NMFS Feedback on Ecology Draft LID Proposal (August 26, 2010)

1. Updating Development Codes.

LID development principles. The proposed approach for updating development codes is to allow jurisdictions to choose which LID principles to incorporate into their code revisions. This approach has the potential to miss a fundamental component of LID, protection and use of on-site natural features. Ensuring that this remains a central component of LID on all development sites will require the use of site design principles that focus on retaining or restoring vegetation and soils, as well as reducing impervious surfaces and eliminating effective impervious surface.

Other site design principles essential to LID success include managing stormwater as close to the source as possible, integrating stormwater controls into the design, reducing concentrated surface flow, minimizing stormwater contact with impervious surfaces, and increasing stormwater contact with soils and vegetation. Allowing flexibility in choosing which LID methods are used to protect vegetation and soils and minimizing or eliminating impervious surface is fine, but the inclusion of site design principles and these two elements on all development sites is necessary meet the maximum extent feasible standard for implementing LID, as well as the goals of the CWA and recovering listed salmon.

Proposed Performance Standard. Use of the proposed performance standard is a concern due to the deficiencies in the model (e.g., combining surface flow and interflow, limited ability to predict infiltration and evapotranspiration pathways, etc.), and the limited protection provided for listed salmon. While it seems to be a way to encourage more implementation of LID (which is good for salmon), simply matching the flow duration curve in the lower flow range does not increase protection for salmon as much as the 65/10/0 standard, with its emphasis on vegetation and limited impervious surface.

For example, if the performance standard drives applicants to use primarily permeable pavements, a subbasin full of permable pavement installations is not going to adequately protect listed salmon nor the health of rivers and other waterbodies. A standard that emphasizes retaining or replacing greater than 40% evapotranspiration, greater than 50% infiltration and 0% surface runoff will have more success in maintaining healthy watersheds for beneficial uses. If the proposed performance standard is used, it needs to be used in concert with site design, and vegetation, soil and impervious surface requirements. Also, if used, the proposed performance standard must apply to largest number of site types possible.

LID Implementation Timelines. We don't see much value in using the GMA update timeline to dictate the LID implementation timeline. Not only is the 4 or 5 year timeline too long, in addition, some Phase II jurisdictions that are very important for salmon recovery are in the later timeline group (Island, Skagit) or not included at all (Mason, Jefferson). Since municipalities have been aware of the PCHB decision since 2008, it seems reasonable that permittees could begin removing barriers to LID implementation in their codes and plans now, and also start implementation of LID. Then once the permit is reissued in 2012, municipalities should be very close to having their codes revised, adopting new performance standards, incorporating LID principles, etc. For Phase I permittees, code revisions and other changes should be completed within a year of the revised January 2012 permit, and Phase II permittees, should complete their revision process within a 1.5 years after the permit is issued.

2. Basin-Scale Approach

Trigger-based. While using a trigger-based approach is attractive for many reasons, linking analysis to a significant increase in density ignores that fact that effects to beneficial uses e.g., listed salmon, occur at much lower levels. As well, the primary value of basin planning is to avoid effects if possible rather than addressing them when urban growth areas or densities are significantly increased. The proposed basin planning approach requires analysis and mitigation measures but no basin-wide or waterbody based target or performance measures for showing that harm has been reduced. This approach doesn't seem to mesh well with the PCHB conclusion that city and county permittees should identify such areas where potential basin planning would assist in reducing the harmful impacts of stormwater discharges upon aquatic resources. As a basic first step, all jurisdictions should be required to identify these areas that would benefit from basin planning, considering both water quality AND water quantity impacts.

Compliance and Analysis. Compliance with the permit in the 5-year permit term for all jurisdictions identifying areas that would benefit from a basin analysis would be showing how targets for achieving 65/10/0 forest cover/total impervious/effective impervious would be met in the next 10 years. Basins that do not currently meet these target levels should be prioritized based on the importance of their aquatic resources and the rate of expected development in the basin. A timeline for attaining the target levels would be set first in priority basins, and then in the remaining basins. This should include consideration of changing LID standards (increasing requirements) in the basin to meet these targets in a timely manner.

In this process municipalities should also consider additional resources in determining each basin's contribution to healthy aquatic resources including: stream and wetland buffers, protected wetlands, channel migration zones, floodplains, and other open

space, minimum number of stream crossings and road densities, etc. In addition, a list of projects needed to attain the basin targets by buying/restoring forest cover, removing impervious surface, and protecting/restoring other watershed functions should be developed, prioritized, and implemented. This is also a good mechanism for identifying sensitive ecological areas that must be protected from future development, the most appropriate places for off-site mitigation (for projects that can't use LID on-site), as well as the most appropriate sites for retrofits.

Timing. Both Phase I and II permittees should start laying the groundwork for developing Basin plans by coordinating with other jurisdictions in their watersheds, determining how to best collect and compile the information, etc., and implementation of final plans should begin by 2014 in identified priority basins.

3. Site and Subdivision Requirements

Site planning principles. Basic LID vegetation and soils retention and site planning development principles (as described above) should be required on all development sites from small to large. This is central to implementing LID to the extent feasible, and protecting listed salmon. As such, perhaps more aggressive vegetation and soils retention requirements and site planning should be included as part of the minimum requirement 2 which is applied to all development projects.

65/10/0 value. Any project that can meet 65/10/0 is allowed in all situations. Since this approach has the most certainty of protecting water bodies and listed salmon, it should be emphasized up front and in table.

Large Projects. All large projects (> 10,000 sf) should implement site planning principles and meet the proposed performance standard, making the use of the mandatory list unnecessary. One problem with the list is allowing jurisdictions to determine what site development principles to include in their codes. We are also concerned that the lists don't include water reuse, rain gardens, use of amended soils, use of pin foundations, etc.

Lesser standards. Allowing highly urbanized basins to have a lesser LID performance standard (meeting existing flow durations) allows further degradation of base flows, water quality and hydrologic disruptions in these already degraded basins. We have the same concern regarding flow control exempt water bodies. Having a lesser standard for these water bodies will not help to restore habitat in these water bodies on which listed salmon rely. The argument is made that using the stricter standard cannot be justified in these basins, until a basin-specific strategy is developed. However, the reverse argument also has merit in terms of restoring waterbodies and promoting recovery of listed salmon, i.e., the stricter standard should be applied until basin plans show it is not necessary.

Vesting. Another practice that allows for continued and long term degradation of water bodies and listed salmon habitat is vesting of permit applications with old stormwater requirements. This should not be allowed.