QUESTIONS AND ANSWERS
Windsor Woods, Princess Anne Plaza &
The Lakes Combined Drainage Project

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PROJECT OVERVIEW

Windsor Woods, Princess Anne Plaza and The Lakes are neighborhoods located in what was once the undeveloped headwaters of the Lynnhaven River. According to aerial photos from 1949, the area was originally forest surrounded by farmland. Much of the area has relatively low elevations. This coupled with increasing sea levels (approximately one-foot over the last 50 years) and the increasing frequency of storms with significant tides and rainfall amounts, has resulted in severe flooding of the neighborhood during these storm events.

The City has funded a number of drainage improvements over the years (A number of drainage improvement projects are currently underway or will be starting soon). Beginning with the FY18 budget, the City Council has established initial funding to develop a multi-year program of projects to comprehensively address flooding in Windsor Woods, Princess Anne Plaza and The Lakes.

Q1. What is the history of the area?
Aerial photos from 1949 shows the area was undeveloped and was not used for farming. Elevations in the area are very low and the area lies within FEMA’s 100-year floodplain mapping. The infrastructure is approximately 50 years old. Princess Anne Plaza was developed in 1961, The Lakes (east of Plaza Park) in 1964, Windsor Woods in 1966 and The Lakes (west of Plaza Park) in 1976.

Q2. Which neighborhoods experienced significant flooding in October 2016?
Rainfall from Matthew caused numerous flooding throughout the City. Neighborhoods that experienced flooding include Asheville Park, Central Resort District, Sherwood Lakes, Chubb Lake/Lake Bradford, Eastern Shore Drive, Windsor Woods, Princess Anne Plaza and The Lakes.

Q3. What caused the flooding in October 2016?
Rainfall from Hurricane Matthew (October 2016) resulted in extreme flooding. This storm came on the heels of Hurricane Hermine (Labor Day weekend), which dropped an average of 10 inches of rain and the remnants of Tropical Depression Julia (Sept. 15th -18th), which dropped an average of 11 inches of rain for our city. All this rain led to very high-water levels in the canals, ponds and lakes prior to the arrival of Matthew. Records indicate approximately 800 residences in the Windsor Woods-Princess Anne Plaza-The Lakes Project area had various levels of damage. Many streets were impassable.

Q4. What are significant issues that cause flooding in the neighborhoods?
Significant issues are:
- Low elevations
- Minimal capacity of stormwater conveyance systems
- High tides resulting in significant reduction of stormwater storage.
- Intense storm events have resulted in more frequent flooding and increased property damage

Q5. Are these neighborhoods in the FEMA 100-year floodplain?
Significant portions of Windsor Woods, Princess Anne Plaza and The Lakes are within the 100-year floodplain.
Q6. What potential solutions are being considered?

Potential solutions include:

- Increasing the conveyance capacity of the stormwater pipes
- Construction of barriers and gates to minimize tidal flooding
- Construction of stormwater pumping stations
- Additional lake storage capacity
- Additional retention ponds

Q7. How much funding has been authorized by the City?

The City has developed a 10- to 20-year flood mitigation program.

Q8. Where is the money coming from to pay for the projects?

The stormwater utility fee provides revenues to pay the project cost. Also, bonds are issued to provide funds to build the projects like buying a house with a mortgage. The bonds are paid back with funds generated by stormwater fees.

Q9. What is the status of the stormwater project?

These projects have been combined for the detailed engineering analysis. The first phase of these projects is the preliminary engineering analysis to develop the specific program of flood mitigation measures. The analysis will identify the needed improvements, the cost of those improvements, an implementation and phasing plan and any environmental permitting that is required. The preliminary engineering analysis was completed in June 2019.

Q10. Tides are expected to rise in the future, can the flooding be controlled?

The City hired Dewberry Consulting to study Sea Level Rise (SLR) impacts to Virginia Beach; public meetings have been held; forecasts are for 1.5 feet rise in 2050 and 3 feet rise by 2100. Michael Baker is aware of the SLR studies and is taking into consideration the SLR impacts. The focus of the current engineering is to develop an adaptable plan.

