Pohick Creek Watershed
WAG Comments on Projects 130 - 244
September 21, 2009

After receiving the WAG comments on the second round of projects, the PBS&J Team reviewed the comments and while the majority of the projects received no comments, the comments which did are responded to as follows:

Project 104

- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

BMP Inserts use filtration as a means of pollutant removal. There are numerous types and brands of catch basin inserts which would need to be evaluated for each particular site. The inserts are employed to intercept coarse sediments, oils, grease, litter, and debris from the runoff prior to its entrance into the storm sewer. These structural BMPs vary in size and treatment capacity, but typically employ some form of settling and filtration to remove pollutants. We do not anticipate use of products that filter with the vegetative root system. The inserts are inserted internally into the existing inlets or the storm sewer and will not impact parking spaces.

Project 114

- Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.
- Rain Barrel Program: All downspouts at Bonnie Brae Elementary School are internal and feed directly into underground pipes. The only place we could install a rain barrel was on the temporary trailer. You may find this situation at most of the local elementary schools. An underground cistern with a pump would be a great idea, perhaps coupled with a system for irrigating the playing fields. At least design it with a way to hook up a future irrigation system if that can't be funded now. Educational value for underground cistern will present a challenge. If the kids can't see it, they aren't going to get very excited about it. Suggest you try to include at least one traditional rain barrel on school grounds where installation is possible (trailer or equipment shed) so kids can see water entering barrel during rain and empty it to water flowers/vegetable gardens as needed. Work with SACC program, where one exists, because kids in after school care have more free time to water than teachers/classes during regular school day. [Listed by WAG member as “114, and others”]

Most schools will require cisterns instead of rain barrels.
Extent of system will be determined during design phase. Input appreciated.

Project 115

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]
- LID Bioswale at local elementary school. If this project is undertaken in cooperation with the school and teachers can incorporate the "wetland" plantings into their curriculum, it would be a very positive development and great outreach to the community. Suggest allowing the science teachers and PTA to organize the plantings when the structure is built. Must also educate school maintenance staff so they don't mow the bioswale too frequently. [Listed by WAG member as "115, others"]

Positive benefits will be noted and will help increase priority of project.

Project 116

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Most schools will require cisterns instead of rain barrels.
Extent of system will be determined during design phase. Input appreciated.

Project 117

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Most schools will require cisterns instead of rain barrels.
Extent of system will be determined during design phase. Input appreciated.

Project 118

- Support.
- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

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Project 119

- Support.
- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

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Project 120

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Upon further investigation and analysis, project was determined inappropriate for the location. Project removed.

Project 121

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Comment noted. Input appreciated.

Project 122

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Most schools will require cisterns instead of rain barrels.
Extent of system will be determined during design phase. Input appreciated.

Project 123

- See comments for 114. [Support these kinds of low cost measures that serve to improve water quality and educate students about the benefits of such devices.]

Comment noted. Input appreciated.

Project 124

- We have already installed a rain barrel at the trailer at White Oaks Elementary School and begun educating this school population about benefits of rain barrels, since all downspouts are internal. An underground cistern that can be used to irrigate playing fields and gardens would be great. Virginia Kost, one of the school secretaries, is the Beautification Chair and point person for these projects.

Most schools will require cisterns instead of rain barrels.
Extent of system will be determined during design phase. Input appreciated.

Project 125

- THIS IS NEEDED AS SOON AS POSSIBLE. Runoff from parking area and paved play ground causes erosion of downhill neighbors' yards and a berm was built two years ago to redirect runoff directly into the stream. The redirected runoff is causing an erosion problem through the forest on school property. This school has an area that might be ideal for a rain garden, too. There is already a paved basin with a stormwater inlet in the center below the paved playground area. I assume this basin was designed to catch much of the water that ran down the hill to the neighbors, but it was not adequate for that purpose. This school also has a dry pond that could be retrofitted with plantings. There is a Scout Troop at this school that could help with plantings.

