



APPLICATION ACCEPTED: September 19, 2013
PLANNING COMMISSION: November 20, 2014
BOARD OF SUPERVISORS: Not Yet Scheduled

County of Fairfax, Virginia

November 5, 2014

STAFF REPORT

**APPLICATION SEA 81-V-017-02
PCA 1998-MV-032 | PCA 1998-MV-033**



MOUNT VERNON DISTRICT

APPLICANT: Fairfax County Water Authority

ZONING: *Existing SEA Area:*
R-1: Residential, One Dwelling Unit/Acre (246.67 acres)
I-6: Heavy Industrial District (1.17 acres)
NR: Natural Resource Overlay District (48.26 acres)

Proposed SEA Area:
R-1: Residential, One Dwelling Unit/Acre (391.32 acres, including 1.56 acre portion of Peniwill Drive right-of-way)
R-C: Residential – Conservation (115.17 acres)
I-6: Heavy Industrial District (20.37 acres)
NR: Natural Resource Overlay District (425.50 acres)
(Natural Resource proposed expansion subject to RZ 2013-MV-015)

PARCELS: 106-3 ((1)) 4B, 9
106-4 ((1)) 20B (part), 56A
112-2 ((1)) 8, 9, 11, 12, 14
Portion of Peniwill Drive's former right-of-way

SITE ACREAGE: *Existing SEA Area:* 247.84 acres
Proposed SEA Area: 526.86 acres

PLAN MAP: Public Facilities, Governmental and Institutional

Nick Rogers, AICP

SE CATEGORIES: Section 9-101 (8): Water Storage, Control and Pumping Station
Section 9-201 (6): Water Purification Facilities

PROPOSAL: To increase the land area associated with the approved Griffith Water Treatment Plant to permit the use of a reconfigured quarry associated with SPA 82-V-091-06 for water storage use and to increase the treatment capacity for the previously approved water treatment facility to include additional water purification facilities and other related modifications to utilize the additional water supply provided by the quarry.

STAFF RECOMMENDATIONS:

Staff recommends approval of SEA 81-V-017-02, subject to the development conditions contained in Appendix 1.

Staff recommends approval of PCA 1998-MV-032 and PCA 1998-MV-033, subject to the execution of proffers consistent with those contained in Appendix 2.

Staff recommends approval of the following waivers and modifications of the Zoning Ordinance:

- Modification of Sect. 13-303, requiring transitional screening and Section 13-304 requiring barriers in favor of that shown on the SEA Plat; and,
- Modification of Sect. 17-201, requiring a trail along the Occoquan River to provide a trail in accordance with the trail location depicted on the SEA Plat.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.



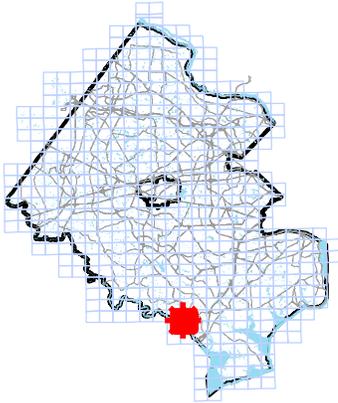
Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Special Exception Amendment

SEA 81-V -017-02

Applicant:
Accepted:
Proposed:

FAIRFAX COUNTY WATER AUTHORITY
09/19/2013
AMEND SE 81-V-017 PREVIOUSLY APPROVED FOR WATER
PURIFICATION FACILITIES TO PERMIT WATER
STORAGE, CONTROL AND PUMPING FACILITIES, SITE
MODIFICATIONS AND INCREASE IN LAND AREA



Area:

526.86 AC OF LAND; DISTRICT - MOUNT VERNON

Zoning Dist Sect:

3-104, 3-C04

Art 9 Category and Use: Sect. 9-101, Use 7; Sect. 9-201, Use 6

Located:

9600 & 10000 OX ROAD, LORTON, VA 22079

Zoning:

R-1

Plan Area:

3,4

Overlay Dist:

NR

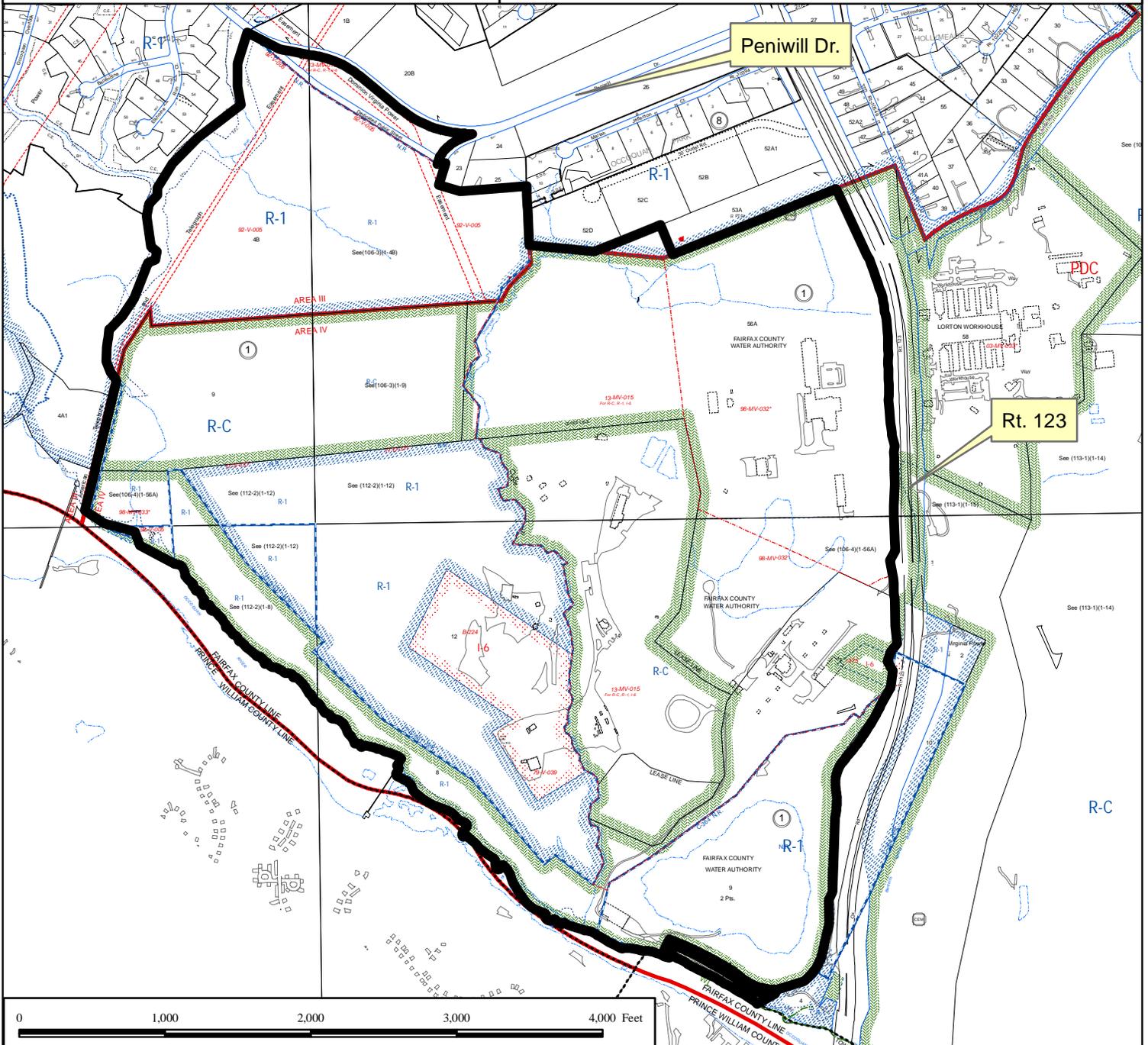
Map Ref Num:

106-3 ((1)) 4B, 9

106-4 ((1)) 20B (part), 56A

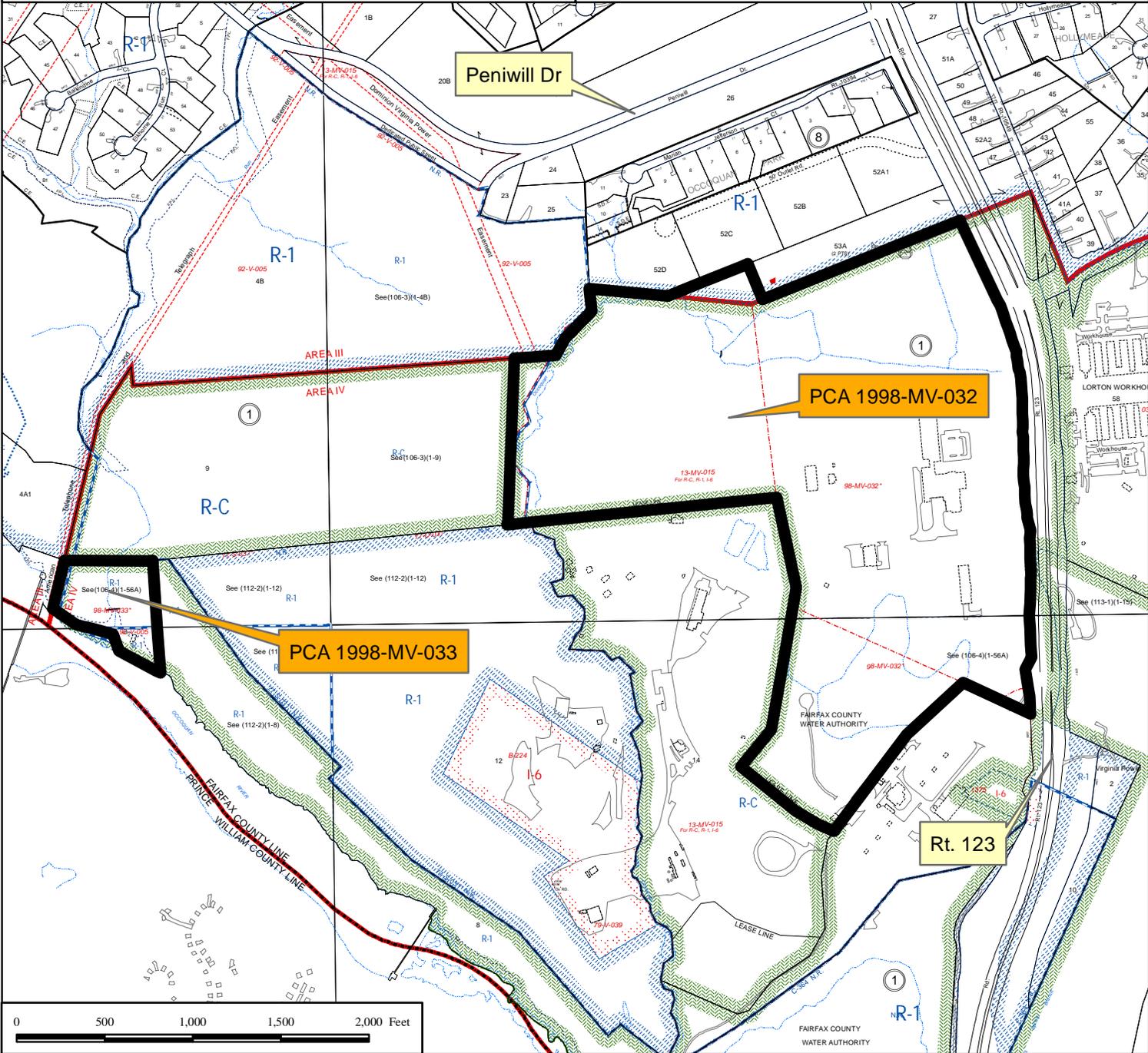
112-2 ((1)) 8, 9, 11, 12, 14

Portion of Peniwill Drive's former right-of-way



Proffered Condition Amendment PCA 1998-MV-033	
Applicant:	FAIRFAX COUNTY WATER AUTHORITY
Accepted:	09/19/2013
Proposed:	AMEND RZ 1998-MV-033 TO MODIFY THE PROFFERS
Area:	5.54 AC OF LAND
Zoning Dist Sect:	
Located:	NORTH OF OCCOQUAN RIVER IMMEDIATELY EAST OF HIGH DAM
Zoning:	R- 1
Overlay Dist:	NR
Map Ref Num:	106-4- /01/ /0056A (pt)

Proffered Condition Amendment PCA 1998-MV-032	
Applicant:	FAIRFAX COUNTY WATER AUTHORITY
Accepted:	09/19/2013
Proposed:	AMEND RZ 1998-MV-032 TO MODIFY THE PROFFERS
Area:	129.01 AC OF LAND
Zoning Dist Sect:	
Located:	WEST SIDE OF OX ROAD AT THE TERMINUS OF LORTON ROAD
Zoning:	R- 1
Overlay Dist:	NR
Map Ref Num:	106-4- /01/ /0056A (pt)



FAIRFAX WATER

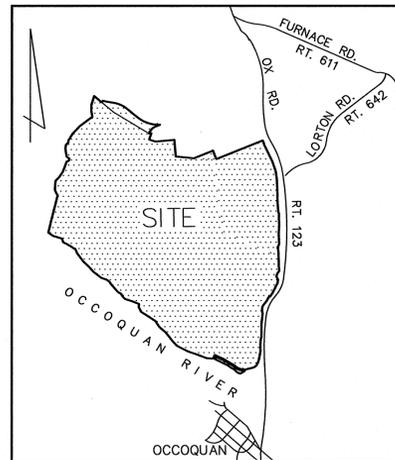
Frederick P. Griffith Jr. Water Treatment Plant

Mount Vernon District

Fairfax County, Virginia

Special Exception Amendment Plat SEA 81-V-017-2

CH2MHILL



VICINITY MAP
SCALE : 1" = 2,000'

Applicant:
Fairfax County Water Authority
(Fairfax Water)

SEAL



Rev. November 4, 2014
Rev. October 30, 2014
Rev. October 3, 2014
Rev. July 25, 2014
Rev. May 5, 2014
Rev. February 28, 2014
July 8, 2013

Fairfax Water
Special Exception Amendment Plat

SEA 81-V-017-2

M-10815

FW Project Number: 2352-002

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NOTES:

- THE PROPERTY THAT IS THE SUBJECT OF THE SPECIAL EXCEPTION AMENDMENT APPLICATION IS IDENTIFIED ON THE FAIRFAX COUNTY ZONING MAP AS 106-3 ((1)) 4B AND 9, 106-4 ((1)) 56A AND 20B (PART), 112-2 ((1)) 8, 9, 11, 12, 14 AND A PORTION OF RIGHT OF WAY (ROW) LOCATED SOUTH OF PENWILL DRIVE PROPOSED TO BE ABANDONED/VACATED. IT CONSISTS OF 526.86 ACRES AND INCLUDES THE AREA OF THE EXISTING AND PROPOSED WATER PURIFICATION FACILITIES AND THE AREA OF THE ADJACENT GRAHAM QUARRY OPERATED BY VULCAN CONSTRUCTION MATERIALS, LP, WHICH IS PROPOSED TO BE UTILIZED FOR FUTURE WATER STORAGE, CONTROL AND PUMPING FACILITIES TO BE OWNED AND OPERATED BY FAIRFAX WATER.
- THE PURPOSE OF THE SPECIAL EXCEPTION AMENDMENT IS TO INCREASE THE LAND AREA OF THE EXISTING SPECIAL EXCEPTION AMENDMENT (SEA 81-V-017) TO INCLUDE THE VULCAN (GRAHAM) QUARRY TO PERMIT WATER STORAGE, CONTROL AND PUMPING FACILITIES AND TO ESTABLISH NEW, ADDITIONAL WATER PURIFICATION FACILITIES, AND ACCESSORY USES AND MAINTENANCE FACILITIES INCIDENTAL THERETO, IN LOCATIONS ADJACENT TO THE CURRENTLY APPROVED AND EXISTING WATER PURIFICATION FACILITY.
THE EXISTING USE OF THE PROPERTY IS A WATER PURIFICATION FACILITY WHICH IS A CATEGORY 2 HEAVY PUBLIC UTILITY USE. THE NEW, ADDITIONAL WATER PURIFICATION FACILITIES AND MAINTENANCE FACILITIES INCIDENTAL THERETO WILL BE LOCATED WITHIN THE LIMITS OF THE PREVIOUSLY APPROVED SEA 81-V-017, WHICH IS ZONED R-1 AND I-6, AND ARE ALLOWED BY SPECIAL EXCEPTION IN THE R-1 DISTRICT. THE PROPOSED FUTURE WATER STORAGE, CONTROL AND PUMPING FACILITIES WHICH ARE A CATEGORY 1 LIGHT PUBLIC UTILITY USES, WILL BE LOCATED ON LAND ZONED R-C, R-1 AND I-6, AND ARE ALLOWED BY SPECIAL EXCEPTION IN BOTH THE R-C AND R-1 DISTRICTS. THESE USES ARE PERMITTED IN THE I-6 DISTRICT, OF WHICH THERE ARE TWO AREAS SO ZONED AS REPRESENTED ON THE GRAPHIC. DESPITE THIS ZONING, THE SPECIAL EXCEPTION AMENDMENT ENCOMPASSES THE ENTIRE PROPERTY TO INCLUDE THE AREAS ZONED I-6 CONSISTENT WITH THE PREVIOUSLY APPROVED SEA.
IT SHOULD BE NOTED THAT A PORTION OF THE AREA SUBJECT TO SEA 81-V-017-2 WILL BE UTILIZED FOR QUARRYING ACTIVITIES PROPOSED IN CONJUNCTION WITH SPECIAL PERMIT AMENDMENT SPA 82-V-091-6 ON BEHALF OF VULCAN CONSTRUCTION MATERIALS, LP UNTIL SUCH TIME AS THE ENTIRE QUARRY IS UTILIZED FOR FUTURE WATER STORAGE, CONTROL AND PUMPING FACILITIES.
- THE BOUNDARY INFORMATION SHOWN HEREON IS FROM EXISTING RECORDS. NEITHER CH2M HILL NOR DEWBERRY ASSUME ANY RESPONSIBILITY FOR DESIGN OR CONSTRUCTION CHANGES CAUSED BY INACCURACIES IN THE BOUNDARY INFORMATION.
- THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS IN PART AT A CONTOUR INTERVAL OF FIVE (5) FEET. NEITHER CH2M HILL NOR DEWBERRY ASSUME ANY RESPONSIBILITY FOR DESIGN OR CONSTRUCTION CHANGES CAUSED BY INACCURACIES IN THE TOPOGRAPHIC INFORMATION.
- STORMWATER MANAGEMENT (SWM) REQUIREMENTS AND BEST MANAGEMENT PRACTICES (BMP) FACILITIES WILL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE PUBLIC FACILITIES MANUAL. THE SWM AND BMP REQUIREMENTS ARE PLANNED TO BE ACCOMMODATED IN THE NORTH AND SOUTH QUARRY RESERVOIR (PITS) THAT WILL BE EXCAVATED BY VULCAN MATERIALS. THE CAPACITIES OF THE RESULTANT QUARRY RESERVOIRS (PITS) IS WELL IN EXCESS OF THE VOLUME REQUIREMENTS THAT WILL BE GENERATED BY THE PROPOSED DEVELOPMENT PROGRAM. IN THE EVENT ANY OF THE PROPOSED IMPROVEMENTS SHOWN ON THE SEA PLAT ARE CONSTRUCTED PRIOR TO THE CONVERSION OF THE QUARRY TO A WATER SUPPLY RESERVOIR, THE APPLICANT RESERVES THE RIGHT TO PROVIDE TEMPORARY SWM/BMP FACILITIES ON SITE IN ORDER TO ADDRESS THE SWM/BMP REQUIREMENTS.
- THE FOOTPRINTS, SIZES, SHAPES AND LOCATIONS OF THE BUILDINGS AND STRUCTURES SHOWN HEREON ARE PRELIMINARY AND MAY BE MODIFIED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 9-004 OF THE ZONING ORDINANCE. IT IS TO BE NOTED THAT SOME OF THE FOOTPRINTS ON THE GRAPHIC REPRESENT EITHER POSSIBLE BUILDINGS OR USES THAT MAY OR MAY NOT BE ENCLOSED. THE BUILDING HEIGHTS PRESENTED ON THE GRAPHIC AND IN THE TABULATION ARE TO BE CONSIDERED MAXIMUMS, UNLESS SPECIFICALLY NOTED OTHERWISE. THE DIMENSIONS TO THE PERIPHERAL LOT LINES PRESENTED ON THE GRAPHIC AND THE OPEN SPACE AREA PRESENTED IN THE TABULATION ARE TO BE CONSIDERED MINIMUMS.
THE APPLICANT RESERVES THE RIGHT TO DEVELOP FEWER BUILDINGS/STRUCTURES AND/OR INCREASE OR DECREASE THE AMOUNT OF GROSS FLOOR AREA SHOWN FOR EACH BUILDING/STRUCTURE SO LONG AS THE TOTAL MAXIMUM GROSS FLOOR AREA OF 600,000 SQUARE FEET IDENTIFIED IN THE TABULATION IS NOT EXCEEDED, TO RELOCATE AND/OR COMBINE BUILDINGS/STRUCTURE FOOTPRINTS AND TO MODIFY THE BUILDINGS/STRUCTURE FOOTPRINTS ACCORDINGLY. IT IS UNDERSTOOD THAT ADDITIONAL PARKING SPACES MAY BE PROVIDED WHERE A BUILDING FOOTPRINT IS REDUCED, SHIFTED OR MODIFIED SO LONG AS THE OPEN SPACE PRESENTED IN THE TABULATION IS NOT REDUCED.
- THE FLOOR AREA REPRESENTED IN THE TABULATION IS GROSS FLOOR AREA AS DEFINED IN THE FAIRFAX COUNTY ZONING ORDINANCE. THE TOTAL GROSS FLOOR AREA SHOWN ON THE SEA PLAT IS A GRAND TOTAL OF THE GROSS FLOOR AREAS OF ALL OF THE PROPOSED BUILDINGS AND STRUCTURES ON THE SITE AS WELL AS THOSE EXISTING BUILDINGS AND STRUCTURES THAT ARE PROPOSED TO REMAIN. IT IS UNDERSTOOD THAT THE BUILDINGS/STRUCTURES MAY HAVE CELLAR SPACE(S) WHICH SPACE(S) WILL BE CALCULATED FOR OFF-STREET PARKING REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 25 OF SECT. 11-102 OF THE ZONING ORDINANCE. IT IS FURTHER UNDERSTOOD THAT THE GROSS FLOOR AREA OF THE INDIVIDUAL BUILDINGS MAY INCREASE/DECREASE OR SHIFT FROM ONE BUILDING TO ANOTHER SO LONG AS THE TOTAL MAXIMUM GROSS FLOOR AREA OF 600,000 SQUARE FEET FOR THE ENTIRE SITE AS REPRESENTED IN THE TABULATION IS NOT EXCEEDED.
- THE NUMBER OF PARKING SPACES REPRESENTED IN THE TABULATION IS BASED ON A PRELIMINARY ESTIMATE OF GROSS FLOOR AREAS, NUMBER OF EMPLOYEES ON THE MAJOR SHIFT AND NUMBER OF COMPANY VEHICLES/MOBILE EQUIPMENT. THE NUMBER OF PARKING SPACES MAY BE ADJUSTED IN THE FUTURE IN ACCORDANCE WITH NOTES 6 AND 7 ABOVE AND IN ACCORDANCE WITH FUTURE PROGRAM REQUIREMENTS AS LONG AS THE OPEN SPACE REPRESENTED IN THE TABULATION AND THE MINIMUM DIMENSIONS TO THE FRONT LOT LINE ARE NOT DIMINISHED. A FINAL NUMBER OF PARKING AND LOADING SPACES AND A FINAL NUMBER AND LOCATION OF ACCESSIBLE PARKING SPACES WILL BE DETERMINED AT THE TIME OF SITE PLAN(S) REVIEW AND APPROVAL AND WILL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE AS DETERMINED BY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES).
- ADDITIONAL SITE FEATURES SUCH AS FENCES, WALLS, SIGNS, PLANTERS, GAZEBOS, TRELLISES, LIGHT FIXTURES AND DUMPSTERS NOT REPRESENTED ON THE GRAPHIC MAY BE PROVIDED ON SITE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ARTICLE 10 OF THE ZONING ORDINANCE. IT IS ALSO UNDERSTOOD THAT MOBILE AND LAND BASED TELECOMMUNICATION FACILITIES MAY BE PROVIDED ON SITE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN SECT. 2-514 OF THE ZONING ORDINANCE AND IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN SECT. 15.2-2232 OF THE CODE OF VIRGINIA.
- THE APPROXIMATE LOCATION OF THE CORRIDORS ON SITE FOR THE MAJOR UNDERGROUND WATER PIPES (24") THAT WILL BE REQUIRED AS A PART OF THE WATER PURIFICATION FACILITIES AND WATER STORAGE, CONTROL AND PUMPING FACILITIES ARE REPRESENTED ON THE GRAPHIC FOR INFORMATION PURPOSES ONLY. THE PRECISE LOCATIONS OF THESE PIPES WILL BE DETERMINED AT TIME OF FINAL ENGINEERING AND DESIGN.
- FREESTANDING AND BUILDING-MOUNTED SIGNS WILL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ARTICLE 12 OF THE ZONING ORDINANCE.
- THERE ARE EXISTING STRUCTURES ON THE SITE. ON PARCELS 112-2 ((1)) 8 AND 9, AND 106-4 ((1)) 56A, THERE ARE BUILDINGS AND STRUCTURES THAT COMPRISE THE EXISTING FREDERICK P. GRIFFITH WATER TREATMENT PLANT (WTP) AND THE IDLE LORTON PLANT. THE EXISTING GRIFFITH WTP BUILDINGS WILL REMAIN AND THE BUILDINGS THAT COMPRISE THE IDLE LORTON PLANT WILL BE DEMOLISHED AS PART OF THE RECONFIGURED VULCAN QUARRY OPERATION (SPA 82-V-091-06). THE IDLE LORTON PLANT TO BE DEMOLISHED IS COMPRISED OF THE ORIGINAL WATER TREATMENT PLANT COMPLETED IN 1949, AND THE ADJACENT LORTON WATER TREATMENT PLANT COMPLETED IN 1973 AS WELL AS ALL OF THE STRUCTURES AND APPURTENANCES ACCESSORY THERETO. NONE OF THESE BUILDINGS OR STRUCTURES HAS HISTORIC VALUE.
- THERE IS AN ON-ROAD BICYCLE ROUTE AND A MAJOR PAVED TRAIL SHOWN IN THE COMPREHENSIVE PLAN COUNTYWIDE TRAILS PLAN ALONG ROUTE 123 IN THE VICINITY OF THE SUBJECT PROPERTY, A PORTION OF WHICH HAS BEEN CONSTRUCTED SOUTH OF THE EXISTING QUARRY ACCESS ROAD. IN ADDITION, THE COMPREHENSIVE PLAN COUNTYWIDE TRAILS PLAN REPRESENTS A MAJOR REGIONAL (GREENWAY) TRAIL SYSTEM ALONG THE NORTHERN BANK OF THE OCCOQUAN RIVER.
IN LIEU OF THE MAJOR REGIONAL (GREENWAY) TRAIL, A NATURAL SURFACE (4-FOOT WIDE) TRAIL MAY BE CONSTRUCTED IN THE GENERAL LOCATION SHOWN ON THE SEA PLAT AS "POSSIBLE FUTURE NATURAL

SURFACE TRAIL LOCATION". WITHOUT HAVING TO OBTAIN APPROVAL OF A FUTURE SEA APPLICATION, IN THE EVENT SUCH TRAIL LOCATION IS IDENTIFIED ON THE COMPREHENSIVE PLAN COUNTYWIDE TRAILS PLAN THROUGH A FUTURE COMPREHENSIVE PLAN AMENDMENT OR OTHERWISE IS DEEMED IN THE FUTURE TO BE IN SUBSTANTIAL CONFORMANCE WITH THE COMPREHENSIVE PLAN.

- THERE ARE AREAS LOCATED ON THE SUBJECT PROPERTY ALONG THE OCCOQUAN RIVER THAT HAVE SCENIC ASSETS AND NATURAL FEATURES THAT ARE DESERVING OF PROTECTION AND PRESERVATION. THE PROPOSED DEVELOPMENT PROGRAM WILL ACCOMPLISH THIS OBJECTIVE TO THE EXTENT FEASIBLE GIVEN THE NATURE OF THE PROPOSED USE.
- THE PROPOSED DEVELOPMENT PROGRAM WILL BE SERVED BY PUBLIC WATER LOCATED ON SITE AND BY AN EXISTING PRIVATE SEPTIC SYSTEM AS REPRESENTED ON THE SEA PLAT. THIS SEPTIC SYSTEM MAY BE EXPANDED TO ACCOMMODATE FUTURE PHASES OF SITE DEVELOPMENT.
- THERE IS FLOODPLAIN, RESOURCE PROTECTION AREA (RPA) AND AN ENVIRONMENTAL QUALITY CORRIDOR (EQC) LOCATED ON THE SUBJECT PROPERTY AS REPRESENTED ON THE SEA PLAT. AN APPLICATION FOR A RESOURCE PROTECTION AREA (RPA) EXCEPTION HAS BEEN SUBMITTED SEPARATELY TO THE DIRECTOR, DPWES, FOR A PUBLIC HEARING BEFORE THE BOS CONCURRENT WITH THE SEA APPLICATION PURSUANT TO SECTION 118-6-1 OF THE FAIRFAX COUNTY CODE, CHESAPEAKE BAY PRESERVATION ORDINANCE.
- THE PROPOSED LIMITS OF CLEARING AND GRADING ARE REPRESENTED ON THE SEA PLAT. THEY ARE APPROXIMATE AND BASED ON PRELIMINARY ENGINEERING. MINOR MODIFICATIONS TO THE LIMITS OF CLEARING AND GRADING MAY OCCUR IN CONJUNCTION WITH THE FINAL ENGINEERING ON THE SITE. IT IS TO BE UNDERSTOOD THAT UTILITIES NOT CURRENTLY REPRESENTED ON THE GRAPHIC MAY HAVE TO CROSS A DELINEATED LIMIT OF CLEARING AND GRADING.
- TO THE BEST OF OUR KNOWLEDGE THERE IS ONLY ONE CEMETERY LOCATED ON THE SUBJECT PROPERTY. THE CEMETERY IS LOCATED ADJACENT TO THE NORTHERN BOUNDARY LINE AS DEPICTED ON THE SEA PLAT. IN ACCORDANCE WITH THE QUITCLAIM DEED, DATED APRIL 21, 1998, FAIRFAX WATER WILL MAINTAIN ACCESS TO THE CEMETERY FOR FRIENDS AND RELATIVES OF PERSONS BURIED THERE. IN ADDITION, FAIRFAX WATER WILL PROTECT, PRESERVE AND MAINTAIN THE CEMETERY FENCE ENCLOSING THE AREA OF THE CEMETERY. THE CEMETERY WILL BE PRESERVED AND PROTECTED DURING CONSTRUCTION OF THE PROPOSED FACILITIES.
- THE HAZARDOUS AND TOXIC SUBSTANCES THAT MAY BE USED ON THE SITE IN CONJUNCTION WITH THE WATER PURIFICATION OPERATION WILL COMPLY WITH ALL APPLICABLE COUNTY, STATE AND/OR FEDERAL REGULATIONS.
- THE PROPOSED EXPANSION OF THE GRIFFITH WTP TO UTILIZE THE QUARRY FOR FUTURE WATER STORAGE HAS BEEN SPECIFICALLY DESIGNED TO MINIMIZE ADVERSE IMPACT ON ADJACENT PROPERTIES. HOWEVER, IN ORDER TO MAINTAIN EXISTING VEGETATION AND/OR VARY THE LOCATION OF PLANTINGS AND FENCING, THE FOLLOWING MODIFICATIONS/WAIVERS ARE REQUESTED:
 - A MODIFICATION OF THE TRANSITIONAL SCREENING AND A WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED ALONG THE WESTERN BOUNDARY PURSUANT TO PAR. 3 AND PAR. 12 OF SECT. 13-305 OF THE ZONING ORDINANCE. THE SIGNIFICANT AREAS OF EXISTING VEGETATION RANGING IN WIDTH FROM 300 TO 700 FEET ALONG THE WESTERN BOUNDARY WITHIN THE RPA/EQC ASSOCIATED WITH THE OCCOQUAN RIVER AND ELK HORN RUN WILL REMAIN UNDISTURBED AND WILL PROVIDE A SUBSTANTIAL BUFFER BETWEEN THE PROPOSED USE AND THE OCCOQUAN OVERLOOK SUBDIVISION.
A REAFFIRMATION, WITH REVISIONS, OF THE MODIFICATION OF THE TRANSITIONAL SCREENING AND WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED ALONG THE NORTHERN PROPERTY LINE WHICH IS PROPOSED TO INCLUDE THE ADDITIONAL LAND AREA OF THE EXISTING VULCAN (GRAHAM) QUARRY PURSUANT TO PAR. 3 AND PAR. 12 OF SECT. 13-305 OF THE ZONING ORDINANCE. SIGNIFICANT AREAS OF EXISTING VEGETATION WILL BE MAINTAINED ALONG A PORTION OF THE NORTHERN PROPERTY LINE ADJACENT TO EXISTING SINGLE FAMILY DETACHED AND/OR VACANT PROPERTIES ZONED R-1 AND WILL BE SUPPLEMENTED WITH REVEGETATION PROPOSED IN CONJUNCTION WITH SPA 82-V-091-6 FOR THE QUARRY. A POSSIBLE FUTURE FOUR (4) FOOT WIDE NATURAL SURFACE TRAIL IS IDENTIFIED ALONG PORTIONS OF THE NORTHERN PROPERTY LINE. A MODIFICATION OF THE WIDTH FOR SOME PORTIONS OF THE TRANSITIONAL SCREENING YARD REQUESTED IN ORDER TO ACCOMMODATE A NATURAL SURFACE TRAIL THAT IS SUSTAINABLE IN THESE AREAS AS SHOWN ON THE SEA PLAT. GIVEN THAT THE POSSIBLE FUTURE NATURAL SURFACE TRAIL IS ONLY 4-FOOT WIDE, THE REQUIRED AMOUNT OF TRANSITIONAL SCREENING PLANTINGS AND/OR REVEGETATION AREAS PROPOSED IN CONJUNCTION WITH SPA 82-V-091-6 OR SEA 81-V-017-2 WILL STILL BE PROVIDED.
IN ADDITION, GIVEN THAT THE POSSIBLE FUTURE NATURAL SURFACE TRAIL IS ONLY 4-FOOT WIDE AND THAT THE PROPOSED ESTUARY WATER TREATMENT PLANT HAS BEEN DESIGNED TO MITIGATE VISUAL IMPACTS TO THE ADJACENT NATIONAL REGISTER DC WORKHOUSE REFORMATORY HISTORIC DISTRICT AND LORTON CORRECTIONAL COMPLEX NATIONAL REGISTER-ELIGIBLE DISTRICT IN CONSULTATION WITH THE ARCHITECTURAL REVIEW BOARD, A MODIFICATION OF THE WIDTH OF THE TRANSITIONAL SCREENING YARD IS REQUESTED TO ACCOMMODATE THE SEGMENT OF THE TRAIL BETWEEN THE ESTUARY WATER TREATMENT PLANT FACILITY AND THE NORTHERN PROPERTY LINE AS SHOWN ON THE SEA PLAT.
A WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED IN FAVOR OF THE PROPOSED 8-FOOT HIGH SECURITY CHAIN LINK FENCE TO BE LOCATED AROUND THE PERIMETER OF THE NORTHERN RESERVOIR AND ESTUARY WATER TREATMENT PLANT.
 - A REAFFIRMATION OF BOTH THE MODIFICATION OF THE TRANSITIONAL SCREENING AND MODIFICATION OF THE LOCATION OF THE PROPOSED BARRIER PURSUANT TO PAR. 3 AND 12 OF SECT. 13-305 OF THE ZONING ORDINANCE IS REQUESTED ALONG THE PORTION OF ROUTE 123 ADJACENT TO TAX MAP PARCELS 106-4 ((1)) 53A (PART); 112-2 ((1)) 4 AND 10, ZONED R-1. A SIGNIFICANT LANDSCAPE BUFFER RANGING FROM 50 TO 100 FEET WIDE WILL BE PROVIDED ALONG ROUTE 123 TO CONSIST OF A MIXTURE OF DECIDUOUS, ORNAMENTAL AND EVERGREEN TREES SIMILAR TO THE EXISTING LANDSCAPING WHICH MUST BE REPLACED DUE TO UTILITY RELOCATIONS. THE REPLACEMENT OF THE EXISTING LANDSCAPING IS NOT ANTICIPATED TO OCCUR UNTIL AFTER 2035. THE EXISTING SECURITY FENCING LOCATED ALONG ROUTE 123 IS PROPOSED TO BE REPLACED WITH A COMBINATION OF 8-FOOT HIGH REINFORCED CRASH RESISTANT FENCING AND 8-FOOT HIGH CHAIN LINK FENCING TO BE INSTALLED ALONG THE PROPERTY LINE. TO ALLOW THIS LANDSCAPING AND THE NEW FENCING TO BE INSTALLED, A REAFFIRMATION OF THE MODIFICATION OF THE TRANSITIONAL SCREENING AND MODIFICATION OF THE LOCATION OF THE PROPOSED BARRIER IS REQUESTED.

21. A STATEMENT WHICH CONFIRMS THE OWNERSHIP OF THE SUBJECT PROPERTY AND THE NATURE OF THE APPLICANT'S INTEREST IN SAME AND THE STATEMENTS AND ADDITIONAL INFORMATION REQUIRED BY THE PROVISIONS OF SECT. 9-011 OF THE ZONING ORDINANCE HAVE BEEN PROVIDED IN A SEPARATE DOCUMENT.

22. EXTERIOR LIGHTING WILL BE PROVIDED BY A COMBINATION OF WALL-MOUNTED AND POLE-MOUNTED LIGHT FIXTURES. THE EXACT LOCATION OF WHICH WILL BE SUBJECT TO FINAL ENGINEERING AND BE DEPICTED ON THE SITE PLAN(S). THE POLE-MOUNTED LIGHT FIXTURES WILL NOT EXCEED 20 FEET IN HEIGHT. ALL LIGHTING WILL CONFORM TO THE APPLICABLE PERFORMANCE STANDARDS SET FORTH IN ARTICLE 14 OF THE ZONING ORDINANCE.

23. THE LANDSCAPING SHOWN ON THE SEA PLAT IS ILLUSTRATED TO REPRESENT A DESIGN CONCEPT ONLY. FINAL LANDSCAPING MAY VARY WITH RESPECT TO PLANT TYPES AND ACTUAL LOCATIONS BASED ON FINAL ENGINEERING AND DESIGN AND THE PLACEMENT OF SIDEWALKS AND UTILITIES.

24. TO THE BEST OF OUR KNOWLEDGE, THERE IS ONLY ONE UTILITY EASEMENT GREATER THAN 25 FEET IN WIDTH LOCATED ON THE SUBJECT PROPERTY. IT IS A VIRGINIA POWER EASEMENT THAT IS REPRESENTED ON THE PLAN.

25. GIVEN THE NATURE OF THE PROPOSED USE, THERE ARE NO SEPARATE FREESTANDING PLANNED COMMUNITY OR PUBLIC FACILITIES OR SPECIAL AMENITIES ASSOCIATED WITH THE PROPOSED DEVELOPMENT PROGRAM.

26. IN ACCORDANCE WITH THE PROVISION SET FORTH IN SECT. 9-206 OF THE ZONING ORDINANCE, APPLICABLE APPROVALS BY THE HEALTH DEPARTMENT, VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY AND OTHER APPROPRIATE AGENCIES OF THE COUNTY AND THE STATE WILL BE OBTAINED BEFORE THE USE IS ESTABLISHED.

27. IT IS CURRENTLY ANTICIPATED THAT DEMOLITION OF THE IDLE LORTON PLANT WILL COMMENCE AS PART OF THE RECONFIGURED VULCAN QUARRY OPERATIONS PROPOSED WITH SPA 82-V-091-6 AS SOON AS ALL REQUIRED APPROVALS AND PERMITS ARE OBTAINED. CONSTRUCTION OF THE PLANNED FACILITIES WILL PROCEED IN THREE PRIMARY CONSTRUCTION PHASES PRESENTED ON THE GRAPHIC. THESE CONSTRUCTION PHASES ARE CONTINGENT UPON THE OPERATIONS OF THE VULCAN GRAHAM QUARRY AND SPAN A TIME FRAME THAT IS ANTICIPATED TO EXTEND BEYOND 2085.

GIVEN THIS BACKGROUND, IT IS TO BE UNDERSTOOD THAT ALL PHASES OF THE CONSTRUCTION AND DEMOLITION WILL NOT COMMENCE WITHIN THE THIRTY (30) MONTHS FROM THE APPROVAL DATE OF THE SPECIAL EXCEPTION AS REQUIRED BY THE PROVISIONS SET FORTH IN PAR. 1 OF SECT. 9-015 OF THE ZONING ORDINANCE. BOARD APPROVAL OF ADDITIONAL TIME TO COMMENCE CONSTRUCTION OF SUBSEQUENT PHASES OF DEVELOPMENT IS HEREBY REQUESTED IN ACCORDANCE WITH THE ABOVE-STATED PROVISION.

28. TO THE BEST OF OUR KNOWLEDGE, EXCEPT AS QUALIFIED ABOVE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS AND ADOPTED STANDARDS.

29. THE MAJORITY OF THE SUBJECT PROPERTY IS LOCATED IN THE LPI LAUREL HILL COMMUNITY PLANNING SECTOR OF THE LOWER POTOMAC PLANNING DISTRICT OF THE COMPREHENSIVE PLAN. THE PORTION OF THE SUBJECT PROPERTY LOCATED IMMEDIATELY SOUTH OF PENWILL DRIVE IS INCLUDED IN THE P5 DOMINION PLANNING SECTOR OF THE POHICK PLANNING DISTRICT OF THE COMPREHENSIVE PLAN AND IS PLANNED FOR LIMITED EXPANSION OF THE VULCAN QUARRY WHICH WAS APPROVED BY SPECIAL PERMIT AMENDMENT IN 1992 AND HAS ALREADY BEEN IMPLEMENTED. THE BOARD OF SUPERVISORS RECENTLY APPROVED COMPREHENSIVE PLAN AMENDMENT NO. 2013-09 TO SPECIFICALLY IDENTIFY THE SUBJECT PROPERTY AS PLANNED FOR PUBLIC FACILITIES USE TO FACILITATE THE RECONFIGURATION AND CONVERSION IN PHASES OF THE VULCAN QUARRY TO A REGIONAL WATER SUPPLY RESERVOIR.

TABULATION:

EXISTING ZONING	R-C (PART), R-1 (PART), I-6 (PART) NATURAL RESOURCE (N.R.) OVERLAY DISTRICT (PART)	
LAND AREA OF PREVIOUSLY APPROVED SEA 81-V-017		247.84 AC
LAND AREA OF PROPOSED SEA 81-V-017-2		526.86 AC
ZONED R-C		115.17 AC
ZONED R-1		389.76 AC
ZONED I-6		20.37 AC
VDOT R/W		1.56 AC
EXISTING GROSS FLOOR AREA TO REMAIN		140,453 ±SF
PROPOSED GROSS FLOOR AREA		459,547 ±SF
ESTUARY TREATMENT PLANT		122,350 ±SF
FINISHED WATER PUMP STATION (12,000± SF)		
ULTRA FILTRATION BUILDING (44,100± SF)		
ADMIN/PRE-TREATMENT CHEMICALS BUILDING (10,000± SF)		
REVERSE OSMOSIS BUILDING (45,000± SF)		
ESTUARY INTAKE PUMP STATION (11,250± SF)		
PLANT SUPPORT FACILITIES		123,453 ±SF
GENERATOR FACILITY (99,000± SF)		
RESIDUALS HANDLING BUILDING (14,400± SF)		
THICKENER (2 x 5026.5 SF = 10,053± SF)		
GRIFFITH PLANT		76,950 ±SF
RESIDUALS PUMP STATION (2,500± SF)		
PILOT PLANT FACILITY (7,200± SF)		
BOAT STORAGE/WORKSPACE (1,350± SF)		
FACILITY SUPPORT CENTER #2 (10,400± SF)		
FILTER BUILDING EXPANSION (8,500± SF)		
WATER QUALITY LABORATORY (17,000± SF)		
UV/AOP BUILDING (18,000± SF)		
OZONE CONTACTORS (2 x 3,500 SF = 7,000± SF)		
NORTH RESERVOIR INTAKE PUMP STATION (2,000± SF)		
LOX (3,000± SF)		
PROPOSED 80 MGD TREATMENT PLANT		136,794 ±SF
FINISHED WATER PUMP STATION (15,600± SF)		
OZONE GENERATION BUILDING (9,800± SF)		
LOW LIFT PUMP STATION (2,750± SF)		
UV/AOP BUILDING EXPANSION (9,000± SF)		
ADMIN BUILDING (13,550± SF)		
CHEMICAL STORAGE AND FEED BUILDING (20,000± SF)		
FILTER BUILDING (34,744± SF)		
MAIN QUARRY INTAKE PUMP STATION (11,250± SF)		
OZONE CONTRACTORS (15,200± SF)		
LOX STORAGE AREA (4,900± SF)		
TOTAL GROSS FLOOR AREA SHOWN (140,453±SF EXISTING TO REMAIN + 459,547±SF PROPOSED)		600,000 ±SF*
PERMITTED FLOOR AREA RATIO		0.150
PROPOSED FLOOR AREA RATIO		0.024
TOTAL MAXIMUM GROSS FLOOR AREA		600,000 SF
TOTAL MAXIMUM FLOOR AREA RATIO		0.026
MAXIMUM BUILDING HEIGHT AS REPRESENTED ON THE GRAPHIC		60 FT
PROPOSED NUMBER OF EMPLOYEES ON MAJOR SHIFT		50
PROPOSED NUMBER OF COMPANY VEHICLES/MOBILE EQUIPMENT		18
REQUIRED NUMBER OF PARKING SPACES (ONE SPACE PER EMPLOYEE ON MAJOR SHIFT AND ONE SPACE PER COMPANY VEHICLE / MOBILE EQUIPMENT)		68
PROPOSED NUMBER OF PARKING SPACES		105
OPEN SPACE REQUIRED		NONE
OPEN SPACE PROPOSED (82%)		434.85 ±AC

* See Note 7.



Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518



FAIRFAX WATER
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 MOUNT VERNON DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN

SCALE

No.	DATE	BY	Description
6	11/4/14	JMC	
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4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNW	
1	2/28/14	TCC	

REVISIONS

DRAWN BY: JMC

APPROVED BY: TC

CHECKED BY: TC

DATE: July 8, 2013

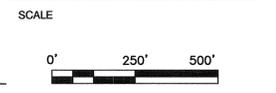
TITLE

FAIRFAX WATER
FW Project Number: 2352-002
NOTES AND TABULATIONS

PROJECT NO.



KEY PLAN

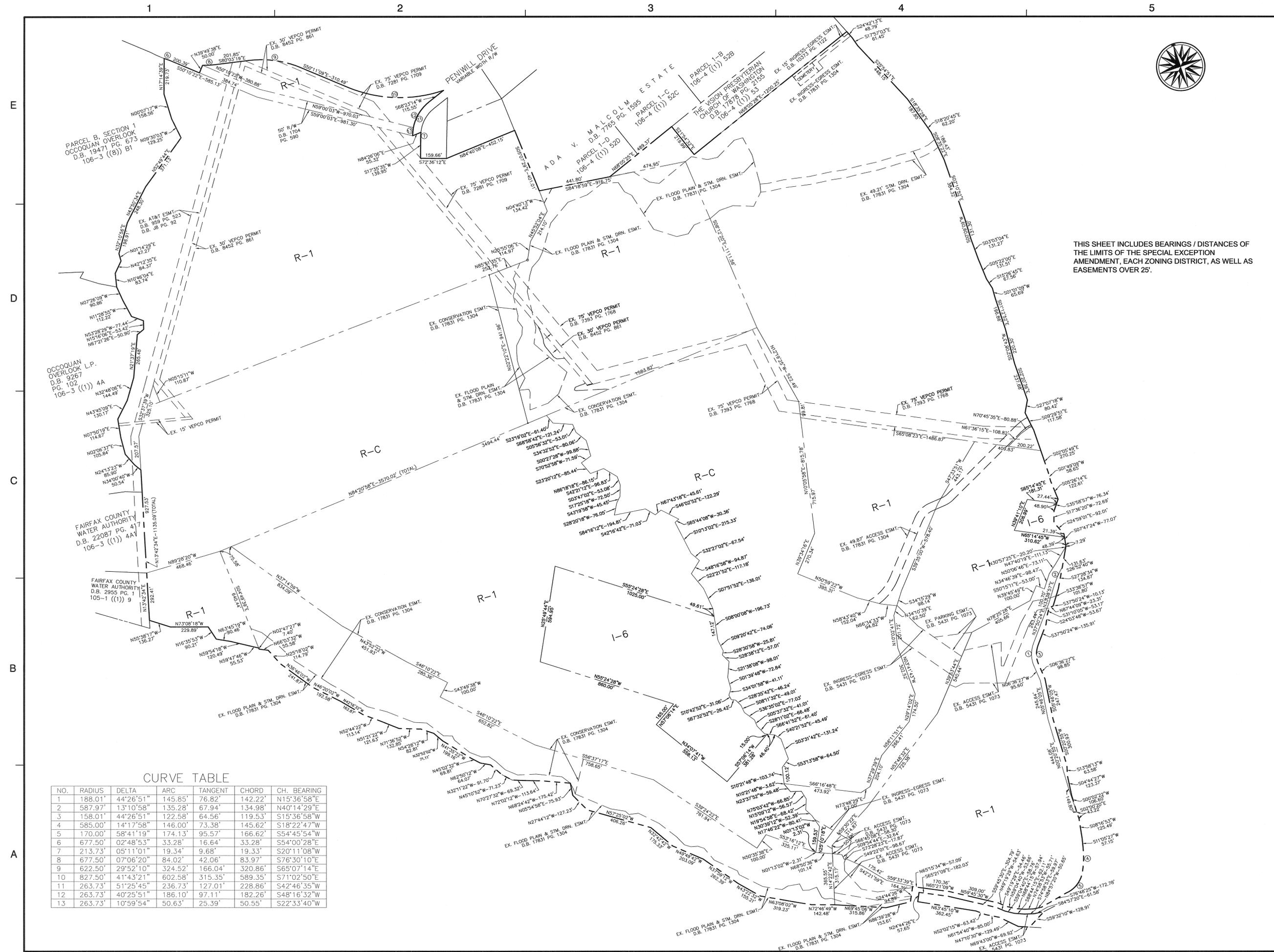


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3	7/25/14	TCC	
2	5/5/14	LNM	
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APPROVED BY TC
CHECKED BY TC
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TITLE
FAIRFAX WATER
FW Project Number: 2352-002
BOUNDARY INFORMATION

PROJECT NO.



THIS SHEET INCLUDES BEARINGS / DISTANCES OF THE LIMITS OF THE SPECIAL EXCEPTION AMENDMENT, EACH ZONING DISTRICT, AS WELL AS EASEMENTS OVER 25'.

