EXHIBIT NO. 1

9
12-13-11

City of Alexandria, Virginia

MEMORANDUM

DATE: DECEMBER 5, 2011

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: BRUCE JOHNSON, ACTING CITY MANAGER

SUBJECT: CONSIDERATION OF THE NORTHERN VIRGINIA REGIONAL WATER SUPPLY PLAN

ISSUE: Consideration of the Northern Virginia Regional Water Supply Plan (Regional WSP) prepared by the Northern Virginia Regional Commission (NVRC).

RECOMMENDATION: That City Council:

1) Receive the draft Northern Virginia Regional Water Supply Plan; and

2) Schedule it for public hearing on Saturday, January 21, 2012; and

3) Subsequent to the January 21 public hearing, submit comments to NVRC, whose staff will finalize the plan for final consideration and approval by area jurisdictions.

DISCUSSION: The Northern Virginia Regional Commission (NVRC) has completed the Northern Virginia Regional Water Supply Plan (Regional WSP) as mandated by the Commonwealth's Local and Regional Water Supply Planning Regulation (State Regulation 9 VAC 25-780-10). This regulation was developed largely as a result of the regional droughts experienced in 1999 and 2002. The purpose of the regulation is to (i) ensure that adequate and safe drinking water is available to all citizens of the Commonwealth, (ii) encourage, promote and protect all other beneficial uses of the Commonwealth's water resources; and (iii) encourage, promote and develop incentives for water conservation and for alternative water resources.

The City of Alexandria joined 21 other local jurisdictions (cities, towns and counties) to develop a Regional WSP that encompasses all of Northern Virginia, with NVRC acting as the project manager. NVRC submitted the regional WSP to the Virginia Department of Environmental Quality (VDEQ) on November 2, 2011. The plan includes information on water sources, water use, water resource conditions, water management actions, and an analysis of alternatives, and drought and contingency plans in the event of water deficits. The plan also includes an analysis of regional water supply demand through 2040.

The draft Regional WSP states that the projected water demand for the City of Alexandria will equal 23.2 million gallons per day (mgd) in 2040. This projected demand is based on existing

water usage and forecasted growth as contained within the regional growth forecasting model. The Virginia American Water Company (VAW) provides the City with potable water, which it purchases from the Fairfax County Water Authority. VAW currently purchases water at a rate of approximately 16.7 mgd and has a source capacity contract with Fairfax Water of up to 28.3 mgd, which exceeds the projected City demand through 2040. VAW has an operating permit with the Virginia Department of Health (VDH) listing the current system capacity at 19.4 mgd, which is based on the amount of effective system storage. Therefore, VAW will need to increase its system storage when and if the demand reaches the permitted capacity. VAW is currently working on a comprehensive planning study for Alexandria to identify additional facilities needed to support the increasing demand and the project schedule for these future projects. Staff in Transportation & Environmental Services and Planning & Zoning are coordinating with VAW on this study.

The Commonwealth's Local and Regional Water Supply Planning Regulation (State Regulation 9 VAC 25-780-10) stipulates that local governments must hold a public hearing on the Regional WSP developed for their jurisdiction and receive comments on the plan. Following the public hearing on the plan, staff will forward any comments received to NVRC for consideration prior to finalizing the plan. Once NVRC receives comments from VDEQ and each of the jurisdictions, the plan will be finalized. Staff will bring the final plan to the City Council for adoption. No timeline has been given by NVRC for the completion of the final plan.

The Regional WSP is available for review or to download on the City's website at http://alexandriava.gov/WaterSupplyPlan. A copy of the 1,250 page document is also available for review in the City Clerk's office, City Hall, Room 2300. The Executive Summary of the plan is included as Attachment 1.

FISCAL IMPACT: This will have no fiscal impact on the City's operating or capital budget. However, future demand may require VAW to construct additional water infrastructure that could lead to rate increases for VAW customers in Alexandria.

ATTACHMENT:
Attachment 1 - Draft Regional Water Supply Plan Executive Summary

STAFF:
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EXECUTIVE SUMMARY

Organization of the Northern Virginia Regional Water Supply Plan (Plan) generally follows the State Water Control Board's regulation 9 VAC 25-780, Local and Regional Water Supply Planning. The major sections in the Plan include information on water sources, water use, and natural resources in the region; water demand management information including population and demand projections, water conservation practices, and drought response and contingency planning; a statement of need and alternatives analysis; and information on public participation. This executive summary provides a summary of the regional approach as well as a summary for each of the 22 participating jurisdictions.

The Plan complies with the State Water Control Board's regulation 9 VAC 25-780, Local and Regional Water Supply Planning, and is a functional plan supporting sustainable growth and economic development. The purpose of the regulation is to establish a comprehensive water supply planning process for the development of local, regional, and state water supply plans. This process is designed to:

- Ensure that adequate and safe drinking water is available to all citizens within the region;
- Encourage, promote, and protect all other beneficial uses of the region's water resources;
- Encourage, promote, and develop incentives for alternative water sources; and
- Promote conservation.