Q11. Who can residents talk to with the City to help them understand their options with regard to FEMA and whether they should repair their home, or agree to let FEMA raise their home (if FEMA agrees). Additionally, where do they live while FEMA is deciding during the allotted 180 days?

For now we are not entertaining any further home elevations until we find a way to successfully complete them. We can assist with information on things that folks can do around their house/property to help mitigate issues. Housing is also beginning a program to offer some assistance in the future.

For additional information please call the Office of Emergency Management at (757) 385-8585 or visit the following web page: [https://www.vbgov.com/government/departments/emergency-management/Pages/fema-flood-mitigation.aspx](https://www.vbgov.com/government/departments/emergency-management/Pages/fema-flood-mitigation.aspx)

Q12. The stormwater utility fee produces approximately $46 million plus a year. What is the money used for?

The City’s Storm Water Utility is responsible for the stormwater system which is comprised of pipes, lakes, canals, ditches and pump stations which manage and convey stormwater. Many undertakings are necessary for the management of the stormwater system such as:

- Operation and maintenance,
- Engineering and construction,
- Inspections and environmental spill responses,
- Repayment of bonds issued to finance new lines, pump stations, etc.

Q13. Does the City pursue grants and other funding to help pay for these storm drain improvements?

Yes. The City pursues grants and other funding as they become available.
Q14. **What is the status of the three FEMA reimbursement funded projects?**

The City funded 3 projects on February 6, 2018 using FEMA reimbursement funds. **Project 1** is along South Plaza Trail from Rosemont Road to Presidential Boulevard, Presidential Blvd to Windsor Woods Canal; construction contract award anticipated summer 2021. **Project 2** has been combined with **Project 3** and is from Old Forge Court to Old Forge Road to Red Line Road to Windsor Woods Canal. Anticipated construction award is summer 2022.

Q15. **What is the schedule for installing new stormwater pipes in the neighborhoods?**

The project is currently scheduled to be phased over a 15- to 20-year period. A schedule of improvements to match funding availability is being developed. As more details become available, residents will be advised of the project timelines. Please refer to **Q14** and **Q26** which provides a description and schedule of four stormwater lines currently under design.

Q16. **Why are tidal gates/barriers/large stormwater pump stations needed?**

Significant issues for the service area are low elevations, minimal capacity of stormwater conveyance systems, high tides resulting in significant reduction of stormwater storage in Lake Trashmore and Lake Windsor, and intense storm events that result in more frequent flooding and increased property damage. Potential solutions include increasing the conveyance capacity of the stormwater pipes, construction of barriers and gates to minimize tidal flooding, construction of stormwater pumping stations, additional lake storage capacity and additional retention ponds.

The tidal gates are necessary to stop the incoming tides from reducing available lake storage. When the tidal gates are closed (to stop the tides), pump stations are necessary to pump water (from rainfall) over the tidal gates and barriers to Thalia Creek and/or London Bridge Creek.
THALIA CREEK (WINDSOR WOODS) TIDE GATE

Windsor Woods is a neighborhood located in what was once the undeveloped headwaters of the Lynnhaven River. According to aerial photos from 1949, the area was originally forest surrounded by farmland. Much of the area has relatively low elevations and lies within FEMA’s 100-year floodplain. The infrastructure is approximately 50 years old and storm drain standards were not as stringent and pipe sizes were not as large as the current construction standards. To relieve wide-spread flooding problems, this area needs pumping improvements, tidal protection, additional stormwater storage capacity and extensive storm drain improvements.

The proposed Thalia Creek (Windsor Woods) Tide Gate is one of many infrastructure projects planned for the Windsor Woods area to mitigate flooding.