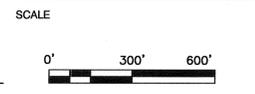
CURVE TABLE

NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	CH. BEARING
1	188.01'	44°26'51"	145.85'	76.82'	142.22'	N15°36'58"E
2	587.97'	13°10'58"	135.28'	67.94'	134.98'	N40°14'29"E
3	158.01'	44°26'51"	122.58'	64.56'	119.53'	S15°36'58"W
4	585.00'	14°17'58"	146.00'	73.38'	145.62'	S18°22'47"W
5	170.00'	58°41'19"	174.13'	95.57'	166.62'	S54°45'54"W
6	677.50'	02°48'53"	33.28'	16.64'	33.28'	S54°00'28"E
7	213.73'	05°11'01"	19.34'	9.68'	19.33'	S20°11'08"W
8	677.50'	07°06'20"	84.02'	42.06'	83.97'	S76°30'10"E
9	622.50'	29°52'10"	324.52'	166.04'	320.86'	S65°07'14"E
10	827.50'	41°43'21"	602.58'	315.35'	589.35'	S71°02'50"E
11	263.73'	51°25'45"	236.73'	127.01'	228.86'	S42°46'35"W
12	263.73'	40°25'51"	186.10'	97.11'	182.26'	S48°16'32"W
13	263.73'	10°59'54"	50.63'	25.39'	50.55'	S22°33'40"W



KEY PLAN

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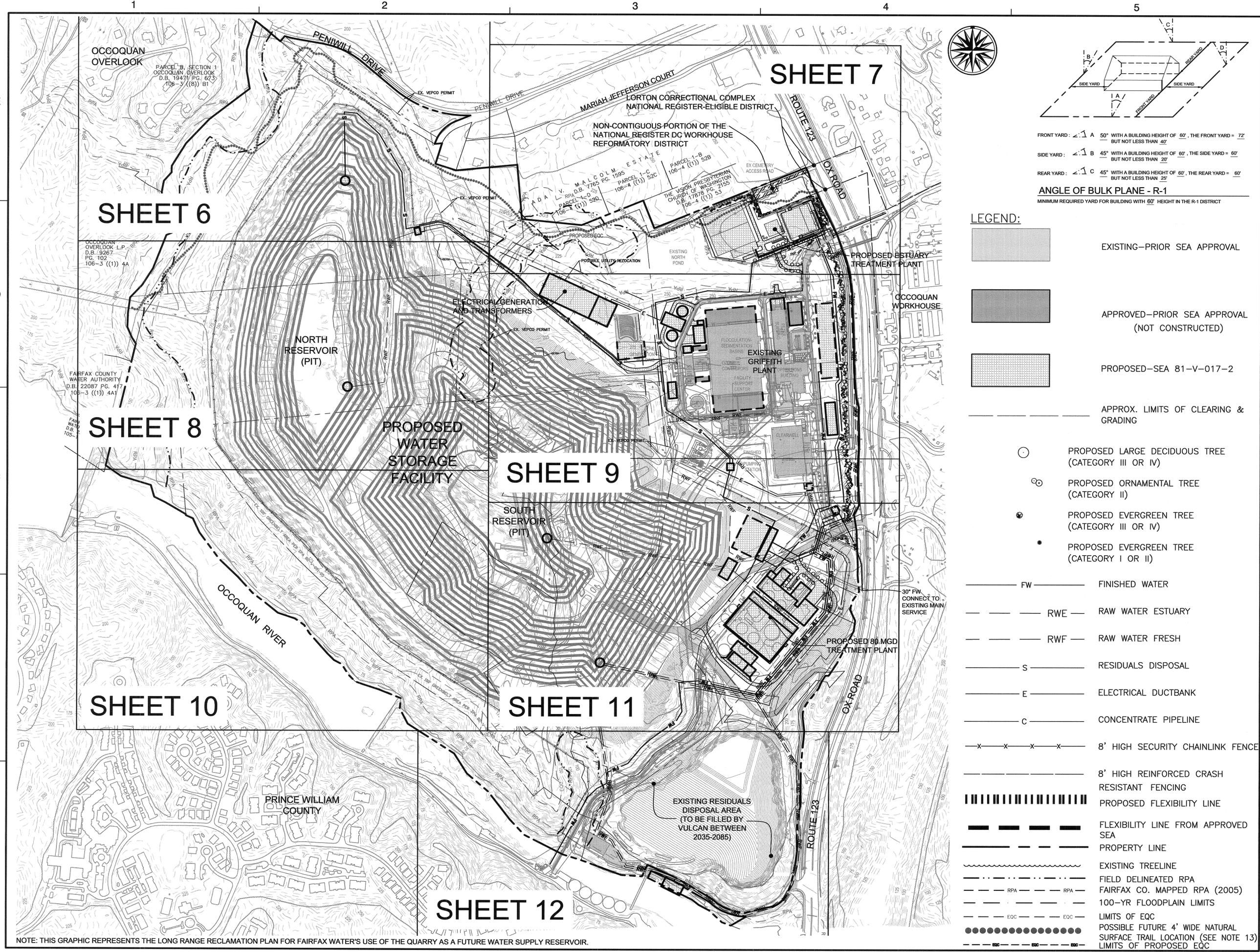
REVISIONS

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TITLE
FAIRFAX WATER
FW Project Number: 2352-002
OVERALL PLAN

PROJECT NO.



SHEET 7

SHEET 6

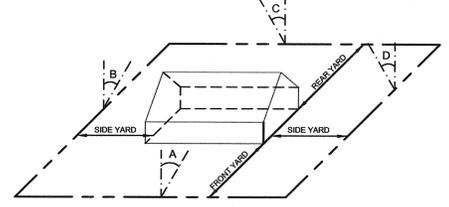
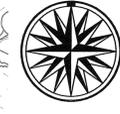
SHEET 8

SHEET 10

SHEET 9

SHEET 11

SHEET 12



FRONT YARD: $\angle 1$ A 50° WITH A BUILDING HEIGHT OF 60', THE FRONT YARD = 72' BUT NOT LESS THAN 40'

SIDE YARD: $\angle 1$ B 45° WITH A BUILDING HEIGHT OF 60', THE SIDE YARD = 60' BUT NOT LESS THAN 20'

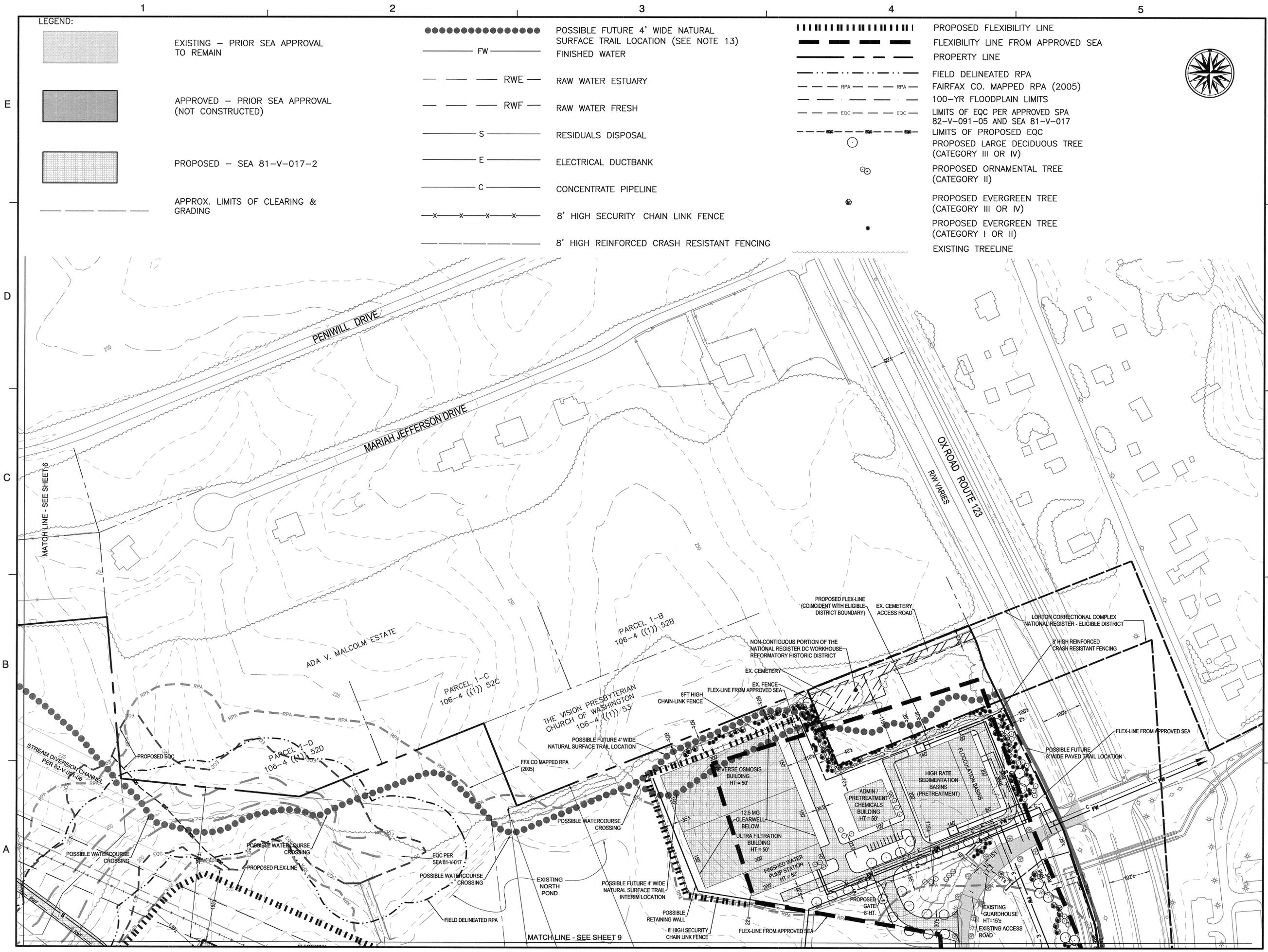
REAR YARD: $\angle 1$ C 45° WITH A BUILDING HEIGHT OF 60', THE REAR YARD = 60' BUT NOT LESS THAN 25'

ANGLE OF BULK PLANE - R-1
MINIMUM REQUIRED YARD FOR BUILDING WITH 60' HEIGHT IN THE R-1 DISTRICT

LEGEND:

- EXISTING-PRIOR SEA APPROVAL
- APPROVED-PRIOR SEA APPROVAL (NOT CONSTRUCTED)
- PROPOSED-SEA 81-V-017-2
- APPROX. LIMITS OF CLEARING & GRADING
- PROPOSED LARGE DECIDUOUS TREE (CATEGORY III OR IV)
- PROPOSED ORNAMENTAL TREE (CATEGORY II)
- PROPOSED EVERGREEN TREE (CATEGORY III OR IV)
- PROPOSED EVERGREEN TREE (CATEGORY I OR II)
- FW FINISHED WATER
- RWE RAW WATER ESTUARY
- RWF RAW WATER FRESH
- S RESIDUALS DISPOSAL
- E ELECTRICAL DUCTBANK
- C CONCENTRATE PIPELINE
- 8' HIGH SECURITY CHAINLINK FENCE
- 8' HIGH REINFORCED CRASH RESISTANT FENCING
- PROPOSED FLEXIBILITY LINE
- FLEXIBILITY LINE FROM APPROVED SEA
- PROPERTY LINE
- EXISTING TREELINE
- FIELD DELINEATED RPA
- FAIRFAX CO. MAPPED RPA (2005)
- 100-YR FLOODPLAIN LIMITS
- LIMITS OF EQC
- POSSIBLE FUTURE 4' WIDE NATURAL SURFACE TRAIL LOCATION (SEE NOTE 13)
- LIMITS OF PROPOSED EQC

NOTE: THIS GRAPHIC REPRESENTS THE LONG RANGE RECLAMATION PLAN FOR FAIRFAX WATER'S USE OF THE QUARRY AS A FUTURE WATER SUPPLY RESERVOIR.



LEGEND:

- EXISTING - PRIOR SEA APPROVAL TO REMAIN
- APPROVED - PRIOR SEA APPROVAL (NOT CONSTRUCTED)
- PROPOSED - SEA 81-V-017-2
- APPROX. LIMITS OF CLEARING & GRADING

- POSSIBLE FUTURE 4' WIDE NATURAL SURFACE TRAIL LOCATION (SEE NOTE 13)
- FW - FINISHED WATER
- RWE - RAW WATER ESTUARY
- RWF - RAW WATER FRESH
- S - RESIDUALS DISPOSAL
- E - ELECTRICAL DUCTBANK
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- 8' HIGH SECURITY CHAIN LINK FENCE
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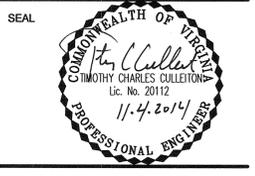
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Dewberry
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 8401 ARLINGTON BLVD.
 FAIRFAX, VA 22031
 PHONE: 703.849.0100
 FAX: 703.849.0518

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KEY PLAN

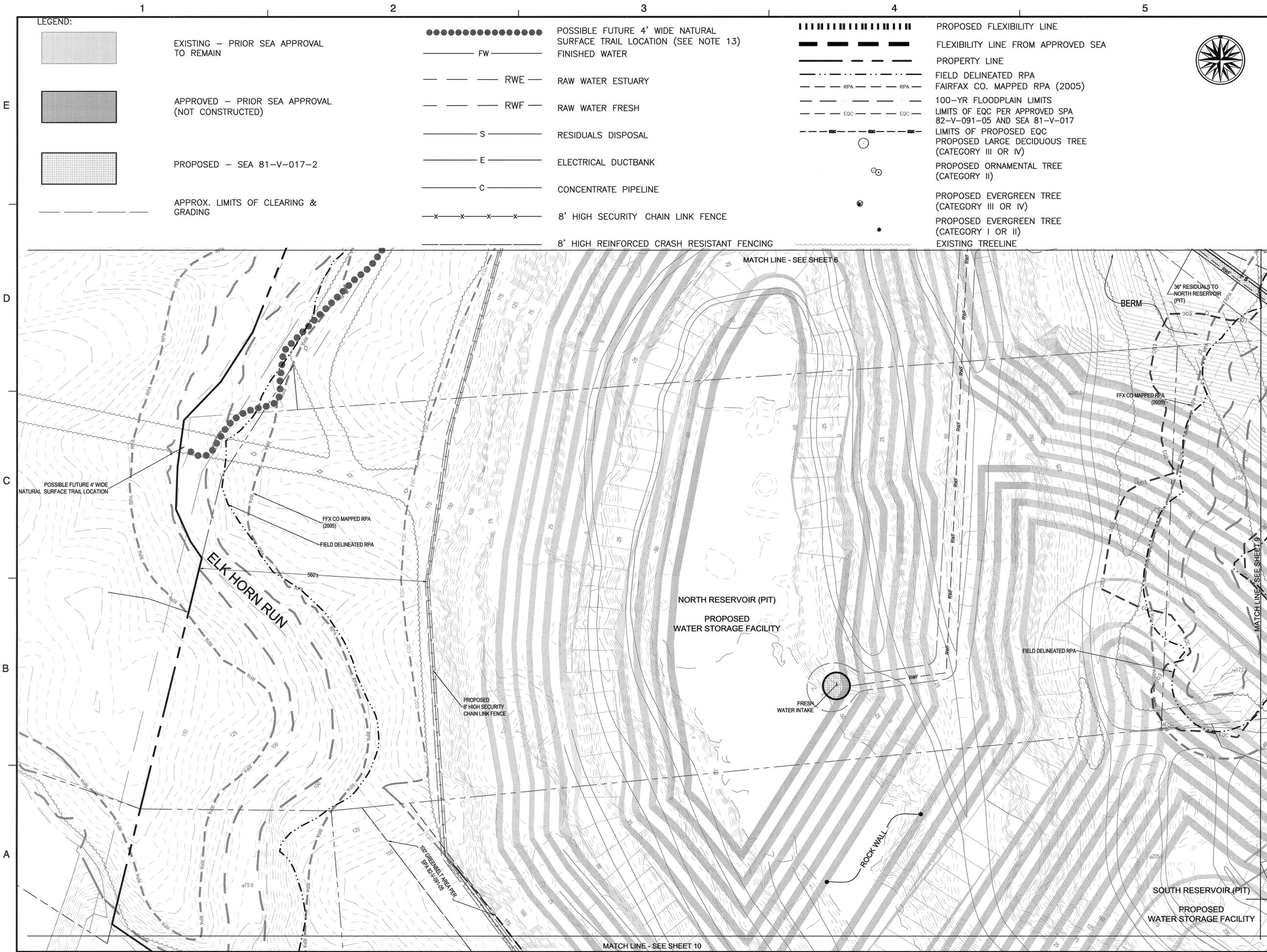
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 0' 100' 200'

No.	DATE	BY	Description
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5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LMN	
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DRAWN BY: JMC
 APPROVED BY: TC
 CHECKED BY: TC
 DATE: July 8, 2013

TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
 Special Exception Amendment
 100' Scale Plan

PROJECT NO.
 SHEET NO. **7** OF 20

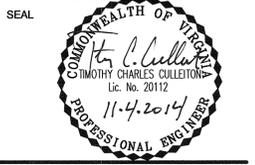


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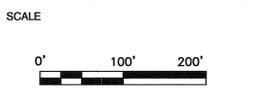
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- PROPOSED EVERGREEN TREE (CATEGORY III OR IV)
- PROPOSED EVERGREEN TREE (CATEGORY I OR II)
- EXISTING TREELINE



KEY PLAN



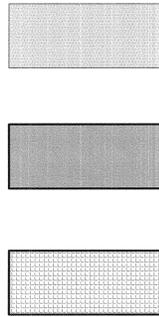
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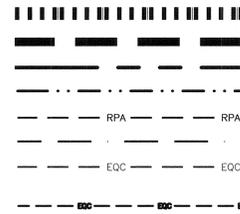
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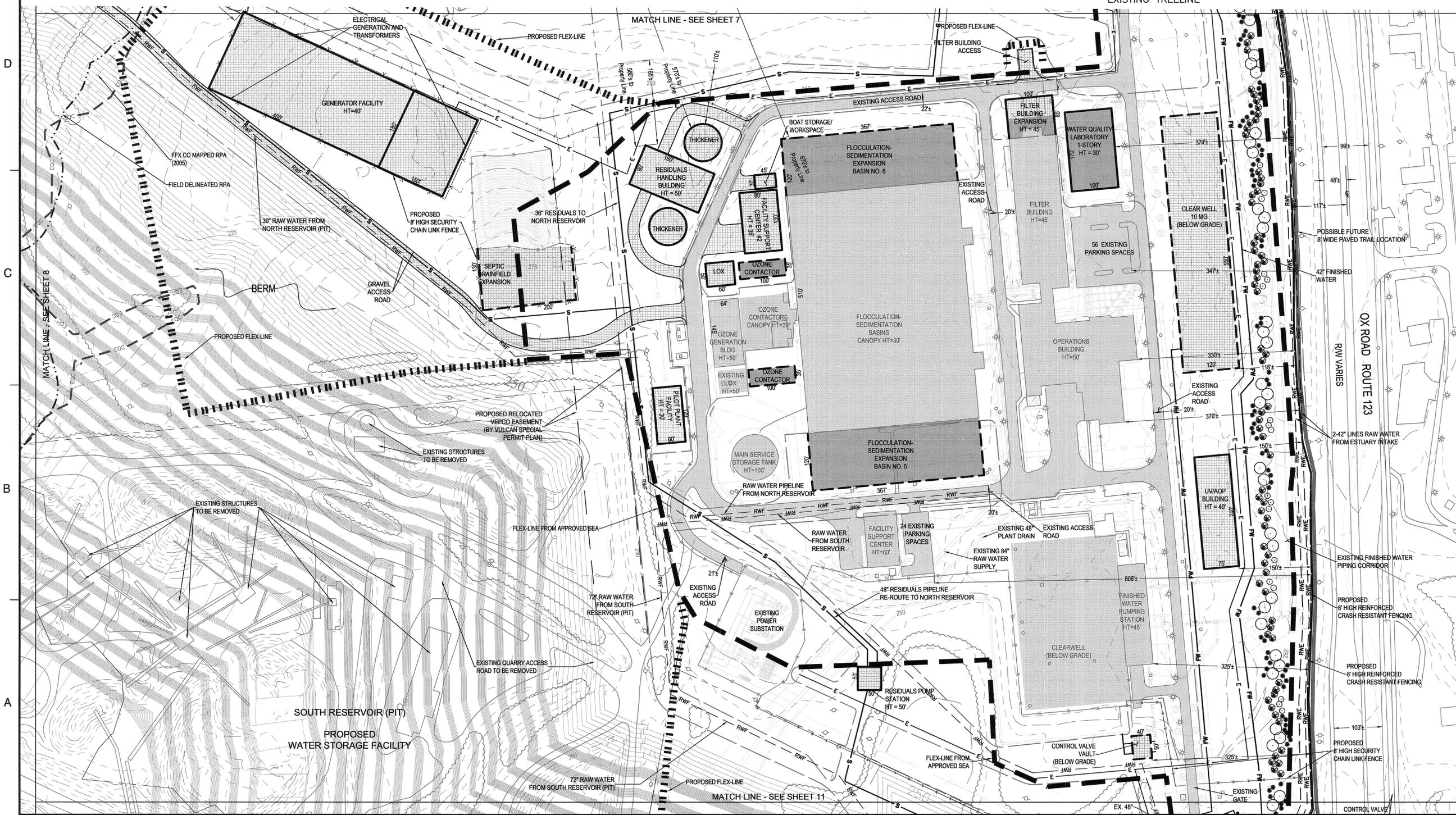
PROPOSED - SEA 81-V-017-2

APPROX. LIMITS OF CLEARING & GRADING

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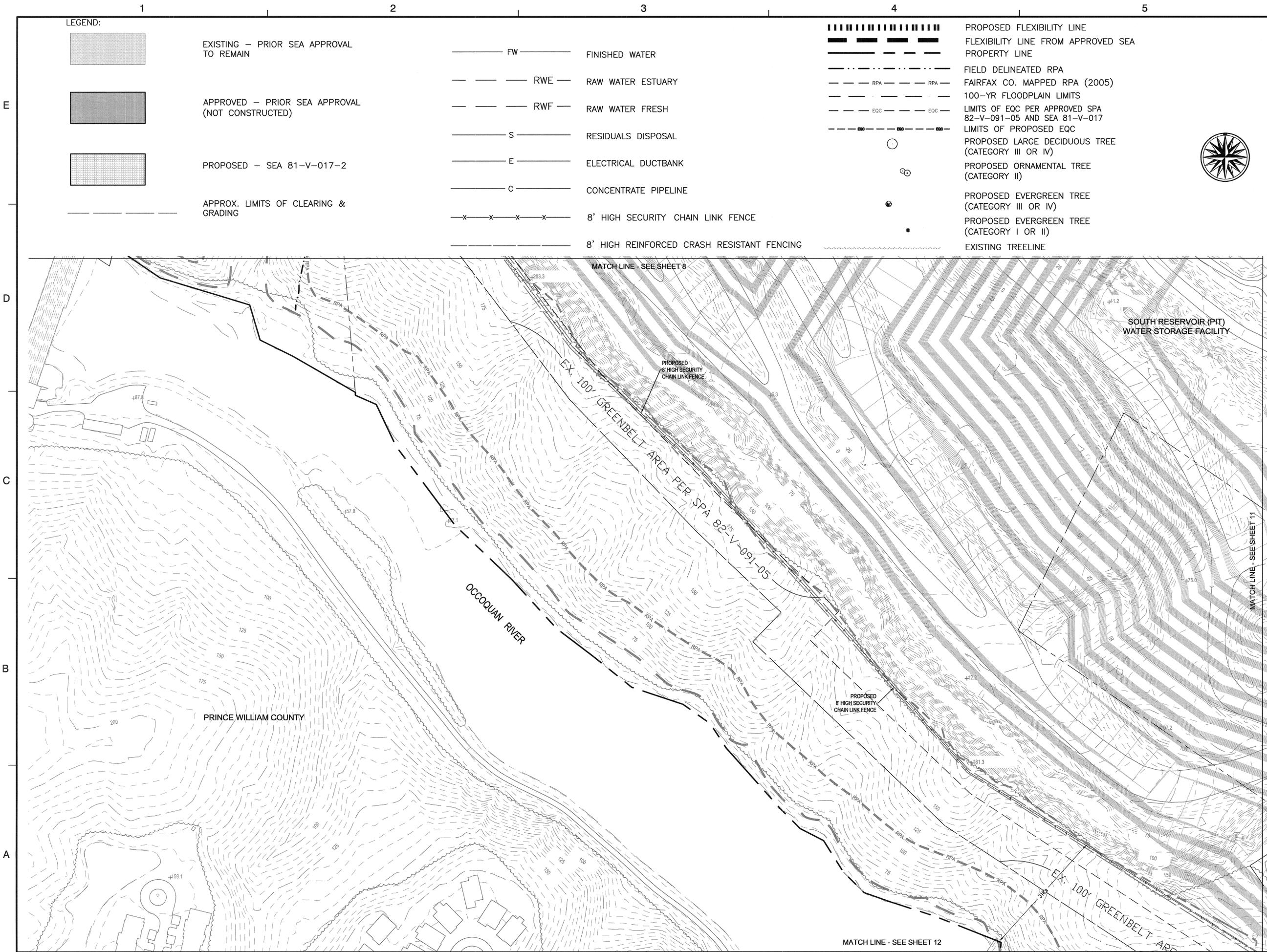
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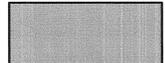
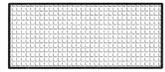
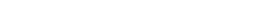
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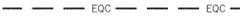
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FAIRFAX WATER
 FW Project Number: 2352-002
 Special Exception Amendment
 100' Scale Plan

PROJECT NO.
 SHEET NO. **9** OF 20
 M-10815



LEGEND:

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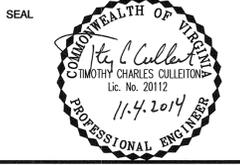
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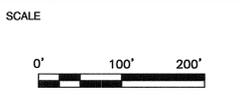
Dewberry
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 Special Exception Amendment
 100' Scale Plan

PROJECT NO.

10

SHEET NO. 10 OF 20

M-10815

1

2

3

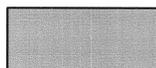
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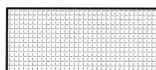
LEGEND:



EXISTING - PRIOR SEA APPROVAL TO REMAIN



APPROVED - PRIOR SEA APPROVAL (NOT CONSTRUCTED)



PROPOSED - SEA 81-V-017-2



APPROX. LIMITS OF CLEARING & GRADING

FW FINISHED WATER

FINISHED WATER

RWE RAW WATER ESTUARY

RAW WATER ESTUARY

RWF RAW WATER FRESH

RAW WATER FRESH

S RESIDUALS DISPOSAL

RESIDUALS DISPOSAL

E ELECTRICAL DUCTBANK

ELECTRICAL DUCTBANK

C CONCENTRATE PIPELINE

CONCENTRATE PIPELINE

X-X-X-X 8' HIGH SECURITY CHAIN LINK FENCE

8' HIGH SECURITY CHAIN LINK FENCE

8' HIGH REINFORCED CRASH RESISTANT FENCING

8' HIGH REINFORCED CRASH RESISTANT FENCING



PROPOSED FLEXIBILITY LINE



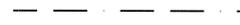
FLEXIBILITY LINE FROM APPROVED SEA



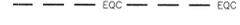
PROPERTY LINE



FIELD DELINEATED RPA



FAIRFAX CO. MAPPED RPA (2005)



100-YR FLOODPLAIN LIMITS



LIMITS OF EQC PER APPROVED SPA



LIMITS OF PROPOSED EQC



PROPOSED LARGE DECIDUOUS TREE (CATEGORY III OR IV)



PROPOSED ORNAMENTAL TREE (CATEGORY II)



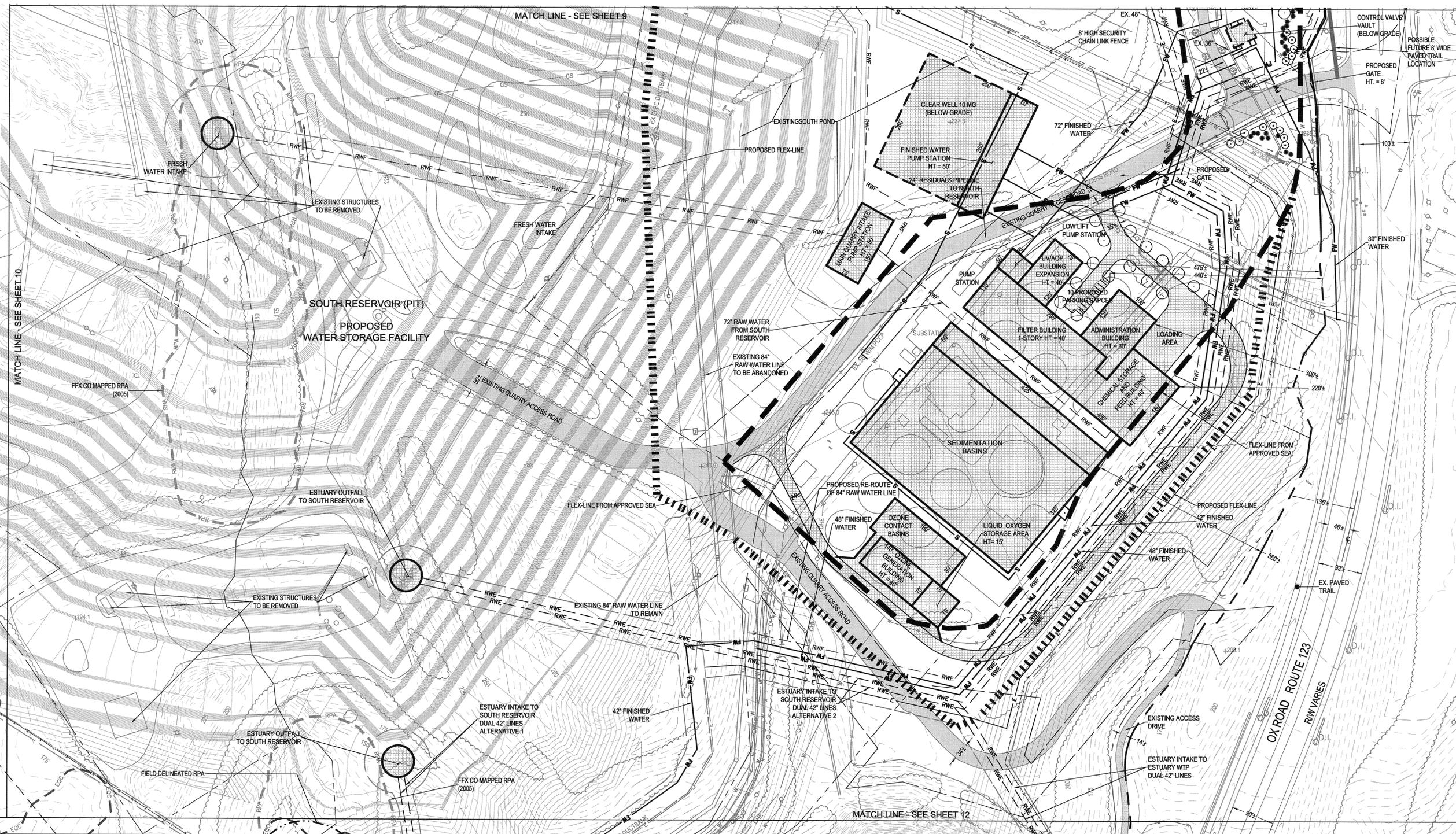
PROPOSED EVERGREEN TREE (CATEGORY III OR IV)



PROPOSED EVERGREEN TREE (CATEGORY I OR II)



EXISTING TREELINE



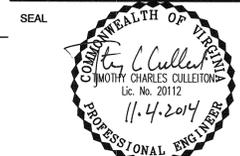
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518



FAIRFAX WATER

Special Exception Amendment Plat

MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNW	
1	2/28/14	TCC	

DRAWN BY JMC
 APPROVED BY TC
 CHECKED BY TC
 DATE July 8, 2013

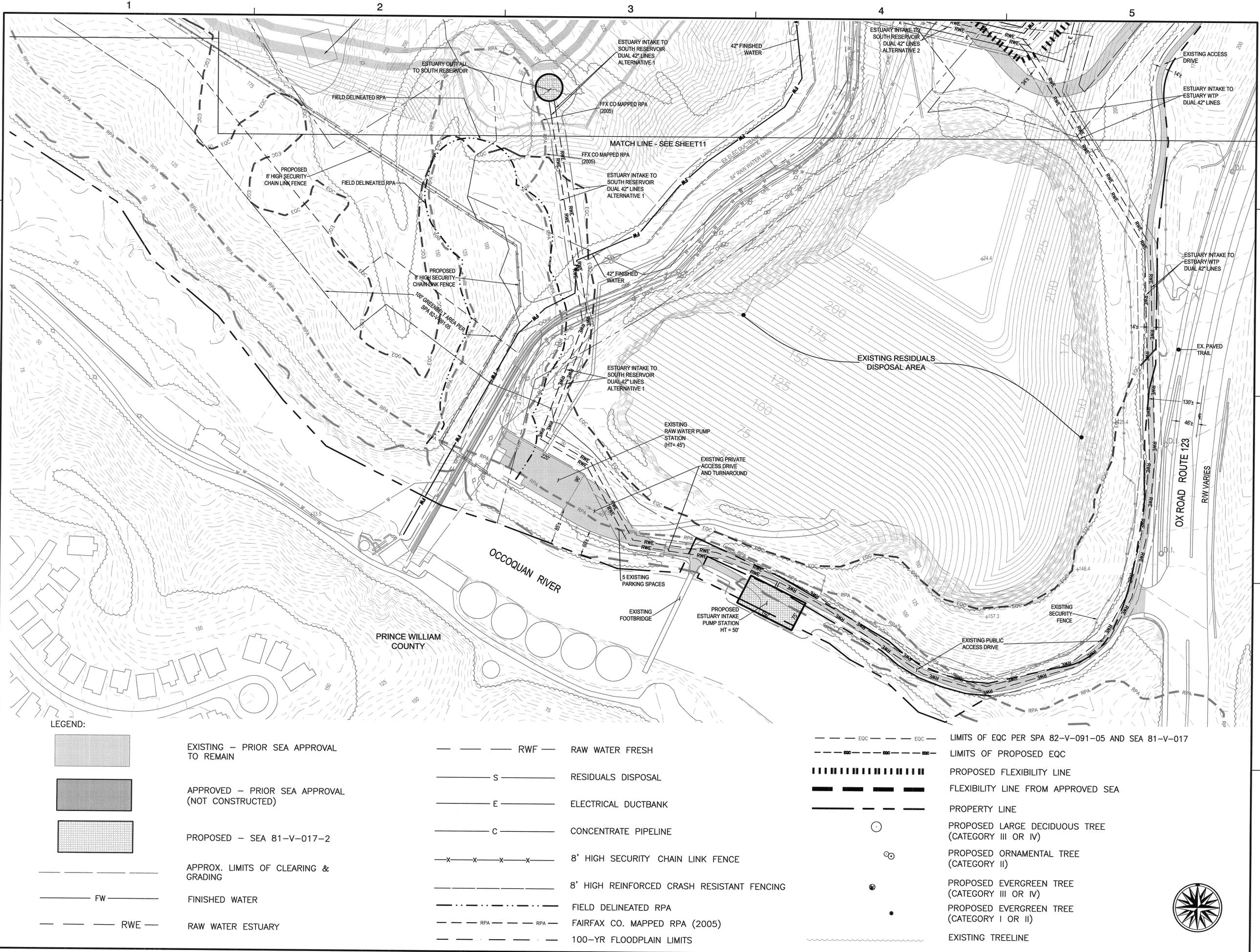
TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
 Special Exception Amendment
 100' Scale Plan

PROJECT NO.

11

SHEET NO. 11 of 20

M-10815



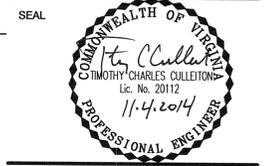
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- | | | | | | |
|--|---|--|---|--|--|
| | EXISTING - PRIOR SEA APPROVAL TO REMAIN | | RWF - RAW WATER FRESH | | LIMITS OF EQC PER SPA 82-V-091-05 AND SEA 81-V-017 |
| | APPROVED - PRIOR SEA APPROVAL (NOT CONSTRUCTED) | | S - RESIDUALS DISPOSAL | | LIMITS OF PROPOSED EQC |
| | PROPOSED - SEA 81-V-017-2 | | E - ELECTRICAL DUCTBANK | | PROPOSED FLEXIBILITY LINE |
| | APPROX. LIMITS OF CLEARING & GRADING | | C - CONCENTRATE PIPELINE | | FLEXIBILITY LINE FROM APPROVED SEA |
| | FW - FINISHED WATER | | X-X-X-X - 8' HIGH SECURITY CHAIN LINK FENCE | | PROPERTY LINE |
| | RWE - RAW WATER ESTUARY | | | | PROPOSED LARGE DECIDUOUS TREE (CATEGORY III OR IV) |
| | | | | | PROPOSED ORNAMENTAL TREE (CATEGORY II) |
| | | | | | PROPOSED EVERGREEN TREE (CATEGORY III OR IV) |
| | | | | | PROPOSED EVERGREEN TREE (CATEGORY I OR II) |
| | | | | | EXISTING TREELINE |

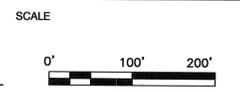
Dewberry
 Dewberry Consultants LLC
 8401 ARLINGTON BLVD.
 FAIRFAX, VA 22031
 PHONE: 703.849.0100
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FAIRFAX WATER
 Special Exception Amendment Plat
 MOUNT VERNON DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNH	
1	2/28/14	TCC	

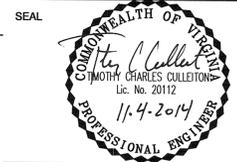
REVISIONS
 DRAWN BY JMC
 APPROVED BY TC
 CHECKED BY TC
 DATE July 8, 2013

TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
 Special Exception Amendment
 100' Scale Plan

PROJECT NO.

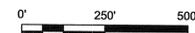


12



KEY PLAN

SCALE



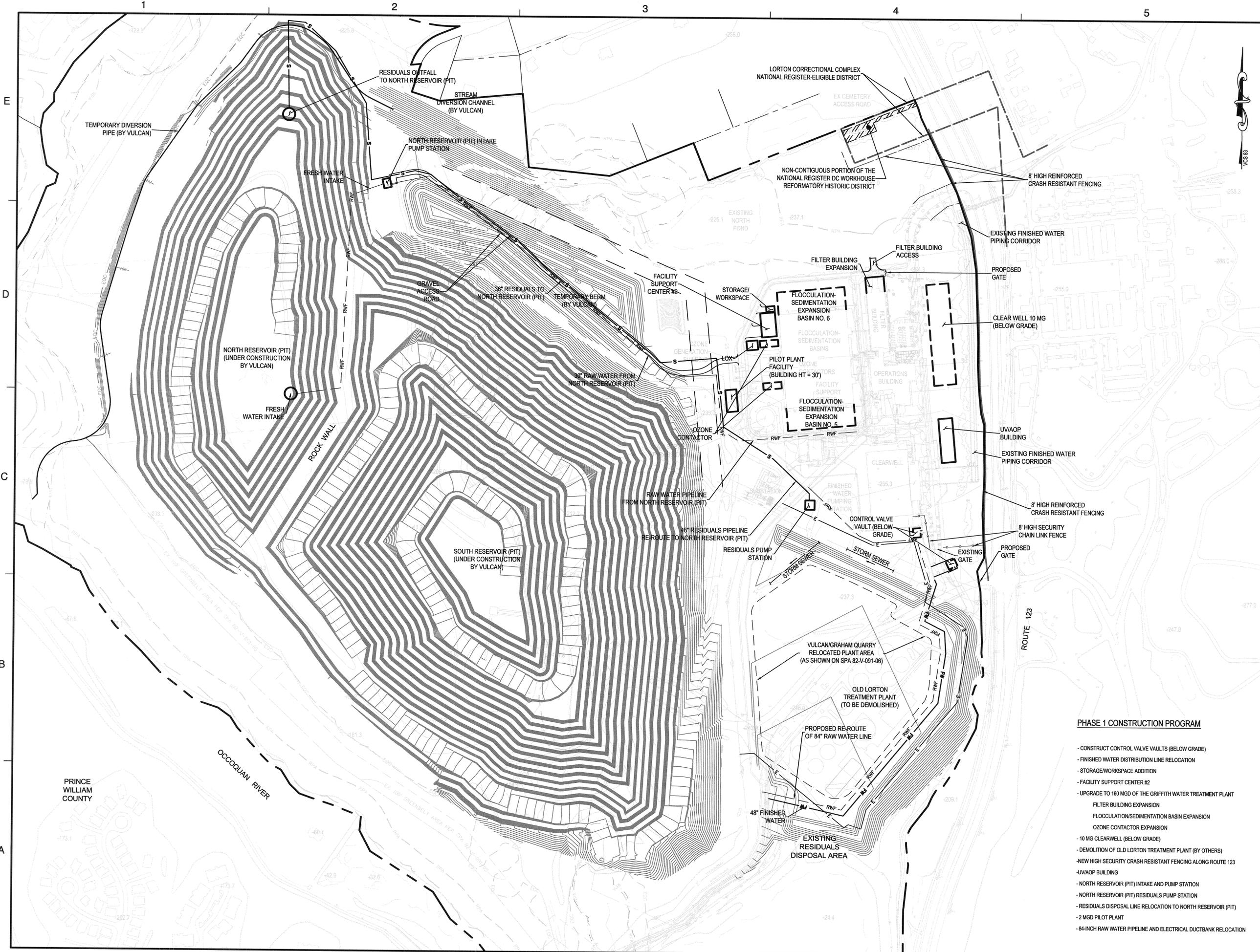
No.	DATE	BY	Description
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5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNM	
1	2/28/14	TCC	

REVISIONS

DRAWN BY JMC
 APPROVED BY TC
 CHECKED BY TC
 DATE July 8, 2013

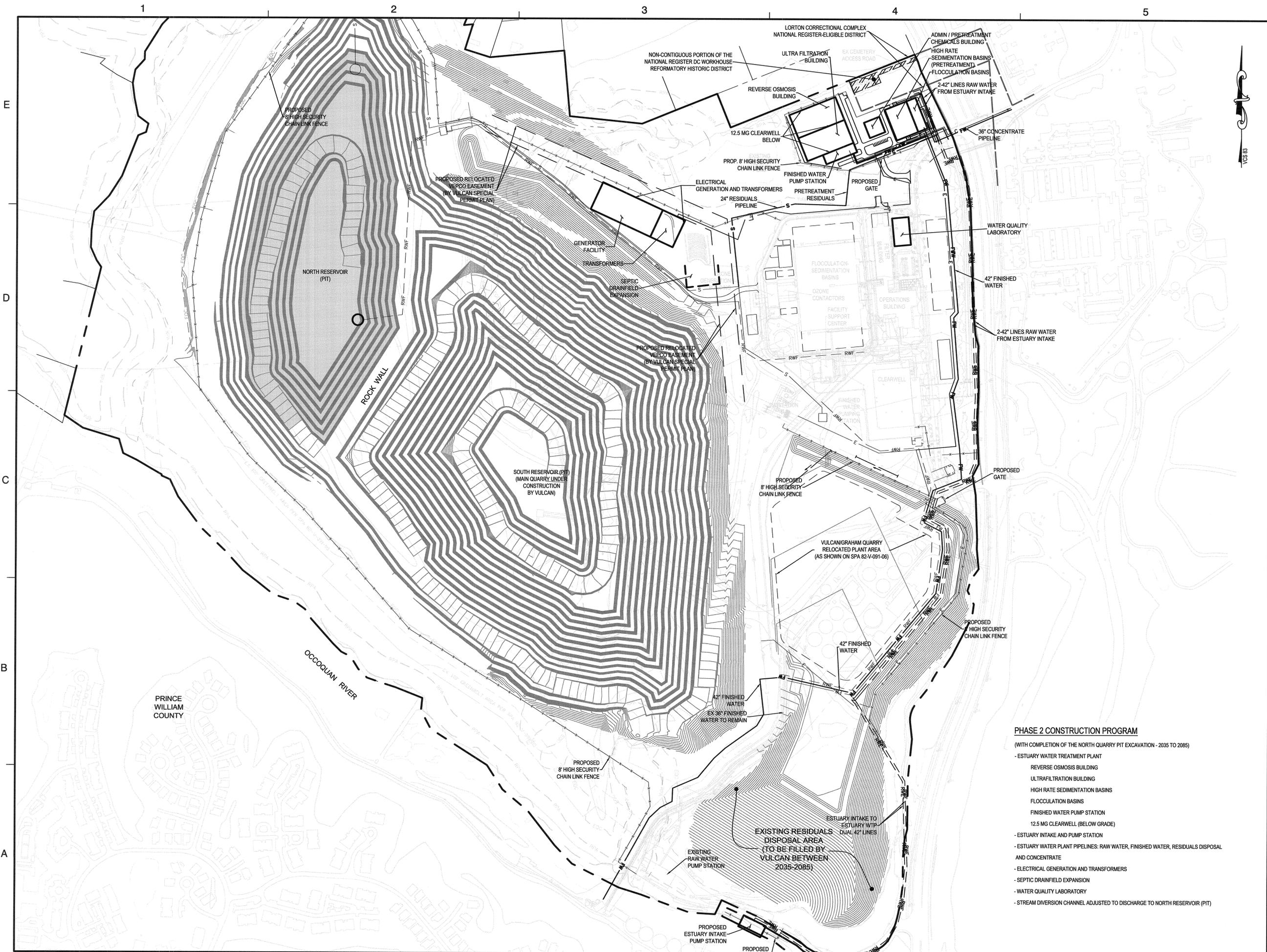
TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
 PHASING PLAN
 PHASE 1

PROJECT NO.

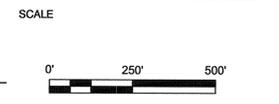


PHASE 1 CONSTRUCTION PROGRAM

- CONSTRUCT CONTROL VALVE VAULTS (BELOW GRADE)
- FINISHED WATER DISTRIBUTION LINE RELOCATION
- STORAGE/WORKSPACE ADDITION
- FACILITY SUPPORT CENTER #2
- UPGRADE TO 160 MGD OF THE GRIFFITH WATER TREATMENT PLANT
- FILTER BUILDING EXPANSION
- FLOCCULATION/SEDIMENTATION BASIN EXPANSION
- OZONE CONTACTOR EXPANSION
- 10 MG CLEARWELL (BELOW GRADE)
- DEMOLITION OF OLD LORTON TREATMENT PLANT (BY OTHERS)
- NEW HIGH SECURITY CRASH RESISTANT FENCING ALONG ROUTE 123
- JVA/OP BUILDING
- NORTH RESERVOIR (PIT) INTAKE AND PUMP STATION
- NORTH RESERVOIR (PIT) RESIDUALS PUMP STATION
- RESIDUALS DISPOSAL LINE RELOCATION TO NORTH RESERVOIR (PIT)
- 2 MGD PILOT PLANT
- 84-INCH RAW WATER PIPELINE AND ELECTRICAL DUCTBANK RELOCATION



KEY PLAN



No.	DATE	BY	Description
6	11/4/14	JMC	
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3	7/25/14	TCC	
2	5/5/14	LNW	
1	2/28/14	TCC	

- PHASE 2 CONSTRUCTION PROGRAM**
 (WITH COMPLETION OF THE NORTH QUARRY PIT EXCAVATION - 2035 TO 2085)
- ESTUARY WATER TREATMENT PLANT
 - REVERSE OSMOSIS BUILDING
 - ULTRAFILTRATION BUILDING
 - HIGH RATE SEDIMENTATION BASINS
 - FLOCCULATION BASINS
 - FINISHED WATER PUMP STATION
 - 12.5 MG CLEARWELL (BELOW GRADE)
 - ESTUARY INTAKE AND PUMP STATION
 - ESTUARY WATER PLANT PIPELINES: RAW WATER, FINISHED WATER, RESIDUALS DISPOSAL AND CONCENTRATE
 - ELECTRICAL GENERATION AND TRANSFORMERS
 - SEPTIC DRAINFIELD EXPANSION
 - WATER QUALITY LABORATORY
 - STREAM DIVERSION CHANNEL ADJUSTED TO DISCHARGE TO NORTH RESERVOIR (PIT)

REVISIONS

DRAWN BY	JMC
APPROVED BY	TC
CHECKED BY	TC
DATE	July 8, 2013

TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
PHASING PLAN
 PHASE 2

PROJECT NO.

1

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3

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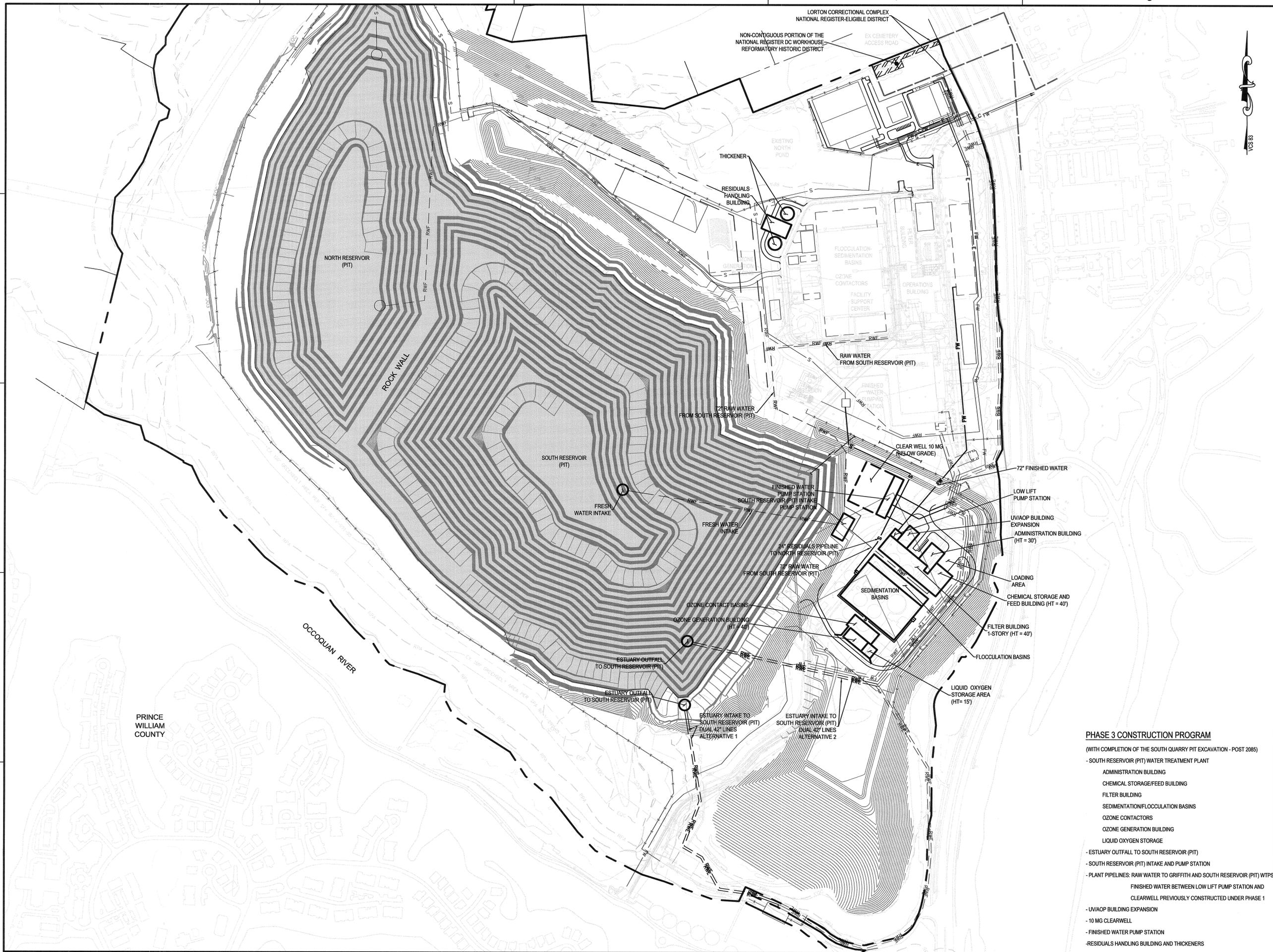
E

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C

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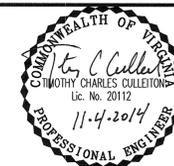


FAIRFAX WATER

Special Exception Amendment Plat

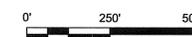
MOUNT VERNON DISTRICT
 FAIRFAX COUNTY, VIRGINIA

SEAL



KEY PLAN

SCALE



No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
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2	5/5/14	LNH	
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REVISIONS

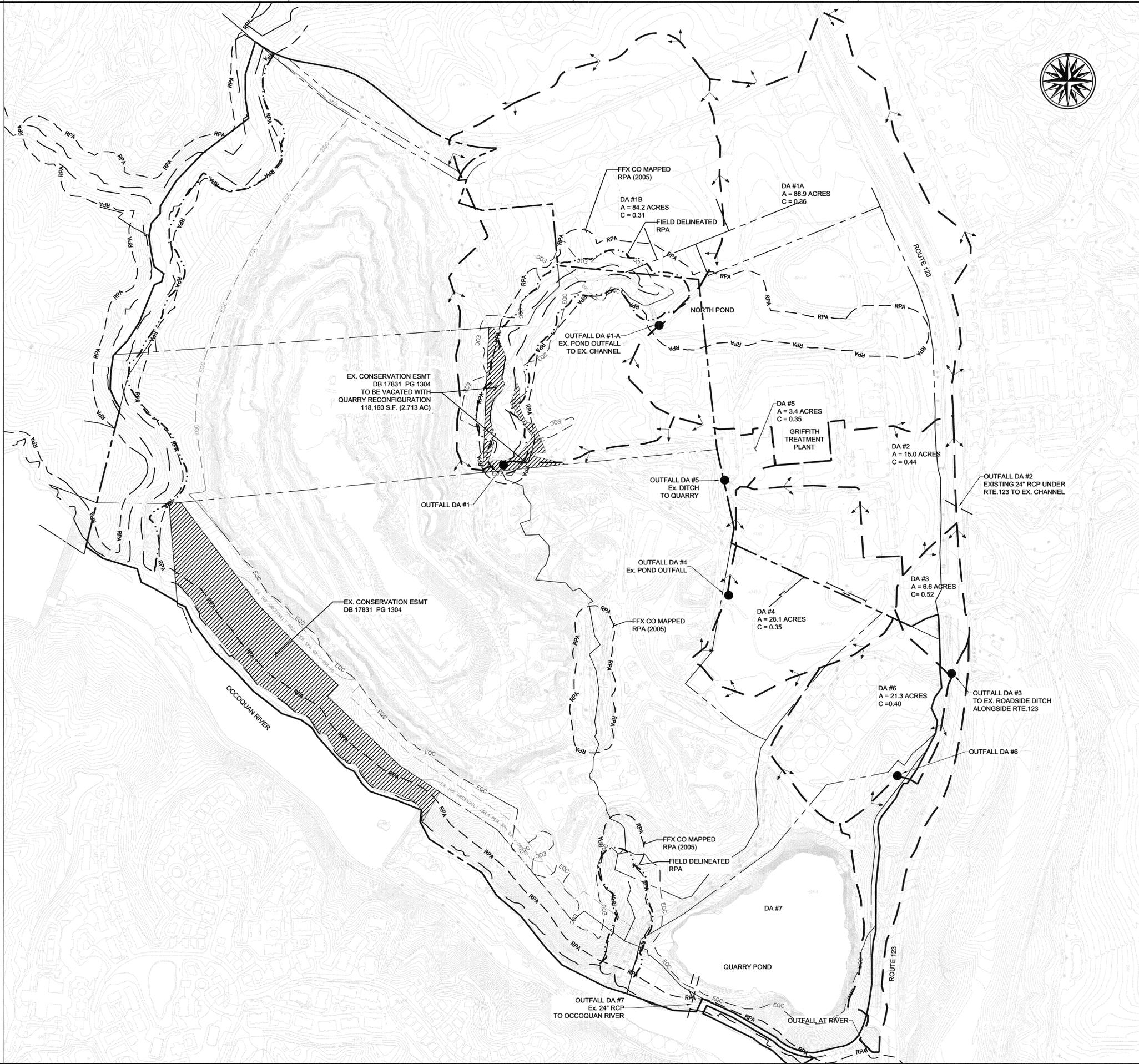
DRAWN BY	JMC
APPROVED BY	TC
CHECKED BY	TC
DATE	July 8, 2013

TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
 PHASING PLAN
 PHASE 3

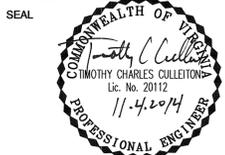
PROJECT NO.