Note will be added to project recommending additional swale and inlet on the east side of the playground to redirect runoff to the dry pond.

Project 126

- The proposed project seems to be an appropriate solution and would improve stormwater management. We would propose to include some additional measures (e.g., seeding) at the park entrances, where pedestrian traffic has removed all surface vegetation. During rainfall events, sediment enters the nearby storm drains and are discharged into Lake Braddock.

Note will be added to project to restore the vegetated areas.

Project 127

- Projects 127, 128 and 225 would all be on Lake Braddock Secondary School grounds. While this area doesn't drain directly to Lake Braddock's watershed, we would advocate for these projects in order to reduce the overall stormwater impacts of the school.

Comment noted. Input appreciated.

Project 128

- Projects 127, 128 and 225 would all be on Lake Braddock Secondary School grounds. While this area doesn't drain directly to Lake Braddock's watershed, we would advocate for these projects in order to reduce the overall stormwater impacts of the school.

Comment noted. Input appreciated.

Project 163

- Most residents in KPW have trash service that includes yard waste collection once a week. This may be better as an educational program (may also want to includes leaves) to remind residents to mulch their grass or bag it for collection. This would also apply to projects 171 & 173. This could be coupled with an educational program to include proper lawn fertilization. Is there a program in Fairfax County that registers lawn services that adhere to re eco-friendly principals when applying fertilizers? pesticides?

Projects 163, 171, and 173 have been removed. The Solid Waste Management Division already requires all areas of Fairfax Co. to recycle yard waste.
Regarding eco-friendly lawn care programs, Fairfax County does not administer such a program, but the county does have a list of companies in the Virginia Department of Conservation and Recreation (DCR) nutrient management program (see http://www.dcr.virginia.gov/soil_and_water/nutmgt.shtml). The website has a downloadable brochure for HOAs and homeowners regarding proper lawn fertilization.

Project 164

- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

Upon further investigation and analysis, project was determined inappropriate for the location. Project removed.

Project 165

- Pond Retrofit/LID Bio: Was unable to obtain feedback from Country Club View Civic Association. Will need to educate neighbors about bioretention so they won't complain about the "weeds." This regional pond is currently filled with trash and is an eyesore. We are thankful that it is fenced with a solid brick wall so it is not readily visible.

Should the project be finalized and implemented, the pond will be cleaned and a maintenance plan will be issued for upkeep. If frequent trash fouling is a persistent problem with this facility, a trash-screening device will be evaluated during the design phase.

Project 167

- Pond Retrofit/LID Bio: I assume this is a newly constructed pond at St. Mary's Church. You will need to educate church members and neighbors about bioretention so they won't complain about the "weeds." Once they understand, this should be quite acceptable. There is a Boy Scout Troop associated with St. Marys, so you may have volunteer help with planting once the structure is complete.

Coordination with St. Mary's Church will be made should the project be implemented.

Project 168

- LID Pavement Retrofit, Sideburn Recreational Pool: Public comment was that this large parking lot is sloped so much it is like an amphitheater. While the pool is closed in the winter and the lot would not need to be plowed, there was concern that the pavers would not hold on the slope. Also, will they remain even or become bumpy with time? There is a lot of foot traffic and bicycle traffic across this parking lot. Concern about tripping hazard with uneven pavement.

The feedback is appreciated, as the steep slope makes the project unfeasible. We will recommend BMP inserts instead.

Project 169 (Listed by WAG member as "Project 169, others")

- Grass Clipping Collection. Many of the neighborhoods in the upper reaches of Sideburn Branch (Country Club View, Bonnie Brae, Middleridge and Fairfax Club Estates) have yard debris collected by their garbage companies. Citizens who are cooperative already bag their grass. The Middleridge Civic Association President pointed out that citizens who currently dump grass in the parks and along streams are not going to bag it and take it to a different collection location when they have already chosen to dump it on public land rather than place it at the curb in front of their homes. We do not think that this program would provide any benefit in areas that currently have curb side pick up of grass clippings and other yard debris.

