JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION
OF THE VIRGINIA GENERAL ASSEMBLY

Structure of Virginia's Natural Resources Secretariat

House Document No. 74

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Preface

House Joint Resolution 173, passed during the 1996 Session of the Virginia General Assembly, directed the Joint Legislative Audit and Review Commission (JLARC) to "study the organization of state agencies and their functions within the Commonwealth's Natural Resources Secretariat." In addition, Item 14C of the 1996 Appropriation Act required that "the Commission shall also examine...the permit and other fee structures utilized by Natural Resources agencies, including a comparison of the Commonwealth's fee structures with those in similar and neighboring states." A December 1996 JLARC report, titled *Feasibility of Consolidating Virginia's Wildlife Resource Functions*, addressed the wildlife responsibilities of the natural resources agencies. This report presents the final staff findings and recommendations concerning the structure of the State's natural resources functions and the fees used by the natural resources agencies.

This review indicates that Virginia's structural approach to resource management has some strengths and is generally appropriate. While the study found overlapping responsibilities in a number of environmental functions, in many cases Virginia's natural resources agencies are working together to address these overlapping issues. Further, this review did not find major gaps in natural resources services, nor did it identify programs that should be privatized or eliminated outright.

However, there are some issues or problem areas which merit attention. Three areas which would benefit from improved coordination across agencies include land management activities, long-range environmental planning, and water pollution prevention. There are also some areas where it appears that structural changes could be considered to improve the efficiency and effectiveness of Virginia's environmental programs.

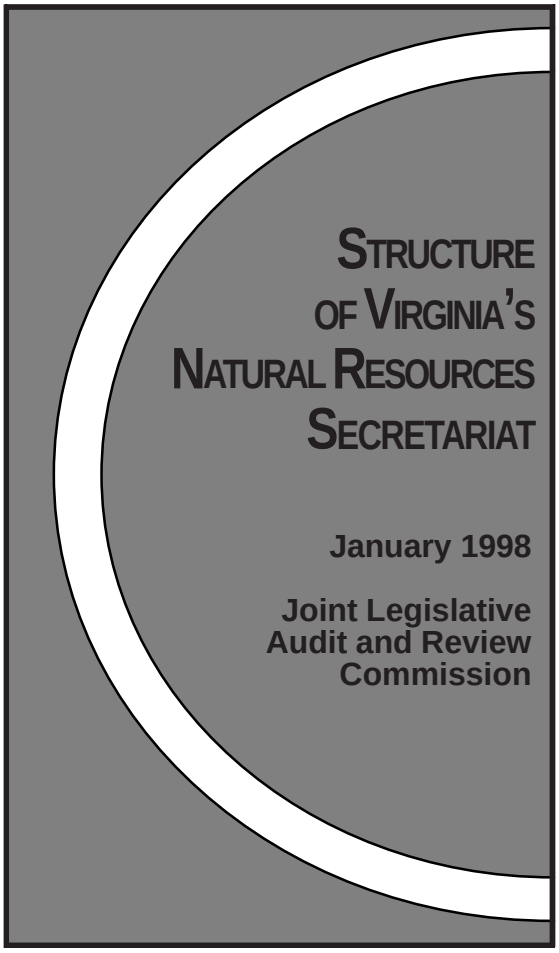
This review also examined the major fees charged by Virginia's natural resources agencies compared to those of other southeastern and Atlantic states. The study found that Virginia's fee levels generally rank in the middle to lower third in magnitude when compared to the other states surveyed.

On behalf of JLARC staff, I would like to express our appreciation for the cooperation and assistance provided by the agencies in the Natural Resources Secretariat, as well as the Department of Forestry, the Department of Mines, Minerals, and Energy, the Department of Health, and the Department of Agriculture and Consumer Services, in the preparation of this report.