Lake Windsor is influenced by the incoming tide and stormwater runoff

Beginning with the FY18 budget, the City Council approved initial funding to develop a multi-year program to mitigate flooding in Windsor Woods. The first phase is the engineering analysis to develop the specific program of flood mitigation measures. This will identify the needed improvements, the cost of those improvements, a plan that spells out what needs to be implemented, what each phase will be, and what environmental permitting is required. The preliminary analysis has identified solutions to include:

- Addition and replacement of stormwater pipes with larger pipes to improve flow
- Construction of tide gates and barriers to minimize tidal flooding
- Construction of a stormwater pumping station
- Additional lake storage capacity

One important initial project is constructing a tide gate across Thalia Creek to block high tides during significant storm events.
Q17. Why is a tide gate needed?

Significant issues in the Windsor Woods service area include:

- Low elevations
- Stormwater pipes that are too small for current standards
- **High tides resulting in significant reduction of storage in Lake Windsor**
- Intense storm events have resulted in more frequent flooding and increased property damage

![Figure 1. The water level of Lake Windsor drops as the tide flows out (low tide conditions). Therefore at low tide, storage capacity is increased for stormwater flows due to a rain event.](image)

Significant portions of Windsor Woods are within FEMA’s 100-year floodplain. Additional storage is needed to capture stormwater runoff. A tide gate on Thalia Creek is important because it will block incoming tides and provide for storage of stormwater behind the tide gate. Figure 2 illustrates the water level at low tide (green) and the water level at high tide caused by the incoming tide (red).

![Figure 2. At high tide (shown in red), the storage capacity in Lake Windsor is dramatically reduced.](image)

When it rains in the Windsor Woods neighborhood, the rain enters the stormwater pipes and flows into Lake Windsor. The water level in Lake Windsor rises (see Figure 3) and the resulting rise in the water elevation contributes to flooding. Blocking the incoming tide and eliminating the tide influence creates storage capacity in Lake Windsor (see Figure 4).
Figure 3. When it rains, stormwater flows into Lake Windsor. With limited or no storage available, the level of the lake rises and stormwater in the storm drain pipes has nowhere to go. That's when flooding occurs in the neighborhoods.

Figure 4. Storage capacity for stormwater (shown in blue) is available when the incoming tide is blocked. When the tide gate closed at low tide, the incoming tide is blocked and therefore storage capacity in Lake Windsor is available for stormwater flows.

Q18. How will the gate be operated?

The tide gate will normally be open and so the natural ebb and flow (rise and fall) of the tide in Thalia Creek and in Lake Windsor will not be altered. When significant rains are anticipated (hurricanes, nor’easters, etc.), the tide gate will close at low tide. When tidal flow reverses and moves inland (i.e. at high tide), tidal water inflow into Thalia Creek is blocked by the closed gate. This retains the available storage in the lake (see Figure 4).

Q19. What are the benefits of the gate?

The closed gate will block the incoming tidal water inflow into Thalia Creek and therefore into Lake Windsor; the Lake Windsor elevation is lower than it would normally be at high tide, as shown in Figure 4. This lower elevation provides storage capacity for incoming stormwater flows due to a rain event.

In addition to the tide gate, interim pumping will be installed to lower the elevation of Lake Windsor after the tide gates are closed to increase storage capacity.

During a rainstorm event, pumping will continue so that water captured and stored in Lake Windsor will be pumped downstream into Thalia Creek.

Q20. When the tide gate is closed and blocking the incoming high tide, will the closed gate (blocked tide) cause flooding downstream along Thalia Creek?

The closing of the gate will not cause flooding downstream along Thalia Creek. The rise and fall of the tides are caused by the combined effects of the gravitational forces exerted by the moon and the sun, and the rotation of Earth. The Earth rotates through two tidal changes every day and coastal areas such as Virginia Beach experience two high and two low tides every day.

Closing the tide gate does not change the elevation (height) of the downstream tide levels as those are controlled by the water level in the Chesapeake Bay and the Atlantic Ocean. So closing the gate will not increase water levels along Thalia Creek. If a stacked tide is occurring in the Lynnhaven River, the closed tide gate will not increase the stacked tide levels.

Updated March 2020
Q21. **Where is the proposed location of the tide gate?**

The location of the tide gate is across Thalia Creek just south of I-264 on the City-owned Mount Trashmore Park property, as shown below.