SHEET NO. **15** OF 20

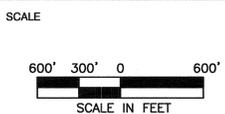
- PHASE 3 CONSTRUCTION PROGRAM**
 (WITH COMPLETION OF THE SOUTH QUARRY PIT EXCAVATION - POST 2085)
- SOUTH RESERVOIR (PIT) WATER TREATMENT PLANT
 - ADMINISTRATION BUILDING
 - CHEMICAL STORAGE/FEED BUILDING
 - FILTER BUILDING
 - SEDIMENTATION/FLOCCULATION BASINS
 - OZONE CONTACTORS
 - OZONE GENERATION BUILDING
 - LIQUID OXYGEN STORAGE
 - ESTUARY OUTFALL TO SOUTH RESERVOIR (PIT)
 - SOUTH RESERVOIR (PIT) INTAKE AND PUMP STATION
 - PLANT PIPELINES: RAW WATER TO GRIFFITH AND SOUTH RESERVOIR (PIT) WTPS
 - FINISHED WATER BETWEEN LOW LIFT PUMP STATION AND CLEARWELL PREVIOUSLY CONSTRUCTED UNDER PHASE 1
 - UVAOP BUILDING EXPANSION
 - 10 MG CLEARWELL
 - FINISHED WATER PUMP STATION
 - RESIDUALS HANDLING BUILDING AND THICKENERS



FAIRFAX WATER
Special Exception Amendment Plat
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA



KEY PLAN



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4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LMN	
1	2/28/14	TCC	

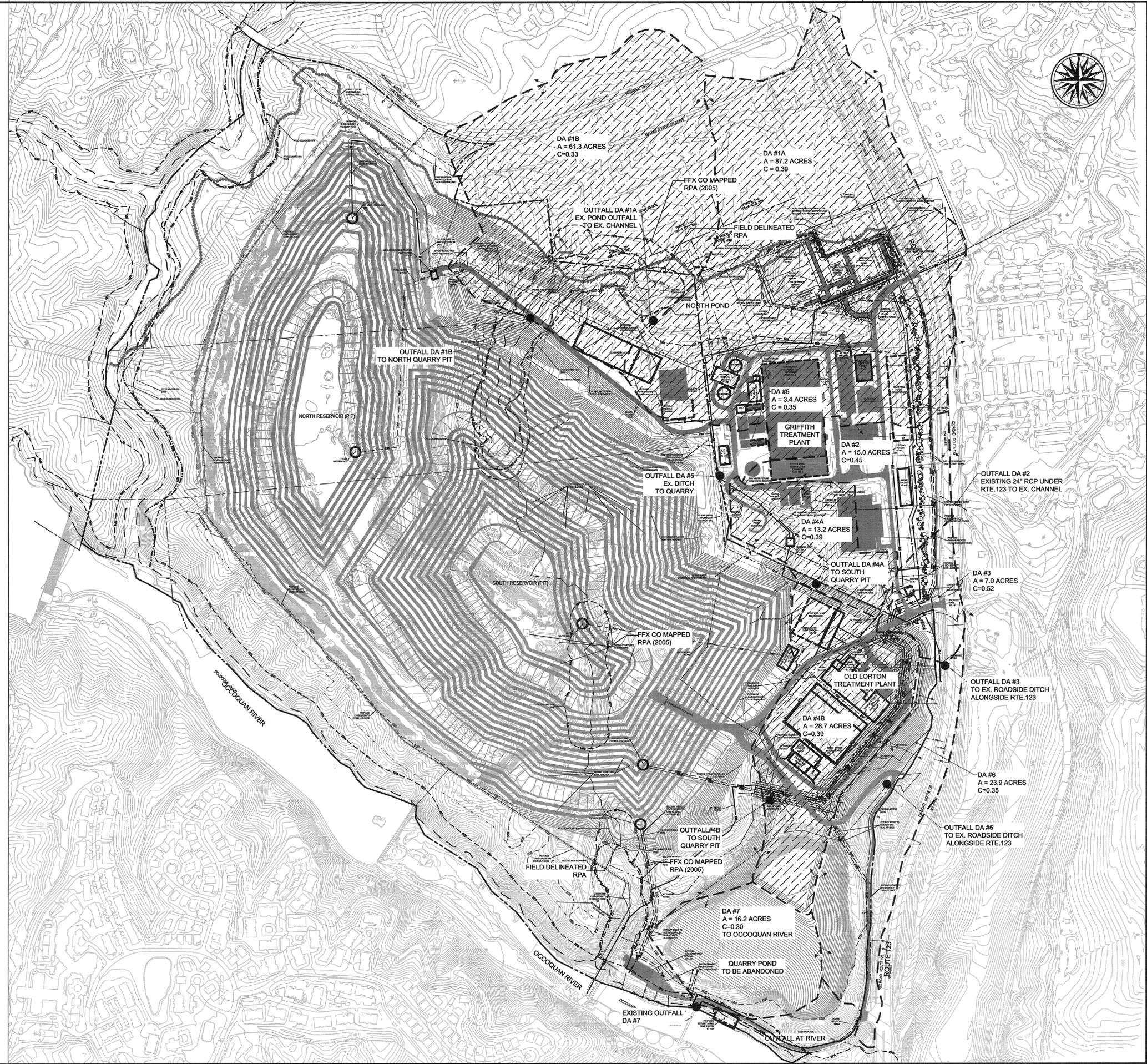
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APPROVED BY TC
CHECKED BY TC
DATE July 8, 2013

TITLE
FAIRFAX WATER
FW Project Number: 2352-002
STORMWATER MANAGEMENT
EXISTING DRAINAGE MAP

PROJECT NO.

E
D
C
B
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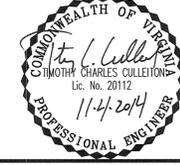
 DRAINAGE SHEDS TO FUTURE NORTH AND SOUTH RESERVOIRS (PITS)



Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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FAIRFAX WATER
Special Exception Amendment Plat
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

TIMOTHY CHARLES CULLETON
Lic. No. 20112
11/4/2014
PROFESSIONAL ENGINEER

KEY PLAN
SCALE
600' 300' 0 600'
SCALE IN FEET

No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNM	
1	2/28/14	TCC	

REVISIONS
DRAWN BY JMC
APPROVED BY TC
CHECKED BY TC
DATE July 8, 2013

TITLE
FAIRFAX WATER
FW Project Number: 2352-002
STORMWATER MANAGEMENT
ULTIMATE DRAINAGE MAP

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:
 Special Permits (8-011 2J & 2L) Special Exceptions (9-011 2J & 2L)
 Cluster Subdivision (9-615 1G & 1N) Commercial Revitalization Districts (9-622 2A (12) & (14))
 Development Plans PRC District (16-302 3 & 4L) PRC Plan (16-303 1E & 1O)
 FDP P Districts (except PRC) (16-502 1F & 1Q) Amendments (18-202 10F & 10I)

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
 *Waiver of min. scale is requested.
2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 17.

3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
North Reservoir (Pit)		150			254 Million	**
South Reservoir (Pit)					2.62 Billion	**
Totals	283.25	150	433.25**	3.49 Million	2.87 Billion	

4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 17.
 Pond inlet and outlet pipe systems are shown on Sheet N/A.
5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet N/A.
 Type of maintenance access road surface noted on the plat is N/A (asphalt, geoblock, gravel, etc.).
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet N/A.
7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 18.
8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 18.
9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 18.
10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 6-12.
11. A submission waiver is requested for Minimum scale of plat and contour interval reflected on this application because N/A.
12. Stormwater management is not required because N/A.

** - Water is impounded below rim of quarry. 14

*** - Reservoir (Pit) storage is supported by pumping into the reservoir from the existing Occoquan Reservoir

Stormwater Narratives

Existing Conditions

Approximately half of the storm water runoff from the property currently owned by Fairfax Water outfalls to the existing Vulcan quarry mining operation and the other half drains to the Occoquan River via existing storm sewers, ditches, and channels along Route 123. All stormwater runoff that outfalls toward the existing quarry is intercepted by a manmade conveyance and conveyed past the quarry to the Occoquan River. Existing conditions around the property, exterior to the quarry pit, are described as follows:

- North (Drainage Area # 1): Stormwater runoff from the northern portions of the existing Griffith Water Treatment Plant and contributing offsite areas to the north drain to the "North Pond" located on Fairfax Water plant property; the north pond stormwater outfalls into an existing stream channel that directs the stormwater into the Vulcan quarry.
- West (Drainage Area # 4A): The southwestern portions of the existing Griffith Water Treatment Plant drains to the "South Pond" which outfalls in a 24" storm sewer into the Vulcan quarry.
- South (Drainage Area # 4B): The area of the idle Lorton Water Treatment plant drains through a series storm sewer pipes, ditches, and cross culverts along Route 123 leading to the Occoquan River.
- East (Drainage Area # 2&3): The eastern drainage sheds drain under Route 123 via an existing culvert to an existing channel leading to Bartlett's Spring Branch.

Proposed Conditions

Ultimate development of the Fairfax Water property will occur in three primary phases that coincide with the Vulcan mining operation. The development of the property will allow Fairfax Water to meet the future demands of their water service area well into the future. The phasing plans (Sheets 13-15) included with this application, generally outline the anticipated phases of site development for the Fairfax Water property.

Stormwater Management

Phase I

During Phase I, Fairfax Water intends to expand the existing Griffith Water Treatment Plant. The plant expansion will occur concurrently with the Vulcan Quarry operations as described with SPA-82-V-091-06. As part of these operations, Vulcan will construct a temporary berm, diversion channel, and temporary pipe diversion on the northern portion of the quarry limits to facilitate continued mining operations. The diversion will create an adequate stormwater path for the northern drainage sheds of the Fairfax Water property to the Occoquan River, west of the Vulcan property. The temporary berm to be constructed by Vulcan will require removal of a conservation easement recorded with construction of the Griffith Water Treatment Plant to address the water quality requirements (BMP's) with plant construction. To offset the loss of open space by the easement removal, additional mitigation will be provided with the recordation of additional conservation easement along the Occoquan River to ensure water quality will be maintained.

The expansion of the plant will have minor impacts to existing imperviousness during Phase I. Water quality requirements (BMP's) can continue to be addressed with the dedication of onsite, undisturbed open space. The most significant improvements during Phase I of development (the expansion of the sedimentation/flocculation basins and underground clearwell construction) will have no impact to the site runoff. The quantity of stormwater runoff is not anticipated to increase and as a result, stormwater detention is not required.

Phase II (with completion of the North Reservoir (Pit) Excavation, 2035 to 2085)

Phase II of site development is not anticipated to begin until Vulcan completes mining operations for the North Reservoir (Pit). The North Reservoir (Pit) will be separated by a rock wall from the South Reservoir (Pit) to facilitate two separate reservoirs (Pits) to supplement the water supply to the treatment plant. With completion of the North Reservoir (Pit), the temporary pipe diversion along the north portion of the quarry limits will be removed. The stream flow will be directed to the North Reservoir (Pit).

All Phase II development on the Fairfax Water property, except for the Estuary Intake and Pump Station along the Occoquan River, will occur within the North drainage area of the Fairfax Water property and stormwater runoff for this area will be directed to the North Reservoir (Pit). The only outfall for the North Reservoir (Pit) will be the North Reservoir (Pit) and Pump Station, directing water from the pit into the treatment process. As such, the North Reservoir (Pit) addresses the stormwater quantity and quality requirements associated with Phase II site development.

Phase III (with completion of the South Reservoir (Pit) Excavation, Post 2085)

Phase III of site development is not anticipated to begin until Vulcan completes mining operations for the South (or Main) Reservoir (Pit). All stormwater runoff from site improvements associated with Phase III will be directed to either the North or South Reservoirs (Pits) where these reservoirs (Pits) will store the water to supplement the supply to the treatment facilities from the Occoquan River. As such, the stormwater quantity and quality requirements associated with Phase III of site development are met.

Outfall Adequacy

Outfall #1: The Occoquan River/ Quarry Outfall

During the Phase I of the Griffith WTP improvement, The Occoquan River will be utilized as the outfall of the northern drainage sheds via a temporary pipe diversion constructed by Vulcan to the west of the Fairfax Water property. The Occoquan River is an adequate outfall for site water from the temporary pipe diversion. From Phase II and beyond, the temporary pipe diversion will be removed and drainage of the northern and western portions of the Fairfax Water property, as well as offsite drainage, will be conveyed to the North Reservoir (Pit) by the permanent diversion channel; the water that reaches the reservoir (pit) will be stored to supplement the treatment plant's water supply from the Occoquan River.

Outfall 2: Bartlett's Spring Branch

An existing roadway culvert under Route 123 conveys stormwater from drainage area #2 (DA #2) into an established drainage swale that extends approximately 700' downstream of the pipe outlet before it enters a larger defined channel - Bartlett's Spring Branch. Ultimately, this channel discharges directly into the Occoquan River after passing through a large roadway culvert and being routed through an existing detention pond. The channel extends roughly 4000 feet below the drainage swale before entering the Occoquan River floodplain. It serves a substantially larger offsite area along the way. The peak flow to this outfall is not anticipated to change with the proposed development, and it is the opinion of the Engineer that Outfall 2 is an adequate outfall.

Outfall 3: Route 123 Roadside ditch

The outfall for drainage area #3 (DA #3) is an existing concrete lined ditch along Route 123. The ditch is trapezoidal having an average depth of 1 foot. Side-slopes of the ditch are 3:1 adjacent to the shoulder of the road and 3:1 adjacent to the site. The ditch slope varies from 2% to 5% slope. The ditch joins to a larger ditch on an improved section of Route 123 and then transitions through a series of storm sewer pipes, ditches, and cross culverts before discharging into the Occoquan River. The proposed development will not change the peak flow to this outfall, and it is the opinion of the Engineer that the Outfall 3 is an adequate outfall.

Outfall 4: "South Pond" Outfall

South of the existing Frederick P. Griffith Water Treatment Plant is the existing "South Pond". Improvements to this pond, formalizing its outfall and directing this flow into the active quarry were completed with construction of the Water Treatment Plant. The continued mining operation by Vulcan requires a large part of this pond to be filled to allow continued mining, processing, and to construct a landscape berm to screen mining operations from property to the north. The northern portion of the "South Pond" will be maintained to collect surface drainage that presently enters the pond.

The existing drainage area #4 to the "South Pond" is 28 acres; modification of the grades on the southern portion of the pond and its contributing drainage area will reduce the drainage area to "South Pond" to 13 acres (see ultimate drainage map DA #4A). The outfall for the portion of the "South Pond" to remain will be directed to the quarry and ultimately to the South Reservoir (Pit). It is the opinion of the Engineer that Outfall 4 will remain an adequate outfall.

Outfall 5:

DA #5 is on the western edge of the existing Griffith Water Treatment Plant, located adjacent to the northeast corner of the quarry. It is a very small area, accounting for only 3.4 acres of the total site area. This area outfalls to the quarry by way of a 15" pipe culvert. The drainage is not impacted within DA #5 with the proposed development. It is the opinion of the Engineer that Outfall 5 is an adequate outfall.

Outfall 6: Route 123 Roadside Ditch

The existing drainage area #6 currently outfalls to an existing ditch that continues through series of storm sewer to join the Drainage Area #3 outfall adjacent to Route 123. In the ultimate condition, drainage area #6 will be surrounded by berm on the northern, eastern, and southern sides constructed by Vulcan and the stormwater will be directed to the south quarry pit.

A large portion of the drainage area (Identified as DA #4B on the ultimate drainage map) to this outfall will be diverted to the South Reservoir (Pit). It is the opinion of the Engineer that Outfall 6 will remain an adequate outfall.

Outfall 7: Existing Quarry Pond Outfall

The pond is an old quarry that has filled with water. It is currently utilized by Fairfax Water as a decant settling basin for the Griffith Water Treatment Plant. It is estimated that approximately 50 cfs discharges from the plant during normal operating procedures. The pit has been utilized by Fairfax Water for many years; it was utilized by the idle Lorton Treatment Plant prior to construction of the Griffith Plant. The site improvements associated with the Griffith Plant upgraded the outfall for the existing quarry pit to a 24" reinforced concrete pipe with a submerged intake to minimize/avoid clogging with debris. This pipe discharges into the Occoquan River, traveling over approximately 50 feet of Class III rip-rap before entering the river.

With proposed conditions, this quarry pit outfall will be maintained. As Vulcan's mining operations continue, the following changes to this outfall are anticipated:

- Fairfax Water will redirect plant discharge to the North Reservoir (Pit) (created with quarry operations), away from the existing quarry pond upon completion of mining operations in the north pond area.
- The existing quarry pond will be utilized as a disposal area for over-burden from mining operations
- Stormwater runoff from the filling of this existing pond with overburden materials from the mining operations will be directed to the existing outfall.

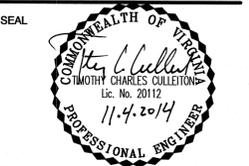
With these changes, the outfall pipe from the existing quarry pond will be maintained and upsized if necessary, to maintain outfall adequacy to the Occoquan River. The Occoquan River is an adequate outfall.



Dewberry Consultants LLC
 8401 ARLINGTON BLVD.
 FAIRFAX, VA 22031
 PHONE: 703.849.0100
 FAX: 703.849.0518



FAIRFAX WATER
 Special Exception Amendment Plat
 MOUNT VERNON DISTRICT
 FAIRFAX COUNTY, VIRGINIA



KEY PLAN

SCALE

No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNM	
1	2/28/14	TCC	

REVISIONS

DRAWN BY JMC
 APPROVED BY TC
 CHECKED BY TC
 DATE July 8, 2013

TITLE
FAIRFAX WATER
 FW Project Number: 2352-002
STORMWATER MANAGEMENT
OUTFALL NARRATIVES

PROJECT NO.



E

D

C

B

A

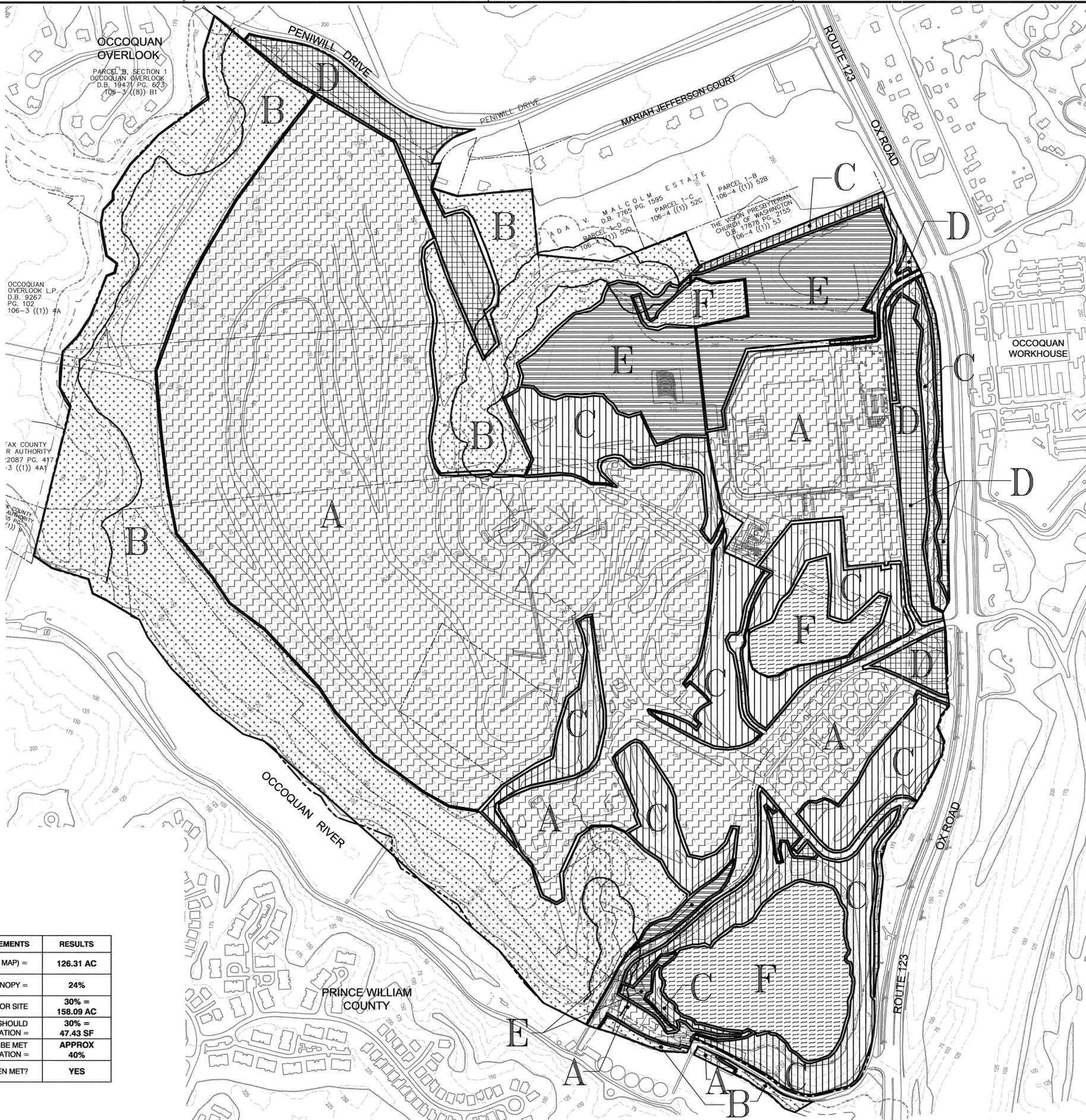
1

2

3

4

5



EXISTING VEGETATION MAP COVER TYPE SUMMARY

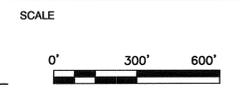
Cover Type	Primary Species	Successional Stage	Condition	Acreage	Comments	
A	DEVELOPED LAND	NA	NA	260.21 AC	QUARRY, PLANT AND ASSOCIATED ROADS	
B	BOTTOMLAND FOREST	TULIP POPLAR, SWEETGUM	CLIMAX	GOOD	123.39 AC	FLOODPLAIN, RPA
C	LANDSCAPED TREE CANOPY	PINE, ORNAMENTAL TREES	SUB-CLIMAX	GOOD	62.54 AC	BUFFERS
D	MAINTAINED GRASSLANDS	NA	NA	NA	21.80 AC	
E	OPEN FIELD	NA	NA	NA	31.82 AC	
F	OTHER (WATER)	NA	NA	NA	27.10 AC	
TOTAL				526.86 AC		

TABLE 12.3 TREE PRESERVATION TARGET CALCULATION

	REQUIREMENTS	RESULTS
A	PRE-DEVELOPMENT AREA OF EXISTING TREE CANOPY (FROM EXISTING VEGETATION MAP) =	126.31 AC
B	PERCENTAGE OF GROSS SITE AREA COVERED BY EXISTING TREE CANOPY =	24%
C	PERCENTAGE OF 10-YEAR TREE CANOPY REQUIRED FOR SITE	30% = 158.09 AC
D	PERCENTAGE OF THE 10-YEAR CANOPY REQUIREMENT THAT SHOULD BE MET THROUGH TREE PRESERVATION =	30% = 47.43 SF
E	PROPOSED PERCENTAGE OF CANOPY REQUIREMENT THAT WILL BE MET THROUGH TREE PRESERVATION =	APPROX 40%
F	HAS THE TREE PRESERVATION TARGET MINIMUM BEEN MET?	YES



KEY PLAN



No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LNH	
1	2/28/14	TCC	

DRAWN BY: JMC
APPROVED BY: TC
CHECKED BY: TC
DATE: July 8, 2013

TITLE
FAIRFAX WATER
FW Project Number: 2352-002
EXISTING VEGETATION MAP

PROJECT NO.



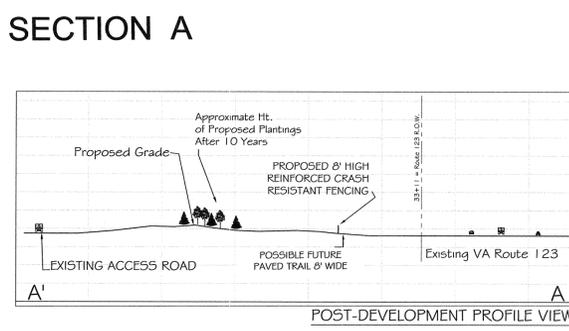
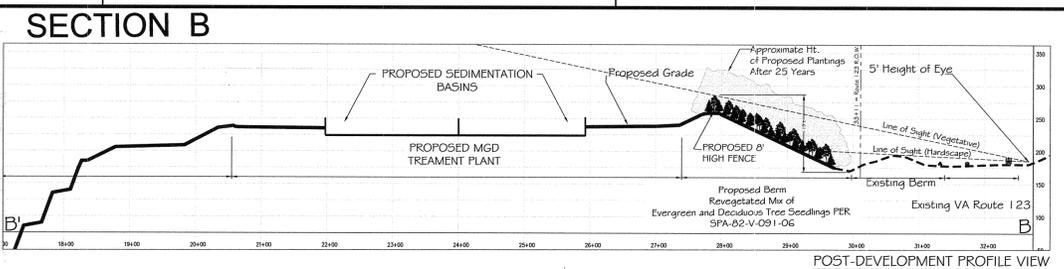
KEY PLAN
SCALE
0' 300' 600'

No.	DATE	BY	Description
6	11/4/14	JMC	
5	10/30/14	TCC	
4	10/3/14	JMC	
3	7/25/14	TCC	
2	5/5/14	LMN	
1	2/28/14	TCC	

REVISIONS
DRAWN BY: JMC
APPROVED BY: TC
CHECKED BY: TC
DATE: July 8, 2013

TITLE
FAIRFAX WATER
FW Project Number: 2352-002
TRANSITIONAL SCREENING AND BARRIER SUMMARY

PROJECT NO.
20
SHEET NO. 20 OF 20
M-10815

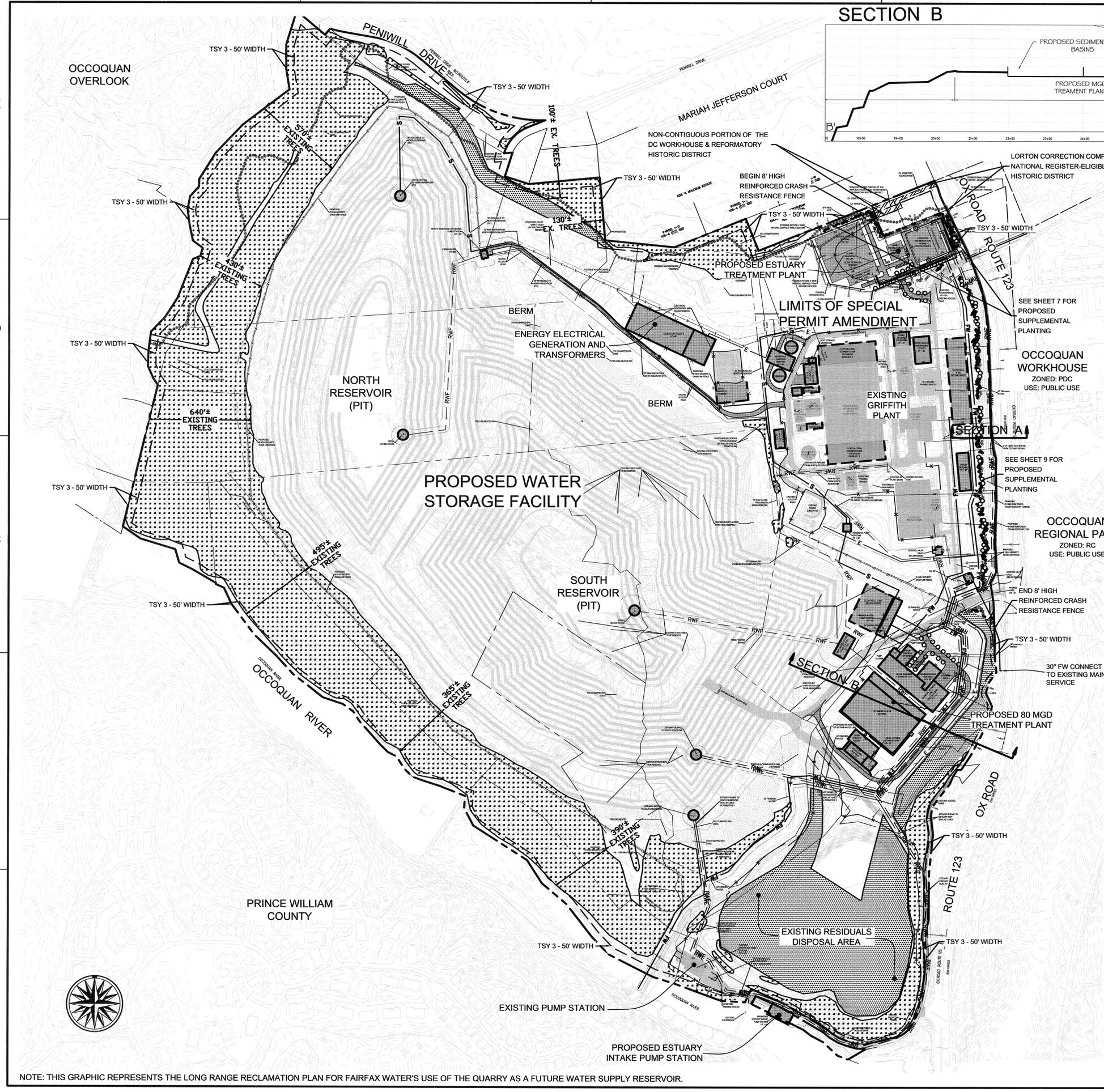


TRANSITIONAL SCREENING AND BARRIER SUMMARY

- A MODIFICATION OF THE TRANSITIONAL SCREENING AND A WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED ALONG THE WESTERN BOUNDARY PURSUANT TO PAR. 3 AND PAR. 12 OF SECT. 13-305 OF THE ZONING ORDINANCE. THE SIGNIFICANT AREAS OF EXISTING VEGETATION RANGING IN WIDTH FROM 300 TO 700 FEET ALONG THE WESTERN BOUNDARY WITHIN THE RPA/EQC ASSOCIATED WITH THE OCCOQUAN RIVER AND ELK HORN RUN WILL REMAIN UNDISTURBED AND WILL PROVIDE A SUBSTANTIAL BUFFER BETWEEN THE PROPOSED USE AND THE OCCOQUAN OVERLOOK SUBDIVISION.
- A REAFFIRMATION, WITH REVISIONS, OF THE MODIFICATION OF THE TRANSITIONAL SCREENING AND WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED ALONG THE NORTHERN PROPERTY LINE WHICH IS PROPOSED TO INCLUDE THE ADDITIONAL LAND AREA OF THE EXISTING VULCAN (GRAHAM) QUARRY PURSUANT TO PAR. 3 AND PAR. 12 OF SECT. 13-305 OF THE ZONING ORDINANCE. SIGNIFICANT AREAS OF EXISTING VEGETATION WILL BE MAINTAINED ALONG A PORTION OF THE NORTHERN PROPERTY LINE ADJACENT TO EXISTING SINGLE FAMILY DETACHED AND/OR VACANT PROPERTIES ZONED R-1 AND WILL BE SUPPLEMENTED WITH REVEGETATION PROPOSED IN CONJUNCTION WITH SPA 82-V-091-6 FOR THE QUARRY. A POSSIBLE FUTURE FOUR (4) FOOT WIDE NATURAL SURFACE TRAIL IS IDENTIFIED ALONG PORTIONS OF THE NORTHERN PROPERTY LINE. A MODIFICATION OF THE WIDTH FOR SOME PORTIONS OF THE TRANSITIONAL SCREENING YARD REQUESTED IN ORDER TO ACCOMMODATE A NATURAL SURFACE TRAIL THAT IS SUSTAINABLE IN THESE AREAS AS SHOWN ON THE SEA PLAT. GIVEN THAT THE POSSIBLE FUTURE NATURAL SURFACE TRAIL IS ONLY 4-FOOT WIDE, THE REQUIRED AMOUNT OF TRANSITIONAL SCREENING PLANTINGS AND/OR REVEGETATION AREAS PROPOSED IN CONJUNCTION WITH SPA 82-V-091-6 OR SEA 81-V-017-2 WILL STILL BE PROVIDED.
- IN ADDITION, GIVEN THAT THE POSSIBLE FUTURE NATURAL SURFACE TRAIL IS ONLY 4-FOOT WIDE AND THAT THE PROPOSED ESTUARY WATER TREATMENT PLANT HAS BEEN DESIGNED TO MITIGATE VISUAL IMPACTS TO THE ADJACENT NATIONAL REGISTER DC WORKHOUSE REFORMATORY HISTORIC DISTRICT AND LORTON CORRECTIONAL COMPLEX NATIONAL REGISTER-ELIGIBLE DISTRICT IN CONSULTATION WITH THE ARCHITECTURAL REVIEW BOARD, A MODIFICATION OF THE WIDTH OF THE TRANSITIONAL SCREENING YARD IS REQUESTED TO ACCOMMODATE THE SEGMENT OF THE TRAIL BETWEEN THE ESTUARY WATER TREATMENT PLANT FACILITY AND THE NORTHERN PROPERTY LINE AS SHOWN ON THE SEA PLAT.
- A WAIVER OF THE BARRIER REQUIREMENT IS REQUESTED IN FAVOR OF THE PROPOSED 8-FOOT HIGH SECURITY CHAIN LINK FENCE TO BE LOCATED AROUND THE PERIMETER OF THE NORTHERN RESERVOIR AND ESTUARY WATER TREATMENT PLANT.
- A REAFFIRMATION OF BOTH THE MODIFICATION OF THE TRANSITIONAL SCREENING AND MODIFICATION OF THE LOCATION OF THE PROPOSED BARRIER PURSUANT TO PAR. 3 AND 12 OF SECT. 13-305 OF THE ZONING ORDINANCE IS REQUESTED ALONG THE PORTION OF ROUTE 123 ADJACENT TO TAX MAP PARCELS 106-4 ((1)) 53A (PART); 112-2 ((1)) 4 AND 10, ZONED R-1. A SIGNIFICANT LANDSCAPE BUFFER RANGING FROM 50 TO 100 FEET WIDE WILL BE PROVIDED ALONG ROUTE 123 TO CONSIST OF A MIXTURE OF DECIDUOUS, ORNAMENTAL AND EVERGREEN TREES SIMILAR TO THE EXISTING LANDSCAPING WHICH MUST BE REPLACED DUE TO UTILITY RELOCATIONS. THE REPLACEMENT OF THE EXISTING LANDSCAPING IS NOT ANTICIPATED TO OCCUR UNTIL AFTER 2035. THE EXISTING SECURITY FENCING LOCATED ALONG ROUTE 123 IS PROPOSED TO BE REPLACED WITH A COMBINATION OF 8-FOOT HIGH REINFORCED CRASH RESISTANT FENCING AND 8-FOOT HIGH CHAIN LINK FENCING TO BE INSTALLED ALONG THE PROPERTY LINE. TO ALLOW THIS LANDSCAPING AND THE NEW FENCING TO BE INSTALLED, A REAFFIRMATION OF THE MODIFICATION OF THE TRANSITIONAL SCREENING AND MODIFICATION OF THE LOCATION OF THE PROPOSED BARRIER IS REQUESTED.

LEGEND

	PROPOSED LARGE DECIDUOUS TREE (CATEGORY III OR IV)
	PROPOSED ORNAMENTAL TREE (CATEGORY II)
	PROPOSED EVERGREEN TREE (CATEGORY III OR IV)
	PROPOSED EVERGREEN TREE (CATEGORY I OR II)
	EXISTING TREELINE
	8' HIGH SECURITY CHAINLINK FENCE
	TRANSITIONAL SCREEN YARD (TSY)
	EXISTING VEGETATED AREA TO REMAIN
	PROPOSED VEGETATED AREA PER SPA 82-V-091-06 TO REMAIN



NOTE: THIS GRAPHIC REPRESENTS THE LONG RANGE RECLAMATION PLAN FOR FAIRFAX WATER'S USE OF THE QUARRY AS A FUTURE WATER SUPPLY RESERVOIR.

DESCRIPTION OF THE APPLICATIONS

The applicant, the Fairfax County Water Authority (Fairfax Water), has requested an amendment to a previously approved Special Exception Amendment (SEA) for a water purification facility. Currently, Fairfax Water operates the Frederick P. Griffith Jr. Water Treatment Plant (Griffith plant) on the subject property. The applicant request is to expand the previously approved SEA Area of 247.84 acres to encompass an additional 279.02 acres currently owned by Vulcan Lands, Inc. (Vulcan), the real estate subsidiary for Vulcan Materials Company. While the additional acreage is currently being used by Vulcan as a stone quarry, the applicant has entered into an agreement with Vulcan to convert the quarry into water storage as a reservoir. This reservoir would augment the existing 8.3 billion gallons of water stored nearby in the Occoquan Reservoir and increase the availability and accessibility of Fairfax Water's supply for treatment and regional distribution. Figure 1 displays the existing SEA Area boundary, and the proposed addition to the SEA Area.

The applicant also requests to increase the treatment capacity for the previously approved water treatment facility to include additional water purification facilities and other related modifications to utilize the additional water supply provided by the additional water storage in the quarry. Further, the applicant has also requested two Proffered Condition Amendments (PCAs) associated with the Special Exception Amendment.

Fairfax Water Application

The subject properties for the SEA are zoned R-1, R-C, and I-6. Water storage facilities may only be implemented in R-1 and R-C Districts with the approval of a special exception by the Board of Supervisors. The use is permitted by-right in the I-6 District; however, the applicant has voluntarily included the I-6 portion of the subject properties as part of the SEA request.

Water purification facilities may only be implemented in R-1 Districts with the approval of a special exception, and are permitted by-right in I-6 Districts. Since water purification facilities are not permitted uses in the R-C Districts; accordingly, the applicant has proposed the water purification use to be continued and expanded only on acreage zoned R-1 and I-6. As with the water storage facility use, the applicant has voluntarily included the I-6 portion of the subject properties as part of the SEA request.

The Fairfax County Water Authority was established in 1957 by the Board of Supervisors to establish, operate and maintain a comprehensive and integrated water system. Fairfax Water provides water service to over 1 million residents and approximately 610,000 employees in Fairfax County and wholesale water service to the City of Alexandria, Prince William and Loudoun Counties, Fort Belvoir and Dulles Airport increasing service to almost 1.7 million residents and 840,000 employees. With the acquisition of the City of Falls Church and City of Fairfax water systems, Fairfax Water

provides drinking water to approximately 1.85 million residents and over 1 million employees. The applicant's proposal is linked to projected population and employment increases within Fairfax Water's service area by over 460,000 residents and 390,000 employees by 2040 to over service provided to over 2.3 million residents and 1.5 million employees by 2040.¹ The projected water demand calculations was based on population and employment projections conducted by the Metropolitan Washington Council of Governments (MWCOCG), the Interstate Commission on the Potomac River Basin's (ICPRB) Section for Cooperative Water Supply Operations (Co-Op), and Fairfax Water.



Figure 1: The proposed SEA Area would add 279.02 acres to the previously approved SE Area. The additional acreage would be for the retrofit of the quarry as a water storage facility (Source: Fairfax County GIS)

¹ Metropolitan Washington Council of Governments' Round 8.1 Cooperative Forecasting – July 2012

The Co-Op provides a technical assistance role outlined in the Water Supply Coordination Agreement (WSCA) executed in 1982 by Fairfax Water, the Washington Suburban Sanitary Commission, and the Washington Aqueduct Division of the Army Corps of Engineers. The three water utilities sought greater coordination of the Potomac River's water supply resource in response to study recommendations dating back to the 1960s and droughts in the 1960s and 1970s that precipitated a stronger regional cooperation on future water supply planning. Studies showed that greater cooperation between the three utilities would create greater reliability in using the Potomac River as a water supply source, particularly during drought conditions.

The WSCA requires the Co-Op to conduct 20-year water supply-demand studies every five years. The 2010 analysis concluded that Fairfax Water's existing capacity would serve the anticipated demand up to 2030, but would increasingly be challenged to meet demands throughout the following decade. The Co-Op noted that the demand could only partially be met through enhanced water conservation efforts, and would require new water supply sources to be brought into Fairfax Water's treatment system.

Fairfax Water has considered other factors in their decision making to pursue the quarry retrofit. These included the impacts to their water supply by consumptive uses, such as agricultural irrigation, cooling systems for power plants, data centers, and wastewater reuse initiatives. These uses would either use water that could potentially serve Fairfax Water customers or diminish recharge of groundwater to the Potomac River. Fairfax Water considered the impacts that future climate change would likely have on decreasing stream base flows and increasing evapotranspiration rates. Some of the alternatives assessed included raising the existing Occoquan Dam, relying solely on Occoquan estuary treatment for new water supply, constructing a Potomac River estuary intake system, and augmenting an existing facility in West Virginia to bolster the Potomac's water supply reliability. Each of these alternatives was ruled out due to the disproportionate costs that would be incurred, the severity of the environmental impacts, or the inability of the new water source to meet projected demands.

Fairfax Water has worked with Vulcan to develop a phased approach to provide interim water storage in or around 2035, as well as significantly larger storage facility beyond 2085 to meet the anticipated increase in demand. If the applications are approved, an agreement would be implemented by Fairfax Water and Vulcan for development of the site in three phases that would span the next 70 years:

- *Phase 1 (approximately 2015-2035)* – Fairfax Water would add treatment capacity to the Griffith plant, add new finished water storage capacity, and construct new intake and discharge water lines oriented to the northern portion of the existing quarry pit.

During this period, Vulcan would continue quarry operations subject to approval of SPA 82-V-091-06, leaving an approximately 270-foot tall rock wall separating the quarry into a smaller northern pit and a larger southern pit (Figure 2). Vulcan would simultaneously construct a diversion channel and a temporary diversion pipe for a

portion of Little Occoquan Run; the channel and pipe would redirect the stream's base flow around the northern edge of the quarry and discharge it near Elk Horn Run's confluence with the Occoquan River.

Vulcan would also demolish the now obsolete Lorton treatment plants that were replaced by the Griffith plant in 2006. Vulcan would shift its primary sorting equipment, materials stockpiles, and retail center to this location.

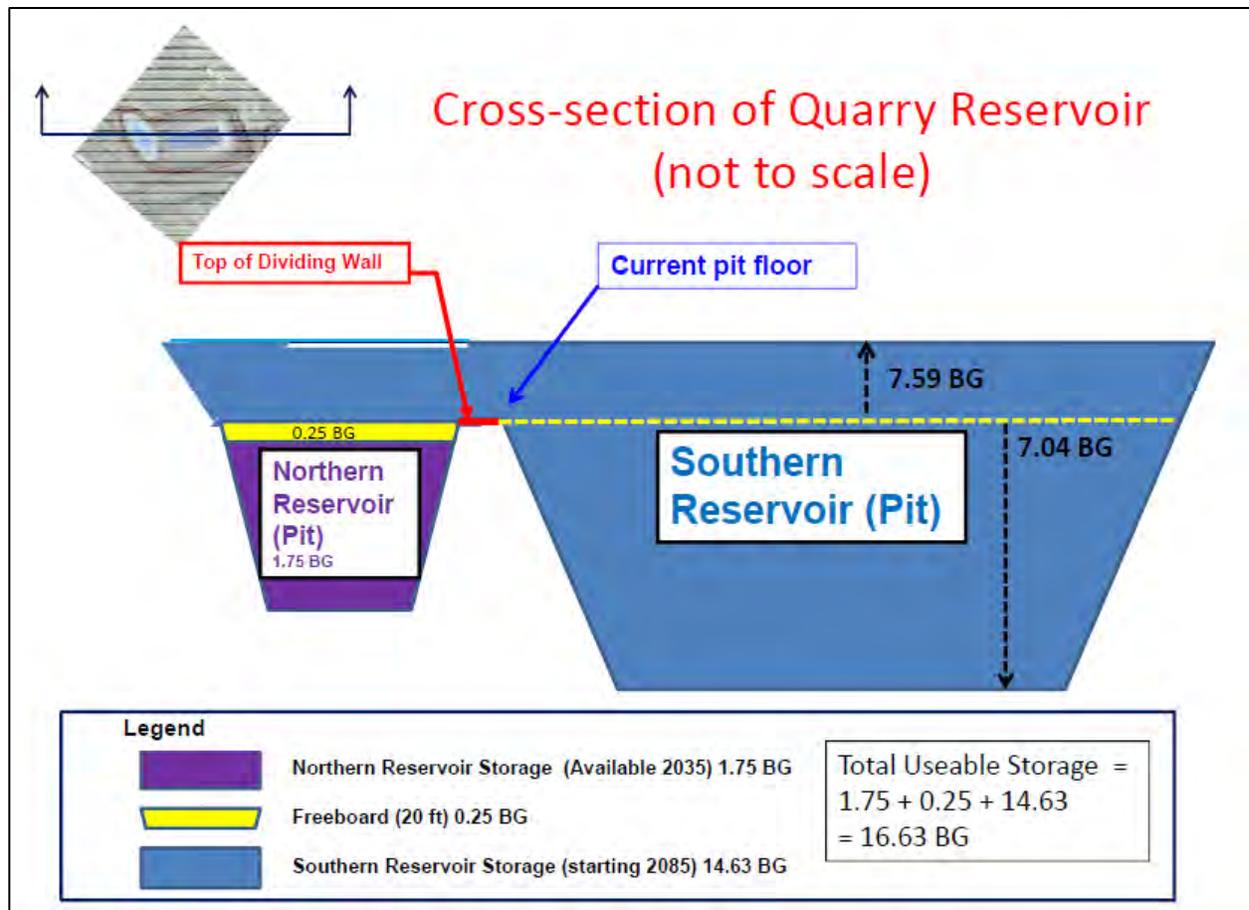


Figure 2: This illustrative cross section demonstrates in abstract the proposed two pit strategy that the applicant would use for future water storage (Source: Fairfax Water, July 2013)

- Phase 2 (approximately 2035-2085)* – Vulcan would cease quarrying operations in the northern pit of the quarry, remove the temporary diversion pipe connecting the diversion channel to Elk Horn Run at its confluence with the Occoquan River, and provide Fairfax Water with the northern pit of the existing quarry for water storage purposes. The northern pit reservoir would be filled with water from Little Occoquan Run's diversion channel, which would redirect stream flow into the northern pit reservoir. The reservoir would also be filled with water from the Griffith plant's treatment process. This process water is used for backwashing the granular activated carbon filters near the end of the treatment system. This backwashing

releases sediments and other suspended solids that would then settle out of the water into the bottom of the northern pit. The northern pit reservoir would then increase Fairfax Water's storage volume by approximately 1.75 billion gallons.

From these two water sources, Fairfax Water projects the northern pit to take a little over one year to fill. The water level would be maintained with a 20-foot distance, or freeboard, from the top of the rock wall separating the two pits. Fairfax Water's treatment process would continue to deposit the residual material from the carbon filter backwash into the northern pit as part of the Griffith plant's treatment process. Fairfax Water projects that these sediments would fill the usable volume of the northern pit at the current rates of treatment in approximately 100 years. However, by the time the northern pit would fill with sediment, the southern pit and overflow area between the northern and southern pit would be available for water storage as shown in Figure 2.

If necessary, the applicant would also construct a second water purification facility that would treat water directly from the Occoquan River below the existing dams instead of from the existing Occoquan Reservoir or the northern pit. This estuary treatment facility would use separate water lines and pumping stations from those serving the Griffith plant, and would be located in the northeastern corner of the subject property. Fairfax Water has included this facility in the proposal as a contingency during the Phase 2 period in the event that drought conditions would warrant additional water for regional customers to supplement that drawn from the existing reservoirs.

During this period, Vulcan would continue mining operations in the remainder of its existing mining limits while expanding eastward toward Ox Road on land currently owned by Fairfax Water. This expansion would be accompanied by the construction of landscaped berms along Ox Road to screen the relocated sorting equipment, stockpiles, and retail operations.

Vulcan would also implement a reclamation plan for Fairfax Water's existing residuals discharge area (Tax Map 112-2 ((1)) 9). This is the site of the former Vulcan quarry that was discontinued and sold to Fairfax Water in 1980 for use as the existing discharge area for the sediments and other suspended solids that are backwashed from the carbon filters.

- *Phase 3 (2085 and beyond)* – The agreement between Fairfax Water and Vulcan, as described to staff, would require Vulcan to cease mining operations by 2085 and transfer the use of the remaining portion of the quarry to Fairfax Water for water storage. The addition of the southern pit would allow Fairfax Water to fill the entirety of the quarry to a water level exceeding the height of the rock wall separating the northern and southern pits.

According to the applicant, the ultimate storage capacity would vary based on market conditions that would affect Vulcan's rate of excavation. The projected additional capacity would range between 7 and 15 billion gallons, for a total on-site capacity of approximately 9-17 billion gallons of water. At completion of the second pit the facility will provide 28 to 56 million gallons per day and increase in 70 percent as compared with the Occoquan Reservoir today and enough to support an increase in population of up to 560,000.

Fairfax Water would increase its treatment capacity in Phase 3 by constructing a second treatment facility using the identical water treatment process used by the Griffith Plant. The applicant would also add another clearwell to store finished water. The additional water gained in Phase 3 would allow the applicant to reroute the intake and outfall pipes associated with the estuary treatment facility to the southern pit.

The applicant's PCA requests are to amend the approved proffers for both RZ 1998-MV-032 and RZ 1998-MV-033, which were originally adopted by the Board of Supervisors concurrently with SEA 81-V-017 in 1998. The 1998 proffers commit the applicant to substantial conformance with the SEA Plat approved with SEA 81-V-017 and provision of approximately three acres for temporary athletic fields to be constructed by others. The applicant's proposed proffers remove the reference to the plat and updates the athletic field provision. The development plan would be subject to the conditions of the SEA.

The applicant has submitted the following waivers and modifications:

- Modification of the transitional screening and barrier requirement in accordance with the SEA Plat.
- Modification of the trail requirement along the Occoquan River in accordance with the SEA Plat.

Copies of the draft development conditions, proffers, applicant's statement of justification, and affidavit are included in Appendices 1-4, respectively. A reduced copy of the applicant's Special Exception Amendment Plat (SEA Plat) is included at the beginning of this staff report.

Vulcan Materials Application

The SEA and two PCAs have been submitted and reviewed concurrently with Rezoning (RZ) 2013-MV-015 and Special Permit Amendment (SPA) 82-V-091-06. The applicant in each of these cases, Vulcan Construction Materials, LP, is seeking the rezoning approval application to permit a 148.27 acre expansion of the previously approved Natural Resource (NR) Overlay District that encompasses the entirety of Vulcan's existing Special Permit Amendment Area (SPA Area).

Properties zoned with a NR Overlay District may seek a Group 1 Special Permit for an extraction or excavation use from the Board of Zoning Appeals (BZA). Without the NR District designation, such uses are not permitted by right, by special permit, or by special exception. Figure 3 depicts the existing and proposed expansion of the NR District. The Natural Resource Overlay District expansion would be in two locations:

- 6.2 acres of right-of-way to be acquired and a portion of 106-4 ((1)) 20B that lies south of Peniwill Drive. The right-of-way to be acquired is a previous alignment of Peniwill that was realigned by the Virginia Department of Transportation (VDOT) with a previous road construction project. Vulcan has proposed no expansion of quarry operations in these 6.2 acres, and has included the acreage in the rezoning request to consolidate all acreage proximate to the quarry operations under the NR Overlay District.
- 142.06 acres owned by Fairfax Water to expand quarry operations eastward toward Ox Road, the relocation of Vulcan's primary sorting equipment, materials stockpiles, and retail operations to the former site of Fairfax Water's Lorton treatment plant. Vulcan proposes to construct berms along Ox Road to shield these quarry operations.

Vulcan's second request would be to amend the previously approved Special Permit for stone quarrying, crushing, sales and related associated quarrying activities. If approved by the Board of Zoning Appeals, the amendment would renew Vulcan's Special Permit for an additional five-year term. The SPA would incorporate the site modifications previously discussed, along with mitigation and compensation for disturbance within an Environmental Quality Corridor (EQC) and Resource Protection Area (RPA). The Special Permit Amendment Area (SPA Area) would be expanded from its current 307.68 acres to a total of 419.96 acres, which would include the previously approved SP Area and the acreage mentioned above. Figure 4 depicts the existing and proposed expansion of the SPA Area.