Local governments participating in the regional plan notified VDEQ of their intent to participate in the Plan before the November 2, 2008 deadline. The Plan will be submitted to the VDEQ prior to the November 2, 2011 deadline. A public hearing will be held by each participating jurisdiction and the local governments will pass resolutions approving the Plan and adopting other policies or ordinances that were developed during the planning process.

The northern Virginia regional water supply planning group is made up of 22 local governments. Participating jurisdictions include the counties of Arlington, Fairfax, Loudoun, and Prince William; the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park; and the towns of Clifton, Dumfries, Hamilton, Haymarket, Herndon,

Leesburg, Lovettsville, Middleburg, Occoquan, Purcellville, Quantico, Round Hill, and Vienna.

The Northern Virginia region is located in the northern portion of Virginia in the Blue Ridge, Piedmont, and Coastal Plain Physiographic Provinces. According to the U.S. Census Bureau, the total population of the region in 2007 was estimated to be 2,201,645. The region is served by both surface water and groundwater sources with the majority of the population served by surface water particularly the Potomac River and upstream Jennings Randolph and Little Seneca reservoirs. Streams utilized in the region as water sources include the Potomac River, Occoquan River, and Goose Creek. Reservoirs in the region utilized as water sources include Occoquan Reservoir, Lake Manassas, Beaverdam Reservoir which augments Goose Creek, Hirst Reservoir/Cooper Spring Empoundment, Breckenridge-Lunga Reservoir, and Jennings Randolph and Little Seneca reservoirs which augment the Potomac River. The region is also dependent upon groundwater and several springs. Fairfax Water is one of the major water providers in the region selling water to the Prince William County Service Authority (PWCSA), Loudoun Water, Virginia American Water (Alexandria and Dale City), Town of Herndon, Dulles Airport, and Fort Belvoir.

Arlington County

Arlington County is an independent ~~city~~ county located in the northeastern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 203,914. Arlington County purchases water from the Washington Aqueduct Division of the U.S. Army Corps of Engineers (Washington Aqueduct). Arlington County serves approximately 208,653 people with approximately 37, 115 connections. Arlington County is expected to experience a water surplus through the 2040 planning period.

Fairfax County

Fairfax County is located in the central portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 1,005,531. Fairfax Water operates the public community water system that supplies the majority of Fairfax County. The City of Falls Church also operates a public community water system that supplies a portion of

Fairfax County. The City of Falls Church purchases water from the Washington Aqueduct. Fairfax Water is one of the major water suppliers in the region serving approximately 1.6 million people throughout Northern Virginia, including portions of the counties of Fairfax, Loudoun, and Prince William, the City of Alexandria, and the town of Herndon. Fairfax Water is a signatory to the water supply coordination agreement of 1982, which also includes the City of Fairfax, City of Falls Church, and Town of Vienna. The three water suppliers, which also include the Washington Aqueduct and the Washington Suburban Sanitary Commission cooperate on water supply operations in the Potomac, essentially operating as one entity in sharing water across the Potomac, Patuxent, and Occoquan basins during periods of low flow. The cooperative work is coordinated by a special section of Interstate Commission on the Potomac River Basin (ICPRB), the "Section for Cooperative Water Supply Operations on the Potomac" (CO-OP).

Fairfax Water utilizes a stream intake on the Potomac River, which accounts for approximately 60 percent of water demand, and the Occoquan Reservoir, which accounts for the remaining 40 percent of water demand. Fairfax County will have sufficient water supply through the 2040 planning period, even when including current sales to other municipalities. Although Fairfax County is projected to have sufficient water supply through the planning period, Fairfax Water has performed water supply studies to consider other potential supplemental water sources.

Loudoun County

Loudoun County is located in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 277,459. The Loudoun County Service Authority (Loudoun Water) operates the public community water systems in Loudoun County and serves approximately 175,685 people. Loudoun Water purchases water from Fairfax Water and the City of Fairfax. In addition, Loudoun Water operates six community water systems utilizing groundwater wells, which account for only a small portion of their water supply. Loudoun County is expected to experience a water surplus through the 2040 planning period. Although Loudoun County is projected to have sufficient water supply through the planning period, Loudoun Water has considered use of

four quarries in Loudoun County to supplement storage available within the Potomac Basin.

Prince William County

Prince William County is located in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 402,002. The Prince William County Service Authority (PWCSA) and the Virginia American Water Company (VAWC) operate the public community water systems in Prince William County and serves approximately 290,519 people. The PWCSA purchases water from Fairfax Water and the City of Manassas and the VAWC purchases water from Fairfax Water. In addition, the PWCSA operates three community water systems utilizing groundwater wells, which account for only a small portion of their water supply. The PWCSA and VAWC are expected to experience a water surplus through the 2040 planning period.

