design to avoid labor intensive review for Small SFR Stormwater plans. If it meets that level and is prepared by a licensed Engineer, it can be assumed to be adequate. The level of review should be proportional to the associated risk which is less for Single Family Residence.

Non-stormwater items for the builder and engineer to consider prior to submittal:

1. Does the Stormwater Plan match the Site Plan, building plans, septic plan, and other submittals?
2. Are there wetlands or critical areas on site? If so, they may affect the plot plan?
3. Is the driveway over 300', if so, evaluate whether a turn around or / turnouts will be required.
4. Is driveway spacing and sight distance at the access point adequate? If directly accessing public road evaluate whether a Road Approach Permit is needed?
5. If re-using existing impervious areas, is it proven to exist before 2012? Otherwise, will need to be included in the design. (Prior to December 28, 2011 impervious surfaces in the rural area were exempt and didn't require a Stormwater permit.)
6. Is there a Geo Hazard on site within 100' of proposed construction? If so, a GEO hazard permit will be required.

Stormwater review flowchart:

1. **Is it under 2,000 SF or included in an existing subdivision plan? If so, handle outside of this review process.**

2. **Does the Stormwater Plan match the site Plan? If not, please return nonmatching part to be updated before review.**

3. **Is the required SWPPP included? If not, please request update before review.**

4. **Has the contractor/designer included or made reference to the following BMP's :**
    a. BMPT5.13- Amend disturbed area after construction with 8" of compost
    b. MR 3- Source Control of Pollution: Control dust on roads, prevent damage to water routes
    c. MR 4-, Match the existing flow patterns to the best of construction capabilities. (May be in the design)
    d. MR8- Wetland Protection Critical areas, if there are wetland impacts they should be discussed before first review so that the project is not held up.

5. **Soil Evaluation: Is infiltration a feasible BMP, is a soil study required?**
    a. Is there high groundwater? If so, no soil study is needed

b. If full dispersion is being used, no soil study is needed. (Full dispersion does not require soil study but does require Native Vegetation preservation)
c. Soils have been analyzed by a qualified individual (Geotech, Septic Designer or Design Engineer) and determined-
    i. Soil is designated as type IV/V (Affiliated Memo Here) and low rates were observed.
    ii. Soil is designated with very low rates (Red) on the ASCE infiltration study map, and low rates were observed. (Hyperlink/Hyperlink back.)
    iii. Soil evaluation confirms site conditions not suitable for infiltrating (Conduct in accordance with CCSM)
    iv. A full infiltration test confirms site conditions not suitable for infiltration (conducted in accordance with CCSM)

6. **Is one of the following BMP's being proposed to handle roof runoff. (Follow hyperlink for additional guidance on each BMP)**
    a. Infiltration trenches (Hyperlink/Hyperlink back)
    b. Dispersion trenches (Hyperlink/Hyperlink back.)
    c. Dispersion splash blocks (Hyperlink/Hyperlink back)
    d. Rain Garden (Hyperlink/Hyperlink Back)
    e. Engineered detention system (Pond, CMP, infiltrating basin ect) (Hyperlink/Hyperlink back) Reference to Engineering.

7. **Is treatment required? (Treatment is required if 5,000 sf or greater of pollution-generating hard surface (Driveways and parking areas) is created (PGHS) or ¾ acre of pollution-generating pervious surface is created (PGPS ie. Lawn ect)**

    If treatment is not required, is one of the following BMP's being proposed:
    a. Is Sheet Dispersion proposed? (Hyperlink/Hyperlink back)
    b. Is Concentrated Dispersion proposed? (Hyperlink/Hyperlink back)
    c. Is a Dispersion Trench proposed? (Hyperlink/Hyperlink back)

    If treatment is required, is one of the following BMP's being proposed:
    a. Is Compost Amended Vegetated Filter Strips proposed? (Hyperlink/Hyperlink back)
    b. Is Bioretention/ Raingarden proposed? (Hyperlink/Hyperlink back)
    c. Is Permeable pavement proposed? (Hyperlink/Hyperlink back)
    d. Is Engineered detention system proposed? (Pond, CMP, infiltrating basin ect) (Refer to Development Engineering for Evaluation)
    e. Is a StormFilter type system proposed? (Referred to Development Engineering for Evaluation)

If the proposal utilizes an appropriate BMP listed above, The BMP appears to meet the design requirements, the design is prepared by a licensed Engineer, and the total

impervious surface is under 5,000 SF, it can be assumed to be adequate. If over 5,000 SF please continue.

<u>If over 5,000 SF continue to resolve MR 7 (Flow Control) and MR9 (O&M Manual) below.</u>

The following requires construction of flow control facilities and/or land use management BMPs that will achieve the standard requirement for western Washington:

- *Projects that convert ¾ acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, or 10,000 square feet of impervious*
- *Projects that through a combination of effective hard surfaces and converted vegetation areas cause a 0.10 cubic foot per second increase in the 100-year flow frequency from a threshold discharge area as estimated using an approved continuous flow model and one-hour time steps (or a 0.15 cfs increase using 15-minute time steps). The 0.10 cfs (one-hour time steps) or 0.15 cfs (15-minute time steps) increase shall be a comparison of the post-project runoff to the existing condition runoff.*
    - *Rules of thumb to be proposed and adjusted at time of implementation will be suggested to simplify review time*
      A statement attesting that project is below thresholds or a passing result for stream Protection duration on the WWHM will be required.

Has a O&M manual been provided per MR9?