RZ 2013-MV-015 is scheduled to be reviewed by the Planning Commission at their November 20, 2014 meeting concurrent with the Fairfax Water cases described above. The BZA is scheduled to review Vulcan's SPA on December 3, 2014. Staff has provided a companion staff report² with analysis for the Vulcan applications.

2 To access a copy of the staff report for these two cases, please visit <http://ldsnet.fairfaxcounty.gov/ldsnet/ZAPSMMain.aspx?cde=SPA&seq=4163010>

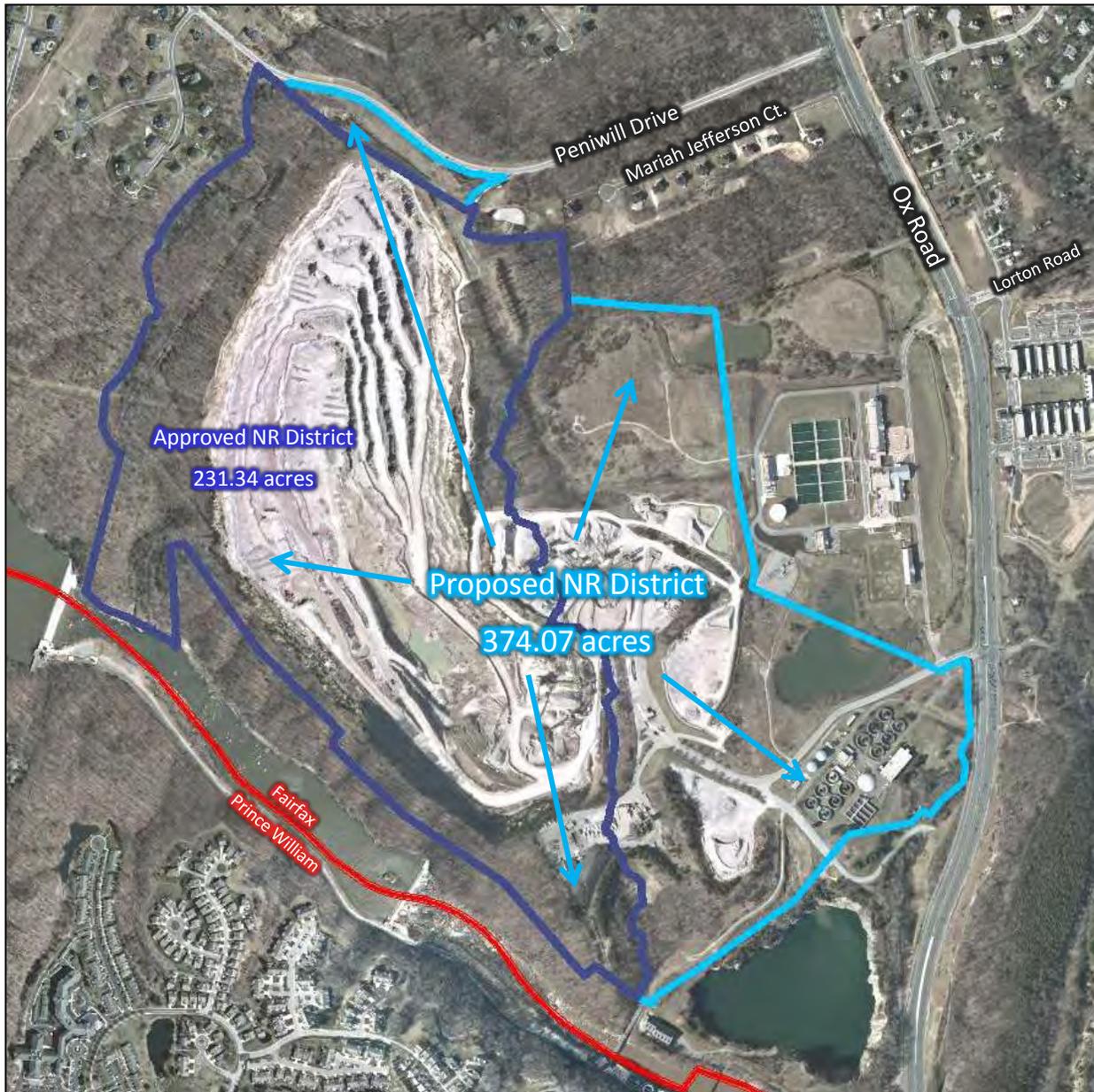


Figure 3: The proposed NR District would be expanded 142.06 acres to the east toward Ox Road, while adding 6.2 acres to the north along Peniwill Drive (Source: Fairfax County GIS)



Figure 4: The proposed SP Area would be expanded to the east and south east with the site modifications requested as part of both RZ 2013-MV-015 and SPA 82-V-091-6 (Source: Fairfax County GIS)

LOCATION AND CHARACTER

The subject properties are located at 9600 and 10000 Ox Road. The properties are bounded by Ox Road on the east, Peniwill Drive on the north, Elk Horn Run on the west, and the Occoquan River on the south. The properties are immediately adjacent to Prince William County and the Town of Occoquan to the south. The Lorton Workhouse

Arts Complex, on the site of the former District of Columbia Correctional Facility at Lorton, is across Ox Road to the east along with Occoquan Regional Park to the southeast. The coverage of the R-C, R-1, and I-6 zoning is shown below in Figure 5.

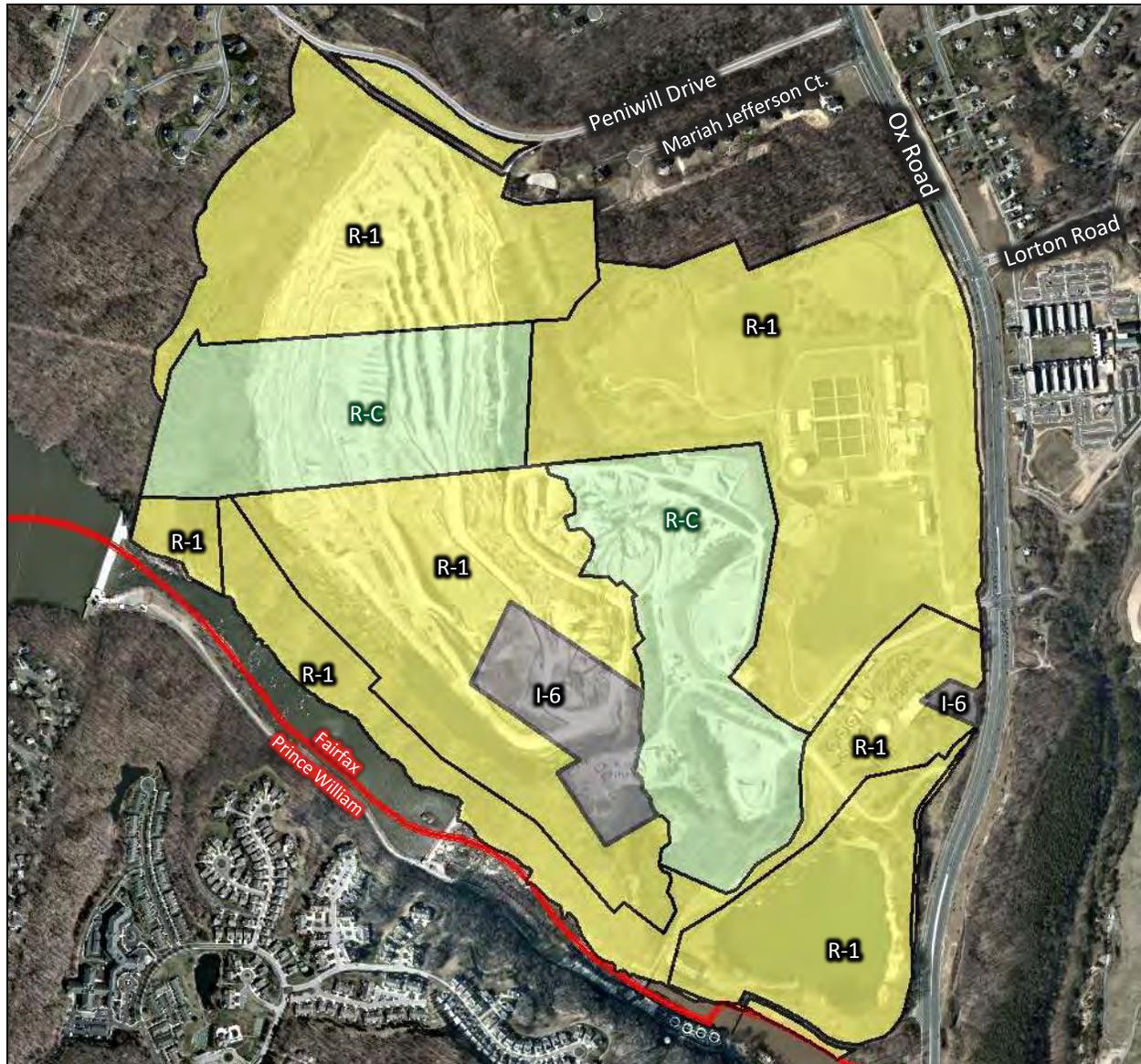


Figure 5: The existing zoning district classification for the subject properties (Source: Fairfax County GIS)

The closest Fairfax County residences are those along Mariah Jefferson Court in the Occoquan Park community to the north, and the Occoquan Overlook community to the west of Elk Horn Run. The three residential parcels at the end of Mariah Jefferson Court, Tax Maps 106-4 ((1)) 23-25 are owned by Vulcan, who leases the one dwelling on the subject properties. This dwelling is approximately 13 feet from the quarry property line and approximately 450 feet from the edge of the proposed northern pit.

The closest dwelling in Occoquan Overlook is approximately 140 feet from the boundary with Vulcan's property across the Elk Horn Run stream valley, and approximately 750 feet from the edge of the proposed northern pit.

The properties can be accessed in three locations along Ox Road. The northern access is aligned with Lorton Road, while the central access point provides vehicular access into the properties' interior. The southern access point provides access to Fairfax Water's raw water pump station and intake for the Griffith plant and is public right-of-way that formerly served as the primary roadway for U.S. 123 prior to flooding that inundated the bridge associated with Hurricane Agnes in 1972 and the construction of a higher replacement bridge soon thereafter in 1974.

A quarry operated in southeastern end of the properties from at least 1942 and was sold by Vulcan to Fairfax Water in 1980. The old quarry is used by Fairfax Water as a disposal area for the residual solids that are a byproduct of the Griffith plant's water treatment process. Vulcan has operated its Graham Quarry on its property holdings since 1977, receiving periodic approvals for expansions as additional property was acquired for excavation purposes. Vulcan uses explosive charges to blast rock from the quarry pit, where it is transported to on-site processing machines that crush and sort the rock into numerous sizes for sale to retail and wholesale customers. Vulcan leases a portion of its property to Virginia Paving Company, who operates an asphalt mixing plant on Tax Map 112-2 ((1)) 12 and 112-2 ((1)) 14. This use is permitted through SEA 82-V-046, which was approved by the Board of Supervisors on March 9, 1987. The Lorton water treatment facility, constructed initially in the early 1950s and expanded in 1972, is located adjacent to the properties' central Ox Road vehicular access. This facility is no longer in operation and was replaced by the Griffith plant in 2006. The Griffith plant consists of an operations building, a water filtration building, a below grade clearwell for finished water storage, flocculation-sedimentation basins used to remove sediment during the treatment process, an ozone contactor building used to remove biotic material during the treatment process, and other associated treatment buildings.

BACKGROUND

SE 81-V-017

On May 4, 1981, the Board of Supervisors approved SE 81-V-017 for Fairfax Water to establish a water purification facility on three properties that were later consolidated to become Tax Map 112-2 ((1)) 9. This 40.72 acre parcel was the old Vulcan quarry now used by Fairfax Water as the residuals disposal area. Fairfax Water's request with SE 81-V-017 was to use the old quarry for wastewater capture from the two Lorton water treatment plants and the Occoquan treatment plant, all of which at the time were operational. The wastewater contained alum, lime, and carbon that were used in the treatment process, along with sediments and other suspended solids from the Occoquan that were being removed during treatment.

Previously, Fairfax Water had discharged approximately 5,500 tons of waste sediment directly into the Occoquan River after the treatment process. According to Fairfax Water's statement of justification for the special exception, Fairfax Water had been advised by the State Water Control Board to comply with the National Discharge Act and end these practices or to provide a supplementary treatment process prior to the wastewater discharge. Fairfax Water acquired the former quarry adjacent to their existing treatment facilities in 1980 to redirect the discharge to the quarry. At the time, Fairfax Water estimated that there would be 75 years' worth of storage capacity for discharged particulates based on the rate of discharge and the quarry depth. The staff report listed the quarry's depth at the time as 320 feet, with the lower 220 feet reserved for the storage of settled particulate from the treatment process. The additional 100 feet was to be used as an emergency water storage facility that was anticipated to provide an 11 day supply of water during emergency drought conditions.

SEA 81-V-017 | RZ 1998-MV-032 | RZ 1998-MV-033

On December 7, 1998, the Board of Supervisors simultaneously approved SEA 81-V-017, RZ 1998-MV-032, and RZ 1998-MV-033. A copy of the approved development conditions and proffers are included in Appendices 5 and 6. This approval gave Fairfax Water the ability to construct the Griffith plant on property formerly owned by the federal government as part of the District of Columbia Department of Corrections Facility at Lorton. The construction of the new treatment facility gave Fairfax Water the opportunity to meet and exceed new water standards adopted by Congress as part of the Safe Drinking Water Act of 1996.

The Griffith plant treats the river water from the Occoquan reservoir, called raw water, by introducing coagulants that encourage suspended solids in the water to bind together. This binding process is called flocculation. When enough solids bind together, they fall to the bottom of large flocculation/sedimentation basins and are removed from the basin bottom. The raw water goes through a series of flocculation treatments, and is then pumped through contactor membranes where the water is exposed to ozone gas for disinfecting purposes to remove bacteria and other microorganisms³. The water is then sent through granular activated carbon filters to remove all noticeable remaining particulates. Finally, fluoride is added for tooth protection, chlorine is added to protect the water as it travels through the distribution system, and a corrosion inhibitor is added to prevent lead from household plumbing entering the water. This finished water is sent to an on-site clearwell for temporary storage and, ultimately, distribution throughout the Fairfax Water piping network.

With the construction of the Griffith plant, Fairfax Water was able to phase the Occoquan and Lorton facilities out of its treatment program. SEA 81-V-017 also contemplated expansion of the Griffith plant. The SEA increased the special exception area from the previously approved 40.72 acres to 247.84 acres. The additional acreage

3 FCWA's infographic on the water treatment processed can be accessed by clicking here: <http://www.fairfaxwater.org/education/treatment/WT-web-final.html>

came from including the site of the Lorton facilities in the SEA, Fairfax Water's property along the Occoquan River, and the federal land formerly associated with the Lorton prison

Fairfax Water requested the companion rezoning applications to permit each of the former federal properties to be included in the SEA as part of the water purification facility use. The properties were zoned R-C at the time, and the R-C District does not include water purification facilities as a permitted use. While sharing an identical tax map number (106-3 ((1)) 56A) the properties were disconnected by land owned and used for quarrying operations by Vulcan. RZ 1998-MV-032 rezoned 141.77 acres of land fronting along Ox Road from R-C to R-1, and the same request was made for RZ 1998-MV-033 for 5.54 acres near Fairfax Water's upper Occoquan River dam facility.

Comprehensive Plan Amendment

On June 4, 2013, the Board of Supervisors authorized Plan Amendment S13-IV-LP1 for Land Unit 5, Subunit 5A of the Lower Potomac Planning District's Laurel Hill Community Planning Sector (LP1) as well as Recommendation 7 for the Pohick Planning District's Dominion Community Planning Sector (P5). The authorization directed the Department of Planning and Zoning to work with the Mount Vernon Magisterial District, Vulcan, Fairfax Water, and the adjacent communities to recommend to the Planning Commission and Board of Supervisors appropriate language for amending the aforementioned Plan sections.

The proposed plan text was authorized to include provisions to designate the ultimate disposition of the Vulcan quarry as a water supply storage facility to be owned, operated, and maintained by Fairfax Water. The amendment was further authorized to consider the critical infrastructure aspects of the existing water treatment facility, the benefits of establishing a future quarry water supply storage facility at this location, and the preservation to the greatest extent possible of the area's sensitive environmental resources. On June 3, 2014, the Board of Supervisors adopted S13-IV-LP1⁴.

COMPREHENSIVE PLAN PROVISIONS

The subject properties are located in areas of Fairfax County discussed in both the Area III and Area IV chapters of the Comprehensive Plan. In Area III, a portion of the subject properties falls within the Pohick Planning District's Dominion Community Planning Sector (P5). The majority of the site is located in Area IV's Laurel Hill Community Planning Sector (LP1). A copy of the site specific text from both planning sectors is included in Appendix 7.

⁴ To view a copy of the Comprehensive Plan's recommendations for this area of Fairfax County, visit <http://www.fairfaxcounty.gov/dpz/comprehensiveplan/adoptedtext/2013-09.pdf>

The Plan acknowledges the existing land uses on the subject properties, and contemplates the adjacent quarry's reconfiguration as a water supply storage facility. The Plan generally describes the phased approach proposed by the applicant. Buffer areas are recommended along Ox Road, the subject properties' northern boundary, and along the Occoquan River.

The Plan highlights the on-site cemetery established in the early 20th century that was associated with the former Lorton correctional complex, and recommends its preservation. Finally, the northeast portion of the subject properties is contemplated as an interim park or recreational area for use by the Fairfax County Park Authority (Park Authority) "until such time as the area is needed for treatment plant expansion."

The Plan further states that the evaluation of any proposal for any long term water supply storage areas should consider the following items during the review of any Rezoning, Special Permit, Special Exception, and Proffered Condition Amendment applications, particularly when evaluating the direct and indirect impacts to Environmental Quality Corridors (EQCs), Resource Protection Areas (RPAs), and stream diversions:

- *The extent to which the proposed water supply storage facility is needed to address short, medium and long term water supply needs; and*
- *The extent to which the proposed action would meet the long term water supply needs with the least amount of adverse environmental impact, compared to other alternatives.*

Countywide Trails Map: The 2002 Countywide Trails Map is a component of the Comprehensive Plan's Transportation chapter of the Countywide Policy Element. The Trails Map recommends that a minimum 8-foot wide major paved trail be provided along this portion of Ox Road. In addition, a major regional trail system is recommended along the Occoquan River which would extend the Bull Run-Occoquan Trail from Fountainhead Park and link it to Ox Road. This trail is maintained by the Northern Virginia Regional Park Authority (NVRPA).

ANALYSIS

Description of the Special Exception Amendment Plat

The Special Exception Amendment Plat entitled "Fairfax Water | Frederick P. Griffith Jr. Water Treatment Plant | Generalized Development Plan/Special Exception Amendment Plat" consists of 20 pages submitted by Dewberry, dated July 8, 2013 and revised through November 4, 2014. The SEA Plat displays the applicant's ultimate site design for the 526.86 acres. This design would be implemented over the next 70 years as generally described below.

Phase 1 Improvements (2015-2035)

Griffith Water Treatment Plant: The applicant proposes to retain the Griffith plant while adding additional treatment capacity to meet growth in water demands. Currently, the plant has the ability to treat up to 120 million gallons of water per day (MGD). This treatment capacity represents a percentage of the ultimate building envelopes and treatment facilities that were approved with SEA 81-V-017. The applicant intends to expand the Griffith plant to the dimensions shown on the 1998 approved SEA Plat, which would involve the construction of the following facilities by 2035:

- Two additional flocculation-sedimentation basins
- An expansion to the existing filter building
- Control valve vaults
- Finished water distribution line relocation
- New ultraviolet light advanced oxidation processing (UV/AOP) building
- New 10 million gallon (MG) below grade clearwell for finished water storage
- New pump station and intake for northern pit reservoir and extension of access road
- New residuals pump station
- Two new ozone contactor buildings
- New 2 MGD pilot plant facility
- New boat storage/workspace building
- New facility support center
- Install an 8-foot tall crash resistant security fence along Ox Road from the northern property line to the central vehicular access point and additional 8-foot tall perimeter security fencing elsewhere on the subject properties

These improvements would increase the Griffith plant's treatment capacity to 160 MGD. The applicant would install a new residuals disposal line from the Griffith plant for discharge of residual sediment in process water into the northern pit reservoir. Concurrent with Vulcan's demolition of the now obsolete Lorton treatment facilities, Fairfax Water will relocated portions of an 84-inch raw water pipeline, a 48-inch finished water pipeline, and an electrical duct bank to accommodate the conversion of the old treatment facility location to Vulcan's primary retail and operations center.

Phase 2 Improvements (2035-2085)

Estuary Treatment Facility: After the northern pit has been brought into Fairfax Water's use, the applicant would construct a second water treatment facility at the northeastern corner of the subject properties. According to the applicant, this facility would only be used during periods of water shortage, drawing river water directly from below the existing Occoquan River dams and not the existing off-site or proposed on-site reservoirs. Fairfax Water would not be able to use the conventional water treatment process of flocculation, sedimentation, and filtration at the Griffith plant to produce potable water from the Occoquan River's estuary waters due to its high amounts of Total Dissolved Solids (TDS) compared to raw water drawn from the Occoquan and

quarry reservoirs. The estuary treatment facility would utilize a reverse osmosis membrane process to remove the higher TDS, which cannot be removed by the conventional treatment processes.

The reverse osmosis treatment process leaves behind a waste product concentrate that Fairfax Water would potentially pump outside of the immediate Occoquan River watershed to Pohick Bay, four miles east of the subject properties. While the applicant has not identified an alignment for this discharge pipeline, Fairfax Water has acknowledged that this pipeline would require easement acquisition on private property, several stream crossings, and a Virginia Pollutant Discharge Elimination System (VPDES) permit from DEQ prior to any concentrate discharge into Pohick Bay. The applicant would construct the following facilities during the second phase:

- An expansion to the existing septic drainfield behind the Griffith plant
- New water quality laboratory
- A 40-foot tall, 99,000 square foot electrical generator facility with transformers
- 45,000 square foot estuary treatment facility, including:
 - 44,100 square foot ultrafiltration building
 - 10,000 square foot administrative/pre-treatment building
 - High-rate sedimentation basins
 - Flocculation basins
- Estuary treatment pump station and intake
- Finished water pump station to serve the estuary treatment plant
- Raw water, finished water, residuals disposal, and concentrate disposal pipelines associated with the estuary treatment facility
- 12.5 MG below grade clearwell for finished water storage

Phase 3 Improvements (2085 and beyond)

In 2085, Fairfax Water would have access to both the northern and southern quarry pits for water storage purposes. To accommodate this increased water supply, the applicant proposes to construct a third water purification facility. This facility would operate using the same water treatment methods currently used at the Griffith plant. By 2085, Vulcan would have ceased its quarrying operations, and Fairfax Water would construct its new treatment facility on the former location of Vulcan's relocated retail and operation center.

The applicant would construct the following facilities during the third phase:

- Southern pit reservoir treatment facility, including:
 - Filter building
 - Chemical storage and feed building
 - Administration building
 - Flocculation/sedimentation basins
 - Ozone contactor building and generation building
 - Liquid oxygen storage building

- UV/AOP building
- Low lift pump station
- Reroute estuary treatment facility's intake lines to outfall directly into the southern pit reservoir instead of travelling to the estuary treatment facility
- Intake and pump station for southern pit reservoir
- Pipelines
 - New raw water lines from southern pit to Griffith plant and new plant
 - Finished water line connecting low lift pump station to Phase 1 clear well
- 10 MG below grade clear well for finished water
- Two thickener storage units for the Griffith plant
- New residuals handling building for the Griffith plant

Trails

In lieu of providing a trail along the Occoquan River consistent with the previous approval and the County Wide Trails Map the applicant has delineated a 4-foot wide natural surface trail from the properties' western boundary with Elk Horn Run, through the northern portion of the site and terminates at Ox Road near the proposed estuary treatment facility. This trail can be seen in Figure 6. The proposed modification of the trail location is discussed under the Modifications and Waivers section below.

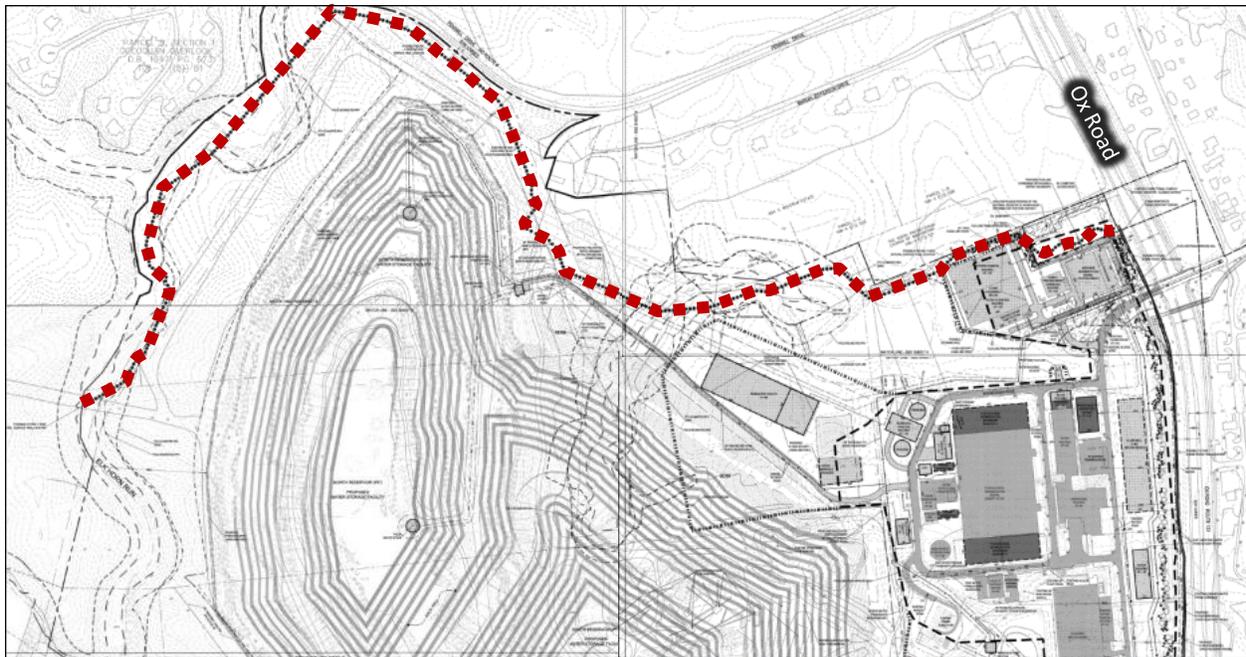


Figure 6: The proposed natural surface trail (Source: Dewberry Consultants, LLC., 11/4/2014)

ZONING ORDINANCE PROVISIONS (Appendix 15)**General Special Exception Standards** (Sect. 9-006)

Standard 1 requires the proposed use to be in harmony with the adopted Comprehensive Plan.

As previously highlighted, the Comprehensive Plan recommends a number of items for consideration with the review of any proposal for any long term water supply storage areas.

Many of the items for consideration, particularly those focused on buffer areas, temporary mining capacity augmentation areas, EQCs, RPAs, and stream diversions are most applicable to revisions proposed by Vulcan as part of SPA 82-V-091-06. While many of the site modifications would occur on Fairfax Water property, the affected Fairfax Water property has been authorized for inclusion in the Special Permit Amendment application. These modifications would largely occur during Phase 1 of Fairfax Water's proposal, and would be mitigated by Vulcan's EQC/RPA plan for mitigation and compensation. As such, these considerations are discussed at greater length in the staff report for RZ 2013-MV-015 and SPA 82-V-091-06.

For the considerations directly associated with Fairfax Water's SEA application, staff has examined whether the proposal would be in harmony with the site specific text.

Water Supply Needs and Alternatives Analysis: The Comprehensive Plan specifically states that the application should review "the extent to which the proposed water supply storage facility is needed to address short, medium and long term water supply needs; and the extent to which the proposed action would meet the long term water supply needs with the least amount of adverse environmental impact, compared to other alternatives."

As previously discussed, the existing and projected needs for water service exceed the current system's capacity, which creates a need for new water supply. The proposed northern pit would be available in 2035 providing for the necessary medium term water supply and the southern pit in 2085 providing for the necessary long term water supply.

Fairfax Water considered other factors in their decision making to pursue the quarry retrofit. These included the impacts to their water supply by consumptive uses, such as agricultural irrigation, cooling systems for power plants, data centers, and wastewater reuse initiatives. These uses would either use water that could potential serve Fairfax Water customers or diminish recharge of groundwater to the Potomac River. Fairfax Water considered the impacts that future climate change would likely have on decreasing stream base flows and increasing evapotranspiration rates. Some of the alternatives assessed included raising the existing Occoquan Dam, relying solely on Occoquan estuary treatment for new water supply, constructing a Potomac River

estuary intake system, and augmenting an existing facility in West Virginia to bolster the Potomac's water supply reliability. Each of these alternatives was ruled out due to the disproportionate costs that would be incurred, the severity of the environmental impacts, or the inability of the new water source to meet projected demands.

Impact to Buffer Areas: The Comprehensive Plan recommends buffering the extraction use as well as the water storage and treatment uses. The applicant's SEA Plat carries forward the buffer zones and landscaped berms proposed with the SPA Plat for SPA 82-V-091-06. According to the SPA Plat, the berm along Ox Road would be approximately 80 feet higher than the road surface and a minimum of 30 feet wide (Figure 8). This berm would be created to shield the relocated quarry operations and augment the existing screening for the residuals disposal area. The berm slopes would be planted at 20-foot intervals in an off-center pattern, along with additional trees along the top of the berm as shown. Red Cedars and Virginia Pines are proposed for the berm plantings, and in minimum clusters of eight seedlings per species to diversify the species distribution.

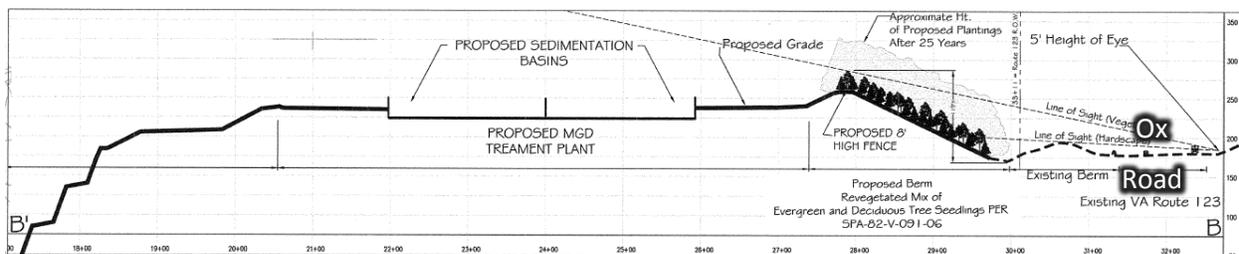


Figure 8: The berm along Ox Road shielding the treatment facilities to be constructed during Phase 3 would be 80 feet high when compared to Ox Road. This height would not include the proposed landscaping on top of the berm (Source: Dewberry Consultants, LLC., 11/4/2014)

The Ox Road berm would be connected to a 25-foot wide, 30-foot tall berm internal to the site to shield the relocated quarrying operations from the northern view shed. This internal berm would be planted using an identical landscaping plan as that of the Ox Road berm.

The berms would terminate at the existing quarry access road's intersection with Ox Road. The remainder of the Ox Road frontage would be screened as previously discussed and depicted in Figure 8.

Stoney Lonesome Cemetery: The Comprehensive Plan further states that the development should protect the half-acre prison cemetery in the northeast portion of the site. The Stoney Lonesome cemetery was associated with the former District of Columbia Correctional Facility at Lorton, located across Ox Road from the subject properties. During its time as a correctional facility, Stoney Lonesome was used as a burial site for indigent prisoners whose families did not or could not claim their remains⁵.

⁵ D.C. Workhouse and Reformatory Historic District Registration Form; Amendment and Additional Documentation submitted on February 2, 2012 and listed on March 27, 2012.

According to historical research and documentation submitted to the Federal government by the County in 2012, the cemetery could potentially include the remains of between 50-100 people. This area is also protected as part of the memorandum of agreement (MOA) that demarcated the portions of the Lorton Correctional Complex that were eligible for listing on the National Register of Historic Places (NRHP).

The acreage within the original eligible NRHP district was explicitly required by the MOA to be administered as a local Historic Overlay District per Article 7 of the Zoning Ordinance and subject to review by the Fairfax County Architectural Review Board (ARB). The applicant's SEA proposal, which would fall within the eligible district that encompasses Stoney Lonesome as shown in Figure 9, required this review.

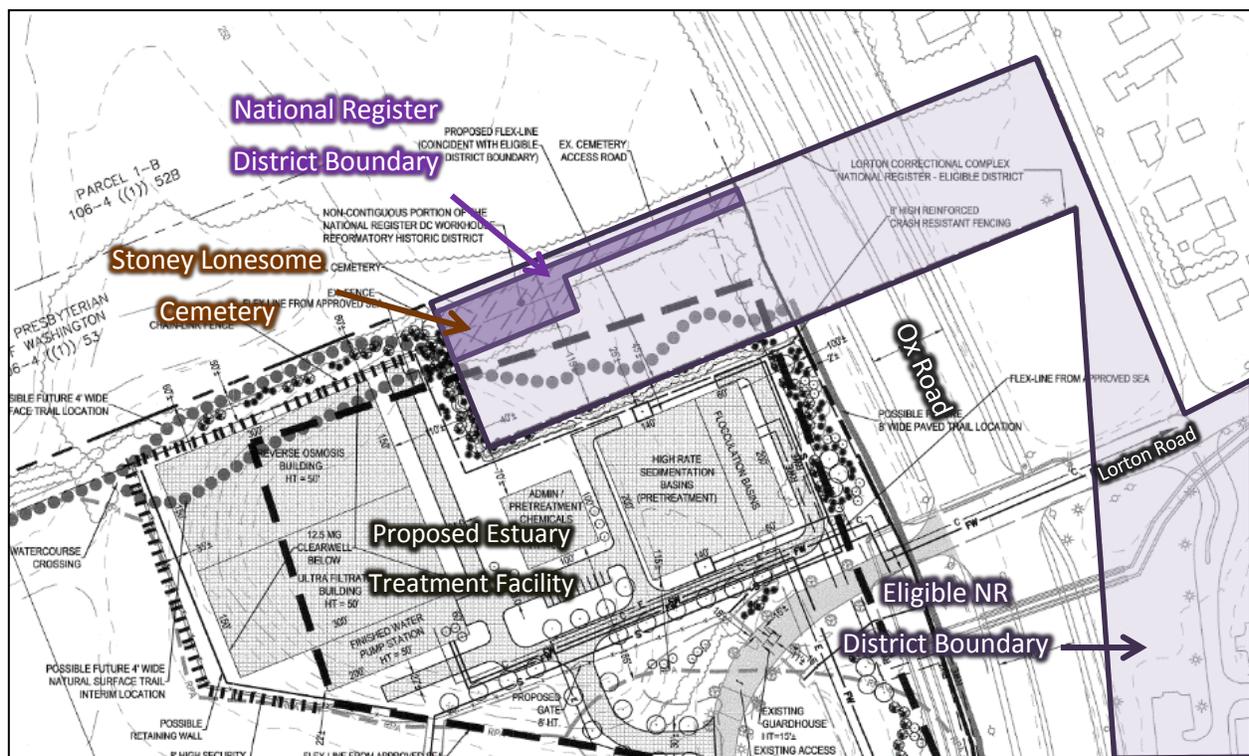


Figure 9: The Stoney Lonesome Cemetery and its proximity to the proposed estuary treatment facility, National Register District, and Eligible National Register District (Source: Fairfax County GIS, Dewberry Consultants, LLC., 11/4/2014)

The ARB reviewed the SEA's impacts on the eligible NRHP district during the March, April, and May 2014 meetings in consultation with the Department of Planning and Zoning, the Virginia Department of Historic Resources (DHR), and the Lorton Heritage Society. On May 8, 2014, the ARB recommended approval of the application. The focus of the ARB's review was the potential impacts of the proposed estuary treatment facility on Stoney Lonesome Cemetery. In response to feedback from the ARB, the applicant adjusted the SEA Plat so that the estuary treatment facility was moved outside the

boundaries of the eligible NRHP district. The applicant has also included supplemental landscaping between the facility and the eligible NRHP district for screening purposes. The ARB's recommendation was conditioned on three items listed in the official notice of their action, which is enclosed as Appendix 8. Staff has also enclosed the DHR analysis recommending further study as Appendix 9. Staff has included the ARB's recommended conditions related to further archaeological study of the subject properties and Stoney Lonesome Cemetery as development conditions in Appendix 1.

Interim recreational uses by FCPA: The Comprehensive Plan recommends preserving the option for interim recreational uses in the northeast portion of the site. With the approval of SEA 81-V-017 in 1998, the Board of Supervisors adopted a development condition that required Fairfax Water to set aside the northeastern corner of the subject properties for recreational purposes. The condition specified that the applicant was required to enter into an agreement with the Park Authority for the interim use of the acreage until such time that Fairfax Water expanded their treatment facility or until either party terminated the agreement. Fairfax Water fulfilled that development condition obligation prior to the issuance of a Non-Residential Use Permit (Non-RUP) for the Griffith Water Treatment Plant, and that agreement is still in place today. To address this recommendation in the Comprehensive Plan, staff has carried forward the previously approved condition with editorial revisions to update the language based on the recently adopted amendment to the Plan.

In staff's opinion, the proposed application is in harmony with the adopted Comprehensive Plan.

Standard 2 requires that the use be in harmony with the general purpose and intent of the applicable zoning district regulations.

The purpose and intent of the R-C District is to protect water courses, stream valleys, marshes, forest cover in watersheds, aquifer recharge areas, rare ecological areas, and areas of natural scenic vistas; to minimize impervious surface and to protect the quality of water in public water supply watersheds; to promote open, rural areas for the growing of crops, pasturage, horticulture, dairying, floriculture, the raising of poultry and livestock, and for low density residential uses; and otherwise to implement the stated purpose and intent of the Zoning Ordinance. The portions of the subject property zoned R-C would only be used for water storage purposes, which is a permitted special exception use.

The purpose and intent of the R-1 District is to provide for single family detached dwellings; to allow other selected uses which are compatible with the low density residential character of the district; and otherwise to implement the stated purpose and intent of the Zoning Ordinance. While the subject properties would not be used for residential purposes, the passive nature of the water storage and water purification uses, which generate little vehicular activity once fully established and are permitted special exception uses.

The purpose and intent of the I-6 District is to provide areas for heavy industrial activities with minimum performance standards where the uses may require that some noise, vibration and other environmental pollutants must be tolerated, and where the traffic to and from the district may be intensive. I-6 Districts are intended for use by the largest manufacturing operations, heavy equipment, construction and fuel yards, major transportation terminals and other basic industrial activities required in an urban economy. Only 20.37 acres of the overall 526.86 acre SEA Area would be I-6 zoning, and the majority of this would be within the area designated as the southern reservoir pit. Staff considers the proposed uses to be less impactful than many of the heavy industrial uses permitted in an I-6 District. Staff notes that SEA 82-V-046 for an asphalt mixing plant is located in the I-6 District portion and is proposed to continue.

The site is partially within a Natural Resource (NR) Overlay District that is proposed to be expanded as part of RZ 2013-MV-015. The Natural Resource Overlay Districts are created in recognition of the natural resources which do exist in Fairfax County; and in recognition that the sand and gravel industries and the related processing of these materials into concrete, asphalt and other products have been a basic construction support industry for many years, providing a broad range of employment opportunities and contributing to the County's tax base; but recognizing that natural resource extraction operations constitute a significant potential impact on the pattern of development in areas nearby. The proposed water treatment plant and water storage would take advantage of the existing and proposed expanded quarry. In staff's opinion, the proposed uses are harmony with the general purpose and intent of the applicable zoning district regulations.

Standard 3 requires that the proposed use be harmonious with and not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the Comprehensive Plan. The features of the proposal, such as the size and height of buildings and structures along with the nature and extent of screening, buffering, and landscaping, may not hinder or discourage the development and use of nearby property or impair its value.

Berms: As previously discussed, the applicant would maintain landscaped berms along Ox Road. These berms would be supplemented by transitional screening along the northern property boundaries. This screening is discussed at length later in this report.

Lighting: Given the Comprehensive Plan guidance on buffering the Workhouse Arts Center from the existing and proposed uses, staff recommends carrying forward a development condition related to reducing light impacts. Since the 1998 approval of SEA 81-V-017, the Zoning Ordinance has been amended to include lighting standards for reducing glare and over lighting. Staff has recommended a development condition to require all future lighting to conform to the performance standards specified in Article 14.

Estuary Treatment Facility: The SEA Plat notes that the concentrate discharge pipeline for the estuary treatment facility could be constructed off-site and require acquisition of right-of-way and easements in order to potentially discharge the concentrate by product of the reverse osmosis process into Pohick Bay. The applicant has asserted that this discharge would not only be reviewed through the county's 2232 Review process, but would also require a Virginia Pollution Discharge Elimination System (VPDES) permit from DEQ.

Staff raised concerns about the limited scope of review that the 2232 Review process entails. The 2232 Review of location, character and extent is not an effective tool for environmental assessment. In addition, staff harbors concerns with the retroactive nature of the VPDES permitting process, which relies on data collection after a permit has been issued to assess impacts as opposed to assessing and evaluating those potential impacts prior to the issuance of a VPDES permit.

Staff's concern related to the concentrate discharge pipeline is compounded by the parallel efforts that DPWES's Wastewater Treatment Division has made in the past decade to modify the treatment process at the Noman Cole Pollution Control Plant that has resulted in significant environmental revitalization of Pohick Bay. This revitalization has been the result of sustained investment by Fairfax County, which could be jeopardized with adverse impacts associated with the concentrate discharge. The higher salinity water treated by the estuary treatment facility, the high levels of TDS that need to be removed from the raw water, and the potential for descaling chemicals used in the maintenance of the facility to enter into the concentrate discharge greatly concern staff. The environmental analysis is attached in Appendix 10.

To address staff concerns, the applicant and staff have collaborated on a proposed development condition that would require proactive study of the discharge pipeline in tandem with 2232 Review prior to the completion of the VPDES permitting process.

Based upon the proposed development condition, in staff's opinion, the proposed application is harmonious with and would not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the Comprehensive Plan.

Standard 4 requires the pedestrian and vehicular traffic associated with the proposed use not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

Previously, the applicant had depicted security fencing across the former U.S. 123 right-of-way as an enhanced security measure for the existing raw water pumping station near the Occoquan River bank. However, this right-of-way doubles as a pedestrian connection for walkers and hikers travelling from the Town of Occoquan across the footbridge that links the town with Ox Road and ultimately Occoquan Regional Park. The Fairfax County Department of Transportation expressed concerns with this

disruption in pedestrian connectivity in their analysis of the application (Appendix 11). Since the review memo's issuance, the applicant has revised the SEA Plat to restore pedestrian connectivity for users of the footbridge. Staff has recommended a development condition that would prevent future restrictions to pedestrian connectivity between the Town of Occoquan and the former U.S. 123 right-of-way in Fairfax County.

The Board of Supervisors approved a development condition for SEA 81-V-017 that required the applicant to provide a public access easement for the establishment of a greenway trail along the Occoquan River to be constructed by the Park Authority. This easement was to be provided when and if trail connections were realized at the eastern and western property boundaries, and the easement was not permitted to disrupt the water purification facility's operations.

In lieu of carrying forward the previously approved development condition, the applicant has proposed an alternative northern alignment as previously discussed and shown on the SEA Plat. The applicant's rationale for not supporting the reaffirmation of this condition stems from security concerns with public accessibility to existing sensitive facilities associated with the water purification process. Although other regional water utilities have collocated trails facilities in close proximity to active quarries, water purification facilities, and water storage facilities, the applicant has not agreed to carry forward the previously approved development condition due to the aforementioned safety concerns. This issue is discussed in more detail as part of the waivers and Modification section below.

Standard 5 gives the Board of Supervisors the authority to require landscaping and screening in accordance with Article 13 of the Zoning Ordinance.

Although the applicant has provided substantial landscaped buffering along Ox Road that conforms to the Comprehensive Plan, it is unclear from the SEA Plat as to which phase of the project would implement the plantings along Ox Road. It is staff's opinion that the planting should occur in the initial phase to ensure that the buffer has been established prior to the use of the northern pit as a water storage facility due to the additional development activity visible from Ox Road that would occur associated with that facility. Staff has recommended a development condition related to planting the landscaped buffer as part of the expansion of the Griffith plant.

Standard 6 requires that the applicant provide an amount of open space equal to that required for the particular zoning district.

While the Zoning Ordinance does not require a minimum amount of open space for any of the zoning districts associated with these applications, Sheet 2 of the SE Plat indicates that the applicant's site design would provide 82% of the site, or 434.85 acres as open space. However, staff notes that much of this acreage would not be usable open space due to the presence of the quarry operations and their proposed conversion to a water storage facility.

Standard 7 requires that adequate utilities, drainage, parking, loading and other necessary facilities to serve the proposed use be provided.

The applicatuion would meet the requirements for parking, loading and drainage at the time of site plan review conducted by DPWES. As previously stated the applicant provides water service for Fairfax County and the proposal permits them to continue to provide this seervices with the expected incerase in demend.

Standard 8 requires all signs to be regulated by the provisions of Article 12. The applicant has not incorporated any requests related to signs.

All signs related to the proposed use shall be in accordance with the provisions of Article 12 of the Zoning Ordinance.

In staff's opinion, the applicant's request satisfies all of the General Special Exception Standards.

Additional Submission Requirements for Category 1 and 2 Special Exceptions (Sect. 9-103 and 9-203)

When the SEA and PCAs were initially filed, the applicant concurrently submitted a map showing the larger utility system which the proposed uses would be an integral part. The maps were accompanied by the applicant's statement of justification that outlined the functional relationship of the water storage and water purification facilities to the larger utility system. The applicant also submitted a statement with the technical reasoning behind selecting the proposed site for the proposed facilities, certifying that the proposed use would meet the performance standards of the zoning districts in which located. This statement is included in Appendix 3. In staff's opinion, the applicant has satisfied the additional submission requirements.

Standards for Category 1 Uses (Water Storage, Control and Pumping Station) (Sect. 9-104)

Additional Standards 1 notes that Category 1 special exception uses shall not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located.

Additional Standard 2 states that no land or building in any district other than the I-5 and I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.

The applicant is subject to this requirement of the Zoning Ordinance.

Additional Standard 3 states that if the proposed location of a Category 1 use is in an R District, there shall be a finding that there is no alternative site available for such use in a C or I District within 500 feet of the proposed location.

There are no nearby areas zoned in a Commercial or Industrial District. Furthermore, given the proximity of the existing water treatment facility to the quarry and existing utilities infrastructure, staff finds that no alternative site is available for the proposed uses within 500 feet of the proposed location.

Additional Standard 4 states that before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

Staff has proposed a development condition that would require compliance with the provisions of Article 17 in the Zoning Ordinance before the establishment of all uses.

In staff's opinion, the applicant's request satisfies the additional standards for Category 1 Uses.

Standards for Category 2 Uses (Water Purification Facility) (Sect. 9-204)

Addition Standard 1 requires that all uses shall comply with the lot size requirements of the zoning district in which located.

The SEA Area is 526.86 acres, which exceeds the minimum lot sizes prescribed by the R-1, R-C, and I-6 Districts.

Additional Standard 2 states that all buildings and structures, except below-ground facilities, shall comply with the bulk regulations of the zoning district in which located.

Table 1 below shows the applicant's compliance with the applicable bulk regulations.

Additional Standards 3 states that no land or building in any district other than the I-5 or I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.

As previously discussed, the applicant is subject to this restriction of the Zoning Ordinance.

Table 1 – Bulk Standards and Requirements		
Standard	Required	Provided
Lot Size	R-1: 36,000 square feet R-C: 5 acres I-6: 20,000 square feet	526.86 acres
Lot Width	R-1: 150 feet R-C: 200 feet I-6: 100 feet	≈5,280 feet along Ox Road
Building Height	R-1: 60 feet R-C: 60 feet I-6: 75 feet	60 feet maximum
Front Yard	R-1: Controlled by a 50° angle of bulk plane (ABP), but not less than 40 feet. R-C: Controlled by a 50° ABP, but not less than 40 feet. I-6: Controlled by a 45° ABP, but not less than 40 feet.	≈100 feet
Rear Yard	R-1: Controlled by a 45° ABP, but not less than 25 feet. R-C: Controlled by a 45° ABP, but not less than 25 feet. I-6: No requirement.	N/A
Side Yard	R-1: Controlled by a 45° ABP, but not less than 20 feet. R-C: Controlled by a 45° ABP, but not less than 20 feet. I-6: No requirement.	50 feet on the north 2600 feet on the west 1550 feet on the south
Floor/Area Ratio (FAR)	R-1: 0.15 FAR R-C: 0.10 FAR I-6: 0.50 FAR	0.026 FAR
Open Space	R-1: No Requirement R-C: No Requirement I-6: 10% landscaped open space	82%

Additional Standard 4 states that it shall be conclusively established that the proposed location of the special exception use shall be necessary for the rendering of efficient utility service to consumers within the immediate area of the location.

The applicant states that compared to other water supply alternatives, such as raising the height of the existing Occoquan Dam or constructing a new water supply reservoir in another location in the County the use of the quarry significantly reduces the environmental impacts, particularly to wetlands. The quarry water will be of a higher

quality than the Occoquan Reservoir, as a result of additional settling provided by water storage. The quarry is a cost effective water supply alternative. In fact the applicant states that the costs of the proposed Quarry reservoir is 40 to 67 percent lower than unit costs for other water supply projects that have been planned or implemented in the Mid-Atlantic region. For comparative sized facilities the construction costs of the quarry facility is \$82-136 million dollars lower.

In staff's opinion, the proposed location for these uses is necessary for rendering efficient utility service to consumers within the immediate area of the subject properties. Converting the adjacent quarry into a reservoir allows the applicant to use the existing treatment facilities for the additional water supply and add treatment capacity on site. Should the applicant need to pursue alternative locations for establishing a new reservoir and new treatment facilities to serve this increased demand, the applicant would need to mitigate significant environmental impacts beyond the 13.47 acres of Resource Protection Area proposed for disturbance on the SEA Plat. The adaptation of the adjacent quarry, as opposed to the establishment of a new reservoir through one of the previously discussed alternatives, represents a cost-effective water supply with comparably minimal impacts to the environment. Co-locating the facility next to the existing treatment facility would result in a natural savings in operational costs and reducing community disruption.

Additional Standard 5 states that before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

As previously noted, staff has proposed a development condition that would require compliance with the provisions of Article 17 in the Zoning Ordinance before the establishment of all uses.

In staff's opinion, the applicant's request satisfies the additional standards for Category 2 Uses.

Additional Standards for Water Treatment Facilities (Sect. 9-206)

The Zoning Ordinance requires all water treatment facilities to secure approval from the Fairfax County Health Department, the Virginia Department of Environmental Quality, and other appropriate state and local agencies having jurisdiction over the location, design, operation and maintenance of such a facility.

MODIFICATIONS AND WAIVERS

Transitional screening and barrier requirements

Section 13-302 of the Zoning Ordinance requires an applicant to provide transitional

screening and barriers between dissimilar land uses as indicated in the Transitional Screening and Barrier Matrix at the end of Article 13. For water storage facilities and water purification facilities, the Zoning Ordinance requires screening and barriers as indicated in Table 2 since the acreage to the north, south, east and west of the subject properties is either zoned for or used for low density residential land uses.

On Sheet 20 of the SEA Plat, the applicant has requested the following modifications and waivers of Article 13's screening and barrier requirements:

Table 2 - Transitional Screening and Barrier Requirement		
Location	Required	Proposed
North	Transitional Screening Type 3 (see Footnote 6 below) Barrier D, E or F (see Footnote 7 below)	Existing vegetation 50-350 feet wide to remain undisturbed, with natural surface trail within portions of the screening yard
East	Transitional Screening Type 3 Barrier D, E or F	30-50 foot wide landscape buffer and 8-foot tall crash-resistant security fence
South	Transitional Screening Type 3 Barrier D, E or F	Existing vegetation 365-495 feet wide proposed to remain undisturbed along Occoquan River and 50-100 feet wide adjacent to the Existing Residual Disposal Area in the south portion of the site
West	Transitional Screening Type 3 Barrier D, E or F	Existing vegetation 430-640 feet wide to remain undisturbed

Southern/Western boundary: Paragraph 3 of Sect. 13-305 states that transitional screening may be waived or modified where the building, a barrier and/or the land between that building and the property line has been specifically designed to minimize adverse impact through a combination of architectural and landscaping techniques. In

-
- 6** Transitional Screening 3 shall consist of an unbroken strip of open space a minimum of fifty (50) feet wide planted with all of the following:
- (1) A mixture of large and medium evergreen trees and large deciduous trees that achieves a minimum ten (10) year tree canopy of seventy-five (75) percent or greater;
 - (2) A mixture of trees consisting of at least seventy (70) percent evergreen trees, and consisting of no more than thirty-five (35) percent of any single species of evergreen or deciduous tree; and,
 - (3) A mixture of predominately medium evergreen shrubs at a rate of three (3) shrubs for every ten (10) linear feet for the length of the transition yard area. The shrubs shall generally be located away from the barrier and staggered along the outer boundary of the transition yard.
- 7** Barrier D shall consist of a 42-48 inch chain link fence and may be required by the Director to have inserts in the fence fabric, to be coated, or to be supplemented by trees and/or shrubs. Barrier E shall consist of a 6 foot wall, brick or architectural block faced on the side facing the existing use and may be required to be so faced on both sides as determined by the Director. Barrier F shall consist of a 6 foot high solid wood or otherwise architecturally solid fence.

addition, Paragraph 12 of Sect. 13-305 states that barrier requirements may be modified where the topography of the lot providing the transitional screening and the lot being protected is such that a barrier would not be effective.