City of Alexandria

The City of Alexandria is located [redacted] in the eastern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 140,233. The City of Alexandria purchases water from the VA-American Water Company. The VA-American Water Company is a private company that purchases water from Fairfax Water. The City of Alexandria is expected to experience a water surplus through the 2040 planning period.

City of Fairfax

The City of Fairfax is located in Fairfax County in the central portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 23,317. The City of Fairfax utilizes a stream intake on Goose Creek; the City may also purchase water from Fairfax Water during non-drought emergencies. The City serves approximately 42,000 people both inside and outside the City limits. Based on projections completed by Draper Aden Associates, the City of Fairfax is expected to experience a water deficit around 2038 if no measures to obtain an additional water source are explored.

City of Falls Church

The City of Falls Church is located in Fairfax County in the eastern portion the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 11,039. The City of Falls Church purchases water from the Washington Aqueduct. The City of Falls Church is expected to experience a water surplus through the 2040 planning period.

City of Manassas

The City of Manassas is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 34,817. The City of Manassas utilizes a surface water reservoir (Lake Manassas) as a water source. In addition, the City has the ability to purchase water from the PWCSA; however, this agreement has never been exercised. The City of Manassas is expected to experience a water surplus through the 2040 planning period.

City of Manassas Park

The City of Manassas Park is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 11,533. The City of Manassas Park utilizes groundwater wells and purchases water from the PWCSA and the City of Manassas. The City of Manassas Park is expected to experience a water surplus through the 2040 planning period.

Town of Clifton

The Town of Clifton is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 208. The Town of Clifton does not own or operate a community water system and all residents are supplied by individual groundwater wells.

Town of Dumfries

The Town of Dumfries is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 4,848. The PWCSA provides water to the Town of Dumfries and all components of the water system belong to the PWCSA. The Town does not own or operate their community water system.

Town of Hamilton

The Town of Hamilton is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 506. The Town of Hamilton utilizes groundwater as a water source. This system has approximately 665 connections and serves approximately 2,000 people. The Town of Hamilton is expected to experience a water surplus through the 2040 planning period.

Town of Haymarket

The Town of Haymarket is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 1,217. The PWCSA provides water to the Town of Haymarket and all components of the public water system belong to the PWCSA. The Town does not own or operate their community water system. In addition, several residences and commercial establishments are self-supplied by private groundwater wells.

Town of Herndon

The Town of Herndon is located in Fairfax County in the central portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 23,217. The Town of Herndon purchases water from Fairfax Water. The Town of Herndon is expected to experience a water surplus through the 2040 planning period.

Town of Leesburg

The Town of Leesburg is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 38,320. The Town of Leesburg utilizes groundwater wells as well as a stream intake on the Potomac River. The Town of Leesburg is expected to experience a water surplus through the 2040 planning period.

Town of Lovettsville

The Town of Lovettsville is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 1,230. The Town of Lovettsville utilizes groundwater as a water source. The Town of Lovettsville is expected to experience a water surplus through the 2040 planning period.

Town of Middleburg

The Town of Middleburg is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 673. The Town of Middleburg utilizes groundwater as a water source. The Town of Middleburg is expected to experience a water surplus through the 2040 planning period.

Town of Occoquan

The Town of Occoquan is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 820. The PWCSA provides water to the Town of Occoquan and all components of the water system belong to the PWCSA. The Town does not own or operate their community water system.

Town of Purcellville

The Town of Purcellville is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at

4,961. The Town of Purcellville utilizes a surface water reservoir (Hirst Reservoir/Cooper Spring Empoundment as well as groundwater wells. The reservoir is fed by three springs (Harris, Potts, and Cooper Springs) and discharges into the North Fork of Catoctin Creek. This system has approximately 2,455 connections and serves approximately 6,945 people. Based on data provided, the Town of Purcellville had a maximum day water supply deficit of 0.02 MGD in 2007 and is expected to experience a water supply deficit of approximately 0.04 MGD in 2040.

Town of Quantico

The Town of Quantico is located in Prince William County in the southern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 480. The Quantico Marine Corp Base-Mainside (QMBC-Mainside) is a private community water system in Prince William County and provides water to the Town of Quantico. This system utilizes the Brekenridge-Lunga Reservoir. The Town of Quantico is expected to experience a water surplus through the 2040 planning period.

Town of Round Hill

The Town of Round Hill is located in Loudoun County in the northwestern portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 539. The Town of Round Hill utilizes groundwater as a water source. This system has approximately 1,207 connections and serves approximately 3,579 people in the Town as well as in Loudoun County. The Town of Round Hill is expected to experience a water surplus through the 2040 planning period.

Town of Vienna

The Town of Vienna is located in Fairfax County in the central portion of the region. According to the U.S. Census Bureau, the population in 2007 was estimated at 14,781. The Town of Vienna purchases water from the City of Falls Church. This system has approximately 9,534 connections and serves approximately 30,000 people in the Town as

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well as in Fairfax County. The Town of Vienna is expected to experience a water surplus through the 2040 planning period.