Project 169 has been removed. The Solid Waste Management Division already requires all areas of Fairfax Co. to recycle yard waste.

Dumping on park land is not permitted. If there are specific problem areas that can be identified, the County Park Authority can be notified and may send informational flyers or provide to the HOA for distribution.

Project 171

- Most residents in KPW have trash service that includes yard waste collection once a week. This may be better as an educational program (may also want to includes leaves) to remind residents to mulch their grass or bag it for collection. This would also apply to projects 171 & 173. This could be coupled with an educational program to include proper lawn fertilization. Is there a program in Fairfax County that registers lawn services that aadhere to re eco-friendly principals when applying fertilizers? pesticides?

Project 171 has been removed. The Solid Waste Management Division already requires all areas of Fairfax Co. to recycle yard waste.
Regarding eco-friendly lawn care programs, Fairfax County does not administer such a program, but the county does have a list of companies in the Virginia Department of Conservation and Recreation (DCR) nutrient management program (see http://www.dcr.virginia.gov/soil_and_water/nutmgt.shtml). The website has a downloadable brochure for HOAs and homeowners regarding proper lawn fertilization.

Project 173

- Most residents in KPW have trash service that includes yard waste collection once a week. This may be better as an educational program (may also want to includes leaves) to remind residents to mulch their grass or bag it for collection. This would also apply to projects 171 & 173. This could be coupled with an educational program to include proper lawn fertilization. Is there a program in Fairfax County that registers lawn services that aadhere to re eco-friendly principals when applying fertilizers? pesticides?

Project 173 has been removed. The Solid Waste Management Division already requires all areas of Fairfax Co. to recycle yard waste.
Regarding eco-friendly lawn care programs, Fairfax County does not administer such a program, but the county does have a list of companies in the Virginia Department of Conservation and Recreation (DCR) nutrient management program (see http://www.dcr.virginia.gov/soil_and_water/nutmgt.shtml). The website has a downloadable brochure for HOAs and homeowners regarding proper lawn fertilization.

Project 174

- The entrance to Lakeside Park near 5216 Pommeroy Dr has a sloped grassy area next to homes which may be a tough sale to put in a bioswale. Not sure what runoff would be captured from the entrance. Parking lot down slope in Lakeside Park may capture more runoff for a bioswale but the area tends to be very wet after rain.

- If this is intended for the small paved parking area off Pommeroy at the bottom of Bronte Drive, it might be overkill. The runoff from this parking area already infiltrates a natural bioswale between the parking area and the lake. An engineer should conduct a site visit to determine if this is needed or if the natural marshy area next to the parking area is sufficient.

Project 174 has been removed and, in lieu, buffer repair is proposed along Royal Lake.

Project 175

- The proposed restoration seems to be an appropriate solution. We have struggled with how to address the runoff from this parking area for some time. We would also note that this parking area occasionally receives heavy equipment (fire engines that test pumps, dump trucks or trash haulers accessing the adjacent maintenance yard, etc.) and any solution would need to be able to support the added weight of these types of vehicles.

Site conditions and use will be taken into account during design.

Project 179

- I understand this has been removed from the list, however Burke Centre would be interested in discussing it if there is further consideration by the County.

Interest in bioretention noted.

Project 181

- Support
- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

Project 181 has been removed and has been replaced with a stormwater pond retrofit.

Project 182

- Support, however this project has only recently been competed. The asphalt there is new.

Upon further investigation and analysis, project was determined inappropriate for the location. Project removed.

Project 183

- Support.
- BMP Inlet Inserts: We aren't sure what this will look like. Since it discusses Nitrogen, Phosphorus and Total Nitrogen control, does it mean the bioretention basin/swale project? If so, how many parking spaces would be eliminated? The Wal-Mart Shopping Center has inadequate parking now and you can expect opposition to a decrease in parking there. The other locations seem to have adequate parking.