The applicant has requested a modification of the transitional screening requirement and a waiver of the barrier requirement in favor of the existing vegetation shown on the SEA Plat. Due to the extensive tree preservation proposed along the Occoquan River and the distance from the site modifications and the developed areas in neighboring Prince William County, staff supports the applicant's request along the southern/western boundary.

Northern boundary: The applicant has requested a modification of the transitional screening and a waiver of the barrier in favor of the existing and supplemental vegetation shown on the SEA Plat. The majority of this northern boundary is devoid of proposed structures that would make a barrier a useful screening tool. The applicant would maintain the supplemental landscaping provided with the Vulcan application. While the proposed natural surface trail through the northern portion of the subject properties would be partially located within this screening yard, a natural surface trail can be field located with assistance from UFMD in avoiding critical root zones (Appendix 12). Staff has recommended a development condition to require coordination of this trail's implementation with UFMD. With this condition, staff supports the applicant's request.

Eastern boundary: The applicant has requested a modification of the transitional screening and a waiver of the barrier in favor of the existing and supplemental vegetation shown on the SEA Plat. The applicant proposes to supplement the existing vegetation along Ox Road with a landscaped buffer varying in width from 30-50 feet wide. The applicant would also construct the 8-foot tall security fence during Phase 1 shown on the SEA Plat. The landscaped buffer and barrier would meet the purpose and intent of the modification provisions listed in Paragraphs 3 and 12 of Sect. 13-305. Staff supports the applicant's request for modification along Ox Road.

Waiver of Trails

Section 17-201 of the Zoning Ordinance requires applicants to provide a variety of improvements including pedestrian walkways, trails, and widening of roads that are called for in the Comprehensive Plan. These improvements, unless waived or modified, would need to be incorporated into the applicant's site plan design in order to achieve final site plan approval from DPWES. For the subject properties, the Countywide Trails Map, a component of the Comprehensive Plan, recommends the provision of a 8-foot wide major paved trail along Ox Road and a major regional trail along the Occoquan River.

The applicant initially requested a waiver of the major regional trail requirement along the Occoquan River, but withdrew the request after coordination and feedback from

staff on the need for pedestrian connectivity amongst the existing and planned trails in the immediate vicinity. The applicant responded with an alternative northern alignment that avoids existing facilities of significant security risk to Fairfax Water along the Occoquan River.

Staff supports the establishment of an alternative alignment because the applicant's alternative would meet the connectivity objectives cited in the enclosed analysis from the Fairfax County Department of Transportation, Park Authority, and Northern Virginia Regional Park Authority (Appendices 11, 13, and 14 respectively). While the recommended alignment would be a natural surface trail, portions of the applicant's alternative alignment would require bridges, grading, and nonerodable surface treatments that would increase the trail implementation cost. This additional cost should be incurred by the applicant and not FCPA or NVRPA. Staff has recommended development condition language requiring the applicant to provide this alternative during the project's initial phase, concurrent with the Griffith plant expansion.

The alternative alignment would terminate at Ox Road, where the Countywide Trails Map recommends the major paved trail. This facility is already located along a portion of the applicant's Ox Road frontage, linking pedestrians from the Town of Occoquan with Occoquan Regional Park at the park's intersection with Ox Road. The major paved trail should be continued north to the terminus of the major regional trail's alternative alignment. Staff has recommended development condition language that would require this trail's construction during the initial phase of the applicant's proposal.

With the adoption of these development conditions, staff support's the modification of the trails requirements in Section 17-201 of the Zoning Ordinance.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

The applicant's proposal would meet local and regional drinking water needs through an environmentally sensitive, common sense approach that makes use of the adjacent quarry and keeps local water supply within local watersheds. In staff's opinion, the environmental impacts related to the estuary treatment facility can be mitigated through 2232 review with the additional studies outlined in the development conditions.

Staff values pedestrian connectivity in and around the subject properties, and anticipates that the applicant will provide a trails commitment that meets the objectives outlined in the accompanying staff analysis without burdening the County's capital improvements budgeting.

With the adoption of the recommended development conditions, the applicant's proposal would comply with the applicable standards of the Zoning Ordinance as well as the recommendations in the Comprehensive Plan.

Recommendations

Staff recommends approval of SEA 81-V-017-02, subject to the development conditions contained in Appendix 1.

Staff recommends approval of PCA 1998-MV-032 and PCA 1998-MV-033, subject to the execution of proffers consistent with those contained in Appendix 2.

Staff recommends approval of the following waivers and modifications of the Zoning Ordinance:

- Modification of Sect. 13-303, requiring transitional screening and Section 13-304 requiring barriers in favor of that shown on the SEA Plat; and,
- Modification of Sect. 17-201, requiring a trail along the Occoquan River to provide a trail in accordance with the trail location depicted on the SEA Plat.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application

APPENDICES

1. Draft Development Conditions
2. Proffers
3. Applicant's Statement of Justification
4. Affidavit
5. Clerk to the Board of Supervisor's Approval Letter for SEA 81-V-017
6. Proffers for RZ 1998-MV-032 and RZ 1998-MV-033
7. Site Specific Text from the Comprehensive Plan
8. Architectural Review Board Notice of Action on ARB-14-LOR-01
9. Letter To ARB from DHR Discussing Impacts on Cemetery
10. Environmental Analysis

11. FCDOT Analysis
12. UFMD Analysis
13. FCPA Analysis
14. NVRPA Analysis
15. Applicable Zoning Ordinance Provisions
16. Glossary of Terms

PROPOSED DEVELOPMENT CONDITIONS

SEA 81-V-017-02

November 4, 2014

If it is the intent of the Board of Supervisors to approve SEA 81-V-017-02, located at Tax Maps 106-3 ((1)) 4B and 9, 106-4 ((1)) 20B (pt.) and 56A, and 112-2 ((1)) 8, 9, 11, 12, and 14, and a portion of Peniwill Drive right-of-way proposed to be acquired, vacated and/or abandoned (collectively referred to as “the Property”) for use as a water storage, control, and pumping facility and at Tax Maps 106-3 ((1)) 4B, 106-4 ((1)) 20B (pt.) and 56A, and 112-2 ((1)) 8, 9, 11, and 12, and a portion of Peniwill Drive public right-of-way proposed to be acquired, vacated and/or abandoned for use as a water purification facility, pursuant to Sect. 3-C04 and 3-104 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions. Previously approved conditions, or with minor revisions, are marked with an asterisk (*). Revisions to the previous approved conditions are marked in underline or strikeout.

1. This Special Exception Amendment (SEA) is granted for the location indicated in this application and is not transferable to other land. *
2. This SEA is granted only for the buildings and uses indicated on the plats submitted with the application. *
3. A copy of the SEA shall be posted in a conspicuous place along with the Non-Residential Use Permit (Non-RUP) on the property of the use and be made available to all Departments of the County of Fairfax during hours of operation of the permitted use. *
4. This SEA is subject to the provisions of Article 17, Site Plans as may be determined by the Director, Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this SEA shall be in substantial conformance with the approved Special Exception Amendment Plat (SEA Plat) entitled “Fairfax Water | Frederick P. Griffith Jr. Water Treatment Plant | Special Exception Amendment Plat” and prepared by Dewberry Consultants, LLC which is dated July 8, 2013 and revised through November 4, 2014, and these conditions. Minor modifications to the approved SEA may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.

Any portion of the Property may be subject to a special exception amendment without joinder and/or consent of the owners of the other portion of the Property if such amendment does not affect such other portion of the Property. Previously

approved development conditions applicable to the portion of the Property not subject to any future special exception amendment shall otherwise remain in full force and effect. *

General

5. All exterior pole-mounted lighting fixtures shall not exceed twenty (20) feet in height and shall be shielded and conform to the performance standards set forth in Article 14 of the Zoning Ordinance. *
6. At the time of final site plan approval, minor deviations to the sizes, dimensions, footprints, and location of buildings, parking, loading spaces and travelways may be permitted in accordance with Section 9-004 of the Zoning Ordinance. In addition, changes to the number, location, height, dimensions, configuration, and layout of the structures, buildings, recreational fields, reservoirs, travelways and parking areas may occur within the boundaries of the flexibility line shown on the SEA Plat without a Special Exception Amendment, provided that, the maximum gross floor area (GFA) shall not exceed 600,000 square feet, the minimum setbacks of the structures and uses shown on the SEA Plat are maintained along Route 123 and the northern boundary, and the landscaped buffer to the north of the facility is maintained. *

Environmental

7. Development of the proposed facilities shall comply with the applicable storm water management and Best Management Practices (SWM/BMPs) requirements provided in the Public Facilities Manual (PFM), as determined by DPWES unless waived and/or modified by DPWES. The existing wet pond located on the northern portion of the property (the "north pond") may be used to meet the applicable SWM/BMP requirements. The existing north pond shall not be drained, unless draining is determined to be the only feasible option as determined by the Special Projects Branch, DPWES. To the extent feasible, modifications to the north pond shall be designed such that, upon completion, possible construction of a trail by others on the pond's embankment will not be precluded, as determined by the Fairfax County Park Authority (FCPA). If there is no way to avoid draining the north pond in order to use it to satisfy the applicable SWM/BMP requirements, a restoration plan shall be submitted for areas disturbed by the draining of the pond for review and approval by the Environmental and Development Review Branch, Department of Planning and Zoning (DPZ) and the Urban Forest Management Division (UFMD), DPWES, in coordination with the FCPA prior to site plan approval for construction activity on the north pond. This restoration plan shall
 - 1) Identify the extent and location of existing wetlands in and near the pond;
 - 2) Identify the impacts (both direct and indirect) of the pond retrofit proposal on existing wetlands;
 - 3) Provide for the restoration of at least an equivalent area of wetlands as the area of wetlands that will be destroyed as a result of the retrofit

project; and 4) Provide for the restoration of other disturbed areas through the planting of native species of vegetation in a manner, and to the extent, determined by UFMD. Modifications to the restoration plan may be permitted if necessary to comply with state and/or federal wetland permitting requirements and if necessary to provide for trail connections as determined by the FCPA.

8. Prior to DPWES approval for the estuary treatment facility's off-site discharge pipeline, the pipeline shall be subject to review in accordance with Va. Code Ann. §15.2-2232 or its successor review process (2232 Review). If, in the future, there would not be a successor review process available or if the 2232 Review would not apply to the pipeline, the applicant agrees that an equivalent review process shall be established that will provide for a Planning Commission determination that the approximate location, character and extent of the pipeline would be in substantial accord with the adopted Comprehensive Plan. This process shall provide for the communication of the Planning Commission determination to the Board of Supervisors and the opportunity for the Board of Supervisors to overrule or affirm the action of the Planning Commission.

The following issues may be among those considered by the Planning Commission in its determination per the 2232 Review or equivalent process:

- a) The extent to which the pipeline would be sited and constructed in a manner that will minimize adverse environmental impacts;
 - b) The demonstrated need for the estuary treatment facility, as evidenced by the pipeline's conformance with facilities identified to ensure adequate and safe drinking water supplies in Fairfax County's Water Supply Plan as most recently adopted by the Board of Supervisors in compliance with Local and Regional Water Supply Planning Regulation 9 VAC 25-780-10. If the estuary treatment facility and associated discharge pipeline would not conform with facilities identified in the adopted Water Supply Plan, the applicant shall provide documentation to the Planning Commission demonstrating the purpose and need for the facility and pipeline; and,
 - c) The extent to which discharges from the pipeline could adversely affect aquatic life at, near and downstream of the proposed point of discharge.
9. Prior to applying for the 2232 Review or equivalent review process, and prior to submitting to the Virginia Department of Environmental Quality ("DEQ") an application for a new point source discharge permit for the estuary plant process water (the "DEQ Discharge Permit"), the applicant will conduct a pilot study of the estuary treatment discharge. The applicant will meet with the DPWES to discuss potential discharge locations and specific concerns with each proposed location prior to initiating the pilot study.

The pilot study will at a minimum:

- a) Evaluate at least two potential off-site discharge locations.
- b) Characterize the proposed discharge with respect to flow and chemical composition.
- c) Include water quality sampling that will characterize and provide quantitative information on the proposed off-site process water discharge over a 12-month period to capture seasonal differences in source water quality.
- d) Compare the proposed off-site process water discharge to regulatory limits established by the DEQ and demonstrate the technical feasibility of the proposed processes to meet the regulatory requirements of the DEQ.
- e) Include any other characterization of the proposed discharge that will be necessary to make application to the DEQ for the DEQ Discharge Permit.

A copy of the pilot study results will be submitted with the application for the 2232 Review or equivalent review process. A copy of the draft application for the DEQ Discharge Permit will be submitted to DPWES at least thirty days prior to submitting the application to the DEQ.

Interim Recreational Uses

10. The area to the north of the existing Griffith Water Treatment Plant in the vicinity of the proposed estuary treatment facility may be used for active and passive recreational purposes for an interim period of time. The location of said recreational uses within this area shall not require an amendment of this SEA, so long as the landscaped buffer shown on the SEA Plat including a minimum setback of 50 feet is maintained along the northern property boundary. Prior to final site plan approval for the expansion of the Griffith Water Treatment Plant facility, the applicant shall provide documentation to DPWES to demonstrate that the applicant and the Fairfax County Park Authority have entered into an agreement dated February 22, 2006 and/or any subsequent agreement between the applicant and FCPA to provide for the interim FCPA use of this area for active and passive recreation purposes and which may include, but not be limited to, athletic fields, open space, parking, playgrounds, and trails. Construction and maintenance of these recreational uses shall be the responsibility of FCPA. Use of this area for active and/or passive recreation uses shall be permitted until such time as this area is required for expansion of the facility or the FCWA and FCPA void the agreement. The area along the northern and eastern property boundaries where landscaping and/or berms are shown shall not be used. Amendments to the Special Exception amendment shall not be required for FCPA Uses.

Trails

11. At the time of site plan submission for the expansion of the existing Griffith Water Treatment facility which includes the expansion of the filter building and flocculation/sedimentation basins, the applicant shall submit a grading plan showing a natural surface trail as depicted on the SEA Plat, and a minimum 8-foot wide paved trail along the properties' Ox Road frontage to connect to the existing trail and complete a continuous trail along the property's Ox Road frontage. This natural surface trail may follow the alignment of the existing Cemetery Road provided such alignment does not interfere with the use of the Cemetery Road. These trails shall be subject to the review and approval of the Northern Virginia Regional Park Authority (NVRPA) in consultation with FCPA.
12. To reduce the natural surface trail's impacts on the Elk Horn Run Environmental Quality Corridor (EQC) and the northern property boundary's transitional screening yard, the applicant shall coordinate the alignment of the trail with UFMD during site plan review to minimize tree removal and land disturbance. UFMD may require additional vegetation to be planted after the trail's construction to supplement the transitional screening yard should it be determined that the screening yard will be impacted by the construction of the trail.
13. Prior to the issuance of a Non-Residential Use Permit (Non-RUP) for buildings associated with the expansion of the Griffith Water Treatment facility, the applicant shall construct the trails as described in Condition 11.
14. If the interim recreation uses described in Condition 10 are established by FCPA, the applicant shall provide temporary public access easements within the interim recreational area for trail construction by others, as may be deemed appropriate and feasible by FCPA in coordination with NVRPA, provided such public access easements do not adversely affect the operation of the water purification facility. These easements shall include a public access easement for a trail connection to be constructed by others from the interim recreational area to the trail on Ox Road.
15. The applicant shall permit pedestrian access across the Occoquan River at the existing footbridge connecting Fairfax County with the Town of Occoquan. No fencing or other security measures shall restrict this accessibility for pedestrians.

Landscaping

16. Prior to issuance of the Non-RUP for the expansion of the Griffith Water Treatment Plant which includes the expansion of the filter building and flocculation/sedimentation basins, an effective and continuous year-round landscaped screen along the Ox Road frontage as shown on the SEA Plat shall be provided. The actual types, locations and species in the landscaped buffer shall be determined pursuant to a landscape plan submitted at the time of site plan

submission for the Griffith Water Treatment Plant expansion, and subject to the review and approval of UFMD.

Cemetery/Archaeological Survey

17. As depicted on the SEA Plat, a four-foot, black, wrought iron fence with a gate shall be maintained around the cemetery prior to any earth moving activity within that general area of the site. The applicant shall adjust the location of the existing fence to accommodate the inclusion of additional grave sites, if any, into the cemetery that are identified as part of the archaeological survey described in Condition 18. The existing landscaping located in the vicinity of the cemetery shall be retained as shown on the SEA Plat. Vehicular and pedestrian access to the cemetery shall be maintained at all times, as shown on the SEA Plat. There shall be no new construction on the portion of the property located within the National Register-eligible Historic District as described in the Memorandum of Agreement regarding the transfer of the Lorton Correctional Complex out of federal ownership as executed by the County Executive on May 30, 2001, except for the natural surface and paved trails depicted on the SEA Plat and the possible adjustment of the fence location.

18. Prior to final site plan approval for any building and/or facility associated with the estuary facility, the applicant shall conduct a Phase I archaeological survey of the existing cemetery and its immediate surroundings to confirm the exact dimensions of the cemetery, and of the area proposed for the estuary treatment facility and its associated finished water pump station, chemicals building, and sedimentation basins to identify and record other potential historic resources. The extent of this survey shall be subject to the review and approval of the Fairfax County Park Authority Cultural Resource Management and Protection Branch (CRMP). The applicant shall provide the results of the Phase I survey to CRMP for review and approval. No land disturbance activities in the areas stated above shall be conducted until this study has been approved by CRMP. If the Phase I survey results conclude that a Phase II study of the survey area is warranted, the applicant shall complete that study and provide the results to CRMP for review and approval. If the Phase II survey results conclude that a Phase III evaluation and/or recovery is warranted, the applicant shall complete the recommended work in consultation and coordination with CRMP.

If additional grave sites are found outside of the existing cemetery's extent as shown on the SEA Plat as a result of the aforementioned archaeological survey, the applicant shall take one of the following actions:

- a. Relocate the additional grave sites in accordance with the Virginia Antiquities Act, §10.1-2300 of the Code of Virginia; or,
- b. Revise the site plan to relocate buildings such that the grave sites are avoided and demarcate the extent of the cemetery with fencing as approved by CRMP.

Any revision shall be in accordance with Paragraph 4 of Section 9-004 of the Zoning Ordinance.

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be himself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, ten (10) years after the date of approval unless, at a minimum, the use has been established or construction has commenced and been diligently prosecuted as evidenced by the issuance of an approval for the first site plan for the Griffith Water Treatment Plant's expansion. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the Special Exception. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

FAIRFAX COUNTY WATER AUTHORITY
FREDERICK P. GRIFFITH, JR. WATER TREATMENT PLANT
PCA 1998-MV-032 and PCA 1998-MV-033
PROFFER STATEMENT

FEBRUARY 28, 2014

MAY 5, 2014

OCTOBER 3, 2014

NOVEMBER 4, 2014

Pursuant to Section 15.2-2303(A) of the Code of Virginia, as amended, and subject to the Fairfax County Board of Supervisors' (the "Board") approval of these Proffered Condition Amendment applications ("PCA") PCA 1998-MV-032 and PCA 1998-MV-033 (the "Applications"), the Fairfax County Water Authority (the "Applicant") for itself and its successors and assigns, hereby proffers that development of the property identified as Fairfax County Tax Map Parcel 106-4-((1))-56A (part) (collectively, the "Property"), containing approximately 134.55 acres, shall be in accordance with the following conditions if, and only if, the Applications are granted by the Board and in that case, the following conditions shall supersede and replace the previous proffers. In the event these Applications are denied, the proffers below shall immediately be null and void and the previous proffers dated December 1, 1998 shall remain in full force and effect.

1. Park and Recreational Uses. As set forth in the agreement dated February 22, 2006 between the Applicant and the Fairfax County Park Authority (the "Park Authority"), the Applicant shall provide an area in the northeast portion of the Property consisting of approximately 3 acres for park and recreational purposes until such time as this area is required for expansion of the Griffith Water Treatment Plant as shown on the Special Exception Plat dated November 4, 2014 ("SEA Plat"). Any park or recreational facilities constructed in such area shall be constructed, operated and maintained at no cost to the Applicant. The Applicant reserves the right to make any use of the designated area by providing the Park Authority with nine (9) months prior written notice as set forth in the agreement.
2. Severability and Future PCA/SEA/SP Applications. Portions of the land area subject to the Applications and SEA 81-V-017-02 as shown on the SEA Plat may be the subject of a separate SEA, Special Permit ("SP"), variance or other similar land use applications without requiring a future PCA or the joinder and/or consent of the owners of all portions of the Property, provided such application will not change or cause or require a change to the general layout, physical improvements and/or access to the Property. All existing land use approvals that are applicable to the portions of the Property not included in such PCA, SEA, SP, variance and/or other similar land use applications shall otherwise remain in full force and effect as to such portions of the Property.

3. Successors and Assigns. Each reference to the Applicant in this proffer statement shall include within its meaning and shall be binding upon, the Applicant's successors in interest and/or the developers of the Property or any portion of the Property.

[SIGNATURE ON FOLLOWING PAGE]

FAIRFAX COUNTY WATER AUTHORITY
Applicant and Title Owner of
Tax Map Parcel 106-4-((1))-56A (part)

By: _____
Name: _____
Title: _____

Revised: November 4, 2014

**Fairfax Water
Griffith Water Treatment Plant**

**Special Exception Amendment SEA 81-V-017-2
Proffered Condition Amendment PCA 1998-MV-032/PCA 1998-MV-033**

APPLICANT'S STATEMENT

Pursuant to Sections 9-101 and 9-201 of the Zoning Ordinance, the Fairfax County Water Authority ("Fairfax Water") requests Fairfax County Board of Supervisors' (the "BOS") approval to amend Special Exception Amendment ("SEA") 81-V-017 on Fairfax County Tax Map Parcels 106-3 ((1)) 4B and 9; 106-4 ((1)) 56A and 20B (part); 112-2 ((1)) 8, 9, 11, 12 and 14; and a portion of public right-of-way ("ROW") proposed to be vacated/abandoned (collectively, the "Property"). The purpose of the Special Exception Amendment (the "SEA Application") is (i) to increase the land area of the existing Griffith Water Treatment Plant (the "Griffith WTP") from 247.84 acres to 526.86 acres to include the adjacent Vulcan Graham Quarry property to permit the use of a reconfigured quarry pit for water storage, control and pumping facilities and to add 1.4 acres on the northern portion of the Property acquired by Fairfax Water in 2005; and (ii) to increase the treatment capacity for the existing Griffith WTP to include additional water purification facilities and other related site modifications that are necessary to utilize the additional water supply provided by the quarry. Companion Proffered Condition Amendment ("PCA") applications PCA 1998-MV-032 and PCA 1998-MV-033 (the "PCA Applications") have been filed on approximately 129.01 acres and 5.54 acres, respectively, on Fairfax County Tax Map Parcel 106-4 ((1)) 56A (part) to amend the proffers on a portion of the Property currently owned by Fairfax Water.

Background

Fairfax Water was established in 1957 by the BOS to establish, operate and maintain a comprehensive and integrated water system to be accomplished through the acquisition of existing systems, the construction of new facilities and, where beneficial, extensions beyond Fairfax County. Today, Fairfax Water provides water service to over 1,070,000 residents and over 609,000 employees in Fairfax County. Fairfax Water also provides retail water service to the Cities of Fairfax and Falls Church and wholesale water service to the City of Alexandria, Prince William and Loudoun Counties, the Towns of Herndon and Vienna, Fort Belvoir and Dulles Airport. Including its wholesale customers, Fairfax Water provides water service to almost 1.9 million residents and over 1 million employees in Northern Virginia. Fairfax Water is chartered by the Virginia State Corporation Commission as a public, non-profit water utility and is the largest water utility in the Commonwealth of Virginia, serving one of every five Virginians who obtain their water from a public utility.

Unique Opportunity to Meet a Critical Need

Fairfax County is the Washington metropolitan area's private-sector job leader and a major hub for regional economic activity, according to the U.S. Department of Labor. As a thriving business center, residential and employee populations in Fairfax County are expected to continue to grow. As Fairfax County's water utility, Fairfax Water is responsible for providing an adequate, safe, and reliable water supply sufficient to meet current and projected needs. The

Metropolitan Washington Council of Governments ("COG") data (Round 8.3 Cooperative Forecasting, published October 2014) indicate that by 2040, Fairfax Water's service population, including both retail and wholesale customers, will increase by almost 550,000 residents and 490,000 employees. While Fairfax County has been a leader in adopting practices designed to reduce per capita water consumption, growth in the identified Urban Centers and other areas of Fairfax County will increase water demands and necessitate new water supply sources.

To meet those future water demands and support continued economic growth in Fairfax County, Fairfax Water, in coordination with Vulcan Construction Materials LP ("Vulcan"), has developed a plan to reconfigure the pit at the existing Vulcan Graham Quarry (as reconfigured, the "Quarry") in order to utilize the Quarry as a water supply storage facility within the identified timeframe. Use of the Quarry for water supply storage provides a unique opportunity to develop a sustainable and cost-effective drinking water supply, with significantly reduced environmental impacts relative to the alternatives Fairfax Water would have to pursue to meet future water supply needs. Adjacent to the Griffith WTP and the Occoquan Reservoir, this proposed Quarry water storage facility will reduce infrastructure requirements and minimize construction impacts.

New sources of water supply must be identified well in advance to allow adequate time to permit, plan, and design new facilities and associated infrastructure. Fairfax Water has conducted four principal studies over a 12-year period to evaluate use of the Quarry as a water supply facility following closure of quarrying operations. The Quarry water supply has been reflected in Fairfax Water's 10-year Capital Improvement Program ("CIP") every year beginning in 2006, and use of the Quarry as a future water supply source was discussed during the 2009-2010 South County Area Plan Review process.

Phased Approach Addresses Regional Water Supply Needs

During the 1960s, several studies identified the need for additional water supplies to support projected development in the Washington, DC area. Subsequent to severe drought conditions, the Water Supply Coordination Agreement of 1982 ("WSCA") was put in place establishing water supply planning and drought mitigation protocols for the region. Under the auspices of the WSCA, Fairfax Water, and the two other major water suppliers in the Washington Metropolitan Area ("WMA"), the Washington Aqueduct Division ("WA") of the U.S. Army Corps of Engineers, and the Washington Suburban Sanitary Commission ("WSSC"), manage the Potomac River cooperatively, optimizing use of this precious resource. The Occoquan Reservoir, a vital resource operated in conjunction with the Potomac River, is used as part of the system to meet the water supply needs of Fairfax Water.

The Cooperative Section ("CO-OP") of the Interstate Commission on the Potomac River Basin ("ICPRB") provides technical support for WSCA implementation.

Every five years, as required by the WSCA, the CO-OP conducts a study of projected demand and available water supply resources. The most recent 2010 study concludes that existing water resources will be adequate through 2030, but by 2040 the system may have difficulty meeting demands. Furthermore, the ICPRB projects that climate change, in the worst-case scenarios, could have major impacts on our regional water supply. The ICPRB climate change assessment indicates that even a moderate drought, similar to that experienced in 1999,

could fully deplete reservoirs under 2040 demand conditions. The potential use of the Quarry as an alternative to mitigate the supply deficit was identified in both the 2010 and 2005 studies by the CO-OP.

With additional water sources being required between 2030 and 2040, making a portion of the Quarry available sometime around 2035 addresses water supply needs which are clearly defined and within the planning horizon. At the same time, maximizing the ultimate overall volume of the Quarry for future use as a water storage facility provides for a more robust water supply system in the long term and supports regional water supply planning objectives. Such a phased approach provides optimal benefit to populations who rely on Fairfax Water and the CO-OP utilities for drinking water.

Adoption of Northern Virginia Regional Water Supply Plan by Fairfax County

The 2010 study prepared by ICPRB was subsequently incorporated into the Northern Virginia Regional Water Supply Plan, adopted by the BOS on February 28, 2012, pursuant to the Commonwealth's Water Supply Planning Regulation (9 VAC 25-780). That Regulation requires all Virginia localities to submit a water supply plan to the Virginia Department of Environmental Quality (the "DEQ") and to adopt any revisions to comprehensive plans necessary to implement the plan (9 VAC 25-780-50). The Regional Water Supply Plan adopted by the BOS incorporates the ICPRB study identifying the Quarry as an alternative to meet future water supply demands.

Proposed SEA/PCA Applications

Fairfax Water has worked with Vulcan to develop a phased approach for utilization of the Quarry to provide interim water supply storage in or around the year 2035, as well as a significantly larger storage facility beyond 2085 as depicted on Sheets 13-15 of the Special Exception Amendment Plat ("SEA Plat"). This plan depends on the reconfiguration of the current quarry pit in order to create two distinct pits. The transfer of an initial pit located on the northern portion of the Property (the "Northern Reservoir (Pit)") to Fairfax Water will provide approximately 1.8 billion gallons of water storage around the year 2035, which is within the timeframe required to meet the needs projected by the CO-OP study. The second pit (the "Southern Reservoir (Pit)"), which would provide additional future water storage potential of 7 to 15 billion gallons, would be delivered to Fairfax Water sometime around 2085. At completion of the second pit, the Quarry and associated pumping improvements, including estuary pumping, will provide 28 to 56 million gallons per day ("MGD") in safe yield benefits, an increase of up to 70% as compared with the Occoquan Reservoir today, and enough to support an increase in population of up to 560,000.

Associated Treatment Plant Expansion

Water system expansion is comprised of both supply development and construction of the corresponding treatment plant capacity. The current Griffith WTP capacity is 120 MGD, and consistent with established Virginia Department of Health requirements, is designed to meet maximum-day demands. Fairfax Water's use of the Northern Reservoir (Pit) for interim water storage estimated to begin in 2035 supports expansion of the Griffith WTP to 160 MGD. Before 2035, facilities that will need to be constructed at the Griffith WTP site include:

- Control Valve Vaults Finished Water Distribution Line Relocation
- Storage/Workspace Addition
- Facility Support Center
- Upgrade to 160 MGD the Capacity of the Griffith WTP Treatment Facilities
 - Filter Building Expansion
 - Flocculation/Sedimentation Basin Expansion
 - Ozone Contactor Expansion
- 10 Million Gallons (MG) Clearwell
- New High Security Crash Resistant Fencing Along Route 123
- Ultraviolet/Advanced Oxidation Process (UV/AOP) Building
- North Reservoir Intake and Pump Station
- North Reservoir Residuals Pump Station
- Residuals Disposal Line to North Reservoir
- 2 MGD Pilot Plant
- 84-inch Raw Water Pipeline and Electrical Ductbank Relocation

Additional treatment capacity and a new source of supply will likely be needed sometime beyond 2035 and before 2085 to meet maximum daily demands. These facilities will include:

- Estuary Intake and Pump Station
- Estuary Water Treatment Plant
- Estuary Water Plant Pipelines; Raw Water, Finished Water, Residuals Disposal and Concentrate
- Electrical Generation and Transformers
- Septic Drainfield Expansion
- Water Quality Laboratory

Facilities required sometime after 2085 to allow for use of the Southern Reservoir (Pit) storage include:

- South Reservoir Water Treatment Plant
- Estuary Raw Water Pipeline Outfall to South Reservoir
- South Reservoir Intake and Pump Station
- Plant pipelines
- UV/AOP Building
- Clearwell
- Finished Water Pump Station
- Residuals Handling Building

Benefits of the Quarry as a Water Supply Storage Facility

Compared to other water supply alternatives, such as raising the height of the existing Occoquan Dam or constructing a new water supply reservoir in another location in the County, use of the Quarry significantly reduces environmental impacts, particularly to wetlands. The use of retired quarries for water supply after they have been fully mined has been utilized in the Chapel Hill, NC area. A relatively small portion of the streamflows that would normally overflow the Occoquan Reservoir during high streamflow conditions would be conveyed into the

Quarry for storage and subsequent water supply use. The Quarry water will be of higher quality than the Occoquan Reservoir, as a result of additional settling provided by the water storage. If this Quarry water supply plan is not pursued and Fairfax Water is forced to construct a new reservoir elsewhere to meet the demand, the land disturbance and environmental impacts will be tremendous in terms of scope, costs and permitting uncertainty.

The Quarry water supply is a cost-effective water supply alternative compared to other water supply alternatives previously considered for Metropolitan Washington and elsewhere in the Mid-Atlantic region. In fact, unit costs for the new Quarry water supply plan are approximately 40% to 67% lower than unit costs for other water supply projects that have been planned or are being implemented in the Mid-Atlantic region. For comparatively sized facilities, construction costs for the Quarry are \$82 to \$136 million lower. Because quarry storage is being delivered by ongoing quarrying operations rather than being constructed from "the ground up" as part of an independent reservoir supply project, both costs and environmental impacts are significantly reduced. The close proximity of the water supply storage at this Quarry to existing treatment facilities also reduces construction and operational costs, environmental impacts, and community disruption.

Description of Proposed Use

The following information addresses the requirements of Par. 7 of Sect. 9-011 of the Zoning Ordinance:

A. Type of operation.

The Griffith WTP operation consists of the treatment of raw water from the Occoquan Reservoir and the proposed Quarry water supply storage reservoir to produce drinking water for Fairfax Water's retail and wholesale customers. Treatment includes chemical and physical treatment processes to remove suspended particles, naturally occurring organic compounds, and other contaminants, and provides disinfection of the treated water prior to transmission and distribution to customers.

B. Hours of operation.

The Griffith WTP operates 24 hours a day on a continuous basis.

C. Estimated number of patrons.

Normally, there will be no outside visitors to the Griffith WTP. On occasion, Fairfax Water receives visitors for WTP tours by appointment. Typical visitors include school groups from elementary school through university levels, and members of associations such as the American Water Works Association. Group size varies from just a few to approximately 25 visitors.

D. Proposed number of employees.

The Griffith WTP is staffed with three operators, 24 hours a day. Currently, up to 30 additional staff (supervisory, maintenance, and support staff) are present up to 8.5 hours

per day. It is anticipated that once all facilities envisioned under this SEA Application are completed, the number of non-operator staff will gradually rise to 50.

E. Estimate of traffic impact of the proposed use.

Trip generation for the Griffith WTP use will increase slowly over time to a maximum of about 100 total daily trips per day in 2085. When the Quarry has closed, there will be a large reduction in overall trips generated from the Property as compared to existing trip generation. The County Department of Transportation has determined that a VDOT Chapter 870 study is not required because no material increase in trip generation is projected.

F. Vicinity or general area to be served by the use.

The Griffith WTP serves retail and wholesale water customers in Fairfax County, Prince William County, Loudoun County, the Cities of Alexandria, Fairfax and Falls Church, the Towns of Herndon and Vienna, Fort Belvoir, and Dulles Airport.

G. Description of building facade and architecture of proposed new building or additions.

Architectural treatment will be provided consistent with the existing Griffith WTP.

H. Listing, if known, of all hazardous or toxic substances.

Hazardous and/or toxic substances currently stored and contained on-site are limited to products which are used for general operation of the Griffith WTP, its equipment and vehicles. Methods for use and disposal shall adhere to County, State and/or Federal law.

I. Statement of conformance with applicable ordinances, regulations and standards.

This SEA Application is in conformance with the "General Standards" set forth in Sect. 9-006 of the Zoning Ordinance. This SEA Application advances numerous objectives identified in the Comprehensive Plan and is in harmony with the recommendations of the Plan. In addition, the BOS recently approved Comprehensive Plan Amendment No. 2013-09 to specifically identify the ultimate disposition of the Quarry as a water supply storage facility as proposed with this SEA Application. This SEA Application also shall comply with the "Additional Standards" for all Category 1 (Light Public Utility) and Category 2 (Heavy Public Utility) Special Exception Uses set forth in Sections 9-104 and 9-204, respectively, and with "Additional Standards" for Water Treatment Facilities set forth in Sect. 9-206 of the Zoning Ordinance.

This SEA Application complies with all other applicable ordinances, regulations and standards, except that Fairfax Water seeks the following waivers and modifications:

- The proposed expansion of the Griffith WTP to utilize the Quarry for future water storage has been specifically designed to minimize adverse impact on adjacent properties. However, in order to maintain existing vegetation and/or vary the

location of plantings and fencing, the following modifications/waivers are requested:

1. A modification of the transitional screening and a waiver of the barrier requirement is requested along the western boundary pursuant to Par. 3 and Par. 12 of Sect. 13-305 of the Zoning Ordinance. The significant areas of existing vegetation ranging in width from 300 to 700 feet along the western boundary within the RPA/EQC associated with the Occoquan River and Elk Horn Run will remain undisturbed and will provide a substantial buffer between the proposed use and the Occoquan Overlook subdivision.

2. A reaffirmation, with revisions, of the modification of the transitional screening and waiver of the barrier requirement is requested along the northern property line which is proposed to include the additional land area of the existing Vulcan (Graham) Quarry pursuant to Par. 3 and Par. 12 of Sect. 13-305 of the Zoning Ordinance. Significant areas of existing vegetation will be maintained along a portion of the northern property line adjacent to existing single family detached and/or vacant properties zoned R-1 and will be supplemented with revegetation proposed in conjunction with SPA 82-V-091-6 for the Quarry. A possible future four (4) foot wide natural surface trail is identified along portions of the northern property line. A modification of the width for some portions of the transitional screening yard requested in order to accommodate a natural surface trail that is sustainable in these areas as shown on the SEA Plat. Given that the possible future natural surface trail is only 4-foot wide, the required amount of transitional screening plantings and/or revegetation areas proposed in conjunction with SPA 82-V-091-6 or SEA 81-V-017-2 will still be provided.

In addition, given that the possible future natural surface trail is only 4-foot wide and that the proposed estuary water treatment plant has been designed to mitigate visual impacts to the adjacent national register DC Workhouse Reformatory Historic District and Lorton Correctional Complex National Register-eligible District in consultation with the Architectural Review Board, a modification of the width of the transitional screening yard is requested to accommodate the segment of the trail between the estuary water treatment plant facility and the northern property line as shown on the SEA Plat.

A waiver of the barrier requirement is requested in favor of the proposed 8-foot high security chain link fence to be located around the perimeter of the northern reservoir and estuary water treatment plant.

3. A reaffirmation of both the modification of the transitional screening and modification of the location of the proposed barrier pursuant to Par. 3 and 12 of Sect. 13-305 of the Zoning Ordinance is requested along the portion of Route 123 adjacent to Tax Map Parcels 106-4 ((1)) 53A (part); 112-2 ((1)) 4 and 10, zoned R-1. A significant landscape buffer ranging from 50 to 100 feet wide will be provided along Route 123 to consist of a mixture of deciduous, ornamental and evergreen trees similar to the existing landscaping which must be replaced due to utility relocations. The replacement of the existing landscaping is

not anticipated to occur until after 2035. The existing security fencing located along Route 123 is proposed to be replaced with a combination of 8-foot high reinforced crash resistant fencing and 8-foot high chain link fencing to be installed along the property line. To allow this landscaping and the new fencing to be installed, a reaffirmation of the modification of the transitional screening and modification of the location of the proposed barrier is requested.

- Given that the construction of the proposed use will occur in phases and span a timeframe that is anticipated to extend beyond 2085, BOS approval of additional time to commence construction of the development is hereby requested pursuant to Par. 1 of Sect. 9-015 of the Zoning Ordinance.
- An application for a Resource Protection Area (RPA) Exception has been submitted separately to the Director, Department of Public Works and Environmental Services (DPWES) for a public hearing before the BOS concurrent with the SEA application pursuant to Section 118-6-1 of the Fairfax County Code, Chesapeake Bay Preservation Ordinance.

FAIRFAX COUNTY WATER AUTHORITY,
a body corporate and politic

By: 
Charles M. Murray, General Manager

FAIRFAX WATER
SEA 81-V-017-2
ZONING ORDINANCE SECTIONS 9-103, 9-203
ADDITIONAL SUBMISSION REQUIREMENTS FOR
"CATEGORY 1" AND "CATEGORY 2" SPECIAL EXCEPTION USES

Pursuant to Sect. 9-103 and 9-203 of the Zoning Ordinance, the following supplemental information is submitted for the proposed water storage, control, and pumping facility "Category 1" Special Exception (SE) use and for an expansion of the existing water purification facility "Category 2" SE use being requested with this Application:

Paragraph 1 of Section 9-103 and 9-203: Four (4) copies of a map showing the utility system of which the proposed use is an integral part, together with a written statement of justification outlining the functional relationship of the proposed use to the utility system.

Fairfax Water provides water service to over 850,000 residents and over 450,000 employees in Fairfax County. Fairfax Water also provides wholesale water service to the City of Alexandria, Prince William and Loudoun Counties, the Towns of Herndon and Vienna, Fort Belvoir and Dulles Airport. Four copies of the utility system maps showing the service area for Fairfax County as well as for retail and wholesale water service to surrounding jurisdictions are provided in Attachment 1 and Attachment 2.

Including its wholesale customers, Fairfax Water provides water service to almost 1.7 million residents and 840,000 employees in Northern Virginia. With the prospective acquisition of the City of Falls Church and City of Fairfax water systems, Fairfax Water's service area in Northern Virginia will grow to almost 1.85 million residents and over 1 million employees. Fairfax Water is chartered by the Virginia State Corporation Commission as a public, non-profit water utility and is the largest water utility in the Commonwealth of Virginia, serving one of every five Virginians who obtain their water from a public utility.

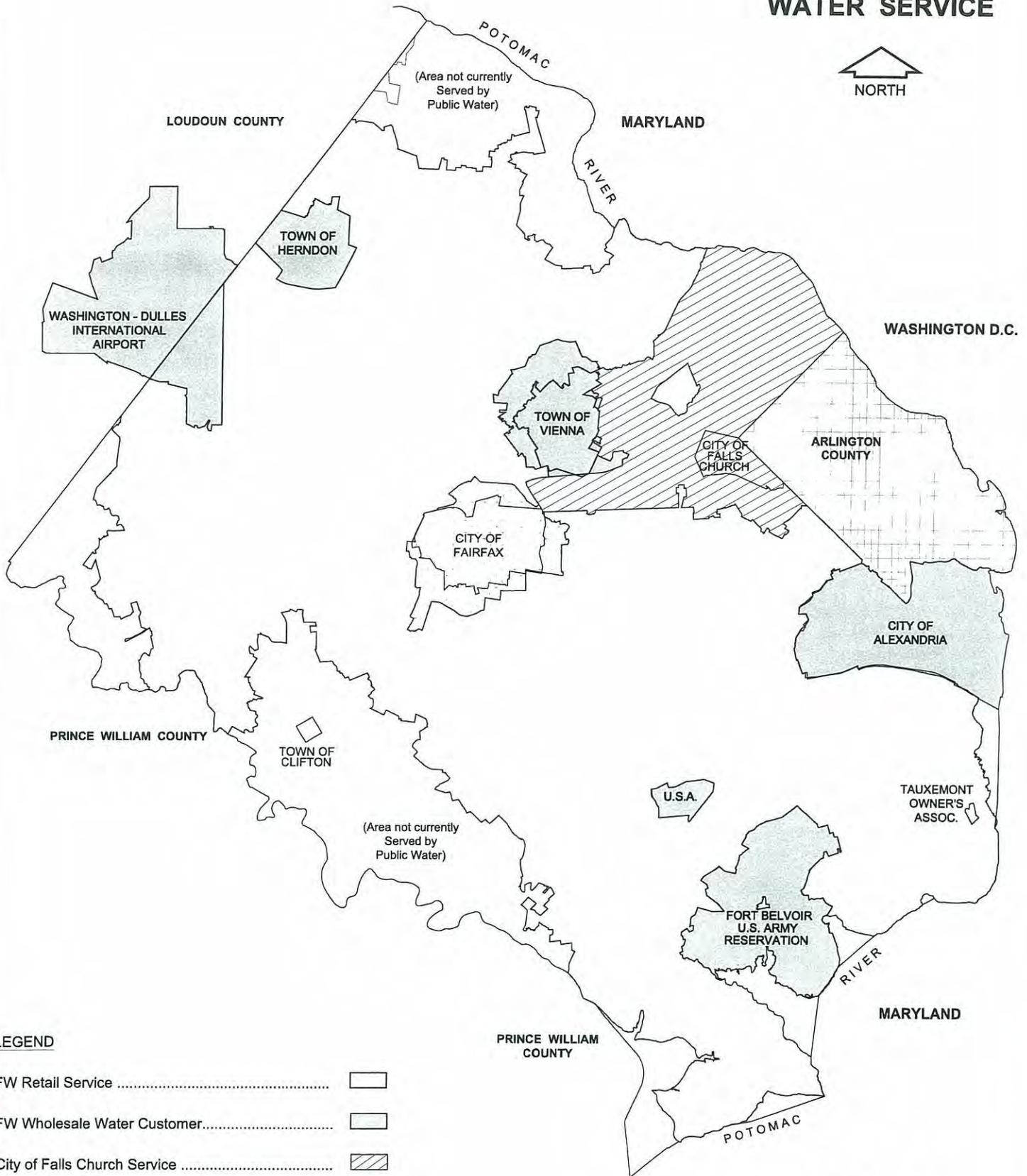
To meet future water demands and support continued economic growth in Fairfax County, Fairfax Water, in coordination with Vulcan Construction Materials LP ("**Vulcan**"), has developed a plan to utilize the existing Quarry as a water supply storage facility. Use of the Quarry for water supply storage provides a unique opportunity to develop a sustainable and cost-effective drinking water supply, with significantly reduced environmental impacts relative to other alternatives. Adjacent to the Griffith WTP and the Occoquan Reservoir, this proposed Quarry water storage facility will reduce infrastructure requirements and minimize construction impacts.

Paragraph 2 of Section 9-103 and 9-203: Four (4) copies of a statement, prepared by a certified engineer, giving the exact technical reasons for selecting the particular site as the location for the proposed facility and certifying that the proposed use will meet the performance standards of the district in which located.

Four copies of the certified statement as referenced above is provided as Attachment 3.

Fairfax Water

WATER SERVICE



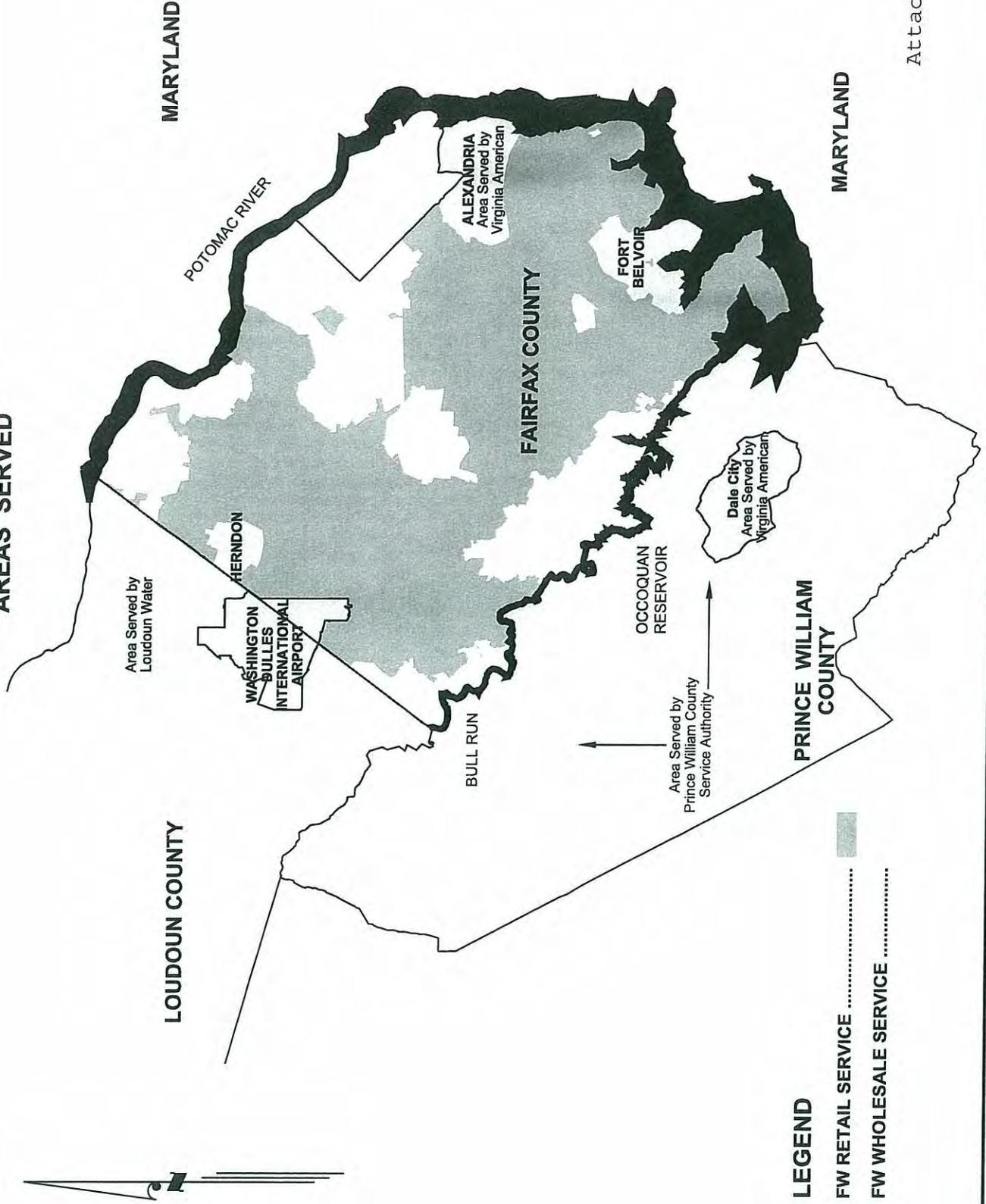
LEGEND

- FW Retail Service
- FW Wholesale Water Customer.....
- City of Falls Church Service
- City of Fairfax Service
- Arlington County Service

Attachment 1

Fairfax Water

AREAS SERVED



LEGEND

FW RETAIL SERVICE

FW WHOLESALE SERVICE

**Fairfax Water
Griffith Water Treatment Plant
and
Proposed Water Supply Storage Facility
Certifications
Fairfax County Zoning Ordinance 9-103, 9-203**

The undersigned states the following technical reasons for selecting the particular site as the location for the proposed facility.

1. The existing site is already developed with an active water purification facility which has been previously approved and planned for expansion. The proposed use of the Vulcan/Graham Quarry (the "Quarry"), located immediately adjacent to the existing Griffith Water Treatment Plant, for future water storage provides a unique opportunity to develop a sustainable and cost-effective drinking water supply to meet the future demands of Fairfax County and the region and utilizes land that would otherwise have limited value to the community after quarry operations are completed.

2. The Fairfax County Water Authority was created in 1957 by the Board of Supervisors for the purpose of "acquiring, constructing, operating and maintaining an integrated water system for supplying and distributing water..". As part of its efforts to ensure adequate water supply, Fairfax Water is a signatory to the Water Supply Coordination Agreement of 1982 ("WSCA"). The WSCA requires that every five years the Potomac River water suppliers, Fairfax Water, the Washington Aqueduct Division of the Corps of Engineers, and the Washington Suburban Sanitary Commission, conduct a study of projected demand and available water supply resources. The most recent 2010 study, conducted by the Cooperative Section ("CO-OP") of the Interstate Commission on the Potomac River Basin ("ICPRB"), concludes that existing water resources will be adequate through 2030, but by 2040 the system may have difficulty meeting demands. Furthermore, the ICPRB projects that climate change, in the worst-case scenarios, could have major impacts on our regional water supply. The ICPRB climate change assessment indicates that even a moderate drought, similar to that experienced in 1999, could fully deplete reservoirs under 2040 demand conditions. The potential use of the Quarry as an alternative to mitigate the supply deficit was identified in both the 2010 and 2005 studies by the CO-OP. The 2010 study prepared by ICPRB identifying the Quarry as an alternative to meet future water supply demands was subsequently incorporated into the Northern Virginia Regional Water Supply Plan and adopted by the Fairfax County Board of Supervisors on February 28, 2012, pursuant to the Commonwealth's Water Supply Planning Regulation (9 VAC 25-780).

The undersigned certifies that the proposed use will comply with the applicable standards in Article 14 of the Zoning Ordinance. These standards can be achieved through the regulatory review and approval process. The applicant will obtain the required permits and regulatory agency approvals during the site plan process.

