

MINUTES

April 22, 2003
Newport News, Virginia

Commission Meeting

The April 22, 2003 meeting of the Marine Resources Commission was held with the following present:

William A. Pruitt)	Commissioner
Chadwick Ballard, Jr.)	
Gordon M. Birkett)	
Russell Garrison)	Members of the Commission
Laura Belle Gordy)	
F. Wayne McLeskey)	
K. Wayne Williams)	
S. Lake Cowart, Jr.)	
Carl Josephson	Assistant Attorney General
Wilford Kale	Senior Staff Advisor
Katherine V. Leonard	Recording Secretary
Bob Craft	Chief, Admin-Finance Div.
Andy McNeil	Programmer Analyst Sr.
Jack Travelstead	Chief, Fisheries Management
Rob O'Reilly	Deputy Chief, Fisheries Management
Chad Boyce	Fisheries Management Specialist
Roy Insley	Head-Plans and Statistics Dept.
Col. Steve Bowman	Chief, Law Enforcement
Lt. Col. Lewis Jones	Deputy Chief, Law Enforcement
Capt. Warner Rhodes	Supervisor, Middle Area
Capt. Ray Jewell	Supervisor, Northern Area
Capt. Randy Widgeon	Supervisor, Eastern Shore Area
Capt. Kenny Oliver	Supervisor, Southern Area
Tony Watkinson	Acting Chief, Habitat Management
Chip Neikirk	Acting Deputy Chief, Habitat Management
Hank Badger	Environmental Engineer Sr.
Kevin Curling	Environmental Engineer Sr.
Mark Eversole	Environmental Engineer Sr.
Jeff Madden	Environmental Engineer Sr.
Randy Owen	Environmental Engineer Sr.

Commission Meeting

**12335
April 22, 2003**

Jay Woodward
Benny Stagg

Environmental Engineer Sr.
Environmental Engineer Sr.

Virginia Institute of Marine Science (VIMS):
Lyle Varnell

Other present included:

Jim Snyder
Jim Loveland
Cliff Garratt
Wayne Oien
Chris Frye

and others.

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Commissioner Pruitt called the meeting to order at 9:39 a.m. Associate Member Jones was absent from the morning session.

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Associate Member Garrison gave the invocation and Associate Member Birkett led the pledge of allegiance to the flag.

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The minutes of the March 25, 2003 Commission meeting were approved as circulated. **Associate Member Williams made the motion to approve the minutes, which was seconded by Associate Member McLeskey. The motion carried, 7-0.**

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Tony Watkinson, Acting Chief, Habitat Management, said that Item 2 C was pulled from the agenda:

2C. DEPARTMENT OF THE NAVY, #03-0389, requests authorization to construct two (2) finger piers, each measuring 8-feet wide by 37-feet long, adjacent to existing finger piers on Pier 11, to provide four (4) additional wet slips for the Harbor Patrol at Naval Station Norfolk in Hampton Roads.

The agenda of the meeting was approved with the change. **Associate Member Gordy moved to approve the agenda, with the change. Associate Member Birkett seconded the motion. The motion carried, 7-0.**

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Commissioner Pruitt swore in all VMRC and VIMS staff that would be speaking or presenting testimony during the meeting.

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Tony Watkinson, Acting Chief-Habitat Management, gave the presentation on Page two items A, B, and D through G. and his comments are a part of the verbatim record. Page two items are projects that cost \$50,000 or more with staff recommendation for approval.

Commissioner Pruitt questioned the York County representatives regarding security and where the project was in relation to the piers. Wayne Oien, representing the County of York, was present and responded. His comments are a part of the verbatim record. Chris Frye of VHB, representing the county as Project Consultant, was present.

There were no further comments from the public either pro or con.

Associate Member Garrison moved to approve Page 2 projects, A, B, and D through G, as presented by staff. Associate Member McLeskey seconded the motion. The motion carried, 7-0.

2A. VIRGINIA DEPARTMENT OF TRANSPORTATION, #00-2103, requests authorization to modify an existing permit to install a temporary mooring for construction barges located at 36° 51' 27" N Latitude 76° 20' 12" W Longitude in the Western Branch of the Elizabeth River associated with the ongoing Pinner's Point Interchange project in Portsmouth.

Fees not applicable

2B. WEANACK LAND LIMITED PARTNERSHIP, #03-0027, requests authorization to maintenance dredge, on an as needed basis, a maximum of 30,000 cubic yards per year of State-owned subaqueous bottomland along an entrance channel within the James River and Shirley Cove to a maximum depth of -20 feet at mean low water at the applicants' property in Charles City County. Spoil is to be placed within a man-made portion of Shirley Cove. Recommend a time of year dredging restriction from March 15 through June 30 of each year.

Permit Fee.....\$100.00

2D. FAIRFAX COUNTY PARK AUTHORITY, #02-2050, requests authorization to maintenance dredge by the hydraulic and mechanical methods, approximately 225,000 cubic yards of accumulated sediments from within Lake Accotink and the original streambed of Accotink Creek within the boundaries of the lake in Fairfax County. The dredged material will be disposed of in an approved upland location.

Permit Fee.....\$100.00

2E. COLUMBIA GAS OF VIRGINIA, #02-1329, requests authorization to install, by the directional bore method, a natural gas distribution pipeline, encased in a 12-inch diameter steel pipe a minimum of five (5) feet beneath a 380-foot wide section of the Rappahannock River in the City of Fredericksburg and Stafford County.

Royalty Fee (380 linear feet @\$1 per linear foot).....\$380.00
Permit Fee.....\$100.00
Total Fees.....\$480.00

2F. YORK COUNTY, #02-0220, requests authorization to construct six (6) riprap breakwaters with 24,000 cubic yards of associated beach nourishment and wetlands vegetation plantings, a 125-foot by 15-foot concrete boat ramp for emergency personnel, two solid fill crib piers connecting to concrete floating piers for use by transient and commercial vessels, six (6) storm water outfalls, and 1428 linear feet of riprap revetment adjacent to the Yorktown waterfront along the York River in York County.

Permit Fee.....\$100.00

2G. CSX TRANSPORTATION, #03-0453, requests authorization to construct a replacement railroad trestle crossing of Lick Creek measuring 131-feet by 31-feet, approximately 700 feet west of High Crossing CSXT/SR 739 in Russell County. Recommend our standard in-stream construction conditions and an encroachment royalty of \$4,061.00 for the encroachment over 4,061 square feet of State-owned subaqueous bottom at a rate of \$1.00 per square foot.

Royalty Fees (\$4,061.00 sq. feet encroachment @\$1/sq. foot).....\$4,061.00
Permit Fee.....\$ 100.00
Total Fees.....\$4,161.00

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4. PUBLIC COMMENTS:

There were no requests to be heard from the public.

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DISCUSSION: How to handle the public comments regarding Item 5 City of Newport News, King William County Reservoir.

Associate Member Garrison asked how many groups were expected. Tony Watkinson, Acting Chief, Habitat Management, responded that there was 1 notebook of protestors' comments, and 1 notebook of supporters' comments of which he estimated that there were 8 or 10 organizations.

Commissioner Pruitt suggested that the General Assembly representatives be called on to speak after the applicant, VMRC and VIMS staffs.

Associate Member Garrison suggested that the following time limits be made:

- Applicant to be given one hour.
- Each group to be given 10 minutes.
- Individuals to be given 3 minutes.

Associate Member Ballard asked how long the staff presentation would be? Mr. Watkinson stated approximately 45 minutes to an hour. Associate Member Ballard said that he agreed with Mr. Garrison on the time limits.

No motion was made with the regards to the above discussion.

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EXECUTIVE SESSION:

Associate Member Ballard moved that the meeting be recessed and the Commission immediately reconvene in closed meeting for the purpose of consultation with legal counsel and briefings by staff members pertaining to actual or probable litigation, or other specific legal matters requiring legal advice by counsel as permitted by Subsection (A), Paragraph (7) of § 2.2-3711 of the Code of Virginia, pertaining to:

5. **CITY OF NEWPORT NEWS, #93-0902.** On behalf of the Regional Raw Water Study Group, the City requests authorization to construct a 75-million gallon per day (mgd) raw water intake structure in the Mattaponi River at Scotland Landing, and a raw water distribution line under Cohoke Creek in King William County and the Pamunkey River between King William and New Kent Counties, as well as a water discharge structure in Beaverdam Creek, a tributary to Diascund Reservoir in New Kent County, in association with the City's proposed King William Reservoir Project.

The motion was seconded by Associate Member Williams and carried unanimously, 7-0.

Associate Member Ballard moved for the following:

**CERTIFICATION OF CLOSED MEETING
OF THE VIRGINIA MARINE RESOURCES COMMISSION**

WHEREAS, the Commission has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of The Virginia Freedom of Information Act; and

WHEREAS, § 2.2-3712.D of the Code of Virginia requires a certification by this Commission that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, the Commission hereby certifies that, to the best of each member's knowledge,

- (i) only public business matters lawfully exempted from open meeting requirements under Virginia law, and
- (ii) only such public business matters as were identified in the motion by which the closed meeting was convened were heard, discussed or considered in the closed meeting by the Commission.

Associate Member Birkett seconded the motion. Commissioner Pruitt held a Roll Call vote:

AYES: Ballard, Birkett, Pruitt, Garrison, Cowart, Williams, Gordy, and McLeskey.

NAYS: None

ABSENT DURING VOTE: Associate Member Jones

ABSENT DURING ALL OR PART OF CLOSED MEETING: Associate Member Jones

The motion carried unanimously, 8-0.

**Clerk/Secretary
Virginia Marine Resources Commission**

The meeting recessed at 10:45 a.m. for lunch and reconvened for the King William County Reservoir project public hearing at Warwick High School at approximately 2:00 p.m. The next regular meeting will be held on Tuesday, May 27, 2003.

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Katherine V. Leonard, Recording Secretary

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The Commission reconvened in the auditorium of Warwick High School, 51 Copeland Lane, in Newport News at 2:00 p.m. with all nine Commission members present along with staff members from the Habitat Management, Fisheries Management, Administration and Finance, and Law Enforcement Divisions. In addition there were approximately 200 to 350 persons present during the extended session. Among those present were the following persons who spoke during the public hearing:

Brig. Gen. Robert T. Dail	Mayor Joe Frank	Del. Ryan McDougale
Del. Glenn Oder	Del. Albert Pollard	Del. Harvey Morgan
Frederick H. Gylla	Mayor Jeanne Zeidler	Sheila Noll
Mayor Gordon Helsel	Robert Smith	John Shepherd
Robert Yancey	John Lawson	Eric Wallbery
Clyde Hoey	Paul Garman	Sharyn Fox
Andrew Landrum	Mark Ailsworth	Doug Jenkins
Jim Brown	Mayer Sarfan	Dixon Tucker
John Hubbard	Gary St. John	James McReynolds
Wilbert Willis	William B. Gawthney	Kitty Cox
Luticia Walker	Chief William Miles	Ronald Hutson
Tyla Matteson	Mike Siegel	Glenna Besa
Frances Crutchfield	Councilwoman McMillan	Chief Carl Custalow
Todd Custalow	Ann Brummer	Katie Lasky
Michael Beach	Leslie Fellows	Billy Mills
Garrie Rouse	Dr. Patricia Woodbury	Susan Jensen
Ray Watson	Dr. Rob Brumbaugh	Christine Woods
Edward Berg	Cynthia Mantay	Kevin Seaford
Ben Garrett	Thomas Rubino	Eugene Rivara

Dori Chappell
Joanne Findley
Dorothy Rouse-Bottom

Peg Babyak
Mary Hyde Berg
Larkin Linton

Ann Talley
Ann McGee
David Bailey

Commissioner Pruitt explained that there would be a dinner break from 5:00 to 6:30 p.m. He also said the Commission staff will give a briefing on the project, followed by a representative of the Virginia Institute of Marine Science and then the applicant will have one-hour to present its application. Associate Member Gordy offered a motion, seconded by Associate Member Cowart, that groups be given 10-minutes and individuals three-minutes to speak at the public hearing. The motion passed unanimously.

5. CITY OF NEWPORT NEWS, #93-0902. On behalf of the Regional Raw Water Study Group, the City requests authorization to construct a 75-million gallon per day (mgd) raw water intake structure in the Mattaponi River at Scotland Landing, and a raw water distribution line under Cohoke Creek in King William County and the Pamunkey River between King William and New Kent Counties, as well as a water discharge structure in Beaverdam Creek, a tributary to Diascund Reservoir in New Kent County, in association with the City's proposed King William Reservoir Project.

Tony Watkinson, Acting Chief-Habitat Management, gave the presentation with power-point graphics. His comments are a part of the verbatim record.

Mr. Watkinson explained to the Commission members all the materials that were before them, including four specific spiral-ring books of comments that have been received by the agency, along with supporting materials from the City of Newport News.

Commissioner Pruitt interrupted Mr. Watkinson to swear in the court reporter Victoria L. DeBerry.

Mr. Watkinson continued, explaining that the project proposed by the City of Newport News on behalf of the Regional Raw Water Study Group is the City's request for authorization to construct a 75 million gallon per day raw water intake structure in the Mattaponi River at Scotland Landing and a raw water distribution line in Cohoke Creek in King William County and the Pamunkey River between King William and New Kent Counties as well as a water discharge structure in Beaverdam Creek, a tributary to Diascund Reservoir in New Kent County. This is in association with the City's proposed King William Reservoir project.