Q22. **What are the dimensions of the tide gate?**

The height is 12.5 feet. The length of the tide gate structure across Thalia Creek is 60 feet.

Q23. **Can Lake Windsor and Lake Trashmore be lowered by 8 feet to provide storage for stormwater?**

Lowering Lake Windsor and Lake Trashmore by 8 feet is not practical. Lowering lake elevations by 8 feet would cause potential damage to nearby homes and cause the sides of the lakes to collapse. Initial engineering analysis indicates lowering the lake elevations from 1 to 2 feet provides additional storage without shoreline erosion.

Q24. **When will construction work begin?**

Spring 2021 or later, depending upon permitting.

Q25. **What is the estimated construction cost?**

$7.4 Million

Q26. **How do residents in the project area contact the City?**

An e-mail address (papww@vbgov.com) and website (www.vbgov.com/windsor-woods) have been established to provide an opportunity for residents to ask questions and to share their comments on the Project.

**Please contact:**

Michael S. Bumbaco III, P.E.
Stormwater Project Manager
City of Virginia Beach Department of Public Works
Municipal Center - Building 23
2473 North Landing Road, Room 139
Virginia Beach, VA 23456

Phone: (757) 385-4131

papww@vbgov.com
Club House Road Drainage Project

Q27. What is the purpose of the Club House Road stormwater drainage project?

The stormwater drainage projects redirects a portion of the stormwater flows from Rosemont Road east along Club House Road to Bow Creek Golf Course to Bow Creek. The stormwater drains along Rosemont Road are too small and results in flooding on Rosemont Road. Flooding of this major north-south roadway disrupts traffic flow and restricts citizen access to Police, Fire and Emergency Medical Services.

Q28. What is the status of the project?

The engineering design is being finalized.

Q29. When will construction work begin?

It is anticipated that construction will begin no later than Summer 2020.

Q30. What is the length of time for construction?

The estimated length of time for construction is 14 months.

Q31. What is the estimated construction cost?

The estimated construction cost is $3.3 million.

Q32. What is the length of the new storm drain and what is the diameter of the pipe?

The total length of the new stormwater drain is 1,400 feet. The diameter of the line varies from 15 inches to 60 inches.

Q33. Will there be restrictions placed on the construction contractor?

The contractor is required to:

- Comply with the City’s Noise Ordinance
- Restore lawns and driveways
- Repave Club House Road upon completion of work
- Maintain:
  - Water and sanitary sewer service
  - Access to homes
  - Access to Police, Fire, and EMS
  - Access for school buses and trash pick-up
  - Access for US Postal service
Windsor Woods, Princess Anne Plaza & The Lakes Combined Drainage
QUESTIONS AND ANSWERS

Q34. Will the City have an Inspector on site to address concerns of the residents?
Yes, a City Inspector will be assigned to the project and work directly with residents throughout the project.

Q35. Will Club House Road be closed?
Club House Road will be open to local traffic for residents to get to their property during the construction. Other traffic, such as traffic heading to and from the recreation center, will follow detour signs around the construction zone. Neighborhood detours and flagged traffic access will be clearly signed.

Q36. Will Rosemont Road be closed?
No, the contractor is required to maintain four lanes of traffic during peak hours. Off-peak hours, one lane of traffic will be maintained in both directions. At times access from Club House Road and Kings Point Road to Rosemont Road will not be available. Detours and flagged traffic access will be clearly signed.

Q37. What utility improvements are being provided?
Adjustments to water mains and service lines, gravity sewer mains and laterals, and sewer force mains will be constructed.

Q38. Is there construction within the golf course?
Yes, a new stormwater pond will be constructed within the golf course to receive the new stormwater. The new pond is necessary to comply with water quality regulations.

Q39. Will the golf course be open during construction?
Yes; construction work will be coordinated with Parks and Recreation and the golf course operator. The goal is to keep the golf course open and to minimize adverse impacts to players. The golf course operator will have golfers play the same hole twice if a hole needs to be closed temporarily.

Q40. How will people get to Bow Creek Recreation Center during construction?
Signs directing traffic to the recreation center will be provided.