Philip A. Leone
Director

January 29, 1998

JLARC Report Summary



House Joint Resolution 173, passed during the 1996 Session of the Virginia General Assembly, directs JLARC to "study the organization of State agencies and their function within the Commonwealth's Natural Resources Secretariat." This resolution also directs JLARC to examine whether the functions of these agencies might be redundant with functions performed by agencies outside of the Natural Resources Secretariat. In addition, Item 14 C of the 1996 Appropriation Act requires that "Pursuant to House Joint Resolution 173…the Commission shall also examine…the permit and other fee structures utilized by Natural Resources agencies, including a comparison of the Commonwealth's fee structures with those in similar and neighboring states."

The primary finding of this review regarding the organization of natural resources agencies and functions is that Virginia's structural approach has some strengths and is generally appropriate, although there are some issues or problem areas that should be considered. Regarding Virginia's permit and other fee structures, the primary finding of the review is that most of the 11 Virginia permits or fee structures that were examined rank in the middle or lower third in magnitude when compared to other states.

Virginia's Structural Approach Has Certain Strengths and Is Generally Appropriate

Virginia's natural resources functions are divided among several agencies across three secretariats. In the last several years, JLARC staff have conducted nine studies pertaining to natural resources functions and agencies. Through these studies, a number of problems were identified. However, this current review indicates that most of the problems are not structural in origin. Virginia's decentralized system has some strengths, which include its ability to bring varied expertise and perspectives to bear on environmental issues. Ultimately, with any structure there will always be some separation of responsibilities, whether at the agency, division, or program level, and hence, coordination is necessary under any structure. The challenge lies in ensuring that the environmental programs are working toward similar goals and that they are well coordinated where there are overlapping impacts.

Overall, there is no single "right" approach to structuring Virginia's natural re-

sources functions. The key to effective resource protection and management is clear, coordinated policy and program implementation, coupled with ongoing assessments of the condition of the natural resources. The *Code of Virginia* gives responsibility to the Secretary of Natural Resources for ensuring that environmental issues crossing functional areas are identified and that various agencies' resources are jointly brought to bear on cross-cutting issues.

This review has found that, generally, Virginia has a range of environmental programs "on the books," and as such, does not appear to have a major problem with gaps in natural resources services. Further, this review did not identify programs that should be privatized or eliminated outright. While potential targets of opportunity for privatization were considered, further examination of these areas found that, in their current form, they are appropriate State programs.

In addition, while there are overlapping responsibilities in a number of environmental functions, there are many examples of where Virginia's natural resources agencies are working together to address these overlapping issues. In many cases agencies have clearly enumerated their discrete responsibilities within the context of the broader, overlapping roles. However, there are also some areas which would benefit from greater coordination, and yet other areas in which consolidation of agency functions may be warranted.

Issues or Problems With Virginia's Structure That Should Be Considered

This review has identified some problems resulting from Virginia's decentralized natural resources structure. Three areas where problems exist include the coordination of land management activities, long-range environmental planning, and water pollution prevention. For example, there are some areas where the Department of Conservation and Recreation (DCR), Department of Game and Inland Fisheries (DGIF), and Department of Forestry (DOF) could better coordinate their activities to improve resource management and enable the public to have more opportunities to use the land under the control of these agencies. It also appears that it would be useful for the State to have a formal, written plan to identify major priorities and guide the State's short-term and long-term environmental efforts across agencies. In addition, the recent tributary strategy effort illustrates the type of action needed on a statewide basis to bring a more coordinated approach to identifying water quality problems and developing appropriate strategies to address these problems. It appears that there is not a need to consider alternative structural arrangements in order to address these issues.