He added that the impoundment of Cohoke Creek to create the actual reservoir is authorized by statute and does not require a permit from the agency. The Commission is concerned only with the intake structure and related distribution line under associated creeks. The intake site at Scotland Landing on the Mattaponi River is about five river miles upstream from the Mattaponi Indian Reservation. The pipeline leaves the intake, discharges into the reservoir.

From the reservoir, water is pumped by pipeline to cross under Cohoke Creek under the Pamunkey River and on to Beaverdam Creek.

The Regional Raw Water Study Group's purpose and goal for this project as stated in the joint permit application was to provide a dependable, long-term public water supply to the lower Virginia Peninsula in a manner that is not contrary to the overall public interest. The Regional Raw Water Study Group is composed of the city of Newport News, Williamsburg, James City County and York County. Other areas that are referred to in the service area will be served by the Newport News Waterworks and are represented by the Newport News Waterworks as part of the Regional Raw Water Study Group. King William County and New Kent County are referred to as host communities since the pipeline will originate in King William and then go through New Kent County into the Diascund Reservoir.

Mr. Watkinson then presented background on the permit history. VMRC first received the application for this project in 1993. That was really after several years of work by the Regional Raw Water Study Group to define their preferred alternative. The application was revised in 1995 and June 1996. In January 1997, the joint public notice was issued and the final environmental impact statement was made available. In December 1997, the Department of Environmental Quality issued a Virginia Water Protection Permit. In June 1999, Colonel Carroll of the Norfolk District announced his position to deny the project, and in March 2001 Colonel Carroll's final recommended record of decision was announced. Governor Gilmore referred that decision to the North Atlantic Division decision as a result of an objection to the Colonel's decision at the time. The project then went to the North Atlantic Division at the Corps level where Brigadier General Stephen Rhoades of the North Atlantic Division announced his decision to continue processing the project permit.

General Rhoades decided the project's purpose and need as submitted by the City of Newport News was valid and the project was the least environmentally damaging practicable alternative to meet the water supply need based on current information. He had concerns about several issues and is requiring the satisfactory completion of three steps before the U. S. Army Corps of Engineers' permit can be issued. They are: There must be a coordination with all significant parties of the National Historic Preservation Act of 1966, including resolution of Native American issues; the applicant must submit an updated mitigation plan for review and approval by the Corps; and Virginia must determine whether the project is in compliance with the Coastal Zone Management Act.

Since the North Atlantic Division of the Corps decided to continue processing the project, the VMRC resumed its review. VMRC had essentially suspended its review in 1999 when Colonel Carroll had recommended that the project be denied. Mr. Watkinson said the Commission's review is under a state code section, state responsibilities, and it is not tied to the federal code sections in terms of authority. The agency does process the applications concurrently with the Corps of Engineers and utilizes the joint permit process, so information

that the Corps and agency gathers is utilized in the review as well as the Corps' review. Therefore, much of the information that was submitted as part of the Corps' information and review has been utilized in the agency's assessment of the project.

Mr. Watkinson explained about the need the City of Newport News has identified and safe yield they have proposed for the project. According to the final Environmental Impact Statement (EIS) and the Norfolk District final recommended record of decision, the Regional Raw Water Study Group originally stated that a new water supply increasing the regional treated water delivery capacity by 39.8 million gallons would be required to satisfy demand in the year 2040. The King William Reservoir would supply 23.2 million gallons of that total. Fresh groundwater would provide 4.4 million gallons. Brackish water desalination would provide 5.7 and conservation use restrictions would account for 7.1 to 11.1 million gallons total. As host communities, New Kent County and King William County would get 1 million gallons per day and 3 million gallons per day respectively.

In the final recommendation, recommended record of decision, it was stated that on October 27, 2000, the City of Newport News reported a recalculated 19 to 21 million gallons per day (mgd) safe yield benefit from the King William Reservoir based on conditions contained in the Virginia Water Protection Permit. On November 30, 2000, the City of Newport News submitted an updated water needs assessment that reported the Peninsula's 2050 deficit would be as low as 15 million gallons or as high as 36 million gallons per day, depending on the rate of regional population growth and economic development. The report indicates a 50 percent chance that the regional need for the additional water supply in 2050 would be between 22 and 27 million gallons per day.

Mr. Watkinson then proceeded to present the project drawings and describe all the components of the project including the intake and pipeline elements and also showed some slides and photographs of the site. These comments are part of the verbatim record.

Regarding the intake site on the Mattaponi River, Mr. Watkinson said the structure would extend into the river and would be installed by micro tunneling. As a result, there will be no disturbance of the shoreline of this bank in this area, which is about 30 feet high. There will be 12 round intake screens about seven (7) feet in diameter and about seven (7) feet long. They are constructed along an alignment parallel with the river. There would be a seven-foot clearance from the mean low water elevation to the top of the intakes. There also would be an air piping casing line that will be installed going out into the river that will allow for backwashing of the intakes to blow debris off of them as they clog while they are being utilized. The intake facility would extent about 110 feet out into the river from mean low water. The river in this area is about 400 feet wide.

Mr. Watkinson then outlined the issues regarding the project. As of last evening, the agency has received thus far 491 letters and faxes; 2,100 e-mails; and 317 preprinted post cards from

individuals in opposition to the project. They are part of the materials available to the Commission for review. Regarding organizations, protests were received from the Alliance to Save the Mattaponi, the Southern Environmental Law Center, Sierra Club, the Chesapeake Bay Foundation, and the Institute for Public Representation on behalf of the Mattaponi Tribe located at Georgetown University. Objections also have been received from the Mattaponi & Pamunkey Rivers Association, the Pamunkey Tribal Government, the counties of King and Queen and Caroline. Mr. Watkinson said protests have ranged from general objections to more specific concerns regarding fisheries and wetlands resources within the Mattaponi River as well as Cohoke and Beaverdam Creek. In addition, many protestants have expressed concern over impacts to the history and cultural resources, and more specifically, however, the protestants and organizations oppose the project for the following reasons: (1) a lack of need for the project (the projected water needs per gallon per day vary); 2) far less damaging alternatives exist (desalination the most often mentioned); 3) fisheries and wetlands resources would be impacted by changes in salinity resulting from the withdrawal; 4) the intake structure will impact fishery resources, especially shad; 5) back-flushing of the intake screens would be harmful; 6) the project would directly affect wetlands; and 7) the project would impact the Mattaponi Tribe, destroying archaeological and historic sites.

Other issues expressed included impacts on the potential use of the river by deeper draft vessels, general threats to the public rights and enjoyment of the river, concerns regarding the project's effect on other localities' riparian rights to water resources and concerns that the issuance of the permit by the Commission would be a violation of the public trust doctrine, Article XI, Section I of the Constitution of Virginia and Section 28.2, Chapter 12 of the Code of Virginia.

Mr. Watkinson then reviewed comments received by other agencies since the resumption of the Commission's review. VMRC received comments from the Department of Environmental Quality (DEQ), Department of Health, Department of Conservation and Recreation (DCR), the Department of Game and Inland Fisheries (DGIF) (no new material was received other than its earlier comments), the Virginia Department of Transportation, the Chesapeake Bay Local Assistant Department (CBLAD), and the Virginia Institute of Marine Science (VIMS).

The comments from DEQ basically indicated that they issued the water protection permit in '97, and they really had nothing else to add on the project in that they felt that their permit conditions addressed minimum in-stream flows and protected the ecology of the river. Mr. Watkinson stressed that the city will not withdraw 75 million gallons per day every day. The city has said it would withdraw approximately 14.5 million gallons per day on average and that in some months no water may be withdrawn.

The Virginia Department of Health said it supported the project and indicated it feels this is the most appropriate source of water for Newport News.

CBLAD stated that the permanent loss of the Chesapeake Bay preservation area is enormous and one that will be difficult to mitigate. It offered suggestions for protection of future water quality under the regulations, but most of those related to the reservoir.

The Department of Conservation and Recreation indicated there would be needs for future erosion and sediment control plans if the project went forward, storm water management plans, and that a dam construction permit would be required from their agency. In previous comments, DCR indicated the Mattaponi River supports state significant and exemplary freshwater tidal wetlands and swamps and that the river also provides a habitat for rare species such as the Sensitive Joint-vetch and Bald Eagles. DCR believed that an approved mitigation-monitoring plan should be in place prior to issuance of any permit and that mitigation strategies should include the establishment of a long-term monitoring program for the Mattaponi River ecosystem.

Previous comments from DGIF expressed concern about the amount of flow that would be withdrawn, suggesting that monitoring should be done before any permits were issued. It also expressed concern about the project's effect on shad and other anadromous species in the river. DGIF also suggested concerns about Beaverdam Creek and that the discharge of large amounts of water into that creek could have a negative effect. It recommended moving the intake or the outfall structure of Beaverdam Creek downstream to Diascund Reservoir. It also was recommended that any instream construction not occur between February 15th and June 30th to protect the anadromous spawning species.

The Virginia Department of Transportation indicated it felt a hydrologic study at the outfall site at Beaverdam Creek should be done to ensure that there would be no impacts to the bridges going under Interstate 64.

Mr. Watkinson said a major component of the Commission's review were related to the comments provided by VIMS. In this case, the VIMS' analysis of fisheries and habitat issues was based on the VIMS' anadromous fish monitoring programs and a doctoral dissertation by Dr. Donna Bilkovic and further publications from the work and ongoing research. VIMS found the early life stages of white perch, yellow perch and striped bass, American shad and river herring most likely to be impacted by the King William Reservoir project.

VIMS also noted that the York River watershed is the most productive Virginia Bay tributary for American shad and that an abundance of American shad in the York River is more heavily influenced by production in the Mattaponi River than the Pamunkey river. VIMS' analysis also showed that fish eggs and larvae within a five-nautical-mile river area surrounding the intake structure are potentially vulnerable to the effects of the withdrawal. The densities of fish eggs and larvae near the intake provide evidence of significant concern for potential loss. Its data shows that the region of the Mattaponi River where the intake is

proposed is a highly productive area—the most productive Virginia river with respect to American shad.

Although VIMS indicated that impacts to subaqueous bottoms and the littoral oligohaline-freshwater system attributed to the construction of the intake are expected to be minimal and temporary, it felt the intake would be a permanent and prominent structure in a relatively narrow river section. While the river intake has the potential to alter local flows and sediment patterns, VIMS agreed with findings included in the final EIS that stated the intake structure will result in chronic but localized disturbances of flow and sediment, with minimal associated adverse environmental effects on the benthos and tidal wetlands in the vicinity of the intake.

VIMS also again modeled the potential salinity changes using recent data. Its simulations suggest that the average seasonal salinities have increased in the Mattaponi River above West Point. The increase may be sufficient to drive a shift in marsh plant community composition. They stated that tidal marsh plants in the transition zone from saltwater to freshwater each have limited range of tolerance for exposure to salinity. As a result, tidal freshwater marshes and tidal swamp communities may retreat upstream in the face of continued increases in salinity levels throughout the rivers. It did, however, add that this process may occur regardless of the new reservoir operation. Basically that is due to sea level rise in the area.

Mr. Watkinson said, in conclusion, although VIMS indicated the degree to which this project will directly affect the local fish stock health, watershed ecology, and ongoing future stock restoration and fisheries management efforts is unclear, it indicated that available information suggests the potential for significant adverse impacts associated with the operation of the intake. VIMS recommended, if possible, delaying any decision on placement of the intake structure until the development of a comprehensive regional water allocation strategy. If an intake is necessary in the York River watershed, VIMS recommended it be placed in the Pamunkey River. If an intake structure is authorized in the Mattaponi River, it further recommend that withdrawals should be reduced to the greatest extent possible between mid-March and mid-May. Also, if the structure is allowed, compensatory mitigation should be required which considers the management and restoration requirements outlined in the Chesapeake 2000 Agreement and Interstate Fisheries Management Plan for Shad and Herring. Finally, VIMS recommended monitoring the effects of intake operation on the local physical environment and bay fauna and flora.

Mr. Watkinson said the agency has received substantial support for this project in the form of letters, faxes and as e-mails. VMRC did not receive any preprinted postcards from the supporters. As of yesterday afternoon 95 letters (and faxes) of support and 47 e-mail messages had been submitted directly to VMRC in support of the project.

Support letters, he said, also have been received from the New Kent County Board of Supervisors, James City County Board of Supervisors, Industrial Development Authority of James City County, James City Service Authority, the City of Poquoson Engineering Department, The York County Department of Environmental and Development Services, the Peninsula Alliance for Economic Development, and the United States Coast Guard Training Center at Yorktown.

Mr. Watkinson said essentially there were three major issues the proponents of the project identified in support of the project: 1) adequate drinking water is critical for the region, the state and the nation, pointing out that the project would serve eight jurisdictions, 2) there is a need for the project, and 3) that fisheries are protected from impacts by the design of the structure.

Furthermore, as support for the project, many letters cite the public interest review that was conducted by Governor Gilmore in support of the project and provided for consideration by Colonel Carroll in 2001.

Mr. Watkinson explained that the City has done quite a bit of work to address the facts of the project. City officials have focused on the design of the intake. It includes one-millimeter wedge-wire screens and flow through velocities of 0.25 feet per second. That's more or less the state-of-the-art with regard to screen design. They are using directional drilling and micro tunneling to avoid any wetland impacts associated with the project, tidal wetland impacts. They also relied on a number of reports and studies associated with river modeling for salinity and erosion impacts due to the location of the intake structure. They looked at effects of anadromous fish based on review of the literature. That literature survey, while it found very little information available at the time, suggested there would not be a significant impact on anadromous species. He added, however, that the VIMS data was provided after that literature survey.

