

Informational Meeting – Land Disturbing Activity/Stormwater Permit Update (LDA 2.0)

April 23, 2021 - Question and Answer Summary

General

How do I sign up to be on the Stormwater Permit Updates mailing list? You can email Aileen at awinquist@arlingtonva.us to be added to the list. The County will add an option to sign up on the LDA permit web page as well.

Lumber and materials costs have recently doubled. What is the estimated increased cost for building following the new LDA 2 rules? LDA 2.0 will require an increase in stormwater management performance to respond to growing pressures from development and climate change, and it is expected that this could increase compliance costs. At the same time, there are ‘costs of inaction’ to the Arlington community by not being proactive in response to these pressures. Further, simpler and standardized plans can reduce plan preparation costs as well as set the stage for reduced review times and faster permitting, which also correlate directly with overall project costs. It is also expected that the engineering and building industry will adapt and innovate to drive higher efficiencies in compliance.

When will the plan templates be released? Will there be a comment period for these? The templates will be tested by engineering firms starting in May to inform the formal release with the Stormwater Manual in July.

Detention

I have heard that Fairfax County has not had issues with gravity below ground detention – which they have required for years in areas like the Pimmit Hills watershed. Their experience is that it is easy to maintain. It would be great if there was consensus across the local jurisdictions. Did you consult with Fairfax county on their experience with detention for SFH? County staff have been communicating frequently with Fairfax County staff as both counties develop new requirements for single family home development. LDA 2.0 will allow tanks that drain by gravity release, including partially buried tanks. The key challenge in managing lot-to-lot runoff is the absence of storm drainage infrastructure in rear yards to release outflow from a buried tank and carry that runoff through downhill lots to the storm drain system in the right-of-way. Further, buried tanks that require pumps and/or confined space entry to inspect and maintain will add cost and burden for homeowners to inspect annually.

Soil Amendments

Are soil amendments calculated into the reduction in runoff to properties, such as reducing the amount of detention required? Or are they just an uncalculated requirement? Will you allow some level of additional increased detention or treatment to allow for NOT doing amendments? Fairfax does not allow soil amendments because absent an easement, they are not permanent. They prefer structures like planters or detention to manage any increased runoff from soil compaction during runoff. The soil profile rebuilding is intended to restore the yard’s absorptive capacity for rainfall and runoff already assumed in the State compliance calculations. Simple documentation requirements will be applied (e.g., photos and materials receipts) rather than time- and resource-consuming detailed measurements and submittals.

Soil Amendments: 2 feet depth of amending soil is incredibly impractical when it comes to real life work. This is simply not feasible. The Arlington County Department of Parks and Recreation has performed this method of remediation in street trees, formerly built sites, and other spaces, without major issues. Remediation will only be required within the limit of disturbance, away from buildings and utilities. This will be an incentive to reduce your limit of disturbance to what is necessary. This work has been performed with backhoe, mini-excavator, and tilling equipment, allowing for every type of equipment, even in tight sites.

Other Plan Review Questions

You are promising reduced review times moving forward – is this a commitment with concrete steps or just an idea? If we submit standard plans/templates, what timeframe will you put in E-plan review? Fairfax county has averaged 20 days for review times for infill grading plans over the last 3 months. Arlington is twice as long. We are committed to reduce the review time for project that submitted under LDA 2.0 with the standard design and plan template. The reduced review time frame will be implemented in the E-plan Review system.

Would the county be amenable to grading across property lines with neighbor approval in order provide for better flows between properties and/or around...this would allow common swales between properties in order to better manage surface flows. Yes, we allow land disturbance in the neighbor's property with the approval from the neighbors. We would review and approve the swale design on a case-by-case basis.

How will you keep the reviewer consistent? The simpler compliance standard and plan template will help us to keep the reviews consistent. We started weekly training program for the reviewers, and will continue training until the end of the summer, which will also to help the reviews to be more consistent.

What kind of analysis is required for the retaining wall and how are they going to be regulated? What will be the goals of the regulations and what was meant by maintaining the impacts of the retaining walls on the property? Retaining walls can significantly impact drainage patterns on upslope and/or downslope properties, disrupting natural drainage flow paths and diverting and ponding water on neighboring properties. All single family LDA permit applicants can choose a performance-based option with the objective to contain the impacts from retaining walls to the property being developed by restricting retaining wall locations in rear yard setbacks as well as conditions for front and side yards. These will be published with the Stormwater Manual update in July.