However, there are also areas where it appears that some structural changes could be considered to improve the efficiency and effectiveness of Virginia's environmental programs. For instance, the nonpoint source pollution prevention activities of DCR and the Chesapeake Bay Local Assistance Department (CBLAD) overlap and are fragmented. CBLAD's area of authority covers Tidewater Virginia, but does not include much of Virginia's portion of the Shenandoah and Potomac Basin nor the full Chesapeake Bay drainage area. The Chesapeake Bay model indicates that the Shenandoah and Potomac Basin accounts for most of the nutrients from Virginia that impact the Chesapeake Bay. As an agency with statewide jurisdiction, DCR, through its Division of Soil and Water Conservation, addresses the impact of nutrients on the Chesapeake Bay inside and outside the Tidewater area. Given their overall consistency of purpose and to achieve a greater unity of effort on nonpoint source issues, there may be some advantages to consolidating CBLAD into DCR. It is also recognized, however, that consideration of such

a change could raise some concerns, such as a potential loss of some visibility to Virginia's efforts to clean up the Chesapeake Bay, potential loss of benefits derived from having work performed in a small agency, and ensuring that the effort in the Tidewater area would not be diminished.

Further, the Agricultural Stewardship Act, currently administered by the Virginia Department of Agriculture and Consumer Services, would be more appropriately placed within DCR, which is the State's lead agency for nonpoint source pollution prevention programs. Also, as mentioned in a previous JLARC report, consolidating the Virginia Marine Resources Commission, DGIF, and DCR's natural heritage program is a feasible option to be considered to improve wildlife management in Virginia.

Virginia's Fees Typically Rank in the Middle or Lower Third Compared to Other States

JLARC staff compared Virginia's fee levels for 11 natural resources permits. Data for these fees, which are major fees common to many states, were obtained from up to 20 other southeastern and Atlantic states.

This review found that Virginia charges a fee for all the services and major permits included in this analysis. Therefore, no additional funding sources were identified. In addition, this review found that of the 11 fees examined, only one of Virginia's fees is in the higher third of the states that participated in the JLARC survey: Section 401 of the Clean Water Act permits. There were four fees in the lower third, including one and two bedroom state park cabins, hunting licenses, and Prevention of Significant Deterioration permits for air pollution. Five fees were in the middle third: state park admission fees, state park primitive camping fees, recreational fishing licenses, National Pollution Discharge Elimination System permits, and solid waste landfill permits. One fee (commercial fishing licenses) could not be ranked due to the wide range of fishing activities and charges that are encompassed in that category.

A 1996 survey of Virginia's natural resources agencies' constituents asked respondents to indicate whether the fees charged by the natural resources agency with which they associate are appropriate. For each agency, the majority of respondents reported that the fee levels are appropriate.

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I. Introduction

House Joint Resolution 173, passed during the 1996 Session of the Virginia General Assembly, directs JLARC to "study the organization of state agencies and their functions within the Commonwealth's Natural Resources Secretariat." This resolution also directs JLARC to examine whether the functions of these agencies might be redundant with functions performed by agencies outside of the Natural Resources Secretariat. In addition, Item 14 C of the 1996 Appropriation Act requires that "Pursuant to House Joint Resolution 173…the Commission shall also examine…the permit and other fee structures utilized by Natural Resources agencies, including a comparison of the Commonwealth's fee structures with those in similar and neighboring states."

This review addresses the organizational structures of State natural resource agencies, and the permit and fee structures used by those agencies. The review was conducted simultaneously with a study directed by Item 14 of the Appropriation Act, which mandated JLARC to "review the organization, operation, and performance of the Department of Conservation and Recreation" (DCR). The findings of the review of DCR can be found in a report titled *Review of the Department of Conservation and Recreation* (1998).