The City's conclusion from the reports was there would be very little impact from the structure itself due to its design and the velocities, and it did not feel very many fish at all would be threatened by the project. Mr. Watkinson said he would let the city go into more details regarding its assessment. He added that the City requested that William A. Richkus, vice president and general manager of Versar, conduct an outside peer review of the VIMS study and the Dey reports evaluate the potential fisheries impacts. Dr. Richkus conclude that it was clear that methods used by VIMS to estimate fisheries losses due to entrainment and impingement are not based on current state-of-the-art science on this topic while methods used by the ASA analysis or by Dey are based on the most current science.

The City also provided more detail in its mitigation plan that was submitted this past Friday. Components include fishery spawning withdrawal restriction, the reservoir downsizing. Mr. Watkinson added that the location of that dam was moved upstream several times during the

review of the project to limit wetland impacts in Cohoke Creek. The river withdrawal limitations they feel are mitigating measures that are established by the State Water Control Board.

The intake design is a mitigation measure, by the City, to reduce fishery impacts. City officials also indicated that they would pursue fish passage improvements in other tributaries in the waterway to benefit anadromous spawning species. They have incorporated riparian stream buffers and ecological monitoring plans as well as the wetlands mitigation components there. They are going to do two-to-one mitigation for all the nontidal wetlands and many of those are riparian-type wetlands.

Mr. Watkinson said the major issue of their proposal for consideration by VMRC was the first on that list which is the fishery spawning withdrawal restrictions permit condition proposal. Essentially, the City's condition stipulates there would not be a withdraw during the spawning period of March 15th to May 15th until the year 2020 or until the shad moratorium was lifted or unless there was an emergency or declared emergency by the Governor or the Commissioner, in consultation with other agencies, lifting withdrawal restrictions.

Mr. Watkinson then presented the agency's summary and recommendation. While additional water for the Lower Peninsula is obviously the benefit of the project, Commission staff has not attempted to determine the validity of the various assessments regarding future water needs. VMRC can only report there are different opinions regarding this matter. Through the public interest review, however, the agency has attempted to determine if the proposed structures are a reasonable use of state-owned submerged lands based on the plans for construction, placement and operation proposed by the City.

The Commission is authorized by Section 2 28.2-1204 of the Code of Virginia to issue permits for all reasonable uses of state-owned submerged lands. Section 4 28.2-1205 of the Code of Virginia and the Commission's Subaqueous Guidelines direct the Commission to consider the public and private benefits associated with the need for these structures along with any effect the construction placement or operation may have on other reasonable and permissible uses of state waters and state-owned bottomlands, marine and fisheries resources of the Commonwealth, tidal wetlands, adjacent or nearby properties, water quality and submerged aquatic vegetation.

Section 28.2-1205 also specifies that the Commission, when determining to grant or deny any permit, shall be guided by the provisions of Article XI, Section 1 of the Constitution and shall exercise its authority consistent with the public trust doctrine. Furthermore, the Commission's Subaqueous Guildlines suggest the Commission should consider alternatives for reducing anticipated impacts.

The City has designed the intake structure using the best available technology and advice to reduce entrainment and impingement of fish, larvae and eggs. It also has provided an assessment of potential impacts on fish populations in the Mattaponi River. Those analyses suggest the intake structure will result in little, if any, impingement of fish eggs or larvae and that entrainment effects will be minimal. For example, the average rate of loss of American shad is estimated to be less than one to six equivalent adults each year. This view was not, however, shared by VIMS. VIMS states that since larval stages of American shad, perches and river herrings are weak swimmers with thin thread-like and fragile bodies, their vulnerability to impingement and entrainment during encounters with the intake structure is increased. There is little question that such encounters will result in mortality of early life stages. While entrainment of American shad eggs and striped bass eggs is unlikely due to their size relative to the one-millimeter intake screen, impingement will induce mortality due to the fragile nature of the eggs. Although VIMS indicates striped bass are at a reduced risk relative to shad due to their predominance downstream of the proposed intake, eggs of alewife, blueback herring and white perch are considered vulnerable to entrainment.

VIMS scientists agree there are methods available to estimate the numbers of adults but have little confidence on the notion of adult equivalents. They suggest the variation of such estimates are high and methods do not apply to all species. The Commission staff is concerned with impacts of all species within the project area. American shad, however, warrant special consideration. All Virginia stocks have been closed to fishing since a moratorium was established in 1994. Efforts are being made to restore stocks and removal is prohibited because of the expected contributions of each individual to the rebuilding process.

As stated by VIMS, small increases in daily mortality of eggs and larvae stocks that are low in abundance could result in recruitment failure. Furthermore, the York River watershed is the most productive Virginia Bay tributary for American shad, and monitoring by VIMS provides evidence of the importance of the Mattaponi River as a shad spawning nursery ground within the larger York River system. This places the proposed raw water intake in essentially the most sensitive area of the most important river in Virginia for American shad.

Mr. Watkinson said that considering the comments that have been provided and the information in the record for Commission review, it does not appear that the installation of the distribution pipelines under Cohoke Creek and the Pamunkey River by the directional drill method would have any significant adverse effect on any other use of the waterway, fisheries, tidal wetlands, adjacent property, water quality or submerged aquatic vegetation (SAV).

The outfall structure along Beaverdam Creek, however, may result in some adverse effect on water quality and aquatic life due to the potential for erosion from increased flows. Extending the distribution lines under Interstate 64 and discharging the water directly into Diascund Reservoir could avoid this effect.

While there is not likely to be any effect from the installation of the distribution lines and the impact from the outfall can be avoided, this is not a case for the raw water intake structure and the associated withdrawal of water from the Mattaponi River at Scotland Landing. Although the construction of the intake should have minimal impact, if time-of-year restrictions are imposed, its location and operation would have significant effects.

Based primarily on the data and assessment provided by VIMS, substantial public opposition concerning degradation of the Mattaponi River, threats to fisheries and the water quality and threats to the Native American culture and various comments and reports contained in the Commission record for review, the Commission staff cannot support approval of the raw water intake structure in the Mattaponi River at Scotland Landing.

Commissioner Pruitt urged the audience not to applaud because such action simply prolongs the session.

Mr. Watkinson said the recommendation was based on effects of the intake due to its location and operation on marine and fisheries resources of the Commonwealth, especially early life stages of American shad. Direct effects on other uses—tidal wetlands, adjacent or nearby properties, water quality and SAV—may occur, but are not considered to be as significant. However, cumulative effects may occur over time and should be considered since use of the intake would be expected to occur well into the foreseeable future. Although the Scotland Landing withdrawal is a component of the City's preferred alternative, other water sources have been identified in the final EIS that could meet future water needs without the impacts from the project associated with an intake in the Mattaponi River. Because of the effects on fisheries resources, approval of the permit for the intake structure would not appear to be consistent with the provisions of Article XI, Section I of the Constitution of Virginia or the requirements of the Commission to protect and safeguard the public right to the use and enjoyment of the subaqueous lands of the Commonwealth held in trust by it for the benefit of the people as conferred by the public trust doctrine and the Constitution of Virginia.

Involving the City's document entitled "King William Project - Fisheries Components of Mitigation Plan." The mitigation plan includes a proposed permit condition to limit water withdrawals during the period March 15th to May 15th, referred to as the shad spawning period until the year 2020 or until the current shad moratorium is lifted. Mr. Watkinson said the Commission staff is concerned that this action would only delay expected effects during the shad-spawning period, due to the operation of the Mattaponi River intake, until some point in the future. Furthermore, under certain situations, the intake could be operated during the shad-spawning period regardless of fish stock conditions. Even if the shad stocks recover and the fishery is opened, future operation of the intake could still have adverse effects on anadromous species due to its location in the Mattaponi River.

Should the Commission conclude that approval of the project is warranted, based on the identified need for water and that such benefit outweighs the impacts and threats to fisheries resources, the Commission staff would recommend the permit not be issued until a fish and wildlife mitigation plan as well as a monitoring plan are completed. Upon completion, the full Commission should accept such plans. The plans should consider and support efforts to restore fisheries resources and habitats. In addition, opportunities for preservation, conservation and restoration within the Mattaponi watershed should be included. Monitoring plans should include all physical, chemical and biological aspects of the ecosystem necessary to protect and support future management efforts. VMRC believes that such efforts should continue in perpetuity.

If the project were approved, the proposal withdrawal would appear to represent the most significant use of water resources in the Mattaponi River. As such, the agency feels the Raw Water Study Group should be responsible for a significant portion of any such monitoring or management efforts. Since certain management efforts may be one-time projects, VMRC would recommend the Regional Raw Water Study Group fund or endow a program that would ensure the Mattaponi watershed is maintained as a viable and productive resource for future generations. This could include funding for an independent authority or organization with representation from agents from each locality in the watershed and appropriate regional interest groups to oversee and manage this effort. Appropriate funding amounts should be based on cost and mitigation, restoration or management efforts that may be identified in the Chesapeake Bay Agreement, various fishery management plans and Virginia's Tributary Strategies or other similar reports.

Mr. Watkinson said aspects of the mitigation plan submitted by the City on April 18, 2003, addressed to some extent the mitigation components suggested by Commission staff should the Commission conclude the project benefits outweigh the effects on fishery resources and approve the project. If the mitigation plan submitted by the City is found to be acceptable, the permit should not, however, be issued until all components of the mitigation plan are finalized and accepted by the full Commission. VMRC believes certain aspects of the plan are not yet final and many elements of the City's complete mitigation plan or proposal are still under review by the Corps North Atlantic Division and the Department of Environmental Quality.

The City also should be required to provide a final disposal plan for material removed from the intake installation, and the following permit conditions should be considered: No construction activity shall occur in the Mattaponi River between February 15th and June 30th in order to protect spawning species; and the outfall structure proposed in Beaverdam Creek should be relocated downstream to the Diascund Reservoir.

Commissioner Pruitt then called upon Dr. Roger Mann of VIMS for his presentation.

Dr. Mann thanked Mr. Watkinson for giving a good introduction and thanked his colleagues who have worked hard to try to present what the Institute feels is a sound position. The VIMS position on tidal wetlands is that the long-term changes in salinity in the river above West Point, which may indeed be driven by the river and the sea level rise and global warming, will over a period of time be changing in those communities. Whether or not active withdrawal of water will result in salinity changes that will accelerate this is an open question, but those changes will occur. In all probability, the changes will be minor.

Regarding fish, Dr. Mann said there is a suite of species, anadromous species that use this as a spawning area. What are they? There are two species of river perch, striped bass, river herring, and American shad. In all probability, the impact on striped bass spawning here will be minimal simply because of the river mileages that are occupied by the bass during those spawning periods. In examining the other species—the perch, the river herring and the shad, the one of greatest contention and the one that will again reinforce to you because Mr. Watkinson has already done is the situation with shad. Dr. Mann said VIMS comments were responding to a letter dated March 12, 2003 and not the City's mitigation plan that was not examined until earlier today.

In developing the VIMS comments presented to the Commission on March 12, Dr. Mann said the Institute looked at the data that was available from both long-term monitoring plans and from individual focused studies. VIMS has been reluctant to take those data for fish populations and try to extrapolate them to calculate such things as adult equivalency. These could be interesting debates in the economic fields. VIMS has not seen Dr. Richkus' formal review of the Institute's commentary, so VIMS cannot comment on it, Dr. Mann said.

VIMS stressed that the true crux of the matter when it comes to American shad is really very simple. This is one of the best watersheds in the whole of Virginia, and unfortunately, the proposed placement here is right in the middle of one of the most productive spawning areas. Clearly, the City did not intend this when they looked at it, and the data from this has been generated over the past few years to support this position. Where does that leave this Commission? This Commission has worked for a long time with the Chesapeake Bay Agreement and especially with the Atlantic States Marine Fisheries Commission to attempt to put together programs to restore shad. Since the late 1990s, there has been in effect a moratorium on shad fishing in the bay and its tributaries. This will be extended to the (ocean) intercept fishery in 2006.

What does the word "moratorium" mean? Moratorium means that there is no wiggle room at all in here; there is no tolerance. It is just the same as no tolerance with drug emplacement or any other of those sorts of things dealt with in social communities. If you are going to emplace a moratorium, then that means that no net loss is acceptable. The applicants have, to their credit, attempted to use the best available technology here to design the intake screens. The City should be complimented on that. There can be a debate whether or not these work to

90 percent, 99 percent or anything else in between in terms of efficiency, Dr. Mann said, but the Institute agrees that there will be some loss. That number might be small, might be large, but the point is that under the terms of the moratorium, a loss is unacceptable. This is unfortunate, but that is VIMS' position at this point in time. If one must work within a moratorium then that is the way it has to be.

Dr. Mann said that in the longer term, it would appear that these stocks are slowly recovering. But can one predict a recovery? No. The Commission should be complimented and the Atlantic States Marine Fisheries Council complimented when working towards comprehensive strategies for restoration. If strategies are adopted, then one has to stick to them.

VIMS has made various recommendations on how to deal with this problem. Dr. Mann said that clearly if you put an intake structure in the most sensitive areas in the most sensitive river, one option is to move it. That may or may not be available to the applicants, but it is nonetheless a point that should be made because there will be continuing impact and VIMS cannot at this point in time give a good prediction on how fast shad will recover. Assuming the shad biology does not change, there will always be this intake structure in the middle of one of the most sensitive areas. Consequently there may have to be a trade-off.