If an applicant does not choose this option, the applicant must demonstrate through plan, grading, and adjacent property details and analysis that there are no off-lot drainage impacts either upgradient or downgradient from the proposed retaining walls and placement of fill. This documentation will be reviewed on a case-by-case basis and will add cost and time to plan review. The expectation is that proposed fill/walls do not block existing flow paths and/or will not create and concentrate overflow impacts that are not handled on the lot.

Follow up question - what qualifies as distance for sheet flow? If runoff can't go over the wall or through weep holes, where else could it go? Can we connect weep holes to a pop-up emitter? The small Arlington County lot size will not naturally generate sheet flow, so it must be achieved through

engineering design.

If a trench drain is proposed to collect the concentrated flow, and a pop-up emitter is the mechanism of discharge, then the location of the pop-up emitter still may trigger the evaluation for sheet flow, such as if the pop-up emitter is on steep slope and discharges toward the neighbor's property.

If existing neighbors change the grading / landscaping / hardscaping as part of non-permitted development projects (less than 2500 square feet), will these requirements be applicable? If not, what recourse do neighbors have if such projects increase flow onto property? The threshold for the LDA permit requirement is an area of land disturbance equal or greater than 2,500 square feet. If the change of grading, landscaping, and hardscaping at the neighbor's property disturbs less than 2,500 sf of land, an LDA 2.0 permit will not be required for this type of project. This would be considered a private drainage matter between property owners.

Are topographic contours needed in the submittal, and if so, are the contours available from the public GIS sufficient? A topographic survey is required for the LDA plan submission. The contours provided by the county GIS system are NOT sufficient for the site design. It may be enough to demonstrate the neighborhood scale drainage pattern since the neighboring property may not be available accessible for the topographic survey.

Stormwater Management Calculations

Can some stormwater management credit be given for the Soil Remediation that will be required?

The soil profile rebuilding is intended to restore the yard's absorptive capacity for rainfall and runoff already assumed in the State compliance calculations. Simple documentation requirements will be applied (e.g., photos and materials receipts) rather than time- and resource-consuming detailed measurements and submittals.

Can stormwater planters pull double duty and either be oversized for additional capacity and/or have increased ponding depths of 18 or 24"? Yes, stormwater planters can be sized for up to two (2) inches of runoff from the contributing drainage area. The DEQ ponding depth limits will still apply (12 inches).

Under the new alternative compliance option, can you confirm the stormwater quality requirements beyond 75% can be waived? Will this be a waiver letter, will there be other requirements (additional fees, pay to funds, plant more trees, etc). Yes, the reduced official stormwater quality requirements will be hard-wired into the new compliance computations.

Is the incentive-based system referring to the faster review times? Yes, along with simpler, more feasible compliance standards relative to full compliance with State water quality and quantity standards.

If stormwater quantity credits are given for tree preservation, is there anything that will require the owners to keep the trees in the future? If the tree health declines, do they need to submit documentation to the county or do anything additional before removing? Staff are evaluating whether and how to require proof of tree presence and condition over time.

Does LDA 2.0 allow for greater reduction in water quality requirements (more than the 25% reduction in the alternative option) on sites that have high water table, etc. that eliminate a number of

treatment options available? LDA 2.0 will include additional qualifying conditions for consideration of exception requests. These will include whether the proposed impervious surface coverage is in line with median values for the lot size category, along with documentation that all impervious surfaces have been either treated or use permeable surfaces. Water table considerations will also be included.

Trees

What is the intent of counting trees that existed on the site 2 years prior to the land disturbance application? Are you adding requirements for replacements of existing trees? This prevents potential clearing before construction. The soils conditioned by trees act as a forest soil, even after tree removal, and loss of this capacity will reduce our community's ability to slow down and store stormwater. At the site level for the proposed development, the stormwater compliance calculations will account for these lost functions and require that they be replaced with other mitigation measures required by the code. Aside from our standard requirements to replace trees removed before permit approval, it doesn't add an additional tree replacement requirement, just a calculation in the stormwater management table.

Can we get detention credit for tree canopies that overlap? It looks like it is strictly based on DBH and not overlapping canopy. This component was integrated because roots condition the soil for stormwater storage. It is the soil conditioned by the critical root zone that will be important, not the canopy.