THE NATURAL RESOURCES SECRETARIAT

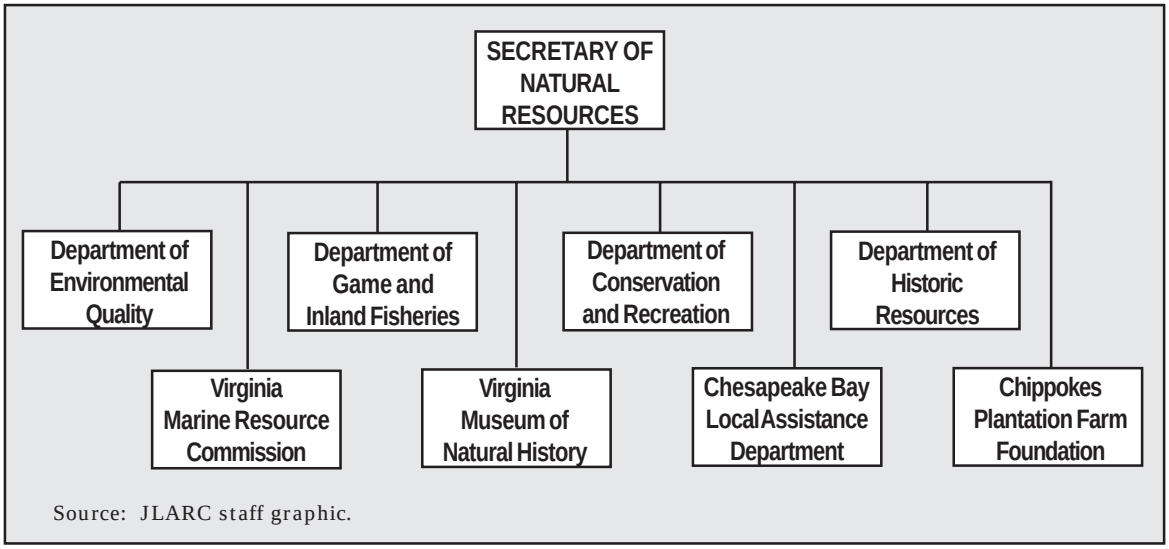
Figure 1 shows the seven agencies within the Natural Resources Secretariat. The three largest of these agencies, in terms of staffing and funding, are the Department of Environmental Quality (DEQ), the Department of Game and Inland Fisheries (DGIF), and the Department of Conservation and Recreation (DCR). The other agencies in the secretariat include the Chesapeake Bay Local Assistance Department (CBLAD), the Department of Historic Resources (DHR), the Virginia Marine Resources Commission (VMRC), and the Museum of Natural History (MNH). The Chippokes Plantation Farm Foundation receives a separate appropriation, but is staffed by DCR and is not considered a separate State agency for purposes of this review.

Department of Environmental Quality (DEQ)

DEQ was created in 1993 with the merger of four agencies: the State Water Control Board, the Department of Air Pollution Control, the Department of Waste Management, and the Council on the Environment. The focus of this agency is on point sources of pollution – that is, sources of pollution such as industries or municipal waste facilities that discharge pollutants from specific conveyances such as pipes or smokestacks, and are subject to federal and State permit requirements. DEQ is considered the principal agency charged with meeting Virginia's constitutional responsibility to "protect its atmosphere, land, and waters from pollution, impairment, or destruction." DEQ's mission is to "protect the environment of Virginia in order to promote the health

Figure 1

The Natural Resources Secretariat



Source: JLARC staff graphic.

and well-being of the Commonwealth's citizens." Two JLARC studies issued in January 1996 and 1997 examined the organization, management, and performance of DEQ.

Department of Game and Inland Fisheries (DGIF)

DGIF is responsible for the enforcement of all laws for the protection, propagation, and preservation of game birds, game animals, freshwater fish, and other wildlife including threatened and endangered animal species. The agency's mission is to:

- manage Virginia's wildlife and inland fish, maintain optimum populations of all species, and serve the needs of the Commonwealth;
- provide the opportunity for all to enjoy wildlife, inland fish, boating, and related outdoor recreation; and
- promote safety for persons and property in connection with boating, hunting, and fishing.

The department's functions were recently reviewed in the JLARC report, *Feasibility of Consolidating Virginia's Wildlife Resource Functions* (1996).

Department of Conservation and Recreation (DCR)

DCR's mission is to "conserve, protect, enhance, and advocate the wise use of the Commonwealth's unique natural, historic, recreational, scenic and cultural resources." DCR undertakes a number of activities to address its mission. These activities include:

- managing 28 State parks and six historic sites;
- identifying, protecting, and restoring Virginia's natural heritage resources;
- protecting the State's waterways from nonpoint source pollution (which is water pollution from such substances as sediment and nutrients that are carried to waterways by rainfall or snowmelt moving over and through the land); and
- protecting property through such programs as dam safety and floodplain management.