Mitigation is something that may be considered. As those mitigation options become available to the Commission the VIMS staff remains available to the Commission to comment on them.

Commissioner Pruitt asked if there were any questions for Dr. Mann?

Associate Member Ballard asked if VIMS was going to comment on the City's latest proposal?

Dr. Mann said the first time he saw it was at 8:30 a.m. this morning. As a non-VIMS' position but as a personal position, Dr. Mann said he was encouraged by it, but said it would not be appropriate for him to make a VIMS' position on that at this point in time because he had not shared it with his colleagues. He said VIMS could produce a commentary on it at a later time, but reiterating he was personally encouraged by the document.

Commissioner Pruitt said he received a note saying that Major General Dail was supposed to speak at 3:00 p.m. and had to leave soon after. Commissioner Pruitt said he would give the general time to speak now in the midst of the presentations if there were no objections.

Major General Dail, Commanding General of the United States Army Transportation Center and Fort Eustis, Virginia said he was representing the military members and civilian workers at Fort Eustis, which relieves on the City of Newport News and the Waterworks for its

drinking water supply. The installation is also a mobilization center for Army reserve and National Guard units at times in the nation's history including recent months. Fort Eustis requires the assurance of a safe and reliable water supply both to maintain its present mission and to accommodate these periods of power projection requirements when the base goes through periods of mobilization. The reservoir project that is before you today is a very important one, and it's also a very important addition to the capability of the local city to support the military mission that goes on at Fort Eustis.

Randy Hildebrandt, assistant city manager of Newport News was recognized to begin the City's presentation, noting that the Raw Water Study Group was formed in 1987 as a multi-jurisdictional entity for the sole purpose of developing a strategy to meet the Peninsula's water demands to the middle of this century. The strategy that has emerged from this effort, includes three components, conservation and drought or demand management in the form of use restrictions during droughts, development of brackish groundwater facilities and the construction of a new water supply project. It is this line of component, of course, the King William Reservoir that is the subject of the permit application before the Commission.

Mr. Hildebrandt said he would be joined in the presentation by William Dey of ASA Analysis & Communications, a consultant hired by the city in November 2002 to do a thorough assessment of the potential consequences of the construction of the intake and the proposed withdrawals on the fish communities in the Mattaponi River. Mr. Dey will be followed by Dr. William Richkus who has done a peer review of the ASA and the VIMS' fisheries studies. Then Mayor Joe Frank will conclude with some summary comments.

Mr. Hildebrandt told the Commission that its task today will be to weigh the public benefits derived from this water supply project that the City believes are enormous against the predicted effects of the operation of an intake and the installation of transmission pipelines, effects that the City would show are extremely minor. He said there is no denying that the King William has become controversial since the City first filed an application in 1993. If it were not, this hearing would not have to be held in this large auditorium. But the King William Reservoir is not controversial because it is an ill conceived or poorly designed project. It is controversial because all complex infrastructure projects with substantial public investments attract a great deal of attention in today's political environment. The same was true for the Lake Gaston pipeline project, which after years of controversy became a critical part of the infrastructure of the Southside of Hampton Roads. Normally the granting of a permit for a water pipeline crossing or even the construction of an intake structure would be a fairly straightforward matter. However, given the notoriety of the King William Reservoir project, the application obviously is anything but routine for your Commission. Today you will have to contend with those who do not want this project to be constructed and therefore view this permit as their last opportunity to kill the project.

Based on the review of comments already submitted, many of those project opponents will press for denial of the permit for reasons which fall outside of the Commission's authority to consider, Mr. Hildebrandt said. Because of this, you will need to listen very closely to what proponents and opponents will say, and I ask that you focus on those issues that are in the purview of the Commission. These are of course the impacts of the construction and operation of the intake and its associated pipelines on wetlands, fisheries and other reasonable and permissive uses. And when you have formed an opinion on the extent of the project's impact on these natural resources, you will then need to balance this against the public benefits associated with the construction of the project that which will serve as a public water supply for the Peninsula, not just for 20 or 50 years, but for hundreds of years. The primary benefit of the project is the provision of a long-term reliable and affordable supply of drinking water for eight Virginia jurisdictions. The City has agreements in place that apportion this water, the benefit of the 24 million gallons of safe yield per day that will be created by the project. This increases the safe yield capacity of the regional system by 30 percent in a drought of record.

Mr. Hildebrandt said in the VMRC staff evaluation document, the Commission staff indicates it does not feel qualified to determine the validity of the various assessments of the Peninsula's future water needs. This is very understandable. Fortunately, there are organizations at the local, state and federal level that have had the expertise or the authority to make definitive judgments on the need for water. These organizations are the Hampton Roads Planning District Commission, who you will hear from today, the Virginia Health Department, the agency charged by the state with responsibility for safe operation of public water supplies in the Commonwealth. The Health Department mandated years ago that Newport News Waterworks and the other Peninsula utilities begin planning an expansion of the water systems based on state regulations. The Health Department is on the record as saying, "The need for this project has clearly been established and we continue to express our strong support for the project. The disapproval of the King William Reservoir will throw the entire area into a water crisis." This is a powerful statement by the state agency that has primacy in matters over public water supply.

Then there is the North Atlantic Division of the U.S. Corps of Engineers who is, in fact, the ultimate federal authority with respect to the needs for the project. General Rhoades, the Commander of the North Atlantic Division, ruled in October 2002 that, "There is a need for reliable, dependable additional water to be available to the lower Virginia Peninsula within the 2015 to 2030 time frame." And finally, the Virginia Department of Environmental Quality also had to consider need before recommending approval of the Virginia Water Protection Permit in 1997. This agency has made its own determination that the Peninsula had a future need for water that was sufficient to justify the permitting of the project. It should be clear that the issue of need has been already addressed and resolved in the state and federal permitting processes and should no longer be a matter of contention.

But in addition to the provision of a reliable drinking water supply, Mr. Hildebrandt said, there are some secondary benefits associated with the intake in the reservoir project. The long-term monitoring provisions already contained in the Water Protection Permit will provide expanded ecological and water quality data for the Mattaponi River that will assist state agencies and researchers in their understanding of this estuary. This new data will be the basis for making sound judgments of how to preserve the health of the Mattaponi watershed. Because the (DEQ's) VWP permit already addresses this, there is really no reason for VMRC in its permit to cover the same issue as is suggested by your staff. He also explained the wetlands and fisheries management plans, the benefits that directly and indirectly benefit the York River basin. The VMRC staff has referenced this plan. This mitigation plan entails these things: 1) an intake design using the wedge-wire screens with one-millimeter slots with a maximum screen velocity of 2.5 feet per second, state-of-the-art technology; 2) thousands of upland acres are being preserved as part of a protected reservoir and stream buffer; 3) there is a stream corridor rehabilitation on private lands; 4) planned installation of new and improved fish passageways; 5) opportunities for expansion and improvement of hatchery operations; and 6) a time-of-year limitation on the pumping to minimize the potential conflict between the intake operation and the early life stages of shad.

Mr. Hildebrandt outlined that the city's total investment for the program will exceed \$25 million. If you take into consideration that the King William Reservoir will result in a net gain of over 700 acres of non-tidal wetlands above the replacement of the 400 that will be flooded when they are converted to open water, you can see why the construction of this project is really a beneficial endeavor.

He listed again those public benefits just directly attributable to this project. It will provide drought protection for 600,000 people who will reside and work on the Peninsula by 2050. It will produce a reliable system capacity that can accommodate and sustain the economic growth for the region. It creates new recreational opportunities, and it comes with a 6,500-acre mitigation package that, by any objective assessment, will enhance the Chesapeake Bay watershed. While the benefits are substantial, the project of the magnitude of this reservoir cannot be accomplished without some impacts. The City has continually worked to avoid, then to minimize and finally to mitigate those impacts which could occur.

He explained how the city planned to address those impacts that fall under VMRC authority. The project will have some temporary and long-term impacts on the subaqueous bottoms, but as has been heard, the City will minimize this by using directional drill technology to install the pipelines beneath the river bottoms and floodplains. The City also will use micro tunneling to install the pipeline between the intake and the pumping station. The pumping station itself has been intentionally located 250 feet back from the bluff to screen it from the users of the Mattaponi River. The intake construction techniques will have a far less impact on the river bottom or the aquatic resources than the trench-type blasting and cofferdam installations typically used for large intakes such as the one that was constructed not long ago

by Henrico County in the James River. These techniques will enable us to avoid tidal wetland impacts in both the Pamunkey and the Mattaponi floodplain.

As the salinity monitoring performed by VIMS indicates, there will be little or no change in salinity from its natural range thus eliminating potential changes in the aquatic vegetation in the Mattaponi River. Furthermore, because the City has chosen an intake site in the tidal portion of the Mattaponi River, there will be no change in the water levels beyond what will naturally occur. Because of the state permit conditions established, there will be little or no water quality impacts. This has been confirmed by DEQ in its December 2002 comments to VMRC: "On December 22, 1997, the State Water Control Board issued a Virginia Water Protection Permit to the City of Newport News that authorized construction of an intake in the Mattaponi River. That permit contained conditions that regulate the tides and the amounts of water that could be withdrawn with the screen openings and the intake velocities and the time of year that instream work could be performed. The water withdrawal conditions and the instream construction standards were designed to protect the ecology of the Mattaponi River.

Mr. Hildebrandt then addressed how the project will affect adjacent properties. The pumping station has been specially designed so it would set back 250 feet from the river. This places it well behind the river bluff and generally out of view. The pump station is also located essentially in the middle of a 25-acre riverfront site that is jointly own with King William County—ensuring that the site and sound impacts on the adjacent owners will be minimized.

The architectural design allows for the pump station to blend in with the surroundings, and as illustrated by the photographs of the current shoreline development in this area of the Mattaponi River, with most of the residential development along this river is much closer to the water than the proposed pump station will be. From a recreational perspective, the depth and location of the intake is such that it not affect recreational boating in the Mattaponi River, and by building a 1,500-acre fresh lake, freshwater lake with lots of county recreational access, new fishing and boating opportunities will be created that may help reduce the pressure on the Mattaponi River from existing recreational activities. This is the feature of the project that was very important to the King William County Board of Supervisors when they entered into an agreement with Newport News for the project in 1991.

Mr. Hildebrandt then spoke on an issue, he said, that was foremost in the minds of the Commission: how will the operation of the intake affect fisheries? Dr. Mann of VIMS in his March 12, 2003 letter to VMRC, said, "If average egg and larval densities are applied to total volume of the structure's zone of influence, then eggs and larvae potentially vulnerable to loss from water withdrawal appear relatively small." He qualifies this further by stating "This must, however, be placed in the context of processes such as natural mortality and true loss to the adult population."

As William Dey of ASA will explain in his following presentation, the City agrees that those losses are relatively small, especially when considered in the context of the true loss of adult

population of American shad. The City understands that the shad impact is the primary focus of VIMS' concern. VIMS takes this position because it sees shad in Virginia waters as having severely depressed stocks with little evidence of robust stock recovery. So what should be done about an intake location that falls within a key spawning and nursery area for shad? In the same letter, VIMS concludes that the principal goal should be for the Commonwealth and local governments to address the incongruity between economic and environmental initiatives. In other words, they are looking for better alignment and strategies to meet the public need for water and those aimed at restoring the stocks of shad.

Mr. Hildebrandt said VIMS offers to the Commission in its letter of March 12th three options for doing this. First, delay a decision on placement of the intake structure until a comprehensive regional water allocation strategy is developed. Presumably such a strategy might result in some other public water supply initiative that has less impact on the restoration of shad. But the King William Reservoir project is already the product of a comprehensive regional water supply strategy beginning back in 1988. The City's strategy has been exposed to a rigorous environmental impact statement review process that has resulted in both the State Water Control Board and the U.S. Army Corps of Engineers to conclude that the King William Reservoir is the least environmentally damaging alternative to meet the Peninsula's water needs. So delaying a VMRC decision in hope that further water resource planning will yield a different outcome is just not a realistic solution.

Second, if delay is not an option, VIMS then suggests the possibility of moving the intake from the Mattaponi River to the Pamunkey River. In its view, the Pamunkey River is not as good a spawning or nursery area for anadromous fisheries, especially shad. It is interesting that this theoretical exercise to contemplate moving what is admittedly a small impact on shad from the Mattaponi to another river where it may even have a smaller impact, while this may seem to some scientists a good way to minimize relatively small impact, it is not an option available to either VMRC or this applicant, because the project has always called for water withdrawal from the Mattaponi River. Its feature is an integral part of the project. Moving the intake at this late stage is not possible for several reasons: 1) it violates the project development agreement with King William County officials in the early 1990s that expressed a strong preference for the use of the Mattaponi River over the Pamunkey River as the primary source of water for the project; 2) relocating the intake invalidates that 1997 Virginia Water Protection Permit for the project which was granted partly because the state saw that there would be less competition for public water supply and less conflict with new wastewater discharges in the Mattaponi River than in the Pamunkey River; and 3) moving the intake to another river negates 15 years of federal review and permitting processes that are now about a year away from completion. To start this federal process all over again is not feasible given the need to have a project on line by 2015.