SEAL



Jamie Bain Hedges, P.E.
Director, Planning and Engineering
Fairfax Water

Special Exception Attachment to Par. 1(a)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

(NOTE: All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
<ul style="list-style-type: none"> ✓ Vulcan Lands, Inc.(2) Agent: Richard W. Roper 	4401 North Patterson Avenue Winston-Salem, NC 27105	Title Owner of Parcels 106-4-((1))-20B, 106-3-((1))-4B, 9, 112-2-((1))-11, 12, 14
<ul style="list-style-type: none"> ✓ Hunton & Williams LLP(6) 	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
<ul style="list-style-type: none"> ✓ John C. McGranahan, Jr. Francis A. McDermott ✓ Nicholas H. Grainger (former) 	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
<ul style="list-style-type: none"> ✓ Susan K. Yantis ✓ Elaine O'Flaherty Cox 	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Planners/Agents for Applicant
<ul style="list-style-type: none"> ✓ Jeannie A. Mathews 	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Paralegal/Agent for Applicant
<ul style="list-style-type: none"> ✓ Dewberry Consultants LLC(7) Agents: ✓ Timothy C. Culleiton ✓ Janice M. Cena ✓ Scott C. Clarke ✓ Gary W. Kirkbride 	8401 Arlington Boulevard Fairfax, VA 22031	Engineers/Agents for Applicant
<ul style="list-style-type: none"> ✓ Dewberry Consultants LLC(7) Agents: ✓ Timothy C. Culleiton ✓ Janice M. Cena ✓ Scott C. Clarke ✓ Gary W. Kirkbride 	8401 Arlington Boulevard Fairfax, VA 22031	Engineers/Agents for Vulcan Lands, Inc.
<ul style="list-style-type: none"> CH2M Hill Engineers, Inc.(9) Agents: Korkud Egrican (nmi) Glenn M. Palen 	9127 S. Jamaica Street Englewood, CO 80112	Engineers/Agents for Applicant

(check if applicable)

[]

There are more relationships to be listed and Par. 1(a) is continued further on a "Special Exception Attachment to Par. 1(a)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number(s))

122851a

1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include **SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code) (1)Fairfax County Water Authority, a body corporate and politic
8570 Executive Park Avenue
Fairfax, VA 22031

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)
No Shareholders

(check if applicable) There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Special Exception Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(2)Vulcan Lands, Inc.
4401 North Patterson Avenue
Winston-Salem, NC 27105

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Legacy Vulcan Corp.(3)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(3)Legacy Vulcan Corp.
1200 Urban Center Drive
Birmingham, AL 35242

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Vulcan Materials Company(4)

=====

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

Special Exception Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(4)Vulcan Materials Company
1200 Urban Center Drive
Birmingham, AL 35242

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Price (T. Rowe) Associates Inc.(5)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(5)Price (T. Rowe) Associates Inc.
100 East Pratt Street
Baltimore, MD 21202

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

Publicly Traded

=====

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

Special Exception Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(7) Dewberry Consultants LLC
8401 Arlington Boulevard
Fairfax, VA 22031

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

MEMBERS:
The Dewberry Companies LC(10)
James L. Beight
Dennis M. Couture

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(8) The Dewberry Companies LC
8401 Arlington Boulevard
Fairfax, VA 22031

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

The Barry K. Dewberry 2012 Dynasty Trust u/a/d November 27, 2012;	Trust u/a/d November 27, 2012;	Former: Sidney O. Dewberry; Barry K. Dewberry; Karen S. Grand Pre; The Michael S. Dewberry Credit Shelter Trust u/a/d 11/23/05 (f/b/o Michael S. Dewberry II and 3 other minor children)
The Karen S. Grand Pre 2012 Dynasty Trust u/a/d November 27, 2012;	The Michael S. Dewberry Descendents 2012 Dynasty Trust u/a/d November 27, 2012 f/b/o Michael S. Dewberry II, Katie A.	
The Thomas L. Dewberry 2012 Dynasty	Dewberry and two other minor children	

=====

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

Special Exception Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(9)CH2M Hill Engineers, Inc.
15010 Conference Center Drive, Suite 200
Chantilly, VA 20151

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

=====

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number(s))

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1(c). The following constitutes a listing*** of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)

(6)Hunton & Williams LLP
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) [X] The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

Robert A. Acosta-Lewis
Lawrence C. Adams
Syed S. Ahmad
Michael F. Albers
Kenneth J. Alcott
Fernando C. Alonso
Walter J. Andrews
Charles E. G. Ashton
Chinawat Assavapokee (nmi)
L. Scott Austin
Ian Phillip Band
John J. Beardsworth, Jr.
Ryan A. Becker
Steven H. Becker
Stephen John Bennett
Melinda R. Beres
Lucas Bergkamp (nmi)

Lon A. Berk
Mark B. Bierbower
Stephen R. Blacklocks
Jeffry M. Blair
Matthew P. Boshier
James W. Bowen
Lawrence J. Bracken, II
James P. Bradley
Sheldon T. Bradshaw
David F. Brandley, Jr.
Benjamin P. Browder
A. Todd Brown, Sr.
Tyler P. Brown
F. William Brownell
Kevin J. Buckley
Kristy A. Niehaus Bulleit
Joseph B. Buonanno

Nadia S. Burgard
Eric R. Burner
M. Brett Burns
P. Scott Burton
Ellis M. Butler
Ferdinand A. Calice
Matthew J. Calvert
Daniel M. Campbell
Thomas H. Cantrill
Curtis G. Carlson
Jean Gordon Carter
Charles D. Case
J. C. Chenault, V
James N. Christman
Whittington W. Clement
Herve' Cogels (nmi)
Cassandra C. Collins

(check if applicable) [X] There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Special Exception Attachment to Par. 1(c)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

122851a

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)(6)Hunton & Williams LLP (continued)
1751 Pinnacle Drive, Suite 1700
McLean, VA 22012(check if applicable) The above-listed partnership has no limited partners:**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)

S. Gregory Cope	Edward J. Fuhr	Kevin F. Hull
Ashley Cummings (nmi)	Charles A. Gall	Donald P. Irwin
Alexandra B. Cunningham	Daniel C. Garner	Jamie Zysk Isani
Samuel A. Danon	Douglas M. Garrou	Judith H. Itkin
John A. Decker	Richard D. Gary	Makram B. Jaber
John J. Delionado	Kevin M. Georgerian	Timothy L. Jacobs
Stephen P. Demm	John T. Gerhart, Jr.	Lori Elliott Jarvis
Dee Ann Dorsey	Andrew G. Geyer	Matthew D. Jenkins
Edward L. Douma	Jeffrey W. Giese	Harry M. Johnson, III
Colleen P. Doyle	Neil K. Gilman	Karolyn E. ("Kerry") Johnson
Alison M. Dreizen	C. Christopher Giragosian	Robert M. Johnson
Sean P. Ducharme	Douglas S. Granger	James A. Jones, III
Deidre G. Duncan	Laurie A. Grasso	Kevin W. Jones
Roger Dyer (nmi)	J. William Gray, Jr.	Laura Ellen Jones
Frederick R. Eames	Charles E. Greef	Dan J. Jordanger
Heather Archer Eastep	Christopher C. Green	Roland Juarez (nmi)
Maya M. Eckstein	Robert J. Grey, Jr.	Thomas R. Julin
W. Jeffery Edwards	Greta T. Griffith	Andrew Kamensky (nmi)
John C. Eichman	Brett L. Gross	Michael G. Keeley
Emmett N. Ellis	Bradley W. Grout	G. Roth Kehoe, II
Edward W. Elmore, Jr.	Steven M. Haas	David A. Kelly
Frank E. Emory, Jr.	Brian L. Hager	Douglas W. Kenyon
Juan C. Enjamio	Robert J. Hahn	Michael C. Kerrigan
John D. Epps	Jarrett L. Hale	Ryan T. Ketchum
Phillip J. Eskenazi	Leslie S. Hansen	Scott H. Kimpel
Joseph P. Esposito	Eric J. Hanson	Robert A. King
Kelly L. Faglioni	Ronald M. Hanson	Edward B. Koehler
Susan S. Failla	Jason W. Harbour	John T. Konther
Eric H. Feiler	Jeffrey L. Harvey	Torsten M. Kracht
Kevin C. Felz	John D. Hawkins	Christopher G. Kulp
Edward F. Fernandes	Rudene Mercer Haynes	David Craig Landin
Norman W. Fichthorn	Mark S. Hedberg	Gregory F. Lang
Andrea Bear Field	Gregory G. Hesse	Andrew W. Lawrence
Kevin J. Finto	David A. Higbee	Daniel M. LeBey
Melanie Fitzgerald (nmi)	Thomas Y. Hiner	Bradley T. Lennie
Michael F. Fitzpatrick, Jr.	D. Bruce Hoffman	L. Steven Leshin
Robert N. Flowers	Robert E. Hogfoss	Catherine D. Little
William M. Flynn	John R. Holzgraefe	David C. Lonergan
David S. Freed	Cecelia Philipps Horner	Nash E. Long, III
Lauren E. Freeman	George C. Howell, III	Kirk A. Lovric
Steven C. Friend	Paul C. Huck, Jr.	David S. Lowman, Jr.

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
"Special Exception Attachment to Par. 1(c)" form.

Special Exception Attachment to Par. 1(c)DATE: October 15, 2014

(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2

(enter County-assigned application number (s))

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PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(6)Hunton & Williams LLP (Continued)
 1751 Pinnacle Drive, Suite 1700
 McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

Kimberly C. MacLeod	William L. Newton	Ronald L. Rubin
Michael J. Madden, Jr.	Lonnie D. Nunley, III	Marguerite R. ("Rita") Ruby
Tyler Maddry (nmi)	Michael A. Oakes	D. Alan Rudlin
Manuel E. Maisog	Peter K. O'Brien	Mary Nash K. Rusher
Rori H. Malech	John T. O'Connor	D. Kyle Sampson
Christopher Mangin, Jr. (nmi)	Leslie A. Okinaka	Stephen M. Sayers
Alan J. Marcuis	John D. O'Neill, Jr.	Arthur E. Schmalz
Brian R. Marek	Michael A. O'Shea	Gregory J. Schmitt
Fernando Margarit (nmi)	Brian V. Otero	John R. Schneider
Laura C. Marshall	Raj Pande (nmi)	Howard E. Schreiber
Jeffrey N. Martin	Randall S. Parks	Jeffrey P. Schroeder
John S. Martin	Peter S. Partee, Sr.	Carl F. Schwartz
J. Michael Martinez de Andino	J. Steven Patterson	P. Watson Seaman
Walfrido J. Martinez	William S. Patterson	James S. SeEVERS, Jr.
Laurie Ustul Mathews	Djordje Petkoski (nmi)	Douglass P. Selby
John Gary Maynard, III	Eric R. Pogue	Joel R. Sharp
William H. McBride	Robert Dean Pope	Michael R. Shebelskie
Michael C. McCann	Laurence H. Posorske	Rita A. Sheffey
T. Allen McConnell	Kurtis A. Powell	Ryan A. Shores
Alexander G. McGeoch	Lewis F. Powell, III	George P. Sibley, III
John C. McGranahan, Jr.	Robert T. Quackenboss	Donald F. Simone
Gustavo J. Membiola	Dionne C. Rainey	Aaron P. Simpson
Uriel A. Mendieta	Katherine E. Ramsey	Jo Anne E. Sirgado
Mark W. Menezes	John Jay Range	Laurence E. Skinner
Gary C. Messplay	Robert S. Rausch	Caryl Greenberg Smith
Peter J. Mignone	Belynda B. Reck	John R. ("J. R.") Smith
Patrick E. Mitchell	Baker R. Rector	Yisun Song (nmi)
Jack A. Molenkamp	Shawn Patrick Regan	Lisa J. Sotto
T. Justin Moore, III	Sona Rewari (nmi)	Joseph C. Stanko, Jr.
Thurston R. Moore	Thomas A. Rice	Todd M. Stenerson
Robert J. Morrow	Michael P. Richman	John J. Stenger
Ann Marie Mortimer	Jennings G. ("J. G.") Ritter, II	Gregory N. Stillman
Michael J. Mueller	Kathy E. B. Robb	Fradyn Suarez (nmi)
Eric J. Murdock	Daryl B. Robertson	Yeongyo Anna Suh
Ted J. Murphy	Gregory B. Robertson	Jeffrey M. Sullivan
Thomas P. Murphy	Patrick L. Robson	Brian J. Tanenbaum
David A. Mustone	Robert M. Rolfe	Andrew J. Tapscott
James P. Naughton	Ronald D. Rosener	Robert M. Tata
Wim Nauwelaerts (nmi)	Trevor K. Ross	W. Lake Taylor, Jr.
Eric J. Nedell	Brent A. Rosser	Wendell L. Taylor
Michael Nedzbal (nmi)	William L. S. Rowe	Andrew S. V. Thomas

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

Special Exception Attachment to Par. 1(c)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number (s))

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PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(6)Hunton & Williams LLP (Continued)
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

- | | |
|--------------------------|--------------------------|
| John Charles Thomas | FORMER PARTNERS: |
| Gary E. Thompson | |
| Paul M. Tiao | \ Sean M. Beard |
| B. Cary Tolley, III | \ Craig A. Bromby |
| Bridget C. Treacy | \ Stacy M. Colvin |
| Andrew J. Turner | \ Barry R. Davidson |
| Julie I. Ungerman | \ Jamillia Padua Ferris |
| Daniel E. Uyesato | \ Laura M. Franze |
| Mark C. Van Deusen | \ W. Alan Kailer |
| Emily Burkhardt Vicente | \ Steven R. Loeshelle |
| Daniel G. Vivarelli, Jr. | \ Douglas M. Mancino |
| Mark R. Vowell | \ Thelma Marshall (nmi) |
| Amanda L. Wait | \ Francis A. McDermott |
| Linda L. Walsh | \ Henry V. Nickel |
| William L. Wehrum | \ J. Waverly Pulley, III |
| Peter G. Weinstock | \ Karen M. Sanzaro |
| Malcolm C. Weiss | \ Thomas G. Slater, Jr. |
| Kevin J. White | \ C. Randolph Sullivan |
| Amy McDaniel Williams | \ Rodger L. Tate |
| Mitchell G. Williams | \ Surasak Vajasit (nmi) |
| Holly H. Williamson | \ William A. Walsh, Jr. |
| Susan F. Wiltsie | \ Michael G. Wilson |
| Allison D. Wood | |
| David C. Wright | |
| Richard L. Wyatt, Jr. | |
| David R. Yates | |
| Lee B. Zeugin | |
| Manida Zimmerman (nmi) | |

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 81-V-017-2
(enter County-assigned application number(s))

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1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

Application No.(s): SEA 81-V-017-2
(county-assigned application number(s), to be entered by County Staff)

SPECIAL EXCEPTION AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

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3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

- Harry F. Day, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Gross.
- Burton J. Rubin, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Herrity.
- Armand B. Weiss, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Foust.
- Joseph Cammarata, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Hyland.

NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

(check one) Charles M. Murray
 Applicant Applicant's Authorized Agent
 Charles M. Murray, General Manager/Agent for Applicant
 (type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 15th day of October, 2014, in the State/Comm. of Virginia, County/City of Fairfax.

Mary Beth Vincent
Notary Public

My commission expires: 3/31/17

Ref No. 299468



REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

I, Charles M. Murray, do hereby state that I am an
(enter name of applicant or authorized agent)

(check one) applicant
 applicant's authorized agent listed in Par. 1(a) below

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in Application No.(s): PCA 1998-MV-032
(enter County-assigned application number(s), e.g. RZ 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE,**** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(NOTE: All relationships to the application listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
Fairfax County Water Authority,(1) a body corporate and politic Agents: Charles M. Murray Jamie Bain Hedges Steven T. Edgemon Traci K. Goldberg Alison H. Ingram Gregory J. Prelewicz Dominic Brancaccio (nmi) Jeanne M. Bailey George F. Hoke Philip W. Allin Linda A. Singer Armand B. Weiss Frank R. Begovich	8570 Executive Park Avenue Fairfax, VA 22031 ~Additional Agents: Burton J. Rubin J. Alan Roberson Harry F. Day Richard W. Dotson, Jr. Joseph Cammarata (nmi) Anthony H. Griffin	Applicant/Title Owner

(check if applicable) There are more relationships to be listed and Par. 1(a) is continued on a "Rezoning Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

Rezoning Attachment to Par. 1(a)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number (s))

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(NOTE): All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
· Hunton & Williams LLP(2)	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
· John C. McGranahan, Jr. · Francis A. McDermott · Nicholas H. Grainger (former)	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
· Susan K. Yantis · Elaine O'Flaherty Cox	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Planners/Agents for Applicant
· Jeannie A. Mathews	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Paralegal/Agent for Applicant
· Dewberry Consultants LLC(3) Agents: · Timothy C. Culleiton · Janice M. Cena · Scott C. Clarke · Gary W. Kirkbride	8401 Arlington Boulevard Fairfax, VA 22031	Engineers/Agents for Applicant
· CH2MHill Engineers, Inc.(5) Agents: Korkud Egrican (nmi) · Glenn M. Palen	9127 S. Jamaica Street Englewood, CO 80112	Engineers/Agents for Applicant

(check if applicable)

There are more relationships to be listed and Par. 1(a) is continued further on a "Rezoning Attachment to Par. 1(a)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number(s))

122853a

1(b). The following constitutes a listing*** of the SHAREHOLDERS of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders, and if the corporation is an owner of the subject land, all of the OFFICERS and DIRECTORS of such corporation:

(NOTE: Include SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(1) Fairfax County Water Authority, a body corporate and politic
8570 Executive Park Avenue
Fairfax, VA 22-31

DESCRIPTION OF CORPORATION: (check one statement)

- [x] There are 10 or less shareholders, and all of the shareholders are listed below.
[] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial, and last name)

No Shareholders

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. President, Vice President, Secretary, Treasurer, etc.)

- DIRECTORS: Philip W. Allin, Chair; Burton J. Rubin; Joseph Cammarata (nmi); Charles M. Murray, General Manager; Linda A. Singer, Vice Chair; J. Alan Roberson; Anthony H. Griffin; Steven T. Edgemon, Dep. General Manager; Armand B. Weiss, Treasurer; Harry F. Day; Jamie Bain Hedges, Dir., Planning/Engineering; Frank R. Begovich, Secretary; Richard W. Dotson, Jr.; Traci K. Goldberg, Manager, Engineering

(check if applicable) [x] There is more corporation information and Par. 1(b) is continued on a "Rezoning Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Rezoning Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number (s))

122853a

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(5)CH2M Hill Engineers, Inc.
9127 S. Jamaica Street
Englewood, CO 80112

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer,** etc.)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer,** etc.)

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

122853a

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, number, street, city, state and zip code)

(2)Hunton & Williams LLP
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

- Robert A. Acosta-Lewis
- Lawrence C. Adams
- Syed S. Ahmad
- Michael F. Albers
- Kenneth J. Alcott
- Fernando C. Alonso
- Walter J. Andrews
- Charles E. G. Ashton
- Chinawat Assavapokee (nmi)
- L. Scott Austin
- Ian Phillip Band
- John J. Beardsworth, Jr.
- Ryan A. Becker
- Steven H. Becker
- Stephen John Bennett
- Melinda R. Beres
- Lucas Bergkamp (nmi)
- Lon A. Berk

(check if applicable) There is more partnership information and Par. 1(c) is continued on a "Rezoning Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Rezoning Attachment to Par. 1(c)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number (s))

122853a

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(2)Hunton & Williams LLP
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

Mark B. Bierbower
Stephen R. Blacklocks
Jeffry M. Blair
Matthew P. Boshier
James W. Bowen
Lawrence J. Bracken, II
James P. Bradley
Sheldon T. Bradshaw
David F. Brandley, Jr.
Benjamin P. Browder
A. Todd Brown, Sr.
Tyler P. Brown
F. William Brownell
Kevin J. Buckley
Kristy A. Niehaus Bulleit
Joseph B. Buonanno
Nadia S. Burgard
Eric R. Burner
M. Brett Burns
P. Scott Burton
Ellis M. Butler
Ferdinand A. Calice
Matthew J. Calvert
Daniel M. Campbell
Thomas H. Cantrill
Curtis G. Carlson
Jean Gordon Carter
Charles D. Case
J. C. Chenault, V
James N. Christman
Whittington W. Clement
Herve' Cogels (nmi)
Cassandra C. Collins
S. Gregory Cope
Ashley Cummings (nmi)
Alexandra B. Cunningham
Samuel A. Danon
John A. Decker
John J. Delionado

Stephen P. Demm
Dee Ann Dorsey
Edward L. Douma
Colleen P. Doyle
Alison M. Dreizen
Sean P. Ducharme
Deidre G. Duncan
Roger Dyer (nmi)
Frederick R. Eames
Heather Archer Eastep
Maya M. Eckstein
W. Jeffery Edwards
John C. Eichman
Emmett N. Ellis
Edward W. Elmore, Jr.
Frank E. Emory, Jr.
Juan C. Enjamio
John D. Epps
Phillip J. Eskenazi
Joseph P. Esposito
Kelly L. Faglioni
Susan S. Failla
Eric H. Feiler
Kevin C. Felz
Edward F. Fernandes
Norman W. Fichthorn
Andrea Bear Field
Kevin J. Finto
Melanie Fitzgerald (nmi)
Michael F. Fitzpatrick, Jr.
Robert N. Flowers
William M. Flynn
David S. Freed
Lauren E. Freeman
Steven C. Friend
Edward J. Fuhr
Charles A. Gall
Daniel C. Garner
Douglas M. Garrou

Richard D. Gary
Kevin M. Georgerian
John T. Gerhart, Jr.
Andrew G. Geyer
Jeffrey W. Giese
Neil K. Gilman
C. Christopher Giragosian
Douglas S. Granger
Laurie A. Grasso
J. William Gray, Jr.
Charles E. Greef
Christopher C. Green
Robert J. Grey, Jr.
Greta T. Griffith
Brett L. Gross
Bradley W. Grout
Steven M. Haas
Brian L. Hager
Robert J. Hahn
Jarrett L. Hale
Leslie S. Hansen
Eric J. Hanson
Ronald M. Hanson
Jason W. Harbour
Jeffrey L. Harvey
John D. Hawkins
Rudene Mercer Haynes
Mark S. Hedberg
Gregory G. Hesse
David A. Higbee
Thomas Y. Hiner
D. Bruce Hoffman
Robert E. Hogfoss
John R. Holzgraefe
Cecelia Philipps Horner
George C. Howell, III
Paul C. Huck, Jr.
Kevin F. Hull
Donald P. Irwin

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number (s))

122853a

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(2)Hunton & Williams LLP (Continued)
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

- | | | |
|------------------------------|-------------------------------|----------------------------------|
| Jamie Zysk Isani | Kimberly C. MacLeod | Eric J. Nedell |
| Judith H. Itkin | Michael J. Madden, Jr. | Michael Nedzbala (nmi) |
| Makram B. Jaber | Tyler Maddry (nmi) | William L. Newton |
| Timothy L. Jacobs | Manuel E. Maisog | Lonnie D. Nunley, III |
| Lori Elliott Jarvis | Rori H. Malech | Michael A. Oakes |
| Matthew D. Jenkins | Christopher Mangin, Jr. (nmi) | Peter K. O'Brien |
| Harry M. Johnson, III | Alan J. Marcuis | John T. O'Connor |
| Karolyn E. ("Kerry") Johnson | Brian R. Marek | Leslie A. Okinaka |
| Robert M. Johnson | Fernando Margarit (nmi) | John D. O'Neill, Jr. |
| James A. Jones, III | Laura C. Marshall | Michael A. O'Shea |
| Kevin W. Jones | Jeffrey N. Martin | Brian V. Otero |
| Laura Ellen Jones | John S. Martin | Raj Pande (nmi) |
| Dan J. Jordanger | J. Michael Martinez de Andino | Randall S. Parks |
| Roland Juarez (nmi) | Walfrido J. Martinez | Peter S. Partee, Sr. |
| Thomas R. Julin | Laurie Uustal Mathews | J. Steven Patterson |
| Andrew Kamensky (nmi) | John Gary Maynard, III | William S. Patterson |
| Michael G. Keeley | William H. McBride | Djordje Petkoski (nmi) |
| G. Roth Kehoe, II | Michael C. McCann | Eric R. Pogue |
| David A. Kelly | T. Allen McConnell | Robert Dean Pope |
| Douglas W. Kenyon | Alexander G. McGeoch | Laurence H. Posorske |
| Michael C. Kerrigan | John C. McGranahan, Jr. | Kurtis A. Powell |
| Ryan T. Ketchum | Gustavo J. Membiela | Lewis F. Powell, III |
| Scott H. Kimpel | Uriel A. Mendieta | Robert T. Quackenboss |
| Robert A. King | Mark W. Menezes | Dionne C. Rainey |
| Edward B. Koehler | Gary C. Messplay | Katherine E. Ramsey |
| John T. Konther | Peter J. Mignone | John Jay Range |
| Torsten M. Kracht | Patrick E. Mitchell | Robert S. Rausch |
| Christopher G. Kulp | Jack A. Molenkamp | Belynda B. Reck |
| David Craig Landin | T. Justin Moore, III | Baker R. Rector |
| Gregory F. Lang | Thurston R. Moore | Shawn Patrick Regan |
| Andrew W. Lawrence | Robert J. Morrow | Sona Rewari (nmi) |
| Daniel M. LeBey | Ann Marie Mortimer | Thomas A. Rice |
| Bradley T. Lennie | Michael J. Mueller | Michael P. Richman |
| L. Steven Leshin | Eric J. Murdock | Jennings G. ("J. G.") Ritter, II |
| Catherine D. Little | Ted J. Murphy | Kathy E. B. Robb |
| David C. Lonergan | Thomas P. Murphy | Daryl B. Robertson |
| Nash E. Long, III | David A. Mustone | Gregory B. Robertson |
| Kirk A. Lovric | James P. Naughton | Patrick L. Robson |
| David S. Lowman, Jr. | Wim Nauwelaerts (nmi) | Robert M. Rolfe |

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number (s))

122853a

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(2)Hunton & Williams LLP (Continued)
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

Ronald D. Rosener	Brian J. Tanenbaum	FORMER PARTNERS:
Trevor K. Ross	Andrew J. Tapscott	
Brent A. Rosser	Robert M. Tata	· Sean M. Beard
William L. S. Rowe	W. Lake Taylor, Jr.	· Craig A. Bromby
Ronald L. Rubin	Wendell L. Taylor	· Stacy M. Colvin
Marguerite R. ("Rita") Ruby	Andrew S. V. Thomas	· Barry R. Davidson
D. Alan Rudlin	John Charles Thomas	· Jamillia Padua Ferris
Mary Nash K. Rusher	Gary E. Thompson	· Laura M. Franze
D. Kyle Sampson	Paul M. Tiao	· W. Alan Kailer
Stephen M. Sayers	B. Cary Tolley, III	· Steven R. Loeshelle
Arthur E. Schmalz	Bridget C. Treacy	· Douglas M. Mancino
Gregory J. Schmitt	Andrew J. Turner	· Thelma Marshall (nmi)
John R. Schneider	Julie I. Ungerman	· Francis A. McDermott
Howard E. Schreiber	Daniel E. Uyesato	· Henry V. Nickel
Jeffrey P. Schroeder	Mark C. Van Deusen	· J. Waverly Pulley, III
Carl F. Schwartz	Emily Burkhardt Vicente	· Karen M. Sanzaro
P. Watson Seaman	Daniel G. Vivarelli, Jr.	· Thomas G. Slater, Jr.
James S. Seevers, Jr.	Mark R. Vowell	· C. Randolph Sullivan
Douglass P. Selby	Amanda L. Wait	· Rodger L. Tate
Joel R. Sharp	Linda L. Walsh	· Surasak Vajasit (nmi)
Michael R. Shebelskie	William L. Wehrum	· William A. Walsh, Jr.
Rita A. Sheffey	Peter G. Weinstock	· Michael G. Wilson
Ryan A. Shores	Malcolm C. Weiss	
George P. Sibley, III	Kevin J. White	
Donald F. Simone	Amy McDaniel Williams	
Aaron P. Simpson	Mitchell G. Williams	
Jo Anne E. Sirgado	Holly H. Williamson	
Laurence E. Skinner	Susan F. Wiltzie	
Caryl Greenberg Smith	Allison D. Wood	
John R. ("J. R.") Smith	David C. Wright	
Yisun Song (nmi)	Richard L. Wyatt, Jr.	
· Lisa J. Sotto	David R. Yates	
Joseph C. Stanko, Jr.	Lee B. Zeuglin	
Todd M. Stenerson	· Manida Zimmerman (nmi)	
· John J. Stenger		
Gregory N. Stillman		
Fradyn Suarez (nmi)		
Yeongyo Anna Suh		
· Jeffrey M. Sullivan		

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

122853a

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number(s))

1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (**NOTE:** If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) There are more interests to be listed and Par. 2 is continued on a "Rezoning Attachment to Par. 2" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

122853a

for Application No. (s): PCA 1998-MV-032
(enter County-assigned application number(s))

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

- Harry F. Day, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Gross.
- Burton J. Rubin, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Herrity.
- Armand B. Weiss, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Foust.
- Joseph Cammarata, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Hyland.

(NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [] There are more disclosures to be listed and Par. 3 is continued on a "Rezoning Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

(check one)

[] Applicant

[x] Applicant's Authorized Agent

Charles M. Murray, General Manager/Agent for Applicant

(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 15th day of October 2014, in the State/Comm. of Virginia, County/City of Fairfax.

My commission expires: 3/31/17

Reg. No. 299668

Mary Beth Vincent
Notary Public



Rezoning Attachment to Par. 1(a)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number (s))

122852a

(NOTE): All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
- Hunton & Williams LLP(2)	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
- John C. McGranahan, Jr. - Francis A. McDermott - Nicholas H. Grainger (former)	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
- Susan K. Yantis - Elaine O'Flaherty Cox	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Planners/Agents for Applicant
- Jeannie A. Mathews	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Paralegal/Agent for Applicant
- Dewberry Consultants LLC(3) Agents: Timothy C. Culleiton - Janice M. Cena - Scott C. Clarke - Gary W. Kirkbride	8401 Arlington Boulevard Fairfax, VA 22031	Engineers/Agents for Applicant
- CH2MHill Engineers, Inc.(5) Agents: Korkud Egrican (nmi) Glenn M. Palen	9127 S. Jamaica Street Englewood, CO 80112	Engineers/Agents for Applicant

(check if applicable)

There are more relationships to be listed and Par. 1(a) is continued further on a "Rezoning Attachment to Par. 1(a)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number(s))

122852 a

1(b). The following constitutes a listing*** of the SHAREHOLDERS of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders, and if the corporation is an owner of the subject land, all of the OFFICERS and DIRECTORS of such corporation:

(NOTE: Include SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(1)Fairfax County Water Authority, a body corporate and politic
8570 Executive Park Avenue
Fairfax, VA 22-31

DESCRIPTION OF CORPORATION: (check one statement)

- [x] There are 10 or less shareholders, and all of the shareholders are listed below.
[] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial, and last name)

No Shareholders

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. President, Vice President, Secretary, Treasurer, etc.)

DIRECTORS: Philip W. Allin, Chair - Burton J. Rubin - Joseph Cammarata (nmi) SENIOR STAFF: Charles M. Murray, General Manager
Linda A. Singer, Vice Chair J. Alan Roberson - Anthony H. Griffin Steven T. Edgemon, Dep. General Manager
Armand B. Weiss, Treasurer Harry F. Day Jamie Bain Hedges, Dir., Planning/Engineering
Frank R. Begovich, Secretary Richard W. Dotson, Jr. Traci K. Goldberg, Manager, Engineering

(check if applicable) [x] There is more corporation information and Par. 1(b) is continued on a "Rezoning Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Rezoning Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number (s))

122852a

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(3) Dewberry Consultants LLC
8401 Arlington Boulevard
Fairfax, VA 22031

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

MEMBERS:
The Dewberry Companies LC(4)
James L. Beight
Dennis M. Couture

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer,** etc.)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(4) The Dewberry Companies LC
8401 Arlington Boulevard
Fairfax, VA 22031

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

The Barry K. Dewberry 2012 Dynasty Trust u/a/d November 27, 2012; The Karen S. Grand Pre 2012 Dynasty Trust u/a/d November 27, 2012; The Thomas L. Dewberry 2012 Dynasty Trust u/a/d November 27, 2012; The Michael S. Dewberry Descendents 2012 Dynasty Trust u/a/d November 27, 2012 f/b/o Michael S. Dewberry II, Katie A. Dewberry and two other minor children

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer,** etc.)

FORMER MEMBERS: - Sidney O. Dewberry - The Michael S. Dewberry Credit Shelter Trust u/a/d 11/23/05
 - Barry K. Dewberry (f/b/o Michael S. Dewberry II and 3 other minor children of
 - Karen S. Grand Pre Michael S. Dewberry)

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

Rezoning Attachment to Par. 1(b)

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number (s))

122852a

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

(5)CH2M Hill Engineers, Inc.
9127 S. Jamaica Street
Englewood, CO 80112

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)

=====

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

DESCRIPTION OF CORPORATION: (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

=====

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)

(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

122852a

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, number, street, city, state and zip code)

(2)Hunton & Williams LLP
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

- Robert A. Acosta-Lewis
- Lawrence C. Adams
- Syed S. Ahmad
- Michael F. Albers
- Kenneth J. Alcott
- Fernando C. Alonso
- Walter J. Andrews
- Charles E. G. Ashton
- Chinawat Assavapokee (nmi)
- L. Scott Austin
- Ian Phillip Band
- John J. Beardsworth, Jr.
- Ryan A. Becker
- Steven H. Becker
- Stephen John Bennett
- Melinda R. Beres
- Lucas Bergkamp (nmi)
- Lon A. Berk

(check if applicable) There is more partnership information and Par. 1(c) is continued on a "Rezoning Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. ***In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.*** Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Rezoning Attachment to Par. 1(c)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number (s))

122852a

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)(2)Hunton & Williams LLP
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)

Mark B. Bierbower	Stephen P. Demm	Richard D. Gary
Stephen R. Blacklocks	Dee Ann Dorsey	Kevin M. Georgerian
Jeffry M. Blair	Edward L. Douma	John T. Gerhart, Jr.
Matthew P. Boshier	Colleen P. Doyle	Andrew G. Geyer
James W. Bowen	Alison M. Dreizen	Jeffrey W. Giese
Lawrence J. Bracken, II	Sean P. Ducharme	Neil K. Gilman
James P. Bradley	Deidre G. Duncan	C. Christopher Giragosian
Sheldon T. Bradshaw	Roger Dyer (nmi)	Douglas S. Granger
David F. Brandley, Jr.	Frederick R. Eames	Laurie A. Grasso
Benjamin P. Browder	Heather Archer Eastep	J. William Gray, Jr.
A. Todd Brown, Sr.	Maya M. Eckstein	Charles E. Greef
Tyler P. Brown	W. Jeffery Edwards	Christopher C. Green
F. William Brownell	John C. Eichman	Robert J. Grey, Jr.
Kevin J. Buckley	Emmett N. Ellis	Greta T. Griffith
Kristy A. Niehaus Bulleit	Edward W. Elmore, Jr.	Brett L. Gross
Joseph B. Buonanno	Frank E. Emory, Jr.	Bradley W. Grout
Nadia S. Burgard	Juan C. Enjamio	Steven M. Haas
Eric R. Burner	John D. Epps	Brian L. Hager
M. Brett Burns	Phillip J. Eskenazi	Robert J. Hahn
P. Scott Burton	Joseph P. Esposito	Jarrett L. Hale
Ellis M. Butler	Kelly L. Faglioni	Leslie S. Hansen
Ferdinand A. Calice	Susan S. Failla	Eric J. Hanson
Matthew J. Calvert	Eric H. Feiler	Ronald M. Hanson
Daniel M. Campbell	Kevin C. Felz	Jason W. Harbour
Thomas H. Cantrill	Edward F. Fernandes	Jeffrey L. Harvey
Curtis G. Carlson	Norman W. Fichthorn	John D. Hawkins
Jean Gordon Carter	Andrea Bear Field	Rudene Mercer Haynes
Charles D. Case	Kevin J. Finto	Mark S. Hedberg
J. C. Chenault, V	Melanie Fitzgerald (nmi)	Gregory G. Hesse
James N. Christman	Michael F. Fitzpatrick, Jr.	David A. Higbee
Whittington W. Clement	Robert N. Flowers	Thomas Y. Hiner
Herve' Cogels (nmi)	William M. Flynn	D. Bruce Hoffman
Cassandra C. Collins	David S. Freed	Robert E. Hogfoss
S. Gregory Cope	Lauren E. Freeman	John R. Holzgraefe
Ashley Cummings (nmi)	Steven C. Friend	Cecelia Philipps Horner
Alexandra B. Cunningham	Edward J. Fuhr	George C. Howell, III
Samuel A. Danon	Charles A. Gall	Paul C. Huck, Jr.
John A. Decker	Daniel C. Garner	Kevin F. Hull
John J. Delionado	Douglas M. Garrou	Donald P. Irwin

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
"Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)DATE: October 15, 2014
(enter date affidavit is notarized)for Application No. (s): PCA 1998-MV-033
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PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)(2)Hunton & Williams LLP (Continued)
1751 Pinnacle Drive, Suite 1700
McLean, VA 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

-Jamie Zysk Isani	-Kimberly C. MacLeod	-Eric J. Nedell
Judith H. Itkin	Michael J. Madden, Jr.	Michael Nedzbala (nmi)
Makram B. Jaber	Tyler Maddy (nmi)	William L. Newton
Timothy L. Jacobs	Manuel E. Maisog	Lonnie D. Nunley, III
Lori Elliott Jarvis	Rori H. Malech	Michael A. Oakes
Matthew D. Jenkins	Christopher Mangin, Jr. (nmi)	Peter K. O'Brien
Harry M. Johnson, III	Alan J. Marcuis	John T. O'Connor
Karolyn E. ("Kerry") Johnson	Brian R. Marek	Leslie A. Okinaka
Robert M. Johnson	Fernando Margarit (nmi)	John D. O'Neill, Jr.
James A. Jones, III	Laura C. Marshall	Michael A. O'Shea
Kevin W. Jones	Jeffrey N. Martin	Brian V. Otero
Laura Ellen Jones	John S. Martin	Raj Pande (nmi)
Dan J. Jordanger	J. Michael Martinez de Andino	Randall S. Parks
Roland Juarez (nmi)	Walfrido J. Martinez	Peter S. Partee, Sr.
Thomas R. Julin	Laurie Uustal Mathews	J. Steven Patterson
Andrew Kamensky (nmi)	John Gary Maynard, III	William S. Patterson
Michael G. Keeley	William H. McBride	Djordje Petkoski (nmi)
G. Roth Kehoe, II	Michael C. McCann	Eric R. Pogue
David A. Kelly	T. Allen McConnell	Robert Dean Pope
Douglas W. Kenyon	Alexander G. McGeoch	Laurence H. Posorske
Michael C. Kerrigan	John C. McGranahan, Jr.	Kurtis A. Powell
Ryan T. Ketchum	Gustavo J. Membiela	Lewis F. Powell, III
Scott H. Kimpel	Uriel A. Mendieta	Robert T. Quackenboss
Robert A. King	Mark W. Menezes	Dionne C. Rainey
Edward B. Koehler	Gary C. Messplay	Katherine E. Ramsey
John T. Konther	Peter J. Mignone	John Jay Range
Torsten M. Kracht	Patrick E. Mitchell	Robert S. Rausch
Christopher G. Kulp	Jack A. Molenkamp	Belynda B. Reck
David Craig Landin	T. Justin Moore, III	Baker R. Rector
Gregory F. Lang	Thurston R. Moore	Shawn Patrick Regan
Andrew W. Lawrence	Robert J. Morrow	Sona Rewari (nmi)
Daniel M. LeBey	Ann Marie Mortimer	Thomas A. Rice
Bradley T. Lennie	Michael J. Mueller	Michael P. Richman
L. Steven Leshin	Eric J. Murdock	Jennings G. ("J. G.") Ritter, II
Catherine D. Little	Ted J. Murphy	Kathy E. B. Robb
David C. Lonergan	Thomas P. Murphy	Daryl B. Robertson
Nash E. Long, III	David A. Mustone	Gregory B. Robertson
Kirk A. Lovric	James P. Naughton	Patrick L. Robson
-David S. Lowman, Jr.	-Wim Nauwelaerts (nmi)	-Robert M. Rolfe

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)

DATE: October 15, 2014
 (enter date affidavit is notarized)

122852a

for Application No. (s): PCA 1998-MV-033
 (enter County-assigned application number (s))

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

(2)Hunton & Williams LLP (Continued)
 1751 Pinnacle Drive, Suite 1700
 McLean, VA 22102

(check if applicable) The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

- Ronald D. Rosener
- Trevor K. Ross
- Brent A. Rosser
- William L. S. Rowe
- Ronald L. Rubin
- Marguerite R. ("Rita") Ruby
- D. Alan Rudlin
- Mary Nash K. Rusher
- D. Kyle Sampson
- Stephen M. Sayers
- Arthur E. Schmalz
- Gregory J. Schmitt
- John R. Schneider
- Howard E. Schreiber
- Jeffrey P. Schroeder
- Carl F. Schwartz
- P. Watson Seaman
- James S. Seevers, Jr.
- Douglass P. Selby
- Joel R. Sharp
- Michael R. Shebelskie
- Rita A. Sheffey
- Ryan A. Shores
- George P. Sibley, III
- Donald F. Simone
- Aaron P. Simpson
- Jo Anne E. Sirgado
- Laurence E. Skinner
- Caryl Greenberg Smith
- John R. ("J. R.") Smith
- Yisun Song (nmi)
- Lisa J. Sotto
- Joseph C. Stanko, Jr.
- Todd M. Stenerson
- John J. Stenger
- Gregory N. Stillman
- Fradyn Suarez (nmi)
- Yeongyo Anna Suh
- Jeffrey M. Sullivan
- Brian J. Tanenbaum
- Andrew J. Tapscott
- Robert M. Tata
- W. Lake Taylor, Jr.
- Wendell L. Taylor
- Andrew S. V. Thomas
- John Charles Thomas
- Gary E. Thompson
- Paul M. Tiao
- B. Cary Tolley, III
- Bridget C. Treacy
- Andrew J. Turner
- Julie I. Ungerman
- Daniel E. Uyesato
- Mark C. Van Deusen
- Emily Burkhardt Vicente
- Daniel G. Vivarelli, Jr.
- Mark R. Vowell
- Amanda L. Wait
- Linda L. Walsh
- William L. Wehrum
- Peter G. Weinstock
- Malcolm C. Weiss
- Kevin J. White
- Amy McDaniel Williams
- Mitchell G. Williams
- Holly H. Williamson
- Susan F. Wiltsie
- Allison D. Wood
- David C. Wright
- Richard L. Wyatt, Jr.
- David R. Yates
- Lee B. Zeugin
- Manida Zimmerman (nmi)

FORMER PARTNERS:

- Sean M. Beard
- Craig A. Bromby
- Stacy M. Colvin
- Barry R. Davidson
- Jamillia Padua Ferris
- Laura M. Franze
- W. Alan Kailer
- Steven R. Loeshelle
- Douglas M. Mancino
- Thelma Marshall (nmi)
- Francis A. McDermott
- Henry V. Nickel
- J. Waverly Pulley, III
- Karen M. Sanzaro
- Thomas G. Slater, Jr.
- C. Randolph Sullivan
- Rodger L. Tate
- Surasak Vajasit (nmi)
- William A. Walsh, Jr.
- Michael G. Wilson

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

122852a

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number(s))

1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) There are more interests to be listed and Par. 2 is continued on a "Rezoning Attachment to Par. 2" form.

REZONING AFFIDAVIT

DATE: October 15, 2014
(enter date affidavit is notarized)

for Application No. (s): PCA 1998-MV-033
(enter County-assigned application number(s))

122852a

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

- Harry F. Day, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Gross.
- Burton J. Rubin, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Herrity.
- Armand B. Weiss, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Foust.
- Joseph Cammarata, a Director of the Applicant, has contributed in excess of \$100.00 to Supervisor Hyland.

(NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) There are more disclosures to be listed and Par. 3 is continued on a "Rezoning Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

(check one)

Applicant Applicant's Authorized Agent

Charles M. Murray
Charles M. Murray, General Manager/Agent for Applicant
(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 15th day of October 20 14, in the State/Comm. of Virginia, County/City of Fairfax.

Mary Beth Varmond
Notary Public

My commission expires: 3/31/17
Ref. No. 299668

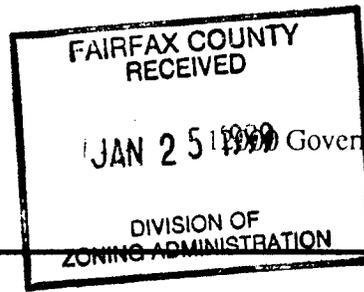




FAIRFAX COUNTY

V I R G I N I A

APPENDIX 5



OFFICE OF THE CLERK
BOARD OF SUPERVISORS
Government Center Parkway, Suite 533
Fairfax, Virginia 22035-0072

Telephone: 703-324-3151
FAX: 703-324-3926
TTY: 703-324-3903

December 21, 1998

John C. McGranahan, Esquire
Hunton and Williams
1751 Pinnacle Drive - Suite 1700
McLean, Virginia 22102

RE: Special Exception
Number SEA 81-V-017
(Concurrent with RZ 1998-MV-032,
and RZ 1998-MV-033)

Dear Mr. McGranahan:

At a regular meeting of the Board of Supervisors held on December 7, 1998, the Board approved Special Exception Amendment Number SEA 81-V-017 in the name of Fairfax County Water Authority, located at Tax Map 106-4 ((1) 56 (formerly 106-4 ((1)) Pt. 54); 112-2 ((1)) 8 and 9 for a water purification facility pursuant to Section 3-104 of the Fairfax County Zoning Ordinance, by requiring conformance with the following development conditions. These development conditions incorporate and supersede all previous development conditions. Previously approved conditions, or those with minor revisions, are marked with an asterisk(*).

- *1. This Special Exception Amendment is granted for the location indicated in the application and is not transferable to other land.
- *2. This Special Exception Amendment is granted for the buildings and uses indicated on the plats submitted with the application only.
- *3. A copy of this Special Exception Amendment SHALL BE POSTED in a conspicuous place along with the Non-Residential Use Permit (Non-RUP) on the property of the use and be made available to all Departments of the County of Fairfax during hours of operation of the permitted use.

- *4. This Special Exception Amendment is subject to the provisions of Article 17, Site Plans, as may be determined by the Director, Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this Special Exception Amendment shall be in substantial conformance with the approved Generalized Development Plan/Special Exception Amendment Plat entitled Frederick P. Griffith Jr. Water Treatment Plant and prepared by Dewberry and Davis and dated February 5, 1998, and revised through November 30, 1998, and these conditions. Minor modifications to the approved special exception amendment may be permitted pursuant to Paragraph 4 of Section 9-004 of the Zoning Ordinance.

Any portion of the Property may be subject to a Special Exception Amendment (SEA) without joinder and/or consent of the owners of the other portion of the Property if such SEA does not affect such other portion of the Property. Previously approved development conditions applicable to the portion of the Property not subject to any future SEA shall otherwise remain in full force and effect.

General

5. The maximum number of employees per shift shall be 30; this number may be increased without an amendment to this Special Exception Amendment if parking is provided per the Zoning Ordinance in effect at that time.
6. All exterior pole-mounted lighting fixtures shall not exceed twenty (20) feet in height and shall be inward-directed and/or shielded in such manner as to minimize glare from projecting beyond the site onto adjacent properties.
7. As described in Note #27 on the Generalized Development Plan/Special Exception Amendment (GDP/SEA) Plat, a meeting room shall be made available at no cost on a periodic basis for community use, subject to reasonable restrictions of the FCWA.
8. A variance application for all structures in excess of sixty (60) feet shall be filed with the Board of Zoning Appeals, as required by the Zoning Ordinance. If a variance is not approved, those structures shall comply with the height limitations for non-residential uses in the R-1 District. Applications for applicable variances shall not require the filing of an amendment to this Special Exception Amendment.
9. At the time of final site plan approval, minor deviations to the sizes, dimensions, footprints, and location of buildings, parking, loading spaces and travelways may be permitted in accordance with Section 9-004 of the Zoning Ordinance. In addition,

changes to the number, location, height (as further defined by Condition 8), dimensions, configuration, and layout of the structures, buildings, recreational fields, travelways and parking areas may occur within the boundaries of the flexibility line shown on the GDP/SEA Plat without a Special Exception Amendment, provided that the overall FAR of the entire Property does not exceed 0.15, the minimum setbacks of the structures and uses shown on the GDP/SEA Plat are maintained along Route 123 and the northern boundary, and the landscaped buffer to the north of the facility is maintained.

Environmental

10. Development of the proposed facilities shall comply with the applicable storm water management and Best Management Practices (SWM/BMPs) requirements provided in the *Fairfax County Public Facilities Manual (PFM)*, as determined by DPWES. One or both of the existing ponds labeled possible location of SWM/BMP facility on the GDP/SEA Plat may be used to meet the applicable SWM/BMP requirements; the existing wet pond located along the northern boundary of the property (the *northern pond*) shall not be drained, unless draining is determined to be the only feasible option as determined by the Special Projects Branch, DPWES. Consistent with this approach, an interim embankment and/or other measures as determined by the Special Projects Branch, DPWES, shall be employed as may be needed in order to maintain the pond in the event the embankment requires stabilization. To the extent feasible, modifications to the *northern pond* shall be designed such that, upon completion, possible construction of a trail by others on the pond's embankment will not be precluded, as determined by the FCPA. If there is no way to avoid draining the *northern pond* in order to use it to satisfy the applicable SWM/BMP requirements, a restoration plan shall be submitted for areas disturbed by the draining of the pond for review and approval by the Environmental and Development Review Branch, Department of Planning and Zoning (DPZ) and the Urban Forestry Branch, DPWES, in coordination with the FCPA prior to site plan approval for construction activity on the *northern pond*. This restoration plan shall 1) Identify the extent and location of existing wetlands in and near the pond; 2) Identify the impacts (both direct and indirect) of the pond retrofit proposal on existing wetlands; 3) Provide for the restoration of at least an equivalent area of wetlands as the area of wetlands that will be destroyed as a result of the retrofit project; and 4) Provide for the restoration of other disturbed areas through the planting of native species of vegetation in a manner, and to the extent, determined by the Urban Forestry Branch, DPWES. Modifications to the restoration plan may be permitted if necessary to comply with state and/or federal wetland permitting requirements and if necessary to provide for trail connections as determined by the FCPA.

Any modifications to the other pond (the *southern pond*) shall take place in a manner that will leave the water surface elevation of the pond intact. Under no circumstances shall the *southern pond* be drained; however, maintenance of this pond may be performed as necessary.

11. In the event the *northern pond* is not used to satisfy the applicable SWM/BMP requirements, the existing embankment, outlet, and/or spillway of this pond shall be modified as may be needed to ensure that the pond will remain viable over the long term, as determined by the DPWES. These modifications need not meet the dam standards provided in the PFM as long as the long term viability of the pond is ensured, to the satisfaction of the DPWES. Such modifications shall occur in a manner that shall not result in the draining of this pond. To the extent feasible, modifications to the *northern pond* shall be designed such that upon completion, the possible construction of a trail by others on the pond's embankment shall not be precluded, as determined by the FCPA.
12. The raw water pumping station shall be constructed, to the extent practicable, as determined by the DPWES at time of site plan approval, such that clearing and grading on the steeply sloping land (15% or greater slope gradient) adjacent to the Occoquan River shall be avoided. If it is determined by DPWES that clearing and grading of any portion of the steeply sloping land adjacent to the Occoquan River cannot be avoided, such clearing and grading shall be minimized, both in terms of extent and duration, as determined by the DPWES. However, the northern facade of the pumping station shall not be required to be moved farther north of the location shown on the GDP/SEA Plat.

The raw water pumping station shall generally conform with the conceptual rendering included as Exhibit A of these conditions. Materials shall be either brick or stone and the roof and other painted details shall be muted/earth tones to mitigate the visual impacts across the Occoquan River. Prior to site plan approval for the raw water pumping station, the site plans and building elevations for such shall be forwarded by DPWES to the Town of Occoquan and Prince William County for their review and comment.

13. Prior to site plan approval for the proposed under bed of river crossing of the raw water lines, documentation shall be provided, for the review and approval of Special Projects, DPWES, and the Environmental and Development Review Branch, DPZ, that demonstrates, subject to applicable state and/or federal permitting requirements and as determined by the Special Projects Branch, DPWES, and the Environmental and Development Review Branch, DPZ, that the proposed alignment and method of

construction of this river crossing will serve to minimize, to the extent practicable, environmental impacts that may be associated with it. This documentation shall include, but not be limited to, 1) A detailed description of the proposed alignment and method of construction of the crossing; 2) An evaluation of environmental impacts associated with the crossing; 3) The identification of mitigation measures (which may include bioengineering and other innovative approaches) that will be pursued to minimize adverse environmental impacts associated with the crossing; 4) The identification of construction and/or alignment alternatives that will not be pursued; 5) An evaluation of the environmental impacts associated with these alternatives; and 6) A justification for the selection of the preferred alternative. If a method/alignment is identified through, or outside of, this analysis which lessens environmental impacts in a practicable manner, as determined by DPWES, that alternative method/alignment should be implemented; nothing in this condition shall require implementation of an alternative method/alignment which would render only minimal environmental benefits at significant expense.

Prior to site plan approval, the plans and documentation described above shall be forwarded to the Town of Occoquan and to Prince William County for their review and comment.