As noted, specific findings about DCR can be found in a separate report titled *Review of the Department of Conservation and Recreation* (1998). Also, it should be noted that potential overlap between DCR's natural heritage program and the Department of Game and Inland Fisheries was reviewed as part of the 1996 JLARC report, *Feasibility of Consolidating Virginia's Wildlife Resource Functions*.

Chesapeake Bay Local Assistance Department (CBLAD)

CBLAD was created in 1988 to provide coordination and focus for efforts to protect the Chesapeake Bay and other waterways within the Commonwealth. CBLAD's mission is to "protect the public interest in the Chesapeake Bay and other State waters by reducing pollution impacts associated with the use and development of land." The agency is responsible for reducing pollution in the Chesapeake Bay, by overseeing the incorporation of water quality standards into local land use activities and through the provision of technical and financial assistance to local governments.

Department of Historic Resources (DHR)

DHR is responsible for the conservation of Virginia's unique historical, architectural, and archaeological resources. These areas are referred to as Virginia's "built environment" by the agency's staff. Among the programs for which DHR is responsible are the following: maintaining an inventory of structures or sites with historical, architectural, or archaeological importance; conducting a survey of Virginia to determine whether other such structures or sites exist; designating properties as historical landmarks; acquiring interests in designated landmarks through use of the Historic Pres-

ervation Fund, and providing technical assistance to localities, groups, or individuals interested in establishing or preserving historically significant districts or properties.

Virginia Marine Resources Commission (VMRC)

According to VMRC's mission statement, staff are the "stewards of Virginia's marine and aquatic resources for present and future generations." VMRC has statutory jurisdiction over: Virginia's territorial seas, tidal rivers and submerged bottoms of streams and rivers; marine fish, shellfish, and other organisms; coastal sand dunes and beaches; and the commercial and recreational harvest of saltwater fish and other seafood. The commission's functions were recently reviewed in the JLARC report, *Feasibility of Consolidating Virginia's Wildlife Resource Functions*.

The Museum of Natural History (MNH)

The mission of the Virginia Museum of Natural History is to preserve, study, and interpret the wealth of Virginia's natural heritage by promoting research, education, exhibits, and publications programs in natural history. MNH includes a main museum in Martinsville, Virginia, and branch museums at the University of Virginia and Virginia Tech. Research conducted by MNH staff involves all species – which includes threatened, endangered, rare, and game species – as well as fossils. The Museum's research goals include:

- collecting specimens that document Virginia's natural heritage and are needed to manage its natural resources responsibly;

- identifying the distributions and relationships of animals and the identification of their basic properties to target species and substances that can be used in improving human health, food production, and in finding new useful products, as well as for making sure that state and world ecosystems continue to function in the future; and

- providing the scientific expertise needed for the public programs of the Museum.

Museum staff conduct a number of activities to achieve these goals. These activities include: displaying exhibits at the main and branch museums, providing traveling exhibits throughout the State, offering classroom programs throughout southside Virginia, conducting lectures and presentations, publishing research, maintaining collections of more than 20 million specimens, and publishing *Virginia Explorer* magazine, which features the work of the Museum's scientific staff and others who are researching the natural diversity of the Commonwealth.

Staffing and Funding of Virginia's Natural Resources Agencies

The agencies in the Natural Resources Secretariat account for appropriations of more than $207 million for FY 1998 and a total maximum employment level (MEL) of 1,767. Table 1 identifies the funding and MEL for each of these agencies.