Finally, VIMS suggests that if you can not delay a decision or move the intake to the Pamunkey River, than ways should be examined to restrict or limit withdrawals to mitigate

effects which occur from the intake's operation during the spawning and nursery period. While this option does offer possibilities, it also poses some real difficulties. The Water Protection Permit issued in 1997 tightly regulates when and how much water can be withdrawn from the Mattaponi River. It even restricts the amount of water that can be transferred from the reservoir to the Peninsula system so that the water from the Mattaponi River is used only as a backup to the existing system. Limiting water withdrawal during the March 15th to May 15th time frame could have been built into the VWP permit in 1997, but doing so would have dictated a different withdrawal plan that allows greater withdrawals during other high flow periods of the year. As it stands now, only the State Water Control Board has any ability to modify the withdrawal restrictions set by their earlier permit.

Once the City understood that VIMS was uncomfortable, even with small effects on shad and that this was driven largely by their concern about the depleted shad stocks, the staff set out to fashion a possible mitigation approach that could address the fishery concern without jeopardizing the integrity of the project from a water supply perspective. Mayor Frank introduced that approach to you in his April 17, 2003 letter. What the City is offering, Mr. Hildebrandt said, is a common sense approach to prohibit the withdrawals during the March 15th to May 15th spawning season until 2020 or until filling of the reservoir is completed, whichever is later. After 2020, this provision for withdrawal of water during the 60-day spawning and nursery period would continue only if VMRC deems it necessary to keep in place or to reestablish a moratorium on the recreation or commercial fishing of shad. The only exception of this would be in the case of a governor-declared water supply emergency for the Peninsula where the withdrawal of water would be in response severe drought conditions. The rationale for this approach may be found in VIMS' own discussion of the issue. It has implied in the correspondence and in the meetings with City experts that the relatively small impact on eggs and larvae would have less consequences and less concern if the shad fishery in Virginia were healthy. Therefore, once the shad fisheries have been restored and VMRC lifts the present moratorium on the fishing of shad, the restriction on water withdrawal during spawning and nursery times would also no longer be needed and can be lifted. This appears to be a perfect solution for resolving the conflict between addressing public water supply needs and yet maintaining management efforts that will result in restoring stocks of shad in the Mattaponi River and other Virginia waters.

Mr. Hildebrandt summarized the City's position. The public benefits to be derived from this project clearly outweigh the temporary or minor impacts on state-owned bottomlands and fishery resources. This is because the designs incorporated in the application represent state-of-the-art technology. The proposed facilities meet or exceed state guidelines in the operation of the intake under a Water Protection Permit and will be monitored more closely than any other before it. What also should be comforting to the Commission is that the Newport News Waterworks has an excellent reputation at the operation of a regional utility and has always had an exemplary record in protecting the environment. Please remember, he said, that the intake and reservoir project is the direct result of a mandate from the Virginia Health

Department for Peninsula water utilities to expand their raw water supplies and that this project continues to be pursued by the Regional Raw Water Study Group as its preferred strategy only because both the Commonwealth and the U.S. Army Corps of Engineers has found it to be the least environmentally damaging alternative to meet that need.

Mr. Hildebrandt said critics talk about the unreliability of models and predictions about the future health of the Mattaponi River. Examine the present state of the Chickahominy River, where the City has operated a water supply intake at Walkers Dam for over 60 years. Withdrawals from the Chickahominy are far less restrictive than those that will be imposed on the intake on the Mattaponi River, yet every year articles are written describing the diversity and richness of the Chickahominy River.

If the Chickahominy River can be utilized for so long as a public water supply without harm to its natural resources, why would one expect a dramatically different outcome for the Mattaponi River given the state-of-the-art technology and the withdrawal conditions already established for it. The reality is that 60 years from now, the same diversity and richness will exist in the Mattaponi River. Why? Because Newport News Waterworks will apply the very same environmental stewardship to that river as the City has done for so long with the Chickahominy.

Mr. Hildebrandt then introduced Mr. Bill Dey, vice president and senior environmental scientist of ASA Communications. Mr. Dey is a certified fisheries scientist with the American Fisheries Society and has 28 years of experience in ecological risk assessment throughout the country with particular emphasis on the effects of water withdrawals and fish populations. Recently he has been involved in the development and guidance for entrainment and impingement monitoring on cooling water withdrawal effects on fish populations for the Electric Power Research Institute. He is a very knowledgeable expert, Mr. Hildebrandt said.

Mr. Dey said that in looking at the potential effects of the water withdrawals on the fish community in the Mattaponi River there was some relatively new data sets that were available, collected by Dr. Donna Bilkovic at VIMS as part of her Ph.D. thesis. ASA Analysis & Communications is an ecological risk assessment consulting firm, he said, focusing in particular on the effects of water withdrawals on fish communities, and each of the three key team members involved in this project has more than 25 years of experience in dealing with this particular issue. ASA conducted a very detailed analysis of the effects of water withdrawals and issued a report. He reiterated the dimensions of the intake apparatus, adding that the screens will have a one-millimeter slot width and at maximum pluming capacity (75 million gallons per day) the maximum velocity at that point of the slot is a quarter of a foot per second. He contrasted that to the tidal velocities in the vicinity of the river, which range from two to three feet per second maximum.

He explained that the intake structure would be located off the river bottom almost at the midpoint of the vertical water column and well offshore. This gets the structure out of the biologic or productive areas down near the bottom, and also avoids the biologic or productive areas along the shoreline. He then discussed the details of wedge-wire screens, noting that the Environmental Protection Agency in 2001 concluded that these screens in general reduced the impingement of large aquatic organisms, up to 99 percent, and reduced entrainment of organisms from 80 to 90 percent. The studies that EPA reviewed, were also the studies used as the basis of this evaluation, include virtually all the species that are potentially affected here on the Mattaponi River. Mr. Dey said he was not aware of any studies that raised any concerns about the potential contact of organisms against these screens. The velocities are very, very low and they seem to work very efficiently. They are currently being proposed as one of the selected alternatives that the EPA is going to propose for minimizing adverse environmental impacts at cooling water intake structures for power plants.

In addition, Mr. Dey noted in a very detailed literature review conducted on behalf of the Virginia Department of Game and Inland Fisheries, Dr. Gowan and his coauthors reviewed various intake alternatives and methodologies. They concluded that wedge-wire screening is probably the best all-around screening material for protecting fish. Also, a wide variety of laboratory and field studies, has found that egg and larval stages rarely become impinged against these and stuck or trapped against the outside of these screens because the velocity is so low and they tend to be swept off by the currents. Naturally the river or tidal currents, they are going back and forth. The only time there is any potential for any degree of impingement is when there is almost no velocity going past the screen. And in the Mattaponi River, that really only occurs for a few minutes each slack tide, and then once the tide picks up, the organism is swept off again. And the studies that have looked at impinged organisms actually found that those that do become impinged and are later swept off, the survival rate is in the range of about 90 percent.

These facts, he said are based on the safe yield analysis that was discussed earlier looking at what the actual withdrawals are going to be from the Mattaponi River. The design is for 75 million gallons per day, and the concern primarily here is about the spawning and larval nursery period that generally encompasses April and May of each year. If you look at the actual withdrawals in there, you find that the average withdrawal during this time period is less than 15 mgd, and most of the years, it is considerably less than that. In fact, half of the years will be at 8 million gallons per day or less, substantially less than the design capacity. As a result of the through-slot velocities, which are designed at a quarter of a foot per second and the maximum pumping capacity is actually going to average less than five one-hundredths of a foot per second and most of the times will be considerably less than that. That is in the range of one foot every minute. So the velocity going through these screens is very, very slow compared to the tidal action that goes back and forth.

As part of ASA's assessment, two well-accepted and commonly used techniques were employed for estimating the effects of water withdrawals of fish populations. The first is a measure of the fraction of the population within the Mattaponi River that would be removed as a result of entrainment through the wedge-wire screens. This is the "fractional loss measure." Another one is the number of adults potentially produced by entrainment and loss of the larvae, eggs and larval stages, called the "equivalent adult loss." Both of these are technically sound and well accepted. This is where there is a difference of opinion with VIMS. These techniques were developed by the U.S. Fish and Wildlife Service specifically to look at the issues of water withdrawals on early life stages of fish and particularly estuarine systems just like the Mattaponi group. They are used and accepted by a wide variety of agencies, including the U.S. Fish and Wildlife Service. In fact, as part of its recent rule making efforts under 316(b), USFWS conducted detailed economic evaluations, and virtually all of that was based on this equivalent loss modeling approach, also used in other states throughout the country, and particularly along the mid-Atlantic coast.

Mr. Dey also pointed out that the Virginia intake design criteria document developed for the Department of Game and Inland Fisheries by Dr. Gowan and others, specifically recommended the use of these two methods to evaluate the biologic significance of water withdrawals in Virginia. A large number of fish species that at one time or another can use the Mattaponi River as habitat, but when examined the vast majority are not particularly vulnerable to the effects of these water withdrawals. The primary ones that do have some potential effects are these five groups. They happen to be exactly the same five groups that VIMS used in their assessment. The first three are anadromous species that only use the Mattaponi River for spawning and nursery habitat. The last two, white perch and yellow perch, are year-round residents of the Mattaponi in freshwater areas, and what were in low salinity brackish waters in the Mattaponi and the upper York River, all of these are highly fecund species. They produce a large number of eggs and larvae annually, at least the females do: striped bass simply produces in the range of a million eggs per year; and shad, a few hundred thousand per year. The reason that they are potentially affected is that they tend to have planktonic either egg or larvae stages, so up on the water column, they are subject to potential withdrawal by the intake.

ASA looked at the egg stages to see whether there was any significant potential for entrainment among any of the five species, he said. The conclusion, based on the information summarized here is that none of the egg stages are particularly vulnerable to entrainment at this proposed intake structure. The reason is that it is potential threefold here in these three columns, he explained. First of all, many of them have eggs that are significantly larger than the slot width at the proposed intake screen as even acknowledged in the Gowan design criteria document. As long as the eggs are twice as big as the slot width, there is very little potential for them actually to get entrained or affected. In addition, many of the spawning distribution is either well upstream or well downstream of the intake location. A perfect example is striped bass. Most of the spawning appears to occur in the lower Mattaponi down

in the York River. Regarding American shad, it looks like most of the spawning occurs upriver or quite possibly up in nontidal portions of the river. So many of the species can be eliminated on that basis. Lastly, if the two resident species are examined, they have egg stages that are either demersal and adhesive, in other words, get all stuck to the bottom, or they are produced in the gelatinous strands like yellow perch and they are just not able to be withdrawn into the intake structure. So based on this evaluation, ASA has concluded that the egg stages are not particularly an issue here. Mr. Dey said if the results of the VIMS' estimate of loss are examined, they are pretty consistent with this, that their estimates of loss for the egg stages are really quite small.

Concerning the larval stages, Mr. Dey said the first thing needed for both measures of entrainment effects was to evaluate the potential efficacy of the wedge-wire screens that are being proposed. The efficiency of these is a function of the size of organisms as compared to the slot width. Obviously, if the organism is too large to fit through the slot width, then it is not going to be entrained. Earlier studies also indicated the larvae do not become impinged because the tidal velocities keep them swept off.

ASA, he said, did a very detailed review of all available studies, both field and laboratory studies conducted on wedge-wire screens. There is a list of all references used, he added. In particular, data was used from the recent study now on the performance of wedge-wire screens that have been conducted at the Alden Research Lab, a world-renowned hydraulics laboratory in Massachusetts, under EPA funding as part of this effort to evaluate cooling water intake technologies. Using all that information, ASA was able to develop functional relationships between the size of the organisms and the potential for entrainment for the different species dealt with on the Mattaponi River. The results between the size of the organism and the potential for entrainment run from virtually 100 percent passing through the screens when the size is a few millimeters long up to all of them being excluded by the time the organisms are 9 or ten millimeters long. That is integrated with information on the larval growth rate, he said. In the case of shad, they hatch out at a fairly large size, about 6 1/2 millimeters long compared to that one-millimeter slot width, and they grow very rapidly. Consequently, they are only vulnerable to entrainment up to about four days old. A fairly high percentage of them pass through the screen when they are newly hatched and then that percentage declines up to about four days old. In contrast is the species like white perch that hatches at a smaller size and grows slower, and their vulnerability might last as many as 15 to 20 days.

In estimating the fractional loss, ASA used the average withdrawal rate, as a good measure of what to expect in the long term. First, the distribution of each of these species within the larval nursery area of the Mattaponi River is identified. For the striped bass, it was found that virtually all the larvae are found well downstream from the proposed intake location. The larvae rarely occur up in this river, so no further assessment of that species was needed. Mr. Dey said it also was sort of consistent with what VIMS has concluded on striped bass.

So, ASA estimated the fractional loss for the other four species and found that the range is from considerably less than a tenth of a percent per year for yellow perch to a little higher up to less than a half percent per year for river herring. For American shad, it is less than two-tenths of a percent per year of the egg and larval stages. Thus, the estimate of equivalent losses on shad—one to six per year

In conclusion, Mr. Dey said regarding entrainment effects, the fractional loss estimates are very small compared to what is currently allowed and this is what is called fishing mortality rates. For example, the Atlantic States Marine Fisheries Commission has estimated that for a healthy shad population that can withstand fishing mortality rates in the range of 34 to 38 percent per year and be able to sustain them and remain healthy. Regarding shad it is about two-tenths of a percent per year in this particular intake structure. Striped bass, another one they've done a lot of evaluation on, the allowable (mortality) rates are in the range of 26 per year. That is what they are currently harvesting at. Two-tenths of a percent is very, very small, he added. Noting that the assessment ASA conducted was based on some very conservative assumptions. Secondly, the study limited the definition of the nursery zone for these species for the fractional loss estimate to the tidal Mattaponi River, but there is much anecdotal information that indicates these nursery areas actually extend down into the York River or further up into the nontidal. That was not factored in and would tend to lower the estimates of fractional loss. ASA also did not include any density-dependent processes in the evaluation.