14. In order to reduce the conveyance of sediment from steeply sloping areas (15% or greater slope gradient) that will be disturbed during construction, the effectiveness of the erosion and sedimentation control system shall be optimized for any such area, as determined by the Special Projects Branch, DPWES, through the provision of super silt fences and/or other innovative measures (possibly including bioengineering techniques), as determined to be appropriate by the Special Projects Branch, DPWES.
15. A vegetation replacement plan shall be provided with the appropriate site plan submission for any steeply sloping area (15% or greater slope gradient) or other land within the RPA that will be disturbed in conjunction with the construction of the pump station and/or river crossing. The vegetation replacement plan shall depict re-vegetation of all disturbed areas with native vegetation consisting of trees, shrubs, herbaceous vegetation, seedlings and/or seed mixes, to the maximum extent feasible, as determined by the Urban Forestry Branch, DPWES; all such disturbed areas shall be re-vegetated in some manner. The tree cover to be provided outside of steeply sloping areas shall be, at maturity, equivalent to the tree cover removed in the affected areas, as determined by the Urban Forestry Branch, DPWES. The vegetation replacement plan shall also include methods to be implemented to mitigate erosion during plant establishment and shall include a long term maintenance plan. This plan shall be part of the appropriate site plan submission and shall be reviewed and approved by the Urban Forestry Branch, DPWES. Vegetation shall be planted no later than the first

planting season after completion of construction adjacent to the affected areas, as determined by the Urban Forestry Branch, DPWES.

16. Prior to site plan approval for the construction of the raw and finished water transmission lines and the solids disposal line, the applicant shall demonstrate, as determined to be necessary by the DPWES, in consultation with the Urban Forestry Branch, that clearing and grading associated with the proposed construction of these lines will be the minimum necessary to provide for these lines. A vegetation restoration plan for the water line corridor shall be prepared for the review and approval of the Urban Forestry Branch, DPWES. This plan shall provide for the re-vegetation of disturbed areas of the water line corridor to the maximum extent practicable, consistent with applicable state and/or federal permitting requirements, as determined by the Urban Forestry Branch, DPWES. The vegetation restoration plan shall provide for the planting of a native grass and wildflower mix in areas within 25 feet of the raw and finished water and/or solids disposal lines, with native shrubs and a native woody seed mix to be used in disturbed areas farther away from these lines, as approved by the Urban Forestry Branch, DPWES. This development condition shall not apply to those areas shown as being located within existing or proposed fenced areas as shown on the GDP/SEA Plat or where the vegetation and restoration efforts described above would be prohibited within utility easements. Areas planted with native grass and wildflowers shall be maintained to inhibit tree growth, and areas planted with shrubs and a woody seed mix shall be maintained to permit and encourage shrub and tree growth. Planting shall begin as soon as feasible after installation, inspection, and testing of the pipelines, as determined by the Urban Forestry Branch, DPWES.

Northern Buffer Area: Recreational Uses

17. The area to the north and northwest of the proposed purification facility (hereinafter referred to as the northern buffer area) shall be used for active and passive recreational purposes. The location of said recreational uses within this northern buffer area shall not require an amendment of this special exception amendment, so long as the landscaped buffer shown on the GDP/SEA Plat including a minimum setback of 50 feet is maintained along the northern property boundary. Prior to the issuance of the first Non-Residential Use Permit (Non-RUP) for the facility, and subject to the approval of the FCWA Board, appropriate agreements between the FCWA and the FCPA shall be entered into to provide for long term FCPA use of the northern buffer area for active and passive recreation purposes as described in more detail below and which may include, but not be limited to, athletic fields, open space, parking,

playgrounds, and trails. Use of the northern buffer area for active and/or passive recreation uses shall be permitted until such time as this area is required for expansion of the facility or the FCWA and FCPA void the agreement. The area along the northern and eastern property boundaries where landscaping and/or berms are shown shall not be used. Amendments to this Special Exception Amendment shall not be required for FCPA uses.

18. Construction and maintenance of the athletic fields as shown on the GDP/SEA Plat shall be the responsibility of the FCPA. Maintenance of the *northern pond* shall remain the responsibility of the FCWA. FCPA use of this area shall be subject to the following conditions; these conditions may be included in, or in addition to, any private agreements reached between the FCPA and the FCWA.
 - In order to restore, through managed natural succession, a minimum 100-foot wide forested riparian buffer area on each side of the intermittent stream that flows into the *northern pond*, land within 100 feet of this stream between the Plant Road as shown on the GDP/SEA Plat and the *northern pond* shall not be disturbed, mowed, or otherwise maintained, except as may be needed to provide for trail connections through this area, as determined by FCPA. All trail connections shall be constructed and maintained by the FCPA. This requirement shall not apply to any land located inside the proposed fenced area as shown on the GDP/SEA plat. In addition, areas falling within the 100-foot limit but disturbed by the proposed roadway embankment and areas located south of the Plant Road shall be exempt from the mowing/maintenance restrictions.
 - In order to restore, through managed natural succession, a minimum 100-foot wide forested riparian buffer area on each side of the stream that flows downstream of the *northern pond*, land within 100 feet of this stream shall, except as noted below, not be disturbed, mowed, or otherwise maintained except as may be needed to provide for trail connections through this area, as determined by FCPA. This requirement shall not apply to land located within a utility easement or to any land that may need to be disturbed for the purpose of improving the design and/or viability of the pond (i.e., construction of a new embankment; protection of the outfall area), as determined by DPWES.
 - There shall be no disturbance of the cemetery, and the development of recreational facilities shall not reduce access to the cemetery.

19. The ecological value of the northern buffer area shall be enhanced by the establishment of a wildflower/meadow habitat by the FCWA in areas to the south and west of the *northern pond* and between this pond and the westernmost of the proposed athletic fields, as generally identified on the GDP/SEA plat. This habitat shall be established in a manner determined by FCPA and shall be maintained as per an agreement to be developed between the FCWA and the FCPA, as described in the preceding condition.
20. A public access easement for a future Greenway Trail along the Occoquan River front boundary of the site shall be provided if and when connections for such trail are available to the east and west of the Property. Public access easements shall be provided within the northern buffer area for trail construction by the FCPA, as may be deemed appropriate and feasible by the FCPA in coordination with the Northern Virginia Regional Park Authority, provided such public access easements do not adversely affect the operation of the water purification facility. A trail connection from the northern buffer area to the proposed trail along Route 123 shall be provided by the FCPA as part of the required trail system. An eight-foot wide asphalt trail system shall be provided by the FCPA in this area and shall connect to trails being constructed in association with improvements to Route 123. This trail may follow the alignment of the existing Cemetery Road as shown on the GDP/SEA Plat, provided such alignment does not interfere with the use of the Cemetery Road. The trail(s) shall provide access to, and through, recreational facilities, as determined to be appropriate by the FCPA, including, but not limited to, athletic fields, the wildflower meadow habitat area, playgrounds, and parking lots.

Landscaping

21. As shown on the GDP/SEA Plat, an effective and continuous year-round landscaped screen along the Route 123 frontage shall be provided and shall include a berm a minimum of three (3) feet in height (as shown as Condition 2 on Sheet 9 of the GDP/SEA Plat).

A landscape plan which includes the landscaping and berming stipulated in this condition and which identifies limits of clearing and grading around the forested riparian buffer restoration areas within the northern buffer area shall be prepared and subject to review and approval by the Urban Forestry Branch, DPWES, and shall be implemented with the first site plan approval for the water purification facility, as determined by DPWES.

Transportation

22. At the time of site plan review, the general location of an on-site road to be constructed by others shall be identified and shown on the site plan which would provide access to the quarry, at such time in the future as the reclamation plan for the quarry is implemented. The alignment shown as Possible Alternative Quarry Private Access Road shall be employed,

the quarry, at such time in the future as the reclamation plan for the quarry is implemented. The alignment shown as Possible Alternative Quarry Private Access Road shall be employed, unless determined not to be feasible by DPWES, and a public access easement shall be recorded at the time the road is constructed.

23. Prior to site plan approval or upon demand by the Board of Supervisors or by VDOT, whichever first occurs, dedication in fee simple to the Board of Supervisors, shall be provided per VDOT project #0123-029-F28, or as mutually agreed to by the FCWA and VDOT, for the road improvements and associated trail along the Route 123 frontage, as depicted on the GDP/SEA Plat. All ancillary easements as may be needed shall also be provided. All intensity of use attributable to the areas dedicated pursuant to this Condition shall be subject to the provisions of Paragraph 5 of Section 2-308 of the Zoning Ordinance and shall be reserved to the residue of the Property.
24. Prior to site plan submission for any area of the site adjacent to Route 123, such site plans shall be coordinated with VDOT to determine appropriate grades and profiles of the interim site access so as to minimize the need to reconstruct access with the reconstruction by others of Route 123.
25. Interim access will be necessary until such time as Route 123 is reconstructed by others to a six-lane divided facility. At the time of first site plan submission for any of the area of the site adjacent to Route 123, the site plan shall include information which clearly delineates all existing and proposed interim access into the site. Interim improvements, which may include right and left-turn lanes, shall be provided on Route 123 at all points of access, per DOT and VDOT.

Cemetery

26. As depicted on the GDP/SEA Plat, a four-foot, black, wrought-iron fence with a gate shall be erected around the cemetery prior to any earth-moving activity within that general area of the site. If the General Services Administration (GSA) modifies the specifications for such enclosure of the cemetery, those modified specifications may be employed without an amendment to this GDP/SEA Plat. Landscaping shall be provided to either the north or south of the cemetery to connect landscaping shown on the GDP/SEA Plat, in order to provide a continuous landscaping strip, as determined by the Urban Forestry Branch, DPWES. Vehicular and pedestrian access to the cemetery shall be maintained at all times, as shown on the GDP/SEA Plat.

Use of 5.54 Acre Parcel (RZ 1998-MV-033)

27. No new construction or additional uses shall be permitted on the 5.54 acre parcel subject to RZ 1998-MV-033 without approval of a Special Exception Amendment, as determined by the Zoning Administrator or her agent, DPZ.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be itself responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this Special Exception Amendment shall automatically expire, without notice, five (5) years from the date of approval unless the use has been established or construction has commenced and been diligently prosecuted. In this case, the use shall be considered established with approval of the first Non-RUP for the facility. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the Special Exception Amendment. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

The Board also:

- **Modified the transitional screening and barrier requirements in favor of that shown on the Generalized Development/Special Exception Amendment (GDP/SEA) Plat; and**
- **Waived the service drive requirement on Route 123.**

If you have questions regarding the expiration of this Special Exception Amendment or filing a request for additional time they should be directed to the Zoning Evaluation Division in the Department of Planning and Zoning at 703-324-1290. The mailing address for the Zoning Evaluation Division is Suite 801, 12055 Government Center Parkway, Fairfax, Virginia 22035.

Sincerely,



Nancy Vehrs
Clerk to the Board of Supervisors

SEA 81-V-017
December 21, 1998

- 11 -

NV/ns

cc: Janet Coldsmith, Director, Real Estate Div., Dept. of Tax Administration
Michael R. Congleton, Deputy Zoning Administrator
Frank Jones, Assistant Chief, PPRB, DPZ
Audrey Clark, Chief, Inspection Svcs., BPRB, DPW&ES
Barbara A. Byron, Director, Zoning Evaluation Div., DPZ
Robert Moore, Trnsprt'n. Planning Div., Office of Transportation
Ellen Gallagher, Project Planning Section, Office of Transportation
Department of Public Works and Environmental Services
Department of Highways, VDOT
Land Acqu. & Planning Div., Park Authority
Martin B. Sultan, Director of Planning & Engineering,
Fairfax County Water Authority.

RZ 1998-MV-032; RZ 1998-MV-033

FREDERICK P. GRIFFITH, JR. WATER TREATMENT PLANT

PROFFER STATEMENT

December 1, 1998

Pursuant to Section 15.2-2303(A) of the Code of Virginia, as amended, and subject to the Board of Supervisors' approval of rezoning applications RZ 1998-MV-032 and RZ 1998-MV-033, as proposed for rezoning from the R-C and NR District to the R-1 and NR District, the Fairfax County Water Authority (the "Applicant") proffers that development of Tax Map Parcels 106-4-((1))-56 (formerly 106-4-((1))-54 (part)) (the "Property") shall be developed in accordance with the following proffered conditions:

1. Substantial Conformity. Subject to the provisions of Section 18-204 of the Zoning Ordinance, the Property shall be developed in substantial conformance with the Generalized Development Plan/Special Exception Amendment Plat entitled Frederick P. Griffith, Jr. Water Treatment Plant, prepared by Dewberry & Davis and dated February 5, 1998, and revised through November 30, 1998, as further modified by these proffered conditions.
2. Athletic Fields. The Applicant shall provide to the Board of Supervisors (the "Board") and/or the Fairfax County Park Authority (the "Park Authority") an area in the northeast portion of the Property of approximately 3 acres that is not being used for the proposed water treatment plant, the associated drainfield and/or any other appurtenant facilities, for use as athletic fields. Such area shall be provided pursuant to a written license agreement between the Applicant and the Board and/or Park Authority which includes provisions for appropriate insurance acceptable to the Applicant to cover claims, attorneys fees, costs and the like. The actual location shall be mutually agreed upon by the Applicant and the Board and/or Park Authority prior to final site plan approval for the water treatment and appurtenant facilities. Any fields constructed in such area shall be constructed, operated and maintained at no cost to the Applicant. The Applicant reserves the right to make any use of the designated area by providing the Board and/or Park Authority with one (1) year prior written notice.
3. Successors and Assigns. Each reference to "Applicant" in this proffer statement shall include within its meaning, and shall be binding upon, Applicant's successor(s) in interest and/or the developer(s) of the site or any portion of the site.

APPLICANT/OWNER:

FAIRFAX COUNTY WATER AUTHORITY

By: Charlie Clowder Jr
Its: General Manager

**FAIRFAX COUNTY COMPREHENSIVE PLAN, 2013 Edition AREA IV
Lower Potomac Planning District, Amended through 6-3-2014
LP1-Laurel Hill Community Planning Sector**

LAND UNIT 5

Land Unit 5 is comprised of approximately 590 acres of which about 15 percent is in environmentally sensitive areas (see Figure 20). Approximately 200 acres of this land unit is located outside of the former Corrections Property boundary and is currently used by Vulcan Quarry and the Fairfax Water Facility. The land unit is generally bounded by the Occoquan River to the south, Mills Branch to the east, the former Corrections Property line to the north and the American Telephone and Telegraph Easement to the west.

A major historic feature in Land Unit 5 is the former Occoquan Workhouse and related ancillary masonry buildings located immediately to the east of Ox Road. The former Occoquan Workhouse complex has the greatest potential for adaptive reuse. Development of this land unit should be in accordance with the guidance for the sub-units.

Sub-unit 5A: A portion of this property is currently used for extraction by Vulcan Quarry. North of the Occoquan River between the quarry and Ox Road, is the approximately 247-acre Fairfax Water property. Buffering and screening along Ox Road (Route 123) and the northern boundary should be provided. In addition, if reconfiguration of the quarry is approved, a buffer area should be provided opposite the Occoquan Workhouse and adjacent to the existing solids disposal area and the former Lorton treatment plant located south of the existing Frederick P. Griffith Jr. treatment facility to screen the Workhouse and Route 123 from impacts created by future expansions of Fairfax Water's treatment facilities and the reconfigured mining area and relocation of the quarry's stone crushing operations to this area. As an interim use, land located on the northeast portion of the Fairfax Water Facility may be used by the Park Authority for park and recreational uses until such time as the area is needed for treatment plant expansion. The half-acre prison cemetery, which was established at the turn of the 20th century, located west of the former Occoquan Workhouse on the Fairfax Water property, should be preserved.

Extraction at the quarry should be predicated on the assumption that severe slopes, especially adjacent to swales and streams, will not be disturbed so as to pose a direct threat to stream water quality. Consequently, limits of clearing for proposed extraction sites should not encroach on severe slopes in such a manner as to render impossible sediment control and/or visual buffering for nearby residents. Further, sediment control measures should be adequate to control erosion in conformance with the guidelines of the County sediment and erosion control regulations. A natural buffer of at least one hundred feet along the

southwest line of the property parallel to the Occoquan River should be maintained.

The Fairfax Water Facility property extends northward to the boundary of the LP1 Laurel Hill Community Planning Sector. In order to meet the long term water supply storage needs of Fairfax County and the region, a water supply storage facility may be considered for establishment on lands currently owned by the Vulcan Quarry and Fairfax Water. Phasing is envisioned to occur as follows:

- The northern portion of the Vulcan Quarry would be available to Fairfax Water no later than 2035, when mining operations in this area would cease. At that time, this portion of the quarry would be converted to serve as Phase 1 of the planned water supply storage facility (shown on Figure 21). Additional land would be leased to Vulcan Quarry by Fairfax Water prior to Phase 1 to facilitate reconfiguration of the stone mining operations to replace lost capacity from the conversion of the northern portion of the quarry for water supply storage purposes, for relocation of the quarry's stone crushing operations and for storage space for overburden (topsoil and excess material) from mining activities. Mining operations on the southern portion of the quarry would continue until about 2085.
- The entirety of Vulcan Quarry land would be acquired by Fairfax Water no later than 2085. All quarry operations would then cease. At this time, the southern portion of the quarry would be converted to serve as Phase 2 of the new water supply storage facility. The locations described for the proposed conversion of the Vulcan Quarry to a water supply storage facility are shown in Figure 21.

Evaluation of any proposal for any long term water supply storage areas should to consider the following in the evaluation of direct and indirect impacts to Environmental Quality Corridors (EQCs) and Resource Protection Areas (RPAs), as well as impacts created by proposed stream diversions. The following issues should be considered during the review of any rezoning, special permit, special exception and proffer condition amendment applications:

- The extent to which the proposed water supply storage facility is needed to address short, medium and long term water supply needs;
- The extent to which the proposed action would meet the long term water supply needs with the least amount of adverse environmental impact, compared to other alternatives;
- The extent to which any existing buffer areas will be removed or impacted by any proposed stream diversion;

Land Unit 5: Subunits 5A & 5B

LP1 - Laurel Hill Community Planning Sector

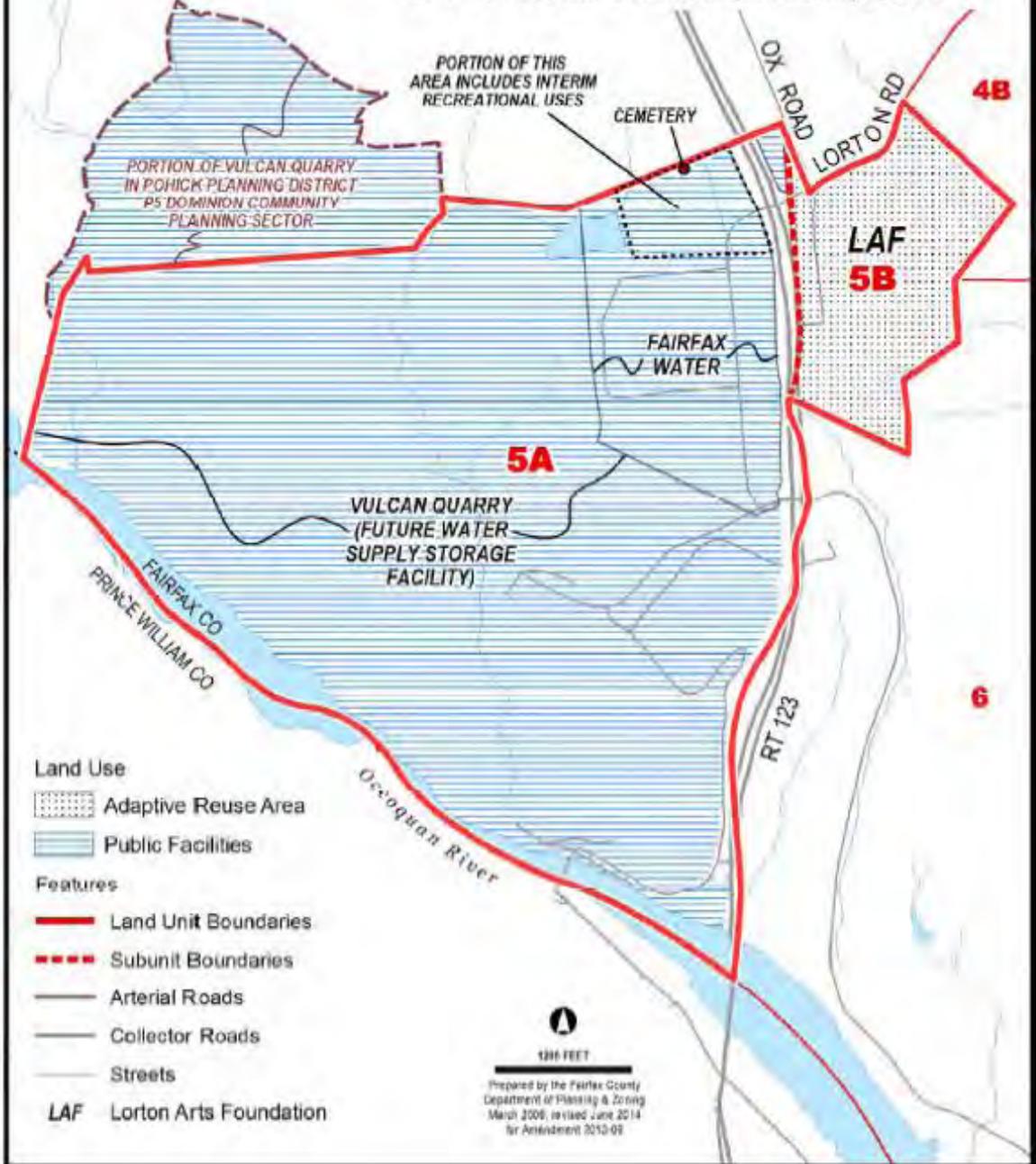


FIGURE 20

- The placement and orientation of proposed temporary mining capacity augmentation areas should be evaluated in order to avoid and/or minimize impacts to EQCs, RPAs and streams;
- The extent of any impacts that the proposal would have on EQCs and measures that would be pursued to address Policy Plan guidance regarding disturbances to EQCs;
- The extent of any impacts that the proposal would have on RPAs and measures that would be taken in support of an exception under Chapter 118 of the Fairfax County Code (the Chesapeake Bay Preservation Ordinance); and;
- The extent to which there would be any proposed diversion of drainage that would be needed to implement the proposal and the measures that would be pursued to ensure that any such drainage diversion would not have adverse impacts on receiving waters.

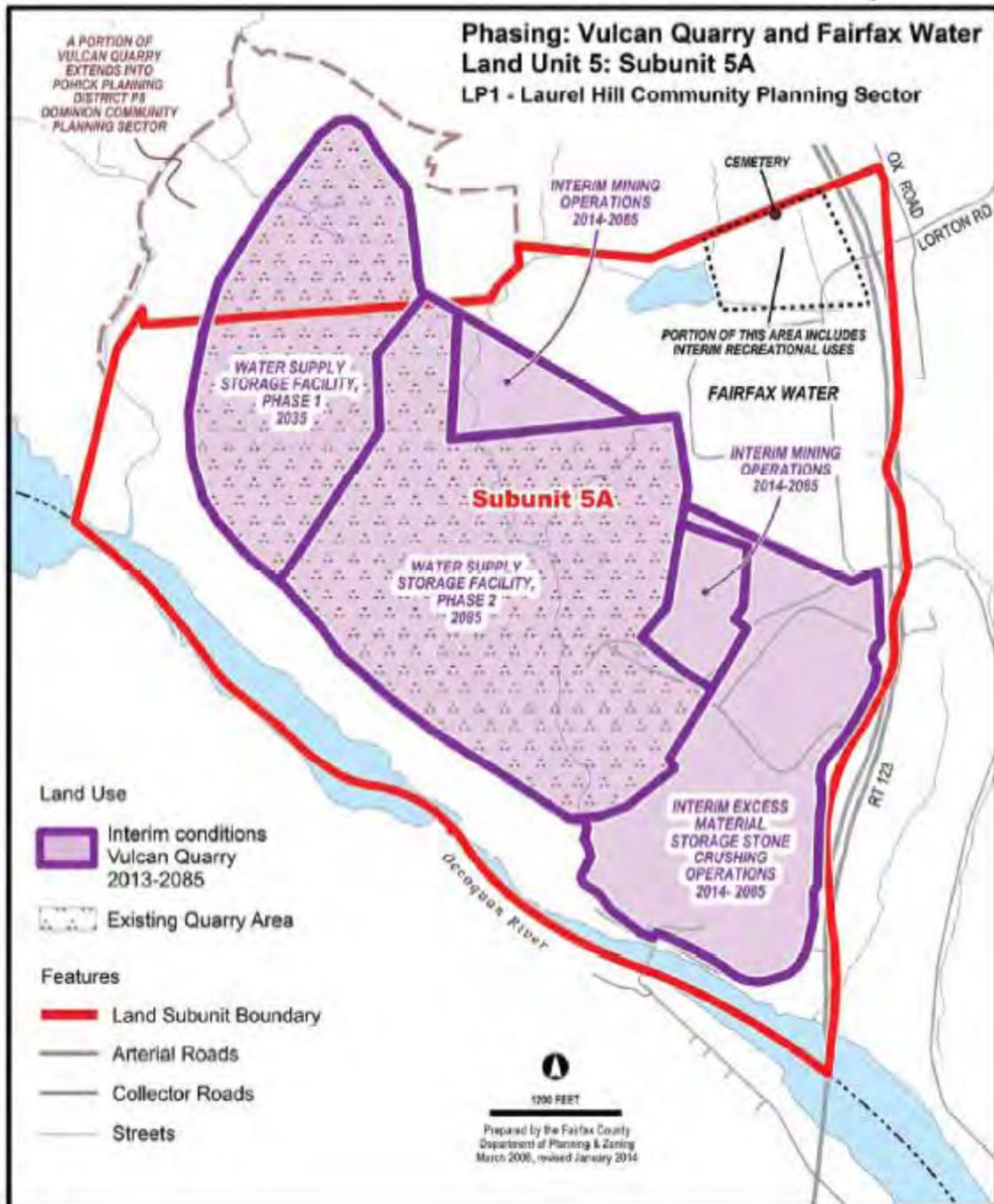


FIGURE 21

FAIRFAX COUNTY COMPREHENSIVE PLAN, 2013 Edition AREA III
Pohick Planning District, Amended through 6-3-2014
P5-Dominion Community Planning Sector

7. The area generally to the north of Peniwill Drive is planned for residential use at .1-.2 dwelling unit per acre as shown on the Comprehensive Plan Map. The quarry pit limits to the west and north near Peniwill Drive should not be extended further west or north than currently exists. Industrial uses other than the quarry or conversion of the quarry to a water storage facility are not planned in this area nor should they be permitted. As this area is adjacent to lands planned for very low density residential use, the quarry area in this planning sector should be limited in size and well buffered from adjacent parcels. In addition, the environmental impacts of quarry activities should be mitigated. The quarry operations in this location are only appropriate if the following conditions are met:
- The current operating conditions remain in effect such that;
 - Oversight and appropriate commitments are provided to protect nearby residential areas from quarry related adverse noise and vibration impacts, as well as measures to ensure traffic management of trucks traveling to and from the quarry to access I-95 via Route 123, rather than Lorton Road;
 - The quarry area in this community planning sector should be limited in size and location to insure that the impact of this use on surrounding uses is mitigated. This will provide for a supply of stone resources sufficient to meet demand for many years while assuring the quarry will be finite in this location and will protect the residential character of the areas to the north, east and west from further expansion of nonresidential uses;
 - The pit area should be limited to approximately 32 acres of Parcel 106-3((1))4B and should be contiguous with the existing pit located in Area IV; any other areas of disturbance within the P5 Dominion Community Planning Sector should be located on approximately 30 to 40 acres. A vegetative buffer should be provided around the periphery of the site and should include Environmental Quality Corridors (EQCs) and the maximum amount feasible of mature hardwood forests. In addition to including EQC and forest areas, this vegetative buffer may also include berms to protect all existing or planned residential development from noise and visual impacts of the quarrying operations. Supplemental plantings should be provided in the buffer where no mature trees exist;
 - The direct and the indirect environmental impacts of any proposed quarry reconfiguration and conversion to a water supply storage facility should be appropriately mitigated. The scope of the quarry reconfiguration and conversion should be designed to balance efficient stone removal with

preservation of significant environmental resources such as EQCs and adjacent upland hardwood tree cover. In addition to the buffer area described above, other critical EQC areas and significant areas of upland hardwood forest cover adjacent to the EQCs should be preserved to the maximum extent feasible. The applicant should comply with all requirements of the Chesapeake Bay Preservation Act;

- The quarry operations should provide siltation basins that will contain sediment on-site and prevent off-site discharges that could adversely impact water quality. Any proposal to modify the pre-quarry drainage patterns as a result of quarry operations or diversion of drainage around the quarry should be pursued in a manner that will ensure that bodies of water receiving new and/or increased discharges of water will be protected from any associated adverse impacts. Tree cover on the site should be maintained as long as possible;
- The quarry should only use the existing access road through the Fairfax Water property. No use of any additional access points is recommended along Ox Road for daily quarry operations; and
- Alternative public street access to Route 123 (Ox Road) should be provided to the residential land west of Elk Horn Run and should be well-buffered from all quarrying operations.

In order to meet the long term water supply storage needs of Fairfax County and the region, a water supply storage facility may be considered for establishment on lands currently owned by the Vulcan Quarry. Other uses, such as a landfill, are not planned for the quarry. The first phase of the water supply storage facility conversion would include Tax Map Parcels 106-3 ((1)) 4B, which is located in the northern portion of Vulcan Quarry. During this phase, mining operations in this northern area would cease and this portion of the reconfigured quarry would be used for water supply storage beginning no later than 2035 (shown on Figure 21). Guidance for the evaluation of any proposal affecting the Vulcan Quarry property for any new long-term water supply storage areas is provided within the recommendations for Land Unit 5 of the Laurel Hill Community Planning Sector in the Area IV Plan.



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

June 19, 2014

Ms. Jamie Bain Hedges, P.E.
 Director, Planning & Engineering,
 Fairfax Water
 8560 Arlington Blvd.,
 Fairfax, VA 22031

Dear Ms. Hedges:

This letter will serve as official notice of the action taken by the Fairfax County Architectural Review Board (ARB) at its May 8, 2014 meeting on **ARB-14-LOR-01** for the property located at 9600,10000 Ox Road, tax id # 106-3 ((1)) 4B, 9; 106-4 ((1)) 20B (pt.), 56A; 112-2 ((1)) 8.9, 11, 12, 14, located partially within the DC Correctional Complex National Register-eligible Historic District.

The ARB recommended approval of the application of **ARB-14-LOR-1 on PCA 1998-MV-032, PCA 1998-MV-033, and SEA 81-V-017-02** with the location of the proposed estuary water treatment facility as generally shown on the site layout entitled "Fairfax Water | Generalized Development Plan | Special Exception Amendment Plat" (**GDP/SEA Plat**) prepared by Dewberry Consultants, LLC dated February 28, 2014 and revised through April 23, 2014 with the conditions that:

1) Prior to final site plan approval for any building and/or facility associated with the treatment facility, the applicant shall conduct a Phase I archaeological survey of the existing cemetery and its immediate surroundings to confirm the exact dimensions of the cemetery. The extent of this survey shall be subject to the review and approval of the Fairfax County Park Authority's Cultural Resource Management and Protection Branch (CRMPB). The applicant shall provide the results of the Phase I survey to CRMPB for review and approval. No land disturbance activities shall be conducted until this study has been approved by CRMPB. If the Phase I survey results conclude that a Phase II study of the survey extent is warranted, the applicant shall complete that study and provide the results to CRMPB for review and approval. If the Phase II survey results conclude that a Phase III evaluation and/or recovery is warranted, the applicant shall complete the recommended work in consultation and coordination with CRMPB. AND

2) If additional grave sites are found outside of the existing cemetery's extent as shown on the GDP/SEA Plat as a result of the aforementioned archaeological survey, the applicant shall take one of the following actions:

- Relocate the additional grave sites in accordance with the Virginia Antiquities Act, §10.1-2300 in the Code of Virginia; or,
- Revise the site plan to relocate buildings such that the grave sites are avoided and demarcate the extent of the cemetery with fencing as approved by CRMPB. AND



Fairfax County is committed to nondiscrimination on the basis of disability in all county programs, services and activities. Reasonable accommodations will be provided upon request. For information, call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Department of Planning and Zoning

Planning Division
 12055 Government Center Parkway, Suite 730
 Fairfax, Virginia 22035-5509
 Phone 703-324-1380
 Fax 703-324-3056
www.fairfaxcounty.gov/dpz/



3) In reference to the letter from the Virginia Department of Historic Resources (VDHR) dated May 2, 2014, that prior to any ground disturbing activity for the entire area subject to these applications that additional archaeological survey be undertaken and that in particular additional survey be undertaken for the area of the proposed estuary water treatment facility with all survey to be done in coordination with the Fairfax County Cultural Resources Management and Protection Branch (CRMPB). This additional work for the proposed estuary water treatment facility is recommended in particular because it is unclear from the 1998 Cultural Resource Evaluation report prepared by Louis Berger & Associates if that area was adequately surveyed. However, if the VDHR and CRMPB subsequently agree that work done to date is adequate then no additional work is required.

Enclosed are the stamped plans for **ARB-14-LOR-01** as recommended for approval by the ARB at its May 8, 2014 meeting. Copies of these materials will also be retained in the project file.

If you have any questions, please contact me at 703/324-1241 or linda.blank@fairfaxcounty.gov.

Sincerely,



Linda Cornish Blank,
Historic Preservation Planner, Department of Planning & Zoning

Enclosures: 3 pages

cc: John C. McGranahan, Jr. Esquire c/o Susan Yantis, Hunton & Williams LLP (w/o enclosures)
Nick Rogers, Senior Planner, Zoning Evaluation Div. Dept. of Planning & Zoning (w/o enclosures)
Elizabeth Crowell, CRMPB, Fairfax County Park Authority (w/o enclosures)
Ethel Eaton, Ph.D., Senior Policy Analyst, Division of Resource Services and Review. VDHR (w/o enclosures)



COMMONWEALTH of VIRGINIA

Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Molly Joseph Ward
Secretary of Natural Resources

Julie V. Langan
Director
Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

2 May 2014

Mr. John C. McGranahan, Jr.
Hunton & Williams
1751 Pinnacle Drive
Suite 1700
McLean, Virginia 22102

RE: Fairfax County Water Authority expansion of Griffith Water Treatment Plant
Fairfax County, Virginia
VDHR File No. 2014-0429

Dear Mr. McGranahan:

The Department of Historic Resources (DHR) has received for our review and comment the above referenced project. It is our understanding that Fairfax Water proposes to expand the existing Griffith Water Treatment Plant from 247.84 acres to 526.86 acres. The increase will add the adjacent Vulcan Graham Quarry property for use as a water supply reservoir. The proposed expansion also involves the construction of additional water purification facilities and other related site improvements. We offer the following comments as technical assistance to Hunton & Williams, as well as for the consideration of the Fairfax County Architectural Review Board (ARB).

The project area is adjacent to a non-contiguous portion of the Lorton Correctional Complex, a property that is listed in the National Register of Historic Places (NRHP). The adjacent correctional complex parcel contains the Stoney Lonesome Cemetery and its access road from Route 123. According to your letter of 7 April 2014, at the request of the Fairfax ARB the location of the water treatment facility was changed to remove it from the historic property and the site design revised to incorporate additional landscaping between the boundary of the Lorton Correctional Complex and proposed water treatment plant in order to provide an appropriate visual buffer. The DHR supports this alteration to the expanded water treatment plant design. We believe that due to the existence of the current water treatment facilities across Route 123 from the historic Lorton Correctional Complex, the set back location for the new buildings, and the tree buffer that the visual impact to the NRHP property will be negligible.

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6408
Fax: (804) 862-6196

Capital Region Office
2801 Kensington Avenue
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Tidewater Region Office
14415 Old Courthouse Way
2nd Floor
Newport News, VA 23608
Tel: (757) 886-2818
Fax: (757) 886-2808

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

However, while we appreciate the effort to redesign the future estuary water treatment facility to avoid impacting architectural resources associated with the Lorton Correctional Complex Historic District, we are concerned about the proposed expansion's effects on archaeological sites. A review of our inventory files shows that multiple archaeological sites are within the project's area of direct effects. Please refer to the attached V-CRIS map. The majority of these sites were identified by Mike Johnson in 1986 in his report titled "Preliminary (Phase I) Heritage Resource Assessment of the Proposed I-95 Energy/Resource Recovery Facility: Fairfax County Department of Public Works". The survey resulted in the identification of 32 new archaeological sites, both historic and prehistoric. Mr. Johnson recommended 16 of these sites for further testing at the Phase II level to determine conclusively their eligibility for listing in the NRHP. Furthermore, it does not appear that the entire area of direct effects was surveyed in 1986 as Mr. Johnson's focus was on identifying sites within several alternatives for a power line right-of-way. The current condition of these sites is unknown. We recommend additional archaeological survey in order to complete project coordination with the County Cultural Resources Management and Protection Branch. A Phase I archaeological survey should be conducted of the entire area expected ground disturbance, to include the relocation of the previously recorded sites in order to assess their current condition.

The survey should be conducted by a professional archaeologist who meets, at a minimum, the Secretary of the Interior's *Professional Qualifications Standards* (48 FR 44738-9, September 29, 1983) and in a manner consistent with the federal Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44742, September 29, 1983) and our state *Guidelines for Conducting Historic Resource Survey in Virginia* (2011). Two archival bound copies of the draft technical report in addition with one electronic copy in Adobe® Portable Document Format (.pdf) should be provided to DHR for review and comment, as well as one copy in an agreed upon format to the County for review and approval. Once we have the results of the survey, we will be in a position to advise and assist you and the County on the next steps needed to resolve the historic property issues.

If you have any questions about our comments, please contact me at (804) 482-6090.

Sincerely,



Marc Holma, Architectural Historian
Review and Compliance Division

C: Ms Linda Cornish Blank, Fairfax County
Dr. Elizabeth Crowell, Fairfax County



County of Fairfax, Virginia

MEMORANDUM

DATE: October 28, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Pamela G. Nee, Chief *PH*
Environment and Development Review Branch, DPZ

SUBJECT: Revised Environmental Assessment:

RZ 2013-MV-015
PCA 1998-MV-032
PCA 1998-MV-033
SEA 81-V-017-02
SPA 82-V-091-06

Vulcan/Graham Quarry
Fairfax Water – Griffith Water Treatment Plant

This memorandum, prepared by John R. Bell and Noel Kaplan, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the above referenced special exception plat and special permit amendment plat, both as revised through July 25, 2014. Possible solutions to remedy identified environmental impacts are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following citations from the Plan:

In the Fairfax County Comprehensive Plan, 2013 Edition, Area IV Plan, Lower Potomac Planning District, pages 54 through 56, in the Land Unit Recommendations for Sub-unit 5A of the Laurel Hill Community Planning Sector (Planning Sector LP1), the Plan states:

“Extraction at the quarry should be predicated on the assumption that severe slopes, especially adjacent to swales and streams, will not be disturbed so as to pose a direct threat to stream water quality. Consequently, limits of clearing for proposed extraction sites should not encroach on severe slopes in such a manner as to render impossible sediment control and/or visual buffering for nearby residents. Further, sediment control measures should be adequate to control erosion in conformance with the guidelines of the County sediment and erosion control regulations. A natural buffer of at least one hundred feet along the southwest line of the property parallel to the Occoquan River should be maintained.

Department of Planning and Zoning
Planning Division
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5509
Phone 703-324-1380
Fax 703-653-9447
www.fairfaxcounty.gov/dpz/



The Fairfax Water Facility property extends northward to the boundary of the LP1 Laurel Hill Community Planning Sector. In order to meet the long term water supply storage needs of Fairfax County and the region, a water supply storage facility may be considered for establishment on lands currently owned by the Vulcan Quarry and Fairfax Water. Phasing is envisioned to occur as follows:

- The northern portion of the Vulcan Quarry would be available to Fairfax Water no later than 2035, when mining operations in this area would cease. At that time, this portion of the quarry would be converted to serve as Phase 1 of the planned water supply storage facility (shown on Figure 21). Additional land would be leased to Vulcan Quarry by Fairfax Water prior to Phase 1 to facilitate reconfiguration of the stone mining operations to replace lost capacity from the conversion of the northern portion of the quarry for water supply storage purposes, for relocation of the quarry's stone crushing operations and for storage space for overburden (topsoil and excess material) from mining activities. Mining operations on the southern portion of the quarry would continue until about 2085.
- The entirety of Vulcan Quarry land would be acquired by Fairfax Water no later than 2085. All quarry operations would then cease. At this time, the southern portion of the quarry would be converted to serve as Phase 2 of the new water supply storage facility. The locations described for the proposed conversion of the Vulcan Quarry to a water supply storage facility are shown in Figure 21 *[not copied here]*.

Evaluation of any proposal for any long term water supply storage areas should consider the following in the evaluation of direct and indirect impacts to Environmental Quality Corridors (EQCs) and Resource Protection Areas (RPAs), as well as impacts created by proposed stream diversions. The following issues should be considered during the review of any rezoning, special permit, special exception and proffer condition amendment applications:

- The extent to which the proposed water supply storage facility is needed to address short, medium and long term water supply needs;
- The extent to which the proposed action would meet the long term water supply needs with the least amount of adverse environmental impact, compared to other alternatives;
- The extent to which any existing buffer areas will be removed or impacted by any proposed stream diversion;
- The placement and orientation of proposed temporary mining capacity augmentation areas should be evaluated in order to avoid and/or minimize impacts to EQCs, RPAs and streams;
- The extent of any impacts that the proposal would have on EQCs and measures that would be pursued to address Policy Plan guidance regarding disturbances to EQCs;
- The extent of any impacts that the proposal would have on RPAs and measures that would be taken in support of an exception under Chapter 118 of the Fairfax County Code (the Chesapeake Bay Preservation Ordinance); and;
- The extent to which there would be any proposed diversion of drainage that would be needed to implement the proposal and the measures that would be pursued to

ensure that any such drainage diversion would not have adverse impacts on receiving waters.”

In the Fairfax County Comprehensive Plan, 2013 Edition, Area III Plan, Pohick Planning District, pages 62 through 63, in the Land Unit Recommendations for the Dominion Community Planning Sector (Planning Sector P5), the Plan states:

“. . . In addition, the environmental impacts of quarry activities should be mitigated. The quarry operations in this location are only appropriate if the following conditions are met:

- The current operating conditions remain in effect such that;
 - Oversight and appropriate commitments are provided to protect nearby residential areas from quarry related adverse noise and vibration impacts, . . . ;
 - . . . A vegetative buffer should be provided around the periphery of the site and should include Environmental Quality Corridors (EQCs) and the maximum amount feasible of mature hardwood forests. In addition to including EQC and forest areas, this vegetative buffer may also include berms to protect all existing or planned residential development from noise and visual impacts of the quarrying operations. Supplemental plantings should be provided in the buffer where no mature trees exist;
 - The direct and the indirect environmental impacts of any proposed quarry reconfiguration and conversion to a water supply storage facility should be appropriately mitigated. The scope of the quarry reconfiguration and conversion should be designed to balance efficient stone removal with preservation of significant environmental resources such as EQCs and adjacent upland hardwood tree cover. In addition to the buffer area described above, other critical EQC areas and significant areas of upland hardwood forest cover adjacent to the EQCs should be preserved to the maximum extent feasible. The applicant should comply with all requirements of the Chesapeake Bay Preservation Act;
 - The quarry operations should provide siltation basins that will contain sediment on-site and prevent off-site discharges that could adversely impact water quality. Any proposal to modify the pre-quarry drainage patterns as a result of quarry operations or diversion of drainage around the quarry should be pursued in a manner that will ensure that bodies of water receiving new and/or increased discharges of water will be protected from any associated adverse impacts. Tree cover on the site should be maintained as long as possible;
- . . .”

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 7 through 9, the Plan states:

“Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County. .

. .

Policy h. Protect water resources by maintaining high standards for discharges from point sources.

- Policy k. For new development and redevelopment, apply better site design and low impact development techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County's streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:
- Minimize the amount of impervious surface created. . . .
 - Encourage the use of innovative BMPs and infiltration techniques of stormwater management where site conditions are appropriate, if consistent with County requirements.
 - Apply nonstructural best management practices and bioengineering practices where site conditions are appropriate, if consistent with County requirements. . . .
 - Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements. . . .

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations. . . .”

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 13 through 17, the Plan states:

“The third category of environmental issues addresses the protection, preservation, and restoration of environmental resources. These issues reflect a need to conserve or restore appropriate examples of the county's rapidly disappearing natural landscape, to protect and manage its ecological resources, and to provide visual relief in the form of natural vegetation between adjacent and sometimes incompatible land uses.

The county continues to lose open space, much of which has been cumulatively significant for environmental resources. "Open space" land, as distinguished from developed land, includes parks, conservation areas, private open space, and vacant land. The quantity of land included within these categories has diminished by more than 30 percent from 1975 to 1995, and is now less than 77,000 acres. Although not all open space land is ecologically significant or appropriate for preservation, the data indicate a loss of some of Fairfax County's environmental resources, and a fragmentation of remaining ecologically significant land. Large tracts of natural land are especially scarce in the more urban inner part of the county. However, several areas of low density development and some ecologically significant areas remain.

Low density zoning is a valuable conservation tool. However, as a single measure it is not an adequate means to conserve our resources. As currently prescribed in the Zoning Ordinance, neither conventional, nor cluster subdivision regulations are preserving the quality of the landscape that these low density zoning districts were enacted to protect.

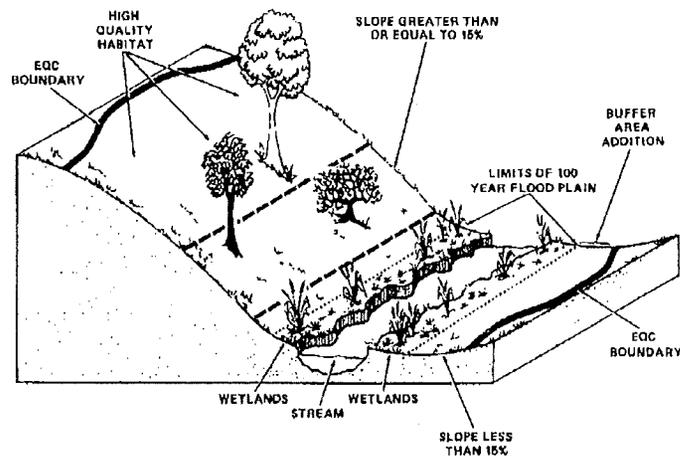
It is desirable to conserve a portion of the county's land in a condition that is as close to a predevelopment state as is practical. A conserved network of different habitats can accommodate the needs of many scarce or sensitive plant and animal species. Natural open space also provides scenic variety within the county, and an attractive setting for and buffer between urban land uses. In addition, natural vegetation and stream valleys have some capacity to reduce air, water and noise pollution.

Objective 9: Identify, protect and enhance an integrated network of ecologically valuable land and surface waters for present and future residents of Fairfax County.

Policy a: Identify, protect and restore an Environmental Quality Corridor system (EQC). (See Figure 4.) Lands may be included within the EQC system if they can achieve any of the following purposes:

- **Habitat Quality:** The land has a desirable or scarce habitat type, or one could be readily restored, or the land hosts a species of special interest. This may include: habitat for species that have been identified by state or federal agencies as being rare, threatened or endangered; rare vegetative communities; unfragmented vegetated areas that are large enough to support interior forest dwelling species; and aquatic and wetland breeding habitats (i.e., seeps, vernal pools) that are connected to and in close proximity to other EQC areas.
- **Connectivity:** This segment of open space could become a part of a corridor to facilitate the movement of wildlife and/or conserve biodiversity. This may include natural corridors that are wide enough to facilitate wildlife movement and/or the transfer of genetic material between core habitat areas.
- **Hydrology/Stream Buffering/Stream Protection:** The land provides, or could provide, protection to one or more streams through: the provision of shade; vegetative stabilization of stream banks; moderation of sheet flow stormwater runoff velocities and volumes; trapping of pollutants from stormwater runoff and/or flood waters; flood control through temporary storage of flood waters and dissipation of stream energy; separation of potential pollution sources from streams; accommodation of stream channel evolution/migration; and protection of steeply sloping areas near streams from denudation.
- **Pollution Reduction Capabilities:** Preservation of this land would result in significant pollutant reductions. Water pollution, for example, may be reduced through: trapping of nutrients, sediment and/or other pollutants from runoff from adjacent areas; trapping of nutrients, sediment and/or other pollutants from flood waters; protection of highly erodible soils and/or steeply sloping areas from denudation; and/or separation of potential pollution sources from streams.

The core of the EQC system will be the county's stream valleys. Additions to the stream valleys should be selected to augment the habitats and buffers provided by the stream valleys, and to add representative elements of the landscapes that are not represented within stream valleys. The stream valley component of the EQC system shall include the following elements (See Figure 4):



A TYPICAL ENVIRONMENTAL QUALITY CORRIDOR

Source: Fairfax County Office of Comprehensive Planning

FIGURE 4

- All 100 year flood plains as defined by the Zoning Ordinance;
- All areas of 15% or greater slopes adjacent to the flood plain, or if no flood plain is present, 15% or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus 4 additional feet for each % slope measured perpendicular to the stream bank. The % slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at fifty foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.

Modifications to the boundaries so delineated may be appropriate if the area designated does not benefit any of the EQC purposes as described above. In

addition, some disturbances that serve a public purpose such as unavoidable public infrastructure easements and rights of way may be appropriate. Disturbances for access roads should not be supported unless there are no viable alternatives to providing access to a buildable portion of a site or adjacent parcel. The above disturbances should be minimized and occur perpendicular to the corridor's alignment, if practical, and disturbed areas should be restored to the greatest extent possible

In general, stormwater management facilities should not be provided within EQCs unless they meet one of the following conditions:

- They are consistent with recommendations of a watershed management plan that has been adopted by the Fairfax County Board of Supervisors; or
- They will:
 - Either:
 - Be more effective in protecting streams and better support goals of watershed management plans than stormwater management measures that otherwise would be provided outside of EQCs; or
 - Contribute to achieving pollutant reduction necessary to bring waters identified as impaired into compliance with state water quality standards or into compliance with a Municipal Separate Storm Sewer System (MS4) permit in a manner that would be more effective and/or less environmentally-disruptive than approaches that would be pursued outside of EQCs;

and

- Replace, enhance and/or be provided along with other efforts to compensate for any of the EQC purposes, as described above, that would be affected by the facilities.

When stormwater management facilities within the EQC are determined to be appropriate, encourage the construction of facilities that minimize clearing and grading, such as embankment-only ponds, or facilities that are otherwise designed to maximize pollutant removal while protecting, enhancing, and/or restoring the ecological integrity of the EQC.

The following efforts within EQCs support the EQC policy and should be encouraged:

- Stream stabilization and restoration efforts where such efforts are needed to improve the ecological conditions of degraded streams. Natural channel design methods should be applied to the greatest extent possible and native species of vegetation should be used.
- Replanting efforts in EQCs that would restore or enhance the environmental values of areas that have been subject to clearing; native species of vegetation should be applied.

- Wetland and floodplain restoration efforts.
- Removal of non-native invasive species of vegetation from EQCs to the extent that such efforts would not be in conflict with county ordinances; such efforts should be pursued in a manner that is least disruptive to the EQCs.

Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances.

Preservation should be achieved through dedication to the Fairfax County Park Authority, if such dedication is in the public interest. Otherwise, EQC land should remain in private ownership in separate undeveloped lots with appropriate commitments for preservation. The use of protective easements as a means of preservation should be considered.”

ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed development. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions.

Overview of the proposal to expand the quarry and convert it to a water supply storage use

The collection of applications which are the subject of this report are the result of projected future potable water consumption needs estimates by the Water Authority and the proximity of the Water Authority’s Griffith Water Treatment Plant to the Vulcan Graham Quarry in the Lorton area of Fairfax County.

The applicants have recognized the unique opportunity that the close proximity of these two facilities presents in order to meet water supply needs. The Comprehensive Plan was recently amended to provide for the consideration of the conversion of the quarry into a water supply storage reservoir in two phases, over a period of approximately 70 years, concurrent with the cessation of mining operations within two portions of the quarry.

The proposed applications would provide for the continued operation of the quarry through year 2085, at which time the entire land area currently owned by Vulcan would become part of the Water Authority facilities. Mining would occur in a manner that would divide the quarry into two sections that would be separated by a “rock wall.” This rock wall would be created by simply retaining existing materials in this area of the quarry unmined. The area north of the rock wall (the “northern reservoir”) would be completed by the year 2035 and would be conveyed to the Water Authority for use as a storage facility; the storage capacity of the northern reservoir would be approximately 1.7 billion gallons. From 2035 to 2085, the southern portion of the quarry would continue to be mined. No later than year 2085, the entire quarry area would

become part of the Water Authority facilities. The southern and northern portions of the former quarry pit would have a combined estimated capacity of approximately 16-17 billion gallons of water.

In order to facilitate this transformation, the quarry would be expanded eastward, eliminating much of the upper segment of Little Occoquan Run. While this stream has been fragmented in the past by a portion of the quarry operation, and while the aquatic habitat of the stream has been degraded significantly, the stream segment and adjacent areas are mapped as a Resource Protection Area (RPA) and are also located within an Environmental Quality Corridor (EQC). Water flow from the segment of Little Occoquan Run that would remain (upstream of the expanded quarry) would need to be rerouted from its current course; details regarding the diversion proposal are provided later in this memo.