Q41. How do residents in the project area contact the City?
An e-mail address (papww@vbgov.com) and website (www.vbgov.com/windsor-woods) have been established to provide an opportunity for residents to ask questions and to share their comments on the Project.

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Bow Creek Stormwater Park

Q42. How large is the golf course?

The entire site is 124 acres, of which 104 acres is the golf course, and 20 acres is the Rec Center.

Q43. How many acres or what percentage of the stormwater park will be occupied by stored stormwater?

- Permanent Channel: 32 Acres (37%)
- Floodplain Storage: 14 Acres (16%)
- Upland Storage: 41 Acres (47%)
- TOTAL: 87 Acres (72% of the park), 320 Ac-Ft

The above acres are preliminary estimates subject to change based on detailed engineering.

Q44. Why close the golf course?

Stormwater storage is necessary to capture and manage a large amount of rainfall from significant storm events. Without creating the required amount of stormwater storage, flood mitigation cannot be achieved.

The golf course is the only large area of public land available within the project boundaries. If private property were to be used, it would require the City to acquire approximately 376 parcels of land (homes) for an estimated cost of $120M. Acquiring 376 parcels of land would take multiple years and then all homes acquired would need to be demolished, streets, water lines, sanitary sewer lines, storm drain pipes, telephones and cable lines, and natural gas and electric lines would need to be removed before construction of the stormwater storage facilities could be initiated.

The golf course is ideal since its City-owned (which reduces cost) and is located in one of the most flood-prone, low-lying areas of the City. Storage is critical to mitigating the flooding.

Q45. Why not dredge London Bridge Creek for stormwater storage?

The conversion of the golf course provides the bulk of the storage volume required per the engineering analysis performed for The Lakes and Princess Anne Plaza areas. In addition to this storage, the proposed tide gates and pump station (that are part of the overall improvements) are utilized to retain and release the water downstream as required into London Bridge Creek.

Widening London Bridge Creek and the resulting impacts on the area were considered. However, it was deemed uneconomical due to overall cost, property impacts, permitting considerations, and the additional time added to the Project. The necessary and required stormwater storage cannot be obtained in London Bridge Creek. Such an effort would require the City to acquire many homes adjacent to London Bridge Creek. Residential properties along the creek are very close to the existing top of bank (generally within 100 feet). So even if homes were acquired (either through voluntary acquisition or condemnation), minimal area could be gained. To provide the required storage (4,700,000 Cubic Feet), London Bridge Creek would have to be widened from the existing 100 feet width to 800 feet between the south tide gate and the north tide gate. Environmental impacts would be very challenging. Acquiring state and federal permits would be time-consuming and potentially unsuccessful. An Environmental Impact Assessment (EIA) would also likely be required, which would take years to complete and significantly delay the overall Project.

Q46. When will the golf course be closed?

It is anticipated the golf course will close in the summer of 2022.

Q47. Will the Bow Creek Recreation Center close?

No. The recreation center will remain open during construction and when the stormwater park is in operation.
Q48. How will the stormwater park be funded? Will it affect my taxes?

The proposed work is being funded by the City’s Capital Improvement Program (CIP), which is supported by the stormwater utility fee. Based on funding availability and the size of the project, the work will be constructed in sections over multiple years.

Q49. How much funding has been authorized by the City?

The City has developed a 10- to 20-year flood mitigation program. The FY20-25 CIP budget allocates $21.4 M to the Bow Creek Stormwater Park project.

Q50. How long will it take for the new stormwater park to be built?

The estimated time is approximately eight years.

Q51. What is the cost of the new Stormwater Park?

The cost is estimated to be in the range of $60M to $80M. Market conditions will impact the cost.

Q52. What about the noise and dust from the construction?

Dust Suppression & Noise Attenuation conditions will be incorporated in the construction contract.

The buffer zone around the perimeter will be approximately 80 feet. This buffer zone will either be 80 feet undisturbed or have groups of trees.

Q53. Will trucks be driving through my neighborhood?

Construction access to Rosemont Road will be provided via Country Club Circle.