Just to put it in perspective, Mr. Dey said they were talking about losing only one to six fish per year. He also said the moratorium was only on the commercial and recreational fishing and there were other sources of harvest, so really it was only a partial moratorium and these projected levels of loss are certainly considered to be acceptable because there are some benefits that are presumed to be coming out of this. And there is also obviously a bicatch fishery that also exists of unknown size, probably not insignificant would be my guess.

Mr. Dey said no one can predict the future, but if one looks at the annual fishnet surveys conducted by VIMS that in the 1980s and up in the early 1990s, the production of shad was very, very low. Then, there was a concern about the status of shad stocks, and so an interim fishing ban was imposed eliminating all recreational, all commercial fishing in the river. After that, all of a sudden, the production of young started to increase. There will be another ban (the ocean intercept fishing) that goes into effect in 2006 that essentially eliminates all fishing on shad within Virginia waters.

Commissioner Pruitt interrupted and asked Mr. Dey to get on with his summary so other persons could speak. Mr. Dey said he had finished. Mr. Hildebrandt then introduced introduce Dr. Richkus, vice president of Versar, Inc., a publicly held environmental engineering firm headquartered in Springfield, Virginia. Dr. Richkus

manages a group called the Environmental Technological Science, an analysis division with a national reputation in ecological impact assessment of resource management.

Dr. Richkus said his company had no prior involving with the King William Reservoir project prior to be contacted by the City of Newport News several weeks ago and asked to provide an opinion on the proposed intake technology and to conduct a technical peer review of two documents, Dr. Roger Mann's letter report to Commissioner Pruitt dated March 12 and the ASA report that Mr. Dey just presented the results of.

Versar, Inc. has provided similar support to many of its clients, most particularly for the Maryland Department of Natural Resources and other states like Delaware and New Jersey. Dr. Richkus said he is currently providing consulting support to the EPA in the development of regulations for cooling water intake systems. He also said he authored the shad and river herring management plan for ASMRC in 1985 and the amendment for the striped bass management plan.

Regarding the intake technology, there was a very comprehensive literature review in Dr. Gowan's document, very good assessment of all the different screening technologies and also the assessment methodologies to be used. What is proposed for this project is totally consistent with the recommendations of that document. One thing I was impressed with was the extent of the literature that was covered there, Dr. Richkus said.

Wedge-wire screens are considered the best technology available by EPA. They just issued the Phase I rule for cooling water intakes for new facilities. It was issued last year. In that rule, any new power plant that is built with a cooling tower and wedge-wire screens is accepted as being compliant with Section 316(b) of the Clean Water Act. It is also being looked at for Phase II that is for existing power plants. It is well documented. It virtually eliminates impingement and significantly reduces entrainment. Bill Dey has mentioned that already. Very extensive literature records, studies, laboratory studies, and field studies support that observation. In fact, ASA did a study funded by the state of Maryland at a power plant in Maryland to evaluate the efficiency for reducing entrainment, and it certainly worked. Entrainment is where the organisms actually are passing through that very fine screen.

Turning to the impact assessment methodologies, he outlined two main items he saw in Dr. Mann's letter report and the ASA report. Within the VIMS' assessment, it assumes a zero screen efficiency, that is that any larvae in water that is thrown into the intake is going to be lost, is going to be killed. It also declined to project the significance of those losses based on their estimates, what percentage of larvae are lost to the adult stage. And it has a statement to the effect that the value of such projections are a questionable value for management. In the ASA report, it does take into account screen efficiency, applying that to all species evaluated.

And there are two different methods for trying to put that into perspective: one is calculating fractional loss, what percentage the total amount of eggs and larvae produced will be lost to the intake; and secondly, calculating up to adult level and to try to put it in perspective with that loss, meaning how many adults or equivalent will be lost as a result of the entrainment.

Dr. Richkus said one thing to be mentioned again is the frailty of the alosid larvae, the shad larvae. The concept with that zero efficiency is that any organism that touches the screen is going to be killed. There is no support in the literature and, in particular, where this 316(b) rule making is involved. All the utilities throughout the country, all kinds of intervening agencies, and much literal to suggest that nothing there is a valid issue. Regarding the fractional loss and adult equivalent models, to say they are not of value in decision-making is something that Dr. Richkus said he does not believe is correct. The state of Maryland uses these techniques in all the power plant assessments we have done. They are using exactly the same way you estimate percentage loss, estimate how many adults lost, and put that in perspective relative to fish and other sorts of losses.

The EPA had no other way to look at the benefits of the intake technology except to use the equivalent adults model, and then they used that to establish what the economic benefits of the different technologies are. To get to the final line, VIMS' assessment I feel is just unsupported. It does not use the literature that is available. There is a lot of reference to professional opinion, and certainly professional opinion is valuable when there is no data and no information. It is used in many cases. There is also in fisheries a concept called precautionary principle where if you are uncertain about something, you take an action that is more conservative or take the most conservative action. In this case, there is a huge wealth of information and data that is available. And it is just not used in the VIMS' assessment, whereas it is used in the ASA report. That is the major problem I have with the results that were presented there, Dr. Richkus said.

Regarding the VMRC staff comment about the proposal for a withdrawal moratorium during the spawning season, he said, he did not comment because he felt it was a moot issue, but he indicated he did not understand the staff saying that the effect is delayed because my understanding was they wanted to err on the side of caution and have no effect, no detrimental effect on the eggs and larvae while the stock is rebuilding. Certainly, this moratorium on pumping during the spawning season accomplishes that. Once you start pumping when the stock is fully restored, what you have then is just small incremental losses that were presented in the ASA report. Even if they are uncertain, even if they are off by two orders of magnitude, if you just look at the magnitude, it is still small and the magnitude can be addressed. So I would just urge the Commission to consider the strongest scientific basis as the basis for making the decision.

Commissioner Pruitt then recognized Newport News Mayor Joe Frank, who said he had been mayor since 1996 and on City Council since 1988. He said there has not been a week that has

gone by that he has not had some degree of involvement with this reservoir project. Mayor Frank said he has spent countless hours in hearings such as this, and I certainly appreciate what you're going through in having to sit here and listen to these folks hour after hour.

As an elected official, Mayor Frank said he had a public trust, and that trust is to ensure adequate water for the citizens of the communities that the City's water serves and to assure a viable stable supply of raw water. It is a trust that I take very seriously. City officials are here because if action is not taken now to ensure a source for that water, the water will not be there when it is needed. The choices will be born of crisis rather than commitment and planning. The City will have failed to manage and protect not only natural resources, but also human resources.

This reservoir project was born from a federal directive that the area develop a regional approach to water supply needs. It was instigated by the Virginia Department of Health that determined that the use rates dictated beginning a study for a new raw water supply system. The need was defined by state standards for public health driven by population growth and the limited capacity of existing reservoirs. Over the years, dozens of possibilities and combinations of possibilities have been examined. There have been changes in design and location of this project to eliminate or minimize environmental impacts. All realistic components for conservation, desalination and recycling have been factored into the project. There have been studies after studies and confirmation of every aspect of every impact with state and federal agencies. It seemed that the rules kept changing as the City met one set of requirements only to have others imposed on us by different state or federal agencies or in response to opponents' claims. The City has agreed to restrictions and conditions for operations, restoration and mitigation for potential impacts and long-term monitoring for any indications of any harmful effects. In good faith, the City has gone to great lengths to address perceptions and to accommodate extreme assumptions. Misinformation has been answered with more facts and more science. Emotional claims have been countered with evidence of awareness in a context for cooperation. The City has endured the changing demands of a process that challenges us to provide new proof and new evidence at every turn. Apparently this is another such point.

The decision the Commission is called upon to make today is related to several very specific areas of the reservoir project. Some of the information you have received is also very specific, and in some ways, selectively focused on indicating all potential for any harm or impact whatsoever. These potential impacts, and statistics combine to show a possible loss of less than a dozen adult shad a year as an example. These hypothetical impacts have been presented without any context of other outside factors affecting fisheries right now on the Mattaponi River, commercial fishing, resort recreational fishing and the like. This would serve to provide a perspective on what is really talking about in terms of the impact of using a tiny fraction of the hundreds of millions of gallons that flow daily through the Mattaponi

River. Yet the City will again move to compromise and restrict even further when and how water would be withdrawn from the river. Mayor Frank said the City has proposed additional conditions to provide certain assurance of protection of the river while also protecting a long-term water supply for the countless citizens of the Virginia Peninsula who will need this water as time goes forward. This compromise, which I outlined in my April 17th letter to the Commission, provides I believe a rational, defensible way to resolve any meaningful conflict between the clear public benefits of the project and the potential environmental impacts to the Mattaponi River fishery, he said. If the goal is to protect, and in many ways improve the ability to promote the fishery habitat on this river, the goal is met by these conditions.

Mayor Frank said that through this long and difficult process, there has been no doubt in my mind that the public benefit from this reservoir as a public drinking water supply will more than balance any negative impacts realized from its creation or imagined for the future. In fact, the importance of this water source will result in the kind of awareness, care and scientific analysis that guarantees attention to the continuing value of the Mattaponi River and the reservoir site as natural resources, as wildlife habitat and as fisheries.

Mayor Frank reminded the Commission of the City's stewardship of the other reservoirs that are managed for the public benefit. They truly are sites where people come to enjoy themselves and take advantage of the wildlife and the recreational opportunities. He expressed the certain reality that is likely to follow if the reservoir project fails. Private landowners on and around the site will develop their property within their rights and no mitigation of cultural impacts or preservation of artifacts will be required. Instead of wetlands being replaced or restored on a two-to-one or more basis for a net gain of wetlands acreage, the minimal legal amount of mitigation will likely be realized in multiple development projects that add up to or exceed the wetlands that would be affected by this project. Demands for groundwater permits will soar as water supplies come under pressure, especially during times of drought. Instead of the large and permanent wildlife and fishery habitat created by the reservoir, land will be developed at will and within approved uses along the river, especially since there are already aggressive economic development programs underway by communities in the area where the reservoir site is located. The same environmental groups that oppose this project will also oppose other proposed alternatives. This project was picked to minimize the environmental impacts compared with the other 35 sites and technologies that were evaluated. The prospect of water shortages will become a factor in employment and investment decisions, just as described earlier by General Dail.

Mayor Frank said there will be day in the future, if this permit is not obtained, when the water will not be there when it is needed and 600,000 people will want to know why. The fate of the City's 16-year effort to secure an expanded water supply for the Peninsula now rests in the Commission's hands. He said he was hopeful that the Commission would not ignore the extensive evidence and compelling science behind this project.

Mayor Frank asked the Commission not to turn your backs on a regional water supply solution that fulfills both a public purpose and a public interest for environmentally responsible design. He asked that the permit be approved, allowing for the reflection of a mutual goal of making this reservoir an example of environmental stewardship and effective resource management for generations to come. The citizens of the region deserve no less.

Mayor Frank submitted for the record a letter from State Senator Tommy Norment of James City County, who endorsed the project and a similar letter from Mayor Myra Oberndorf of the City of Virginia Beach.

Commissioner Pruitt then recognized members of the Virginia General Assembly who wished to comment on the project. Delegate Ryan McDougle, House of Delegates representing the 97th District.

Delegate Ryan McDougle, House of Delegates, representing the 97th District, asked the Commission to focus on the public trust doctrine in 28.2-1205 that specifically is to protect and safeguard the public right to use and enjoyment of subaqueous lands of the Commonwealth. He said the Commission members were trustees for those lands. Representing a number of constituents including members of the Mattaponi Indian Tribe, McDougle urged the Commission to vote against the project. His comments are part of the verbatim record.

Delegate Glenn Oder, House of Delegates, representing the 94th District, said that when the Lake Gaston pipeline (for Virginia Beach water) was being discussed opponents said it would harm the lake, reduce the water and injure fish. None of that happened, he said. Regarding cell towers, he said, people complained about the looks, etc., but then someone said where would people have been without the telephone polls of years ago. He called upon the Commission to make the tough votes and support the reservoir. His comments are part of the verbatim record.

Delegate Albert Pollard, House of Delegates, representing the 99th District, also wanted to focus on the public trust doctrine delegated to the Commission by the General Assembly. The doctrine, he said, gives the Commission broad authority to use its "good judgment." He urged the Commission to follow the staff recommendation and reject the permit. His comments are part of the verbatim record.

The Commission took at dinner recess at about 5:00 p.m.

The Commission reconvened and Commissioner Pruitt asked if there were any questions from Commission members for the applicant or the staff or representatives of VIMS?

Associate Member Dr. Jones asked a question of either Mr. Dey or Dr. Richkus. She said her concern was about the issue of fish equivalents. She said there were a series of equations in the ASA document built on what the survivorship is, how many adults would equal the amount of eggs and larvae lost. She said the enumerator in those equations was a "2," and asked if that meant that two fish are replaced for every female at the end of her reproductive life span.

Mr. Dey responded in the affirmative, noting that was the basis that was used for developing the life table parameters that went into the total losses.

Dr. Jones asked if they were using the equilibrium conditions, having undergone stable and stationary age distribution?

Mr. Dey again answered "yes."

Dr. Jones said that it means that for female shad that are spawning now in the Mattaponi in the conditions that now exist, this equation says this is the equivalent survivor if she replaced herself and the male she went with thereby leaving exactly the same number of shad. She asked if the EPA was using "this for depressed stocks?"