Environmental Quality Corridor, Resource Protection Area and stream diversion issues

As noted in the Comprehensive Plan citations provided earlier in this memorandum, the Comprehensive Plan recommends that direct and indirect impacts to EQCs and RPAs be evaluated, along with impacts created by any proposed stream diversions. A number of specific issues are identified for consideration in the evaluation of these impacts, including: water supply needs, the extent of environmental impacts of the proposed action in comparison to alternatives that could be pursued to meet long-term water supply needs; impacts of stream diversions on buffer areas and efforts to prevent adverse impacts on receiving waters; the extent of impacts to EQCs and RPAs; measures that would be pursued to address Policy Plan guidance regarding disturbances to EQCs; and measures that would be taken in support of an exception under the Chesapeake Bay Preservation Ordinance.

Water supply needs

Implicit in the Comprehensive Plan guidance supporting consideration of water supply needs and alternatives as factors for consideration when evaluating EQC and RPA impacts of this proposal are: (1) a recognition that, if there is a need for additional water supply capacity, there would not be a “no action” alternative—if this proposal was to be denied, it is likely that an alternative water supply capacity strategy would need to be pursued; and (2) a recognition that any such alternative is likely to have potentially adverse environmental impacts—it is unlikely that an effort of this magnitude could be pursued without some level of impact.

While short-term water supplies appear to be sufficient to meet demands, the timing and phasing of the proposed conversion of the quarry to a water supply storage facility are being driven by longer-term concerns. Water supply needs for Northern Virginia have been documented in the Northern Virginia Regional Water Supply Plan, which includes, as an appendix, a document prepared by the Interstate Commission on the Potomac River Basin entitled “2010 Washington Metropolitan Water Supply Reliability Study—Part 1: Demand and Resource Availability Forecast for the Year 2040.” The Northern Virginia Regional Water Supply Plan was adopted (as it pertains to Fairfax County) by the Board of Supervisors on February 28, 2012. According to the Regional Water Supply Plan, most localities in Northern Virginia, including Fairfax

County, are projected to have sufficient water supplies through 2040, although the report makes note of Fairfax Water's performance of studies to consider other potential supplemental water sources. The ICPRB report suggests that, by 2040, the regional water supply system may have difficulty meeting demands during periods of drought considering high demand assumptions. Specifically, for the high demand scenario, the report states: "Model simulations predict that the Occoquan reservoir could not meet minimum Occoquan area served demands for an average of five days, with a maximum of 16 days." Fairfax Water has indicated to county staff that "in simplistic terms, a period of 16 days at 45 million gallons per day [the minimum Occoquan system demand] would require an additional 720 million gallons of storage, assuming no loss for evaporation."

Fairfax Water is seeking additional water supply capacity to augment its Occoquan Reservoir and Potomac River sources by 2035 in order to avoid potential water supply shortages and/or emergency restrictions on water use. In order to maximize the volume of the reservoir that could be delivered to Fairfax Water in 2035, Vulcan Materials would initially concentrate its excavation efforts to the north of the proposed rock wall and would dedicate the resulting pit (roughly 1.7 billion gallons in capacity) to Fairfax Water in 2035. Fairfax Water would then fill this pit with water (from the Occoquan River/Reservoir, as well as from surface water flows) while Vulcan would continue its excavation activities to the south of the rock wall. Excavation in the southern pit would continue for another 50 years, when the entirety of the quarry would be dedicated to Fairfax Water.

It is staff's understanding that water demand projections are not available for the period after 2040, and it is assumed that there would be increasing uncertainty with time after 2040. Fairfax Water staff has identified several potential challenges to its water supplies, including consumptive uses of water (water that is withdrawn from the system but not returned), wastewater reuse initiatives that may reduce discharges into surface water sources and climate change. According to the Interstate Commission on the Potomac River Basin, climate change may result in higher evapotranspiration rates, reduced stream and river base flows and increased demands for outdoor water use. These challenges would potentially be aggravated if climate change was to result in longer, more pronounced droughts.

Because of increasing uncertainty with time past the 2040 time frame, Fairfax Water is seeking to maximize the volume of water supply capacity that it can obtain from the Vulcan Quarry. While the additional 1.7 billion gallons of capacity would seem to be more than sufficient to meet the worst-case demand projection for 2040, it is not clear the extent to which the combined capacities of Fairfax Water's facilities would be sufficient to meet demand through 2085 (see the discussion below regarding the proposed estuary treatment facility). Over the longer term, the post-2085 quarry capacity of approximately 16-17 billion gallons may be greater than what would be needed, but it is not possible to speculate on water demands that far into the future, and Fairfax Water is therefore seeking to maximize its water storage capacity over the long term as well.

Water supply alternatives

One of the issues identified by the Comprehensive Plan for consideration in the evaluation of adverse environmental impacts is the extent of environmental impacts of the proposed action in comparison to alternatives that could be pursued to meet long-term water supply needs. The aforementioned report from ICPRB identified several alternatives, including: (1) a Potomac estuary intake/pumping station below Little Falls; (2) an Occoquan estuary treatment plant; and (3) the use of quarries in Loudoun County as supplemental water supply sources. A “Water Supply Need & Alternatives Summary Report” prepared by Fairfax Water in August 2013 identified the following additional alternatives that have been studied at some point in the past: (4) raising the Occoquan Dam; (5) improving a reservoir in West Virginia that was originally constructed to supply water to a pulp mill; (6) pumping discharge water from the Loudoun Water Broad Run Water Reclamation Plant into the Occoquan watershed; and (7) pumping water into the Occoquan Reservoir from either the Shenandoah River or reservoirs in the Potomac basin. The additional alternatives identified in the 2013 Fairfax Water summary report were all eliminated from consideration for various reasons, as was the use of the Loudoun County quarries.

The remaining alternatives to the proposed quarry re-use concept are the Potomac estuary intake and the Occoquan estuary treatment plant. According to the Fairfax Water summary report, neither of these alternatives would operate continuously; they would only be operated during drought conditions. The summary report also notes that neither of these alternatives would provide all of the benefits identified for the Vulcan Quarry alternative (e.g., routine operations; emergency benefits associated with the quarry being off-line from other surface water resources).

The Potomac estuary intake alternative would not appear to benefit Fairfax Water directly but would provide additional drinking water capacity regionally. It would involve the construction of a new raw water pumping station along the tidal Potomac River and conveyance of this raw water to the existing Dalecarlia Water Treatment Plant in Washington, D.C. The summary report describes the environmental impacts of this alternative to be “minor to moderate,” citing a new point source discharge to the Potomac River, impacts to the C&O Canal (National Park Service parkland), impacts to historic structures and the need for site security measures that may affect the recreational use of the area.

The Occoquan estuary alternative would convey water from a new intake within the tidal Occoquan River into a new water treatment plant that would be constructed on the Fairfax Water property near the existing treatment plant. The new plant would provide reverse osmosis treatment to reduce the concentration of total dissolved solids of the brackish raw water; because the plant would operate during drought conditions, the raw water would be considered to be too high in total dissolved solids to allow for treatment in the existing facility. The reverse osmosis facility would generate a concentrate that would need to be discharged; the proposal would be to construct a pipeline more than four miles in length from the plant to a discharge point in Pohick Bay. Details regarding the construction of the pipeline have not been determined, but a more detailed report addressing this option suggests that the pipeline could be constructed adjacent to

existing roads along at least part of its path. As the details regarding the pipeline construction have yet to have been determined, the environmental impacts of this construction are not known.

A permit from the State Water Control Board would be required for discharge of the reverse osmosis concentrate into Pohick Bay, and this permitting process is intended to ensure that the discharge will not degrade the quality of the aquatic habitat of the receiving body of water. The assessment of the potential for adverse impacts to aquatic life, would, though, be based on indicator species and not necessarily the aquatic species that are present in Pohick Bay. Further, the process would accept, but would not require, site-specific water quality modeling prior to issuance of a permit, and the assessment of potential impacts to aquatic life would be based on the monitoring of discharges after they would have been permitted. There could, therefore, be a potential for at least a temporary adverse impact to aquatic life or an adverse impact to specific species in the receiving body of water if those species would be more sensitive than the indicator species used in the monitoring.

In sum, there is considerable uncertainty regarding the nature and extent of adverse environmental impacts that would be associated with either a Potomac estuary or Occoquan estuary alternative, and the nature of these impacts would be quite different from the nature of the adverse impacts associated with the quarry water supply proposal. Further, it is possible (but not certain) that an Occoquan estuary facility could be constructed as part of this proposal should water demand during the 2035-2085 period exceed the capacity of the storage and treatment facilities, meaning that the pipeline construction impacts and (to a lesser extent than would be the case absent the quarry storage) reverse osmosis concentrate discharges would still occur. Staff notes, however, that the adverse ecological impacts of the quarry storage concept would be limited largely to the loss of Little Occoquan Run and its associated buffer area, and there appear to be measures that could be pursued to compensate for these impacts (see the discussion later in this report).

Stream diversion

As noted earlier in this memo, the proposed action would necessitate the expansion of the quarry area eastward into a portion of the Little Occoquan Run stream valley, and water flow from the segment of Little Occoquan Run that would remain (upstream of the expanded quarry) would need to be rerouted from its current course. The applicants are proposing to accomplish this through a two phased approach that would be concurrent in timing with the two phases of quarrying: prior to 2035, the water would be conveyed via a diversion channel to a pipe that would follow the upper edge of the quarry pit and then ultimately be redirected into Elk Horn Run near its confluence with the Occoquan River, below the reservoir dam. Sheet 12 of the SPA plat indicates that the diversion channel and pipe would be designed to convey up to the 100-year flow. Any flow above this capacity would be conveyed into the northern portion of the quarry pit and would ultimately be pumped out of the quarry along with other water that will have collected (i.e., rainwater). After 2035, the diversion channel would discharge directly into the northern reservoir; the stream would help fill this part of the quarry and would ultimately become part of the water supply.

The diversion of the stream as originally proposed by the applicants would have involved the construction of a diversion channel to the north of the quarry and then into Elk Horn Run. After 2035, the diverted water would no longer be discharged into Elk Horn Run but would be conveyed to the northern reservoir. The confluence of the new channel with Elk Horn Run would have been located a considerable distance upstream of Elk Horn Run's confluence with the Occoquan River. The ecological quality of Elk Horn Run in the area of the previously-proposed point of discharge is very high, with relatively little in the nature of degraded areas. The stream's buffers are of high quality. The bed and banks of the stream are largely intact with little evidence of erosion or degradation. This stream also supports a variety of aquatic life not found in Little Occoquan Run.

Given the particularly high quality of the Elk Horn Run stream channel, the concept of diverting water from Little Occoquan Run into this stream channel, even if only on a temporary basis, raised concerns from this Branch as well as staff from the Department of Public Works and Environmental Services about the impacts of the stream diversion on the ecological quality of Elk Horn Run. These concerns included issues related to water volume, velocity, thermal discharge and overall water quality. The applicants offered a variety of measures intended to address these concerns, which included: a grass lining and plantings along the diversion channel; drop pools leading into Elk Horn Run from the diversion channel intended to reduce the velocity of flow into Elk Horn Run; conveyance of water within a pipe along a portion of the diversion route in order to reduce the potential for heating of the water; a "floating island" wetland in the upstream pond to remove pollutants; and plantings around the pond to further address water quality concerns. However, even with these measures, concerns remained about the potential for degradation to Elk Horn Run, and this Branch requested that the applicants explore all possible approaches to avoidance of diversion of drainage into Elk Horn Run. If an alternative approach could not be pursued, a monitoring program within Elk Horn Run (lasting the full duration of the diversion into this stream) was suggested, along with remedial efforts that would be needed to resolve any diversion-generated degradation that would have been identified through the monitoring effort.

In response to this concern, the applicants have identified and proposed an alternative diversion concept that would rely primarily on the use of a flexible plastic pipe to carry the flow from Little Occoquan Run. The proposed pipe would carry water from Little Occoquan Run up to the 100-year storm flow. A portion of the proposed diversion channel would be constructed to the quarry boundary; stream flow from Little Occoquan Run that would exceed the 100-year storm would be directed into the quarry pit. The pipeline would be placed on the upper edge of the quarry area and then through the wooded area on the southwest edge of the quarry to a point at/near the confluence of Elk Horn Run and the Occoquan River. While the need for a 20-foot wide clearing area has been identified for the conveyance of the drainage from the edge of the quarry to the Elk Horn Run/Occoquan River discharge point, the conveyance would follow an old road bed to the extent possible. Notes on the development plan commit to following the existing cleared area to the extent possible, minimizing tree clearing where deviations from the road bed would be needed and replacing trees outside of the 20-foot clearing area that would die immediately as a result of the pipe installation. These commitments should be reviewed by the

Urban Forest Management Division and be incorporated/clarified/revised as appropriate within one or more development conditions.

It is anticipated by the applicants that the path along which the diversion pipeline would be placed would include small areas where water could collect within the pipe during low flow periods. The need to provide for low-flow bypasses to prevent this collection of standing water in the pipe is recognized by a note on the development plan that states: “small drainage lines located within the EQC may be required and allowed to dewater low points along the temporary pipe alignment. The pipes would lay in the EQC, be placed with a small ATV, and require no land disturbance or tree clearing.” The applicants should ensure that the extent of any such bypass lines would be the minimum necessary. The commitment to avoidance of land disturbance and tree clearing within the EQC should be incorporated directly or by reference into a development condition. The Urban Forest Management Division should be consulted for guidance on remedies that could be pursued should the provision of one or more of these bypass lines inadvertently result in land disturbance and/or clearing.

The proposed discharge point into Elk Horn Run would be downstream of the areas of concern noted above and therefore would eliminate the aforementioned concerns regarding the various impacts associated with discharging the bypassed flow from Little Occoquan Run into Elk Horn Run. This Branch commends the applicants for identifying and proposing this innovative approach to the drainage diversion and strongly supports this approach as the preferred means to the drainage diversion that would be necessitated by the quarry expansion/reuse concept.

EQC and RPA impacts and compensation

Area Plan guidance for this property calls for the mitigation of direct and indirect environmental impacts of any proposed quarry reconfiguration and the consideration of the following in the evaluation of any proposal for long term water supply storage: “The extent of any impacts that the proposal would have on EQCs and measures that would be pursued to address Policy Plan guidance regarding disturbances to EQCs.” The Plan also recommends consideration of the extent to which there would be impacts to Resource Protection Areas and measures that would be taken to support an exception under the Chesapeake Bay Preservation Ordinance for those impacts.

Environmental Quality Corridors and Resource Protection Areas are associated with three streams on and adjacent to the property: Little Occoquan Run; Elk Horn Run; and the Occoquan River. With the pursuit of the proposed stream diversion approach described earlier in this memorandum, impacts to the Elk Horn Run EQC would be reduced considerably (to approximately 0.5 acre) from what would have occurred under the stream diversion as originally proposed. Impacts would now be limited to the conveyance of diverted drainage from the edge of the quarry to Elk Horn Run near its confluence with the Occoquan River. There would be no additional impacts to either the Elk Horn Run EQC or the Occoquan River EQC (recognizing that small bypass drainage lines could be provided within the Elk Horn Run EQC without land disturbance or tree clearing).

As noted earlier, there would be considerable impacts to Little Occoquan Run and its associated EQC to provide for the proposed quarry expansion and water supply storage proposal. The applicant has indicated that approximately 2,400 linear feet of the stream would be lost to the quarry expansion, as would be approximately 10.9 acres of land within the EQC associated with this stream. An RPA has also been identified along this stream, and an exception pursuant to the Chesapeake Bay Preservation Ordinance would be needed to allow for the loss of this area.

Little Occoquan Run has been degraded significantly; many of the functions associated with EQCs have been compromised in this area. Most notably, the stream and its EQC have been fragmented by the quarrying operations. The segment of the stream that would be lost is already disconnected from the downstream reaches of the stream—there is a substantial piped segment between the stream and daylighted segments downstream, and there is no realistic potential to restore a continuous natural corridor in this area. Further, the stream is actively eroding its banks and there is little aquatic life evident within the stream.

While it is the view of this Branch that the remaining portions of Little Occoquan Run have been substantially compromised and that this area would ultimately be considered as an EQC of marginal value, it is also the view of this Branch that, under different circumstances, a stream with similar conditions could be deemed worthy of some level of restoration in keeping with the guidance of the EQC policy. While many of the values associated with healthy EQCs have been significantly compromised, some elements remain and others could be restored under different circumstances.

The Policy Plan volume of the Comprehensive Plan contains guidance regarding proposed disturbances to EQCs. Of particular note relating to the proposed EQC impacts for these applications is the following guidance:

“Other disturbances to EQCs should only be considered in extraordinary circumstances and only where mitigation/compensation measures are provided that will result in a clear and substantial net environmental benefit. In addition, there should be net benefits relating to most, if not all, of the EQC purposes listed above that are applicable to the proposed disturbances.”

It is the view of this Branch that the proposed EQC disturbance is clearly an extraordinary circumstance that is unique in character; this Branch is unaware of any similar proposal in the past and does not anticipate similar proposals in the future. It is also the view of this Branch that this is a circumstance for which the policy regarding disturbances to EQCs should be applied, particularly in recognition of the degraded condition of the Little Occoquan Run EQC and the broader benefits associated with the proposal.

The applicants have been working diligently to identify mitigation/compensation efforts that would be pursued in support of the policy regarding EQC disturbances. An EQC compensation plan had been prepared previously; this plan focused only on EQC impacts associated with Little Occoquan Run and identified, as mitigation measures, efforts that would have been tied into the then-proposed drainage diversion into Elk Horn Run. This Branch also had raised a number of

questions and concerns with that plan. With the revised approach to the drainage diversion, the applicant recognized that a revision to the EQC compensation plan was needed, and a revised EQC compensation plan was submitted earlier this month. The revised plan identifies both on-site and off-site compensation opportunities, as follows:

- Reforestation of 4.83 acres of open land adjacent to Little Occoquan Run upstream of the segment of the stream that would be removed (including areas adjacent to an existing pond);
- Reforestation of 0.57 acres of open land near Little Occoquan Run downstream of the quarry;
- Within the area of the proposed stream diversion, installation of approximately 880 feet of a grass-lined swale with check dams;
- Installation of “floating treatment wetlands” within the aforementioned pond;
- Reforestation of 1.31 acres of open land near the northern tip of the quarry, along the edge of the EQC associated with Elk Horn Run; and
- Payment of \$64,306 to the Fairfax County Park Authority to reforest 4.74 acres of open land at Mason Neck West Park, which straddles Old Colchester Road to the east of the I-95/Richmond Highway interchange roughly two miles to the southeast of the subject property.

The EQC compensation plan assesses the ecological and water quality values of both the EQC areas that would be lost and the compensation/restoration strategies that have been proposed. Staff members from several county agencies have coordinated with the applicants to identify mitigation/restoration opportunities, and this interagency team is reviewing the revised EQC compensation plan. In general, there is support for the approach to assessment and mitigation that is being pursued, and, while there are significant details that remain to be addressed, this overall approach can serve as a model for consideration of future proposals to disturb EQCs. It is also the view of this Branch that this effort is on the right track and that the individual strategies being proposed, perhaps with some refinement, merit support. Specific issues remain, though, in regard to: the extent to which these efforts are being proposed; the relationship between restoration needs associated with the loss of EQC areas and the loss of a greater acreage of Resource Protection Area; the method of assessment of ecological benefits (and particularly the lack of consideration of ages of vegetative communities that would be removed vs. what would be planted as compensation); details regarding reforestation efforts; and needs for additional documentation to support modeling conclusions. In addition, it is notable that, with the exception of the proposed reforestation areas along the upper reach of Little Occoquan Run, the proposed reforestation areas would be located considerable distances away from streams. These reforestation areas would provide some riparian buffer values, but efforts located closer to streams would provide incrementally greater values. If it is determined that additional restoration areas should be provided per the concerns noted above, a preference should be established for restoration efforts closer to streams. There may, for example, be riparian restoration efforts along Giles Run in or near Mason Neck West Park.

Given the diligence and innovation the applicants have displayed in addressing related issues, this Branch is optimistic that the remaining questions and concerns with the EQC compensation plan can be resolved. However, if time is not available to do this, there may be merit to pursuing a development condition to establish parameters for refinement of the EQC compensation plan prior to site plan approval.

The Department of Public Works and Environmental Services should be consulted for guidance regarding impacts to the Little Occoquan Run RPA and measures that will be needed to support an exception under the Chesapeake Bay Preservation Ordinance.

Trail Construction

The development plans identify the possible construction of a four-foot wide natural surface trail, in part within the Elk Horn Run EQC. If this trail is determined to be needed in this area, care should be taken to site and construct the trail in a manner that minimizes adverse environmental impact, particularly within the EQC.

Estuary treatment facility

Fairfax Water is proposing as part of its applications the possible construction of an estuary treatment facility that would treat raw water that would be conveyed to this facility from the tidal Occoquan River. Fairfax Water staff has characterized this facility as a contingency that would only be pursued should the proposed northern reservoir prove to be insufficient to satisfy additional demands prior to the conveyance of the full quarry area to Fairfax Water in 2085; Fairfax Water has represented to this Branch that it is hoped that this facility will never need to be constructed. However, Fairfax Water would like to reserve the right to construct the facility should it be needed and has therefore identified it as a component of this application. There is nothing on the development plan to suggest that this facility is being viewed as a contingency measure; it is recommended that such clarification be provided and/or that a development condition toward this end be imposed.

It is anticipated that the need for the additional capacity that would be provided by the estuary treatment facility would most likely arise during periods of drought when the reservoir and quarry pit sources would not be replenished in a manner that could keep pace with demand. Under those circumstances, water would be drawn from the Occoquan estuary via a pipeline that would roughly parallel Route 123. The water drawn from the estuary would then be treated via reverse osmosis and other treatment practices. This process would result in a byproduct that Fairfax Water is proposing to discharge via a pipeline approximately four miles in length to an as yet undetermined point in Pohick Creek or Pohick Bay near the Noman M. Cole, Jr. Pollution Control Plant. A study of the feasibility of establishing an estuary treatment plant that was prepared for Fairfax Water indicates that the character of the reverse osmosis concentrate that would be conveyed through the pipeline would be “essentially a concentrated version of the natural substances found in seawater.”

The proposed discharge pipeline and details regarding the composition of the discharge are not part of the current application, and the facility as currently proposed would not be subject to approval through a special exception amendment or similar review process. The pipeline would be subject to a separate review pursuant to §15.2-2232 of the Code of Virginia. The discharge would also be classified as a point source and would be subject to review and approval from the Virginia State Water Control Board. Both the alignment of the discharge pipeline and the composition of the anticipated discharge raise a variety of concerns. The applicant has not provided (and cannot provide) any specific information on either of these concerns as part of the current application, as these details would be identified if and when the need for the facility would become evident.

With respect to the pipeline, its alignment would likely cross a number of stream channels over its course, raising concerns regarding potential RPA/EQC impacts, short-term and long-term land disturbances, potential wetlands impacts, loss of tree cover and other unforeseen impacts. Any approval which includes the estuary treatment plant may be a *de facto* approval of a discharge pipeline. Given that the discharge pipeline would be subject only to 2232 review, there would be no ability to place development conditions on that approval. It may, therefore, be appropriate (unless another county review/approval process would be specified through a development condition) to condition approval of the estuary treatment plant on ensuring that the 2232 process (or an equivalent process if the 2232 process would not be available in the future) would provide for a consideration of the extent to which the pipeline would be sited and constructed in a manner that would minimize adverse environmental impacts.

With respect to the reverse osmosis concentrate discharge, staff has concerns regarding the potential for adverse impacts to aquatic life in Pohick Creek and Pohick Bay. While the Virginia Department of Environmental Quality has offered this Branch assurance that the state permitting process should ensure that all beneficial uses of the receiving water, including aquatic life, should be protected, details regarding the frequencies, volumes, composition and location of the discharges are not known at this time. As noted earlier, the state permitting process would provide for an assessment of the potential for adverse impacts of the discharge to aquatic life. However, this assessment: would be based on indicator species and not necessarily the aquatic species that are present in Pohick Bay; would not require water quality modeling in advance of issuance of a permit; and would consider the potential toxicity of discharges through monitoring that would occur after issuance of the permit.

While the county will have the ability to provide comments on any State Water Control Board permit proposal, the authority for approval of a discharge permit would rest with the State Water Control Board and not any particular county agency. As the county has a stake in the quality of the aquatic habitats of Pohick Creek, Pohick Bay and Gunston Cove (particularly in light of the extensive, expensive and successful efforts that have been taken by the Noman M. Cole Pollution Control Plant to improve habitat conditions in these bodies of water through reduction in pollutant concentrations in its discharges), it is the view of this Branch that there would be merit in ensuring that the county would have the ability to review details regarding any proposed discharges if and when such discharges would be proposed. Toward that end, unless another county review/approval process would be specified through a development condition, the

application should be conditioned on ensuring that the 2232 process (or an equivalent process if the 2232 process would not be available in the future) would provide for the consideration of the extent to which discharges from the pipeline could adversely affect aquatic life at, near and downstream of the proposed point of discharge. This could, potentially, result in a recommendation for extension of the discharge pipe farther downstream from what will have been proposed. Ideally, in support of a future analysis of ecological implications of a proposed discharge, a pilot study of the discharge from the estuary treatment facility should be conducted in order to provide, in a proactive manner, data regarding the proposed discharge characteristics and its potential impacts.

Noise and Vibration

Previously approved development conditions regarding noise and vibration standards should be carried forward for the continued quarry operations. Staff feels that no additional action is required at this time.

SUMMARY OF OUTSTANDING ISSUES/CONDITION NEEDS

While the applicant has been diligent in addressing issues that this Branch has identified and has been responsive and innovative in its responses to this Branch's questions and concerns, these applications present a number of complex environmental issues, some of which have components that are not yet resolved or that may need to be addressed through development conditions. These issues include the following:

- The need to ensure that issues remaining with the EQC compensation plan are either resolved prior to approval or addressed through one or more development conditions.
- The need for clarification, through a development condition if necessary, that the proposed estuary treatment facility is only being proposed as a contingency measure in the event that other water supplies prove to be insufficient to satisfy demands. This facility should not be constructed unless there is a demonstrated need for it.
- The need for a development condition that would ensure that, if the estuary treatment plant would be constructed, there would be an ability for the county to base approval of a review process (e.g., the 2232 process or an equivalent) on consideration of the extent to which the pipeline would be sited and constructed in a manner that would minimize adverse environmental impacts.
- The need for a development condition that would ensure that, if the estuary treatment plant would be constructed, there would be an ability for the county to base approval of a review process (e.g., the 2232 process or an equivalent) on consideration of the extent to which discharges from the pipeline could adversely affect aquatic life at, near and downstream of the proposed point of discharge.

- For the proposed drainage bypass lines that may be located within the Elk Horn Run EQC, the need for incorporation into a development condition, either directly or by reference as may be appropriate, of the applicant's commitment to avoid land disturbance and tree clearing. The Urban Forest Management Division should be consulted for guidance on remedies that could be pursued should the provision of one or more bypass lines inadvertently result in land disturbance and/or clearing.
- The need for Urban Forest Management Division review of the applicant's commitments regarding the component of the drainage diversion that would convey water from the edge of the northern portion of the quarry into Elk Horn Run near its confluence with the Occoquan River, and incorporation and/or referencing of these commitments as may be appropriate within one or more development conditions.
- The need for a development condition to ensure that, if a trail is constructed within the Elk Horn Run EQC, it will be sited, designed and constructed in a manner that will minimize adverse environmental impacts.
- Previously approved development conditions regarding noise and vibration standards should be carried forward for the continued quarry operations.

PGN: JRB/NHK



County of Fairfax, Virginia

MEMORANDUM

DATE: April 21, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division
Department of Comprehensive Planning

FROM: Michael A. Davis, Acting Chief
Site Analysis Section
Department of Transportation 

FILE: 3-4 (RZ 2013-MV-015); 3-5 (SE 81-V-017)
3-4 (RZ 1998-MV-032); 3-6 (SP 82-V-091)

SUBJECT: Transportation Impact

REFERENCE: RZ 2013-MV-015; SPA 82-V-091-06; Vulcan/ Graham Quarry
PCA 1998-MV-032; PCA 1998-MV-033; SEA 81-V-017-2; Fairfax Water
Traffic Zone: 1634
Land ID # (Vulcan/ Fairfax Water) 106-4 ((01)) 56A pt., 20B pt.
106-4 ((01)) 20B pt., 56A
112-1 ((01)) 8, 9, 11, 12, 14

Transmitted herewith are comments from the Department of Transportation with respect to the referenced application. These comments are based on the proposed general development plan dated February 28, 2014.

The rezoning proposes changing the boundaries of the Natural Resource Overlay District. The Special Permit proposes to shift quarry operations and to accommodate the future use of portions of the site for water supply storage.

- There is a Countywide Trails requirement for a major regional greenway trail along the southern boundary of the subject property. This subject trail segment is critical to possible future trail connections west to the Bull Run Occoquan Trail (17 miles) and to the east connecting to the Cross County Trail (41 miles). FCDOT is in support of using the proposed 100-ft. greenbelt area for a natural surface or stone dust trail along the alignment shown on the countywide trails map.
- If a trail within the greenbelt area mentioned above cannot be realized along the southern portion of the site an alternative trail alignment that generally follows the northern portion of the site, then transverses south to eventually connect to the Occoquan Regional Park is an option. However, this alternative trail alignment would have to be approved by the Fairfax County Park Authority, the Northern Virginia Regional Park Authority, FCDOT and DPZ. Such a trail should be clearly demarked, paved and maintained by the applicant.

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, Virginia 22033-2898
Phone: (703) 877-5600 TTY: 771
Fax: (703) 877 5723
www.fairfaxcounty.gov/fcdot



Barbara Berlin

April 14, 2014

Page two

- The proposed security fencing for the Fairfax Water facility should not restrict access to the Occoquan footbridge and should be located farthest from the bridge landing as possible to allow for future bridge expansion and/or repair. Bridge expansion remains a possibility as this bridge connection is part of the US Route 1 Bike Route as well as the Potomac Heritage Scenic Trail and the East Coast Greenway.
- The applicant should commit to extend an existing trail connection from the eastern side of Route 123 at the Lorton Arts Center, to cross Route 123 and proceed north along the site property and to terminate at the historic cemetery. Such a connection would require the construction of a crosswalk (across Route 123) including pedestrian countdown signals.

MAD/ ak: RZ2013MV015Vulcan/ Graham Quarry
PCA1998MV032FairfaxWater



County of Fairfax, Virginia

MEMORANDUM

DATE: October 17, 2014

TO: Nicholas Rogers, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Jay Banks, Urban Forester II
Forest Conservation Branch, DPWES

SUBJECT: Fairfax County Water Authority, PCA 1998-MV-033

I have reviewed the most recent submission of the above listed Proffered Condition Amendment plan stamped "Received, Department of Planning and Zoning, October 3, 2014.

1. **Comment:** Regarding the location of the possible future 4' wide natural surface trail within the northern Transitional Screening Buffer Yard (TSY), Urban Forest Management Division (UFMD) does not support the interim trail location. UFMD would support a minor modification to the TSY width for the trail to co-exist within the TSY. The modification should limit the length of the area to be modified to match the northern dimension of the reverse osmosis building along with the following conditions:
 - a. The ultimate trail alignment within the TSY shall be established with the review and approval of the site plan.
 - b. The location of the trail will be accomplished in consultation with the UFMD urban forester.
 - c. Additional trees and shrubs may be required at the discretion of the UFMD urban forester once the ultimate location of the trail is finalized.

Recommendation: The recommended conditions listed above should be proffered by the applicant.

JSB/

UFMDID #: 185560

cc: DPZ File

Department of Public Works and Environmental Services
Urban Forest Management Division
 12055 Government Center Parkway, Suite 518
 Fairfax, Virginia 22035-5503
 Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes





FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Barbara Berlin, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, AICP, Manager 
Park Planning Branch, PDD

DATE: October 24, 2014

SUBJECT: PCA 1998-MV-032 and 033, associated with SEA 81-V-017-02, Fairfax Water, REVISED
Tax Map Number(s): 106-3((1)) 4B, 9; 106-4((1)) 20B pt, 56A; 112-2((1)) 8, 9, 11, 12, 14

BACKGROUND

The Park Authority has reviewed the proposed Development Plan dated July 25, 2014, for the above referenced application. The Development Plan for the SEA and companion PCA actions shows a series of actions (e.g., vacation of a public right-of-way, increase in subject land area) related to the potential future use of the Vulcan Quarry site for water supply storage by Fairfax Water. A rezoning application (RZ 2013-MV-015 assoc w/ SPA 82-V-091-06) is also under consideration for actions related to these future uses; a plan amendment (S13-IV-LP1) was adopted by the Board of Supervisors on June 3, 2014. The combined Fairfax Water and Vulcan sites total close to 527 acres in the Lower Potomac and Pohick Planning Districts and the Mount Vernon Supervisory District. This memorandum replaces one submitted August 19, 2014.

COMPREHENSIVE PLAN GUIDANCE

The County Comprehensive Plan includes both general and specific guidance regarding parks and resources. The Policy Plan describes the need to mitigate adverse impacts to park and recreation facilities caused by growth and development; it also offers a variety of ways to offset those impacts, including contributions, land dedication, development of facilities, and others (Parks and Recreation, Objective 6, p.8). Resource protection is addressed in multiple objectives, focusing on protection, preservation, and sustainability of resources (Parks and Recreation Objectives 2 and 5, p.5-7).

Specific Plan text in the Lower Potomac Laurel Hill (LP-1) Community Planning Sector describes the abundance of cultural and natural resources in the planning sector. Language describes the District of Columbia Workhouse and Reformatory Historic District (adjacent to the

subject site) and prescribes its treatment as a county Historic Overlay District (Area IV, Lower Potomac Planning District, LP-1 Laurel Hill, p.26).

Plan text also describes a major greenway trail planned that extends from the northeastern corner of the sector down to the southern corner, eventually connecting to Occoquan Regional Park, “forming an interconnected open space system within LP1, enhancing wildlife habitats and heritage resources, as well as providing pedestrian linkages.” (Area IV, Lower Potomac Planning District, LP-1 Laurel Hill, p.36) This major greenway trail is also shown on the adopted Countywide Trails Plan Map. Text from the Lower Potomac District chapter of the Great Parks, Great Communities Park Comprehensive Plan echoes these recommendations regarding connectivity and trail corridors within the district.

As mentioned above, plan amendment S13-IV-LP1 was adopted by the Board of Supervisors in June 2014. Changes to the Lower Potomac and Pohick Planning District plan guidance will permit the end uses described in these rezoning actions; no changes to recommendations related to trail uses were made. In response to questions posed by staff and the Board of Supervisors, Department of Planning and Zoning Planning Division staff has confirmed that alterations to Comprehensive Plan text related to trails and/or changes to the Countywide Trails Plan Map would require a separate plan amendment.

ANALYSIS AND RECOMMENDATIONS

Onsite Facilities:

Prior approved rezoning actions for the subject property (RZ 1998-MV-032, RZ 1998-MV-033, SEA 81-V-017) included provisions for interim recreational uses in the northeastern corner of the site. The commitment is captured in the approved plats as well as in Development Condition #17 for the SEA (dated November 18, 1998, Appendix 1, Page 5). Staff recommends that the approved, or a similar, condition be included with the current PCA/SEA actions.

Cultural Resources Impact:

The parcels were subjected to cultural resources review. The property contains both prehistoric and historic period archaeological resources and is located adjacent to a cemetery and the District of Columbia Workhouse and Reformatory Historic District. The project has the potential to impact a number of important cultural resources and may impact the viewshed of the adjacent historic district. The applicant should work with County cultural resource and historic preservation staff and the Architectural Review Board (ARB), as appropriate.

For areas of the subject property not yet surveyed for archaeological resources, staff recommends a Phase I archaeological survey for areas of ground disturbance. If significant sites are found, a Phase II archaeological testing is recommended in order to determine if sites are eligible for inclusion into the National Register of Historic Places. If sites are found eligible, avoidance or Phase III archaeological data recovery is recommended. For previously documented archaeological sites on the subject property that will be subject to additional ground disturbance, staff recommends Phase II testing in order to determine the same as above for newly discovered

sites. Again, if sites are found eligible, avoidance or Phase III archaeological data recovery is recommended.

If the project is to receive any Federal funds, or require a Federal permit under Section 404 of the Clean Water Act or any other federal legislation, any work done will trigger Section 106 of the National Historic Preservation Act, and will require archaeological survey under guidance from the Virginia Department of Historic Resources (VDHR). If these criteria are involved, the applicant should contact the VDHR as soon as possible in order to initiate consultation.

At the completion of any cultural resource studies, the Park Authority requests that the applicant provide one copy of the archaeology report as well as field notes, photographs and artifacts to the Park Authority's Resource Management Division (Attention: Liz Crowell) within 30 days of completion of the study. Staff also asks that the applicant keep the Park Authority informed of cultural resource work completed with VDHR.

Trails:

The Countywide Trails Plan Map shows a major regional greenway trail along the southern boundary of the property. The trail is also described in Comprehensive Plan text as a major greenway trail planned from the northeastern corner of the sector down to the southern corner, eventually connecting to Occoquan Regional Park, "forming an interconnected open space system within LP1, enhancing wildlife habitats and heritage resources, as well as providing pedestrian linkages." (Area IV, Lower Potomac Planning District, LP-1 Laurel Hill, p.36)

The connection, as described, would support pedestrian, non-motorized, and wildlife connectivity between existing parks (Sandy Run Regional Park, Occoquan Regional Park, Laurel Hill Park) and important regional trail systems (Potomac Heritage National Scenic Trail, East Coast Greenway, Gerry Connolly Cross County Trail). Several of these elements are owned and/or managed by non-County entities, including the Northern Virginia Regional Park Authority (NVRPA) and the National Park Service (NPS). Connectivity along the Occoquan, across the subject area, and across the Occoquan River itself, is of regional as well as local importance.

Throughout the review of this application, staff has continued to recommend that continuous connectivity be provided from the northwest of the subject site to Rt. 123/Ox Road, as generally depicted on the Countywide Trails Plan Map. The applicant has maintained that security concerns preclude such an alignment. Plan sets reviewed since initial submission (July 2013) have taken different approaches to the trail requirement ranging from showing no trail at all, to showing an alternative northern alignment (as in the current submission). Iterations of drawings, site visits, exchange of sketches, and meetings seem to have, in part, informed the current iteration of trail depiction. In the current, revised submission (dated October 3, 2014), the applicant shows a possible future 4' wide natural surface trail ("northern alignment") along the northern portion of the site (sheets 5-8) and retention of the existing 100' greenbelt area as per SPA 82-V-91-05 (sheets 5, 8, 10-12).

Note #14 on sheet 2 cites Comprehensive Plan guidance then describes the depicted/proposed northern natural surface trail as being provided in lieu of the current trail requirement. The note states: “in the event such trail location is identified on the Comprehensive Plan Countywide Trails Plan through a future Comprehensive Plan Amendment or otherwise is deemed in the future to be in substantial conformance with the Comprehensive Plan.” Staff continues to prefer and recommend a southern alignment in general conformance with the Comprehensive Plan. However, in the event a northern alignment is deemed in conformance, staff notes that some sections of the depicted 4’ wide natural surface trail would be difficult to construct, unsustainable, and perhaps even unusable as currently proposed.

The applicant has refined and improved the trail location in this revision so that it more closely follows contour lines. This is helpful, but at the provided scale and without tree locations, it is impossible to tell if the trail is in the best location (i.e., constructable, sustainable, usable). Determination of the best location is not necessary at this time, however provision of an easement to allow future identification of that location is needed. Staff recommends the applicant provide a 30-50’ wide easement to allow the future field location of the final trail. Such an easement allows for variability in trail alignment to best accommodate the topography, stream crossings, and avoid sensitive natural resources. In areas where such an easement is unwieldy, such as adjacent to the Ada Malcolm estate, the Vision Presbyterian Church property, and the future treatment plant, the trail should be designated as 8’ wide asphalt and the easement could be narrowed to a 15’ width.

Finally, staff appreciates the depiction of an interim trail location in the vicinity of the possible reverse osmosis building (sheet 7). Continued consideration to phasing and trail implementation is encouraged.

SUMMARY OF RECOMMENDATIONS

This section summarizes the recommendations included in the preceding analysis section. The analysis identified the following major issues:

- Retain provisions for interim recreational uses in the northeastern portion of the site
- Work with County cultural resource and historic preservation staff and the Architectural Review Board (ARB), as appropriate
- Conduct a Phase I archaeological survey for areas not previously surveyed; conduct a Phase II survey for existing documented sites
- Keep the Park Authority informed of cultural resource work completed with VDHR
- Provide continuous connectivity from northwest of the site to Rt. 123/Ox Road, per the County Comprehensive Plan and Countywide Trails Plan Map
- In the event a northern alignment is deemed in conformance, provide a 30-50’ wide easement for future natural surface trail location and for those areas where a 50’ easement is unwieldy, provide a 15’ wide easement for future asphalt surface trail location; include appropriate commitments in plan sheet notes, development conditions, and/or amended proffers
- Continue to consider phasing and trail implementation

Please note the Park Authority would like to review and comment on proffers and development conditions related to park and recreation issues. We request that draft and final proffers and development conditions be submitted to the assigned reviewer noted below for review and comment prior to completion of the staff report and prior to final Board of Supervisors approval.

FCPA Reviewer: Anna Bentley
DPZ Coordinator: Nick Rogers

Copy: Kirk Kincannon, Director
Cindy Walsh, Director, Resource Management Division
Liz Crowell, Manager, Cultural Resource Management & Protection Section
Elizabeth Cronauer, Trail Coordinator, Special Projects Branch
Nick Rogers, DPZ Coordinator
Erin Haley, DPZ
Marianne Gardner, Planning Division Director, DPZ
Kate Rudacille, Deputy Director of Planning and Grants, Northern Virginia
Regional Park Authority
Don Briggs, Superintendent, Potomac Heritage National Scenic Trail
Debbie Spiliotopoulos, Senior Environmental Planner, Northern Virginia
Regional Commission
Chron Binder
File Copy

Barbara Berlin

PCA 1998-MV-032 and 033, assoc with SEA 81-V-017-02, Fairfax Water, REVISED

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NOVA P A R K S

Northern Virginia Regional Park Authority

5400 Ox Road, Fairfax Station, VA 22039 | 703-352-5900 | Fax: 703-273-0905 | www.novaparks.com

October 20, 2014

Nick Rogers, AICP, Senior Staff Coordinator
 Fairfax County
 Department of Planning and Zoning
 Zoning Evaluation Division
 12055 Government Center Parkway, Suite 801
 Fairfax, VA 22035

RE: PCA-1998-MV-032 and 033, SEA-81-V-017-02, Fairfax Water

Dear Mr. Rogers:

The Northern Virginia Regional Park Authority (NOVA Parks) has reviewed the Generalized Development Plan and Special Exception Plat revised through October 3, 2014 and submits the following comments.

The plans have been revised to show the alternative trail alignment around the west, north and east sides of the site to more closely follow site topography. However, because of site constraints related to steep slopes, wet conditions associated with the EQC and pond, and constraints from the proposed development, it is not clear that the alternative trail alignment actually will provide connectivity in the trail system in lieu of the Major Regional Trail along the river. As noted in our August 19, 2014 comments, the 100-foot wide Greenbelt Area on sheets 10 and 12 is the more scenic and direct trail route through the site. Since the application covers the area where the Major Regional Trail along the Occoquan River currently is designated, the determination should be made with this application as to whether the alternative trail alignment is in conformance with the Comprehensive Plan. As currently written, Note 14 defers action on the trail to a future Comprehensive Plan Amendment that may or may not occur.

In the event that the County determines that the alternative trail alignment meets the intent of the Major Regional Trail along the Occoquan River, we recommend that the applicant provide trail improvements to ensure the trail is sustainable, including hard surface and drainage features. Natural surface trails may be feasible in some areas, but the trail should be improved across wet areas and on sustainable slopes. The trails should be implemented by the applicant as required by the Countywide Trails Plan.

Note 14 on the GDP states that, in lieu of the major Regional Trail along the Occoquan, a 4-foot wide, natural surface trail “may” be constructed. The applicant should commit that it “shall”

City of Alexandria
 David M. Pritzker
 Scott Price

Arlington County
 Paul Ferguson
 Michael A. Nardolilli

Fairfax County
 Stella Koch
 Laura Grape

City of Fairfax
 Brian D. Knapp
 Arthur F. Little

City of Falls Church
 Barry D. Buschow
 Jeffrey Tarbert

Loudoun County
 Joan G. Rokus
 Daniel Kaseman

construct the trail as part of this project, as the Major Regional Trail through the site is a requirement of the Countywide Trails Plan. Moreover, the “possible future 4-foot wide natural surface trail” and “possible future 8-foot wide paved trail” should be shown as “proposed” rather than “possible future.”

Also as noted in previous correspondence, on either the river alignment or alternative alignment, the trail through the FCWA site should be noted to connect with the east end of the Occoquan Overlook trail alignment.

Also as previously noted, the Phasing Plan on sheets 13 through 15 should include the timeline for implementing the Major Regional Trail designated on the Countywide Trails Plan.

Thank you for the opportunity to comment. Please contact me at 703-359-4628 or at dighaut@nvrpa.org if you would like to discuss our comments in more detail.

Sincerely,



Daniel Iglhaut
Land Manager

c: Paul Gilbert, NVRPA, Executive Director
Kate Rudacille, NVRPA, Director of Planning and Grants,
Jamie Bain Hedges, Fairfax Water, Planning and Engineering Director
Elizabeth Cronauer, FCPA, Trails Coordinator

9-006 General Standards

In addition to the specific standards set forth hereinafter with regard to particular special exception uses, all such uses shall satisfy the following general standards:

1. The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.
2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.
3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.
4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.
5. In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.
6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.
7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.
8. Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.

9-103 Additional Submission Requirements

In addition to the submission requirements set forth in Sect. 011 above, all applications for Category 1 uses shall be accompanied by the following items:

1. Four (4) copies of a map showing the utility system of which the proposed use will be an integral part, together with a written statement outlining the functional relationship of the proposed use to the utility system.
2. Four (4) copies of a statement, prepared by a certified engineer, giving the exact technical reasons for selecting the particular site as the location for the proposed facility and certifying that the proposed use will meet the performance standards of the district in which located.

9-104 Standards for all Category 1 Uses

In addition to the general standards set forth in Sect. 006 above, all Category 1 special exception uses shall satisfy the following standards:

1. Category 1 special exception uses shall not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located.
2. No land or building in any district other than the I-5 and I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.
3. If the proposed location of a Category 1 use is in an R district, there shall be a finding that there is no alternative site available for such use in a C or I district within 500 feet of the proposed location; except that in the case of electric transformer stations and telecommunication central offices, there shall be a finding that there is no alternative site available in a C or I district within a distance of one (1) mile, unless there is a substantial showing that it is impossible for satisfactory service to be rendered from an available location in such C or I district.
4. Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

9-203 Additional Submission Requirements

In addition to the submission requirements set forth in Sect. 011 above, all applications for Category 2 uses shall be accompanied by the following items:

1. Four (4) copies of a map showing the utility system of which the proposed use will be an integral part, together with a written statement outlining the functional relationship of the proposed use to the utility system.
2. Four (4) copies of a statement, prepared by a certified engineer, giving the exact technical reasons for selecting the particular site as the location of the proposed facility and certifying that the proposed use will meet the performance standards of the district in which located.
3. In addition, an application for a landfill shall be accompanied by those submission requirements set forth in Sect. 8-103, as deemed applicable by the Zoning Administrator, and a list of the types of debris and materials proposed to be deposited on the site.

9-204 Standards for all Category 2 Uses

In addition to the general standards set forth in Sect. 006 above, all Category 2 special exception uses shall satisfy the following standards:

1. All uses shall comply with the lot size requirements of the zoning district in which located.
2. All buildings and structures, except below-ground facilities, shall comply with the bulk regulations of the zoning district in which located.
3. No land or building in any district other than the I-5 or I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.
4. It shall be conclusively established that the proposed location of the special exception use shall be necessary for the rendering of efficient utility service to consumers within the immediate area of the location.
5. Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.

9-206

Additional Standards for Sewage Facilities and Water Treatment Facilities

No sewage facility or water treatment facility shall be established except on approval by the Health Department, the Virginia Department of Environmental Quality, and other appropriate agencies of the County and the State having jurisdiction over the location, design, operation and maintenance of such a facility. The determinations by such agencies as to the technical aspects of the proposed facility shall be conclusive with respect to this Ordinance.

7-300 NATURAL RESOURCE OVERLAY DISTRICT

7-301 Purpose and Intent

Natural Resource Overlay Districts are created in recognition of the natural resources which do exist in Fairfax County; and in recognition that the sand and gravel industries and the related processing of these materials into concrete, asphalt and other products have been a basic construction support industry for many years, providing a broad range of employment opportunities and contributing to the County's tax base; but recognizing that natural resource extraction operations constitute a significant potential impact on the pattern of development in areas nearby.

These districts shall be in addition to and shall overlay all other zoning districts where they are applied so that any parcel of land lying in a Natural Resource Overlay District shall also lie in one or more of the other zoning districts provided for by this Ordinance.

It is further the intent of these regulations to require a special permit for the extraction of natural resources in a Natural Resource Overlay District.

...

7-305 Permitted Uses

Within an adopted Natural Resource Overlay District, all uses shall be permitted pursuant to the district regulations of the zoning district in which such Natural Resource Overlay District is located; and in addition, those uses shall be permitted as specified in Part 1 of Article 8.

.....

GLOSSARY

This Glossary is provided to assist the public in understanding the staff evaluation and analysis of development proposals. It should not be construed as representing legal definitions. Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan or Public Facilities Manual for additional information.

ABANDONMENT: Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

ACCESSORY DWELLING UNIT (OR APARTMENT): A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT: Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

AGRICULTURAL AND FORESTAL DISTRICTS: A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

BARRIER: A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

BEST MANAGEMENT PRACTICES (BMPs): Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

BUFFER: Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

CHESAPEAKE BAY PRESERVATION ORDINANCE: Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

CLUSTER DEVELOPMENT: Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

COUNTY 2232 REVIEW PROCESS: A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

dBA: The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBA value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

DENSITY: Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

DENSITY BONUS: An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

DEVELOPMENT CONDITIONS: Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

DEVELOPMENT PLAN: A graphic representation which depicts the nature and character of the development proposed for a specific land area: information such as topography, location and size of proposed structures, location of streets trails, utilities, and storm drainage are generally included on a development plan. A development plan is a submission requirement for rezoning to the PRC District. A **GENERALIZED DEVELOPMENT PLAN (GDP)** is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A **CONCEPTUAL DEVELOPMENT PLAN (CDP)** is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A **FINAL DEVELOPMENT PLAN (FDP)** is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

EASEMENT: A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

ENVIRONMENTAL QUALITY CORRIDORS (EQCs): An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

ERODIBLE SOILS: Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

FLOODPLAIN: Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

FLOOR AREA RATIO (FAR): An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

FUNCTIONAL CLASSIFICATION: A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

GEOTECHNICAL REVIEW: An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

HYDROCARBON RUNOFF: Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

IMPERVIOUS SURFACE: Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

INFILL: Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

INTENSITY: The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

Ldn: Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

LEVEL OF SERVICE (LOS): An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

MARINE CLAY SOILS: Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

OPEN SPACE: That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may function as a buffer between land uses or for scenic, environmental, or recreational purposes.

OPEN SPACE EASEMENT: An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

P DISTRICT: A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

PROFFER: A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

PUBLIC FACILITIES MANUAL (PFM): A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

RESOURCE MANAGEMENT AREA (RMA): That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

RESOURCE PROTECTION AREA (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

SITE PLAN: A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP): Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

STORMWATER MANAGEMENT: Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

SUBDIVISION PLAT: The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

TRANSPORTATION DEMAND MANAGEMENT (TDM): Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS: This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggered work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

URBAN DESIGN: An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

VACATION: Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

VARIANCE: An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

WETLANDS: Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

TIDAL WETLANDS: Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District	PDH	Planned Development Housing
ADU	Affordable Dwelling Unit	PFM	Public Facilities Manual
ARB	Architectural Review Board	PRC	Planned Residential Community
BMP	Best Management Practices	RC	Residential-Conservation
BOS	Board of Supervisors	RE	Residential Estate
BZA	Board of Zoning Appeals	RMA	Resource Management Area
COG	Council of Governments	RPA	Resource Protection Area
CBC	Community Business Center	RUP	Residential Use Permit
CDP	Conceptual Development Plan	RZ	Rezoning
CRD	Commercial Revitalization District	SE	Special Exception
DOT	Department of Transportation	SEA	Special Exception Amendment
DP	Development Plan	SP	Special Permit
DPWES	Department of Public Works and Environmental Services	TDM	Transportation Demand Management
DPZ	Department of Planning and Zoning	TMA	Transportation Management Association
DU/AC	Dwelling Units Per Acre	TSA	Transit Station Area
EQC	Environmental Quality Corridor	TSM	Transportation System Management
FAR	Floor Area Ratio	UP & DD	Utilities Planning and Design Division, DPWES
FDP	Final Development Plan	VC	Variance
GDP	Generalized Development Plan	VDOT	Virginia Dept. of Transportation
GFA	Gross Floor Area	VPD	Vehicles Per Day
HC	Highway Corridor Overlay District	VPH	Vehicles per Hour
HCD	Housing and Community Development	WMATA	Washington Metropolitan Area Transit Authority
LOS	Level of Service	WS	Water Supply Protection Overlay District
Non-RUP	Non-Residential Use Permit	ZAD	Zoning Administration Division, DPZ
OSDS	Office of Site Development Services, DPWES	ZED	Zoning Evaluation Division, DPZ
PCA	Proffered Condition Amendment	ZPRB	Zoning Permit Review Branch
PD	Planning Division		
PDC	Planned Development Commercial		