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Project 186

- See comments for 179. [I understand this has been removed from the list, however Burke Centre would be interested in discussing it if there is further consideration by the County.]

Interest in bioretention noted.

Projects 212-215

- Street sweeping of commercial parking lots seems like a good thing. . . especially in early spring to remove road sand and chemicals that remain after winter deicing. This would also catch a certain amount of trash that washes into watershed. Our neighborhood stream clean ups typically remove more plastic bottles and metal beverage cans than any other type of trash, since we have pulled out all the heavy stuff over the years.

Positive preference for Street Sweeping Program noted.

Project 225

- Projects 127, 128 and 225 would all be on Lake Braddock Secondary School grounds. While this area doesn't drain directly to Lake Braddock's watershed, we would advocate for these projects in order to reduce the overall stormwater impacts of the school.

Comment noted. Input appreciated.

Project 227

- As noted in our previous comments, we believe this site is our primary source of sediment. The stormwater pond immediately downstream has recently been cleaned (and perhaps upgraded?) but may not provide sufficient filtration capacity. A significant portion of the drainage area for this stream reach is comprised of property outside LBCA boundaries. A PBS&J engineer has also visited this site.

Comment noted. Input appreciated. Positive benefits will be noted and will help increase the priority of the project.

Project 228

- Could not locate this project number on map, so can't comment.

Projects 229-234

- Stream Restoration: These projects appear to be in Burke Centre Community. Education of neighbors can use their newsletters, etc. Also use Scout Troops in Burke Centre neighborhood to help with plantings.

Coordination with Burke Centre Community will be made should the projects be implemented.

<u>Overall Comments</u>

- Would like to see more projects to restore stream channel morphology, remove obstructions and provide for buffer cleanup on streams that empty directly into our PL566 lakes.

Report provided by Burke Center Conservancy was very helpful for identifying projects.

- Many of these projects are on private facilities such as shopping centers, churches, a VRE lot, community center, etc. Are there any incentives for them to install some of these projects?

These projects have been identified as opportunities for positive impacts in the watershed, but may not necessarily be implemented. These issues can be addressed through eventual policy changes, which will likely focus on incentives, or perhaps during site redevelopment. As this is only the project identification phase, these issues have not been resolved for any sites.

- A new project was recently brought to my attention by our Board; apologies for the late addition. It is located near a small playground adjacent to 5120 Dahlgren Place. At this location, the (normally dry) streambeds from upstream communities cross into Lake Braddock property. The culvert that connects to the underground stormwater pipes passing under Dahlgren is undersized for larger storms and frequently floods the playground. At some point, the bank was covered in concrete to prevent further erosion, but the problem may be better controlled by stormwater management upstream. Additionally, the location where the underground pipe discharges into the main stream channel is clearly far more eroded than the areas upstream, indicating that this pipe carries a significant volume and likely contributes to the erosion of the main channel. Two dry ponds (in series) are located upstream along Queenswood Drive (which is outside of LBCA property); one is a shallow grassy area and the other is a larger pond. I have not visited these ponds in wet weather, but I had difficulty envisioning how/if the latter was connected to the path of flow—it appeared to be "out of line" or perhaps even slightly uphill and may not receive any stormwater.

A project was added to daylight the outfall east of Dahlgreen Place. In addition to the pond retrofit upstream to control the discharge, daylighting the outfall will decrease velocities and reduce erosion.

- St Mary's Church has a continuing erosion problem from a large new parking lot that is contributing to siltation of Woodglen Lake. A site visit by an engineer may locate a project in addition to # 167, retrofitting their dry pond.

Extent of pond retrofit opportunities will be examined during design. The observed erosion will be noted and will raise the priority of this project.