Mr. Dey responded that the EPA was "using those numbers, the life table numbers for all stocks they have applied to along the East Coast."

Dr. Jones asked if the life table numbers also were used if the stocks were in decline?

Mr. Dey said all the used as well as the stocks that are very high.

Dr. Jones contended that the equation does not allow for any rebuilding of stocks. She suggested that a "4" in the enumerator, not "2" would allow for the stocks to rebuild.

Mr. Dey acknowledged "yes," but noted he could not speak for EPA, but acknowledged that ASA has done a similar kind of analysis in other situations using that assumption, and the reason for that is that, and particularly here in this case, is that you are not looking at the effects of this particular water withdrawal on the stock as it is right now because the project is not built right now, won't be built for another ten, fifteen years, and the estimates of loss that were generated were actually for a demand in the year of 2040.

Dr. Jones said that the action assumes that the population has been rebuilt and is now stable, so it will be maintained in a rebuilt state?

Mr. Dey said the assumption is that the population is not at one fixed level, but that it is in a healthy condition that will vary about some long-term average reflected by these equilibrium.

Dr. Jones asked if stochasticity is shown in the equation?

Mr. Dey responded, “no,” adding it is to represent a long-term average.

Dr. Jones asked if the equation represents equilibrium conditions in the stationary age distribution?

Mr. Dey responded, “yes,” noting the in some years the equivalent loss might be a little bit higher, and some years, it might be a little bit lower.

Dr. Jones said that she teaches this subject matter. She added that her point is that the equation represents what the loss would be and the equivalents. Then one would say what it would be once the stock was rebuilt, not what the stock is now.

Mr. Dey said that was correct.

Dr. Jones then said the other assumption here is that the number of eggs that are in Mattaponi now would reflect the number of eggs in the Mattaponi when it reaches the stable equilibrium of the rebuilt stock?

Mr. Dey said it is the only information available. The higher or lower density is not known.

Dr. Jones asked if the calculations of what is going on with the fish being lost from the Mattaponi account for what happens now in the intake now?

Mr. Dey said not immediately because the intake is not operating now.

Dr. Jones asked if the Mattiponi does not build back the shad?

Mr. Dey responded that the estimates of equivalent loss under a rebuilding stock condition could be a little bit higher. How much higher is not know, but the fractional loss, unless the distribution changes dramatically, would remain exactly the same, and that is the reason two different measures, two independent measures to evaluate these tests were used.

Dr. Jones said it may seem like she is picking at technical points, but this issue is of great public concern, so when science is used loosely and others criticize loosely, “I take objection to that when anybody does that, pro and con.” She contended that nowhere in the testimony that has been given does it explain that these kinds of equivalents are to be used only when the fish stocks have rebuilt completely and then one can see what the equivalents mean. When VIMS in the report says it does not want to draw conclusions until there is rebuilt stock, certainly there is validity in saying that.

Mr. Dey said he agreed there is some uncertainty on these values; there is no question about that.

Dr. Jones said mortality would change. It would double the stock since they produce about 100 million to 500 million eggs per female.

Mr. Dey said “yes.”

Dr. Jones said there is ten to the fifth mortality, so the difference is .99999 percent and .99998 percent is double the size?

Mr. Dey said she was correct.

Dr. Jones said that mortality in the early life of stages cannot be measured with any accuracy.

Mr. Dey said that was correct.

Dr. Jones said, therefore, it is a very difficult thing to interpret the future of production?

Mr. Dey responded that there is some uncertainty, but as Dr. Richkus indicated, even if one were to take the ASA estimates of equivalent loss and increase them by a couple of orders of magnitude to account for that, the estimates of loss are so very small compared to...

Dr. Jones said that was a valid point to make, but not a valid point on the grounds it was made. It is not only using the equivalent, but it is not telling the right assumptions when you do those calculations. She asked if anyone has tried the individual-based model approach, what the losses would be over time?

Mr. Dey said he was not aware anyone has done it. He said he has not done it, nor been involved.

Dr. Jones asked Dr. Richkus if anyone has tried to do the individual-based model approach?

Dr. Richkus responded, “No.” He added that one about EPA using both the data that (Mr. Dey) used in the equivalent adults and for the benefits assessment is—it is the method of last resort. There was no other way to broadly estimate what the benefits are, so basically they have to make simplifying assumptions.

Dr. Jones said that is a good way to go back now and look.

Dr. Richkus agreed, noting that it is the method used. Mr. Dey represented it that way—the equivalent adults and said he tried to explain it that way. The objective there is to try to put

the loss in some understandable context, and there are two choices: either decline to do that and say there is a lot of uncertainty and no basis for making a decision “or you can attempt to take a shot at it.” One could certainly explain the uncertainties and perhaps better than has been explained, but it does give a context. If there was one criticism of the ASA report, one certainly could have addressed uncertainty. He suggested that two orders of magnitude would still make the lower bound zero.

Dr. Jones said two or more orders of magnitude could have been used in the estimates.

Dr. Richkus agreed.

Dr. Jones said she wanted those points clarified.

Commissioner Pruitt asked if there were any other questions from the Commission for the applicant?

Associate Member Garrison asked Dr. Richkus about the reservoir intake screens. Does Dr. Richkus’ company install or just sell the screens?

Dr. Richkus responded that the company does neither. It just recommends.

Mr. Garrison asked if Dr. Richkus has seen the wedge-wire screens work at other places?

Dr. Richkus responded yes, adding that his company has done studies with the state of Maryland at a power plant where there was a concern about entrainment of fish. In this case, it was bay anchovies. Under funding from the state, the company did an experimental study of the effectiveness of these screens at that plant as helping the state to decide whether that was a useful thing to require screens.

Mr. Garrison questioned whether during installation there would be sheet piling around those intakes structures or how does that work?

Dr. Richkus said he would have to get an engineer address that question.

Mr. Garrison asked if the silt would go down the whole creek?

Dr. Richkus said that the screens are cylinders that are in line with the river flow, so silt as well as the organisms would be passing—

Mr. Garrison asked what would be torn up during installation?

Dr. Richkus said he was not the best person to answer that.

Mr. Garrison asked who could answer the question? He added that his concerns related to the intake structure. How often is it cleaned depending upon the season of the year and what happens to fish that might be caught in the screen when it is air pumped?

Mr. Hildebrandt introduced Paul Peterson with Malcolm Pirnie, an engineering company.

Mr. Peterson said the City's joint permit application filed with the VMRC goes into detail in a design section on the specific methods to be used during construction to reduce sedimentation concerns using silt fencing. There will be specific screening used to reduce silt impacts in other areas. He said Mr. Garrison was right that cleaning the screens would depend on the conditions—water quality, time of year, etc. He said the cleaning would be a 15-second burst daily at the maximum. The related exchange between Mr. Garrison and Mr. Peterson and Dr. Richkus is part of the verbatim record.

Mr. Garrison then asked Mayor Frank about his recent letter that said that after 2020 the city's permit should be free from any encumbrances, especially in a drought. He added that he had never seen a drought in the springtime. He asked the mayor to clarify the 2020 date.

Mayor Frank responded that the city was suggesting to the Commission that by 2020 when the construction process is complete, that the work of the Commonwealth in restoring the shad fishery and improving the lot of shad in the Mattaponi will show such improvement that these restrictions will probably be recognized by everyone that they are no longer necessary, but if they are necessary, then of course this Commission, as it reviews the permit periodically as the law requires, could re-impose those conditions as long as they are necessary. The city was just suggesting that that is a time frame that will give time to study the conditions further to see what improvements are made in the shad hatcheries and the fisheries in the river and give the opportunity to build the reservoir and to start filling it so the impacts can be studied as they actually exist as opposed to the modeling that has been done up to now.

Mr. Garrison said that study is exactly what should be done. James City County is using 4 million gallons of water per day from dells and now is putting in a desalination plant that can pull 6.4 million gallons out of deep wells. He also noted that Tampa, FL has installed a desalination plant.

Mayor Frank said Newport News has installed a desalination plant that can draw 6 million gallons a day and it is used as a backup during droughts and difficult water supply times. Mr. Garrison's discussion with Mayor Frank and Mr. Hildebrandt is part of the verbatim record.

Associate Member Ballard said he was pleased with the City's mitigation plan, but concerned about the trigger language being more specific such as stock recovery.

Mayor Frank said the City's response came after examining the VIMS study. The City cannot wait until VIMS' first choice of additional study. He said the City has been studying the reservoir for 18 years and has examined 35 different alternatives. He said VIMS' third alternative was going to the Pamunkey River. Such action would require the City to go through the federal program again. It would be starting anew. What was left was the VIMS alternative to limit pumping during the time the shad was spawning.

Mayor Frank added that if the permit is received, the reservoir would be built by 2015 and the process of filling would begin. That would give five years between 2015 and 2020 for the appropriate studies to be ongoing. That would give the VMRC and other regulatory agencies to say there needs to be continued control and restriction During the spawning period of there does not because the shad have responded.

Mr. Ballard said different triggers would allow some fishing.

Mayor Frank agreed, noting that if there is a better way to trigger the decision process that the City would be willing to consider it.

Commissioner Pruitt said, if there are no other questions from the Commission, the time has come to hear from the public. He said if a person is speaking for a group they will have ten minutes, or three minutes if they are speaking for themselves.

H. Fred Dylla, Chief Technology Office, Thomas Jefferson National Accelerator Facility in Newport News, urged the Commission to work with the City and other localities that are working to find a solution for the communities' water needs. His comments are part of the verbatim record.

Mayor Jean Zeidler, City of Williamsburg, said the city owns its own reservoir, but is dependent upon the City of Newport News for emergency water supplies. She said Williamsburg knows that unless the regional supplies are expanded through the construction of the King William Reservoir the city will face serious problems with future droughts. She urged approval of the reservoir permit. Her comments are part of the verbatim record.

Sheila Noll, member, York County Board of Supervisors, said county officials support the reservoir. Her comments are part of the verbatim record.

Commissioner Pruitt then decided to swear in all persons who would be testifying. The persons were sworn in.

Mayor Frank read into the record comments from Mayor Maimie D. Locke of Hampton. She said the Hampton City Council maintains its belief that the King William Reservoir project offers a reasonable balance between human needs and possible detrimental impacts on

the natural environment and asked the Commission to support the project. Her comments are part of the verbatim record.

Mayor Gordon D. Helsel, Jr., City of Poquoson said his city reaffirms its support for the King William Reservoir project and asked the Commission for its positive support. His comments are part of the verbatim record.

Robert Smith, assistant manager, James City Service Authority, James City County, said the county's new desalination plant will handle water needs for the next ten years, the county knows that groundwater cannot meet long-term water needs. He said the King William Reservoir project is an essential component to the county's plan to meet its long-term water needs and urged the Commission to support it. His comments are part of the verbatim record.

John Shepherd, senior vice president of operations, Northrop Grumman Corp., said the company is the areas largest employer and one of the city's largest water customers (at 1.6 million gallons per day). The company is keenly interested in seeing that the Peninsula has a reliable and affordable supply of water well into the future. He asked the Commission to support the reservoir. His comments are part of the verbatim record.

Robert Yancey, chairman, Peninsula Alliance for Economic Development, commended the Commission for its endurance, suggesting that if this were an Agatha Christie novel, it might be entitled "Death by Public Hearing." He said the Alliance and the area's Industrial Development authorities, want to underscore the enormous public benefits that would accrue to the Peninsula region with the approval of the permit and the construction of the reservoir. His comments are part of the verbatim record.

John R. Lawson, president, Greater Peninsula NOW, an organization of CEO's of the major businesses of the Peninsula, whose only mission is to enhance the quality of life on the Peninsula. He said the need for more water resources is obvious. He urged the Commission to support the reservoir. His comments are part of the verbatim record.

Eric Wallberg, principal planner, Hampton Roads Planning District Commission, said the Commission in March 2003 reaffirmed its endorsement of the reservoir project and urged the VMRC to approve the permit for the intake portion. The Commission's statement is part of the collected record and his comments are part of the verbatim record.

Clyde Hoey, president and CEO, Virginia Peninsula Chamber of Commerce, said he represented 2,400 member businesses across the Peninsula. He urged the Commission to grant the permit.

Paul Garman, Peninsula Home Builders Association and also speaking for the Peninsula Association of Realtors said the realtors have supported the proposal since 1997, noting that

the lack of an adequate water supply would negatively impact housing at all levels. His comments are part of the verbatim record.

Sharyn Fox, Peninsula resident, said the EPA vetoed the Ware Creek reservoir because it was not a regional project. The King William reservoir is a wonderful regional project and is environmentally good compared to the alternatives. She said believes more shad will be killed in one day by a single gill net than by the reservoir intake. Her comments are part of the verbatim record.

Andrew Landrum said, as a licensed professional engineer, he supported the reservoir project. He said he was a design engineer for the Henrico County intake project, very similar in nature to the proposed Mattaponi intake. He explained that the proposed screens have been used successfully throughout Virginia and are designed not to enhance the environment in which they operate. His comments are part of the verbatim record.

Mark Ailsworth, Newport News resident, said he supports the reservoir although he first approached it with great skepticism, knowing how important natural resources of the Mattaponi River are. But after studying he reached the conclusion that the reservoir was the best alternative. His comments are part of the verbatim record.