Q54. What is the schedule for building the Bow Creek Stormwater Park?

Tentative Schedule:

- Begin design in 2020
- Buffer enhancement planting in Fall 2020
- Close golf course in summer 2022
- Initiate construction in the summer 2022
- Construction to begin on east side of the stormwater park and work west
- Work to be built in sections based on available funding
- Sections will be open to the public when they are completed

Q55. Will the closed golf course area be available for residents to use (for walking, riding bikes, etc.)?

Areas within the park boundary (the golf course boundary) where construction is occurring will be closed to the public. Accommodations will be made to temporarily utilize portions of the park area not under construction to be used by the public for walking, etc.

Park hours are anticipated to be from dawn until dusk.

Q56. Will new parking be provided?

Approximately 90 parking spaces are currently designated for the golf course. These spaces will be available for use in the new stormwater park. Additional parking will be provided as an expansion of the existing parking for the Recreation Center.

Q57. What will you be doing to address increased traffic in the neighborhoods?

It is anticipated that additional traffic/parking needed to support the park will utilize the existing Recreation Center entrances primarily. An “exit only” driveway to Club House Road may be added (utilizing the existing maintenance access location). There is a possibility that some trailhead parking (approximately 20 cars maximum at each) may be explored if
there is a demand. These may be located within the park but accessed from Hannibal (at Country Club Circle) and Club House Road (at the terminus of Lee Highlands Boulevard).

The priority of the park is to serve the people living in the adjacent neighborhood (approximately 8,000 people live within a half-mile of the park).

Q58. **Why not keep a nine-hole golf course?**

In the analysis, it was concluded that having a nine-hole golf course limited the amount of space need for stormwater storage. Due to the remaining constrained area, golf was deemed non-viable.

Q59. **Will there be a buffer area between my home and the new Bow Creek Stormwater Park?**

Yes, the existing vegetation within approximately 80 feet of the park’s boundary will be maintained (between the Stormwater Park and resident’s rear property line). Planting enhancements are being accelerated ahead of the construction throughout the buffer. Density and type of buffer is being evaluated.

Q60. **Will scooters be allowed?**

Pedestrian pathways and trails are to accommodate only non-motorized vehicles (except for emergency and maintenance vehicles).

Q61. **What about safety? Will the park be monitored, patrolled, etc.?**

As with other City Parks, law enforcement will include the park in their patrol route. Accommodations will be made for law enforcement to drive through the site as needed, etc. Video surveillance is also being considered throughout the park.

There has been focus on design to maintain clear site distances as much as possible. Furthermore, statistics show that park facilities that are frequently used result in crime reduction (eyes on trails). For this reason, visibility into the park from adjacent neighbors can provide a great benefit, in addition to providing the opportunity for residents to have views into the natural landscape of the park.

Q62. **Will there be a fence around the stormwater park, or will it be open to adjacent yards?**

A fence is not proposed, which is similar to other City parks. Residents can access the park directly from their property if they choose.

Q63. **Will having a park within proximity to my property increase my property values?**

Studies show that property values within close proximity to a park increases property values.

Q64. **Will the proposed project promote snakes?**

The project is being designed as a functional ecosystem. As such, there will be habitat for snakes. However, this habitat will also support natural predators of snakes such as large birds, raccoons, and foxes. Furthermore, snakes serve a vital role in natural systems controlling rodent populations such as mice, voles, and moles. Out of 34 species of snakes found in the Virginia Beach area, only three are venomous. According to the Virginia Herpetological Society, 99 out of 100 snakes seen are non-venomous.

Q65. **Since you are creating a wetland, will there be an increase in mosquitoes?**

The project is being designed as a functional ecosystem which will involve wetlands, so there will be mosquitoes. However, mosquitoes thrive in wet areas where the habitat doesn’t support natural predators, such as the low-lying wet areas which currently exist. The proposed project will support natural mosquito predators such as bats, birds, fish, frogs and tadpoles, turtles, dragonflies, and damselflies. We are also exploring innovative findings on natural mosquito suppression.
Windsor Woods, Princess Anne Plaza & The Lakes Combined Drainage
QUESTIONS AND ANSWERS

Q66. Will there be odor?
Odors associated with salt marsh and wetland areas is caused by the growth of bacteria in the soil formed from decaying plant material, predominantly in the mud flats. The park is being designed to limit the amount of mud flats, to drain after events, and the water is being aerated to reduce stagnant water, so conditions that lead to hypoxia will be minimized.