Doug Jenkins, president, Twin Rivers Watermen's Association, said he knew Newport News needs water, but the watermen also need the shad and he was fearful that the intake would hurt the shad population. He urged the Commission to support fishing. His comments are part of the verbatim record.

Jim Brown, James City County resident, said he supported the project because he did not think there was an alternative at this point. He said six of 30 private deep wells in his development have failed in the past five or six years. He stressed that the fish problem that may exist is minimal compared to the people problems. His comments are part of the verbatim record.

Mayer Sarfan, an attorney and a homebuilder, supports the reservoir, noting the Mattaponi runs through King William and other counties. He said the water is not being stolen, and nothing is being taken from anywhere. His comments are part of the verbatim record.

Dixon Tucker, district engineer, Office of Drinking Water, Virginia Department of Health, said the department supports the reservoir. His comments are part of the verbatim record.

John Hubbard said it is because environmentalists have an outcry and industry answers that outcry that a balance is achieved. He said he knew the Commission will come up with a balance that will give Newport News a good water source and also solve the problems of the environment. His comments are part of the verbatim record.

Gary St. John said he supports the City's permit request, noting that a comprehensive mitigation plan has been prepared addressing the potential environmental impacts. Regarding shad, the city has proposed a win-win solution that addresses the VIMS and VMRC concerns. His comments are part of the verbatim record.

James McReynolds, county administrator, York County said the King William Reservoir is the best alternative available. In order to ensure the future generations a safe, reliable, affordable, and environmentally sensitive water source, he urged the Commission to approve the permit. His comments are part of the verbatim record.

Milford Willis, a Newport News resident, said he is a supporter of the reservoir, American shad and the Mattaponi River. To deny the project, he said, would see great damage and harm to many people who live here. His comments are part of the verbatim record.

William Gwathney of Walkerton in King and Queen County opposes the reservoir. He said changes in the Mattaponi have not been good: silt has built up and boats cannot be pushed in the marshes anymore. His comments are part of the verbatim record.

Kitty Cox of King William County who is opposed to the reservoir because of its potential effect on the Mattaponi River. She said she found it impossible to believe that the proposed massive water withdrawals and the associated change in salinity or alternations in the flow would have no appreciable effect on a complex river ecosystem like the Mattaponi. Her comments are part of the verbatim record.

Leticia Walker said she agreed with the statements of Ms. Cox. Her statements are part of the verbatim record.

Chief William Miles of the Pamunkey Indian Tribe said the tribe opposes the reservoir and the intake structure. He said the Chesapeake Bay Foundation may have put it best: the final wetlands mitigation plan is generally unacceptable because it is based on insufficient site-specific soil and hydrological data. The Pamunkey Tribe is especially concerned with the culture impact in that the proposed reservoir would destroy 200 native sites. His comments are part of the verbatim record.

Ronald Hutson said he was opposed.

Tyla Matteson, conservation chair, Virginia Chapter, Sierra Club, asked the Commission to consider various alternatives presented by Michael Siegal, Sierra Club consultant. Some of them included using existing surplus water supplies from Norfolk and Hanover County. Newport News did not attempt to obtain rights to the Big Bethel Reservoir, formerly operated by the military in the Lower Peninsula area. Newport News consultants did not include 1.55 million gallons per day from dead storage or 5.2 million gallons a day from increased

withdrawal capacity that the City now has from the Chickahominy River. Her comments are part of the verbatim record.

Mike Siegel, consultant, speaking for the Sierra Club said he has analyzed a variety of alternative sources of water supply and there are acceptable alternatives to the reservoir. He said Newport News in a memorandum of 2001 spoke of “an alternative source” of raw water should the King William reservoir permit be denied by the U.S. Army Corps of Engineers. He listed a number of sources of additional water and those comments are part of the verbatim record.

The Commission took a five-minute recess and resumed with the testimony of Glenn Besa, regional director, the Sierra Club. Mr. Besa stressed that there are alternatives available to the reservoir and over 10 million gallons per day currently in the pipeline. He urged the Commission to consider the public trust doctrine and follow the staff’s advice. His comments are part of the verbatim record.

Frances Crutchfield, representative of saveourriver.org, stressed the potential harm to the Mattaponi Tribe and the Mattaponi River. Her comments are part of the verbatim record.

Madeline McMillan, Newport News City Council member, called the Commission’s attention to her earlier letter and urged them to support the permit. Her comments are part of the verbatim record.

Assistant Chief Carl Custalow, Mattaponi Indian Tribe, said the Tribe opposes the reservoir project citing the detrimental impacts on the Tribe and the Mattaponi River. He said the project goes afool, it will negatively impact the Chesapeake Bay region for generations to come. He asked the Commission to deny the permit. His comments are part of the verbatim record.

Todd Custalow, Mattaponi Indian Tribal member, reiterated what his father had said and stressed the Tribe’s long-standing work through its shad hatchery to maintain the shad fishery on the river. He asked the Commission to deny the permit so the Tribe could continue its special relationship with the river. His comments are part of the verbatim record.

Ann Brummer, Henrico County resident, said property of her family members will be negatively impacted by the reservoir. She noted that changes in salinity in the river already have changed wetland vegetative patterns. She urged the Commission to vote “no.” Her comments are part of the verbatim record.

Katie Lasky, a third-year law student intern, Institute for Public Representation, Georgetown University Law School, suggested that the City’s most recent compromise was merely a smoke screen meant to distract the Commission. She said the compromise is insufficient to

protect shad and other fish and fails to address other impacts of the reservoir project. She said any harm to the shad fishery harms the Mattaponi Tribe. She asked the Commission not to support the permit. Her comments are part of the verbatim record.

Leslie Fellows, a King William County resident, supported the comments of Katie Cox, a previous speaker. She commented on an article written by Del. Harvey Morgan that was published in the *Tidewater Review* and stressed that the permit should be denied. Her comments are part of the verbatim record.

Billy Mills, representing the Mattaponi & Pamunkey Rivers Association, urged denial of the permit and support of the VIMS report. His comments are part of the verbatim record.

Garrie Rouse, former board member of the Mattaponi & Pamunkey Rivers Association, also opposed the permit. He explained the sensitivity of the Mattaponi River and the threat to the Joint-vetch that grows in the region of the river. His comments are part of the verbatim record.

Dr. Patricia Woodbury, explained she has studied the project for six years and noted that the King William Land Trust has bought property surrounding the reservoir site and that the Newport News Mayor's law partner is a trustee of the Land Trust. She expressed opposition to the reservoir and the exploitation of the Native Americans. Her comments are part of the verbatim record.

Susan Jensen, a King and Queen County resident, opposes the reservoir and noted that her county will not receive a drop of water from the project, along its border with the Mattaponi River is 70 miles long. She cited the project's potential negative impact on fish and the area's environment. Her comments are part of the verbatim record.

Commissioner Pruitt interrupted the proceedings at 10: 20 p.m. to caution the speakers that the comments were becoming repetitive and urged them to stick to their respective points and not repeat what someone else has said

Ray Watson, King William County resident, said he owns property adjacent to the proposed intake site. He stressed the delicate area of the river at the site and said it must be protected. He urged the Commission to oppose the permit. His comments are part of the verbatim record.

Dr. Rob Brumbaugh, Chesapeake Bay Foundation fisheries scientist, concurred with the VIMS findings on the fishery impingement and entrainment issues. He said placing the intake in the most productive shad spawning area in Virginia violates not only the state's public trust doctrine from the VMRC's fisheries management actions. The foundation opposes the reservoir, he said. His comments are part of the verbatim record.

Christine Woods asked why irreplaceable treasures must be destroyed for the sake of a reservoir. She asked the Commission to deny the permit. Her comments are part of the verbatim record.

Edward Berg, a Newport News resident, noted that King William County residents never had an opportunity to voice their opinion on the reservoir and neither have the taxpayers of Newport News. His comments are part of the verbatim record.

Cynthia Mantay said she had not spoken to one person in favor of the King William Reservoir. She asked why there was a debate about this assault on the ecological system of Virginia. She said the mitigation plan was offered only when it was asked for, not from spontaneous environmental concern. She opposed the permit. Her comments are part of the verbatim record.

Kevin Seaford asked if the public benefited or will benefit from the reservoir project then why is the public not here saying they want it? He opposes the project. His comments are part of the verbatim record.

Ben Garrett, King William County resident, said that if the reservoir had been in operation last year—in 2002—it would have been able to withdraw water for only three days. In such a case, he said, Newport News would ask for a waiver and if granted would hasten the demise of the river. He opposed the permit and urged that desalination plants be constructed instead. His comments are part of the verbatim record.

Thomas Rubino, a King and Queen County resident and a member of the Alliance to Save the Mattaponi, said recent straw polls showed that 95 percent of the King William voters oppose the reservoir project and the citizens in King and Queen sued to stop the project. The region clearly opposes the reservoir, he said. His comments are part of the verbatim record.

Eugene Rivara asked the Commission to deny the permit. He said the city does not have to walk away empty handed because there are alternatives.

Doris Babyak Chappell, a King and Queen County resident, asked the Commission to pay attention to the comments of riparian landowners like herself who have seen the river for years and know of the changes already in its complex ecosystem. She opposed the permit and her comments are part of the verbatim record.

Peg Babyak agreed with the previous speakers in opposing the reservoir. Her comments are part of the verbatim record.

Ann Talley, a Gloucester County resident, asked the Commission to deny the permit. Her comments are part of the verbatim record.

Joanne B. Fridley, speaking for her family who owns property in King and Queen County, opposed the reservoir and explained that few county citizens knew of the reservoir before the King William Board of Supervisors approved the contract with Newport News Waterworks. King and Queen citizens likewise oppose the project. Her comments are part of the verbatim record.

Mary Hyde Berg of Claybank opposed the reservoir. Her comments are part of the verbatim record.

Eugenia Ann McGee, a Sierra Club member, stressed opposition to the permit.

Larkin Linton asked that the permit be denied.

Dorothy Rouse-Bottom of Hampton, former trustee of the Chesapeake Bay Foundation and the Virginia Nature Conservancy, seconded the recommendations of the Foundation and VIMS. Her comments are part of the verbatim record.

Commissioner Pruitt asked how many more people wanted to speak. He counted more than sixteen and said the meeting might have to be recessed to another day. An unidentified person in the audience said scores of people had left because they were unable to stay. He said David Bailey could speak and then the Commission would have to make a decision.

David Bailey, legal counsel for the Mattaponi Indian Tribe, discussed the public trust doctrine and urged the Commission also to consider the needs of the Tribe. He stressed that the shad moratorium is in effect and the fish must be protected. The last minute City Council proposal should not be accepted and the reservoir should not be approved. His comments are part of the verbatim record.

Delegate Harvey Morgan, who opposed the reservoir, said he wanted to make three points: the need for the water is not present; the project will likely have a negative impact on the river's system possibly preempting future withdrawals by those who live on or near the river; and did Newport News seriously give consideration to alternatives because they are in the water supply business and reservoirs are what they do best. Like Delegates McDougle and Pollard before him, he stressed the public trust doctrine. His comments are part of the verbatim record.

Commission Pruitt then raised the issue about whether to continue the public hearing or postpone it to another day. The time was about 11:30 p.m. Associate Member Williams suggested that the meeting be recessed and that the speaker list be retained and those people, on the list, who have not spoken, be given an opportunity to speak.

Associate Member Cowart asked about VIMS' earlier comments concerning the latest City proposal. How does that play on the possibility of making a decision tonight, he said? Commissioner Pruitt said Dr. Mann had said he would need to meet with VIMS staff members before an opinion on the City's proposal could be given.

Associate Member Williams said that a subject this controversial requires all the information a decision is made. He said he supported Associate Member Cowart's idea.

Associate Member Ballard wondered if a group—VMRC staffers, VIMS' staff and the Newport News representatives and perhaps Dr. Jones representing the Commission—could sit down together and see if there is any resolution here. Associate Member Cowart said Mr. Josephson, the Commission's legal counsel, could address the legal issues of such a meeting, but said he wanted to hear VIMS' comments before making a decision.

Mr. Josephson said he felt the meeting was fine from a legal standpoint.

Commissioner Pruitt said he wanted to support Associate Member Williams' suggestion that people here who have not spoken and those who have left should be given an opportunity to speak in the future. Associate Member Williams said he felt any future meeting should be held in King William and not here.

Associate Member Garrison said the meeting should be held in the Commission's hearing room in Newport News.

Commissioner Pruitt asked Dr. Mann how long VIMS needed to prepare its response to the City's latest proposal. Dr. Mann said two weeks. Commissioner Pruitt suggested May 14th as the next meeting date.

Delegate Morgan asked if the plan was to hear from only those persons who signed up or to convene another hearing? Commissioner Pruitt said a new hearing is not being proposed.

Associate Member Ballard moved that the meeting be recessed until 9:30 a.m. May 14th in the Commission's meeting room and that no additional speakers be allowed to make presentations to the Commission who are not already on the list. If they are on the list and have not spoken, they will be allowed to speak. There will be no repeat speakers. He also requested that a committee or group be appointed consisting of VIMS' staff, VMRC staff, representatives of the City of Newport News, including their consultants to get together and see if a consensus can be reached.

Associate Member Birkett seconded the motion. The vote was 7-1 with Associate Member Gordy voting no.

Commission Meeting

**12384
April 22, 2003**

Commissioner Pruitt emphasized that the Commission would accept written comments on the proposal from those on the sign-up speaker list.

The meeting was recessed at 11:50 p.m. until May 14th.

William A. Pruitt, Commissioner

Wilford Kale, Recording Secretary