Q67. Will it be manicured, or wild?
Designated areas, such as paths, and use areas will be regularly maintained, however there will be areas that will intentionally grow naturally as meadowland and habitat.

Q68. How will the hawk population that lives in the trees on the golf course be handled?
The tree (and immediately surrounding ones) in which the primary resident hawk(s) has a nest will be preserved to the greatest extent possible. In addition to providing a better habitat for hawks, there are plans for additional plantings within the perimeter of the site in 2020, which will help with the establishment of the canopy. Ultimately, the hawk habitat will be improved on the site as each section of the project is completed.

Q69. How will the geese population be handled?
There will be plantings located immediately adjacent to the waterways, which will help in deterring geese.

Q70. Where will the soil being removed go?
The specific location is unknown at this time. However, the City is performing a separate evaluation of City-owned properties where the material could potentially be placed, as well as, investigating other potential uses for the material.

Q71. Will the stormwater park and storage areas always have some water or only with heavy rains?
The main Bow Creek channel will always have water. The areas adjacent to the channel will consist of floodplains and uplands that will contain water at different times due to rain events and tide levels. See the flood inundation map below.

Q72. Who is going to clean and maintain the waterways and park?
The City will operate and maintain all elements of the park. The waterways, detention areas, storm drain outfalls, and trails will be regularly maintained by the City.

Q73. Will there be any fees associated with use these areas or park amenities?
No. The park will be free and open to the public.

Q74. Will the ponds include fountains to prevent stagnant water?

Updated March 2020
Low maintenance aerators (i.e., bubbler systems) are being considered for areas that may be subject to stagnant water.

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<th>Q75.</th>
<th><strong>What will become of the golf course club house/cart storage buildings?</strong></th>
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<td>Re-use of the buildings is currently being considered by the City.</td>
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<th>Q76.</th>
<th><strong>Will there be outdoor restroom facilities?</strong></th>
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<td>Restrooms throughout the site are not proposed. There is potential, however, for public restroom access in the existing club house building. This will be studied during the detailed design.</td>
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<th>Q77.</th>
<th><strong>Is there an opportunity for a botanical garden?</strong></th>
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<td>Though there may not be enough space available for a formal botanical garden, there could be an opportunity to showcase and educate the public on the unique habitat and vegetation that will be created in the various flood storage areas. The project will have an extensive landscape plan.</td>
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<th>Q78.</th>
<th><strong>Will there be a dog park?</strong></th>
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<td>No. A dog park is not a compatible use for a stormwater park due to the pollution runoff into the waterways. The stormwater park is intended to promote clean water. However, dogs will be allowed in the park on a leash and waste pickup stations provided throughout the trails. In addition, the City currently has three dog parks located at Bayville, Red Wing and Woodstock Parks and has plans for three more at Marshview, Salem Woods, and Level Green Parks in the future.</td>
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<th>Q79.</th>
<th><strong>Will you try to keep as many trees as possible?</strong></th>
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<td>Yes. In addition to preservation, we are working to improve the existing perimeter of the site prior to construction. Since this is a significant flood mitigation project, however, the majority of the interior trees on the course will have to be removed to create stormwater storage. Tree mitigation (replacements) will occur according to City standards, which will likely increase the tree canopy/coverage over existing trees.</td>
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<th><strong>How do residents in the project area contact the City?</strong></th>
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<td><strong>Please contact:</strong></td>
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<td>Esther Dornin, P.E.</td>
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<td></td>
<td>Stormwater Project Manager</td>
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<td>757-385-4131</td>
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<td><a href="http://www.vbgov.com/BowCreekSWPark">www.vbgov.com/BowCreekSWPark</a></td>
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