Table 1

Funding and Staffing Levels for Natural Resources Agencies, FY 1998

Agency	Total Appropriation	General Funds	Federal Trust	Other Funds	MEL*
DEQ	$116,371,983	$42,817,512	$42,467,096	$31,087,375	765
DCR**	38,168,219	26,151,724	8,051,510	3,964,985	340
DGIF	32,246,338	300,000	7,502,837	24,443,501	423
VMRC	11,528,274	7,180,796	1,680,757	2,666,721	147
DHR	4,905,946	4,107,486	706,011	92,449	40
MNH	2,399,780	1,991,499	75,000	333,281	34
CBLAD	2,084,953	2,084,953	0	0	18
Total	207,705,493	84,633,970	60,483,211	62,588,312	1,767

*Maximum employment level.

** The appropriation for the Chippokes Plantation Farm Foundation ($79,000) is included in DCR's funding amount.

Note: Does not include the Secretary of Natural Resources office.

Source: 1997 Appropriation Act.

OTHER AGENCIES WITH SIGNIFICANT NATURAL RESOURCES RESPONSIBILITIES

In addition to the agencies within the Natural Resources Secretariat, there are four other agencies that have significant responsibilities that impact natural resources. These agencies are: the Virginia Department of Agriculture and Consumer Services (VDACS), the Department of Forestry (DOF), the Department of Mines, Minerals, and Energy (DMME), and the Virginia Department of Health (VDH). The first three agencies are located within the Secretariat of Commerce and Trade, while the latter agency is located within the Secretariat of Health and Human Resources. These agencies are included in this review because they have significant responsibilities that overlap with one agency or more in the Secretariat of Natural Resources. In addition, a number of universities conduct work on natural resources issues, including the Virginia Institute of Marine Science at the College of William and Mary, Virginia Tech, the

University of Virginia, and Virginia Commonwealth University. The universities' responsibilities are largely research-oriented.

Department of Agriculture and Consumer Services (VDACS)

The mission of the Virginia Department of Agriculture and Consumer Services (VDACS) is to "promote the economic growth and development of Virginia agriculture, encourage environmental stewardship and provide consumer protection." The agency is involved with a wide range of activities from marketing Virginia's products to ensuring food safety. A number of VDACS' responsibilities address natural resources. These responsibilities include administering the Agricultural Stewardship Act, protecting and propagating threatened and endangered plant and insect species, and regulating the use and sale of pesticides.

Department of Forestry (DOF)

The Department of Forestry's mission is to "protect and develop healthy, sustainable forest resources for Virginians." The department addresses its mission by: working to protect forest resources from fire, disease, insects, and degradation; promoting economic development through the improvement, expansion, and renewal of forest resources; and ensuring the delivery of high quality forestry services to landowners of Virginia's forests.

Department of Mines, Minerals, and Energy (DMME)

The mission of the Department of Mines, Minerals, and Energy (DMME) is to "enhance the development and conservation of energy and mineral resources in a safe and environmentally sound manner to support a more productive economy." The agency has initiated several programs which include an environmental focus. These programs include DMME's coal mined land reclamation program, its mineral mining and gas and oil exploration programs, and the agency's programs concerning the use of energy by State agencies. In addition, DMME also oversees several grants established to spur the growth of alternative energy products.

Department of Health (VDH)

The Virginia Department of Health's (VDH) mission is to "achieve and maintain optimum personal and community health by emphasizing health promotion, disease prevention and environmental protection." A number of natural resources-related responsibilities involve aspects which can affect the health and safety of the citizens of Virginia. Therefore, VDH plays a role in these activities. In particular, VDH is charged with administering the Biosolids Use Regulations which regulate the marketing, sale,

and land application of sewage sludge. VDH is also responsible for ensuring the safety of shellfish through monitoring the waters in which they are harvested and the plants at which they are processed. The department oversees water supply issues, particularly as they relate to public drinking water. VDH also promulgates regulations covering on-site sewage treatment systems for single family homes, a role which is shared with CBLAD.

RECENT JLARC REVIEWS OF NATURAL RESOURCES AGENCIES AND FUNCTIONS

This is the ninth report in a series of reports on Virginia's natural resources agencies and functions conducted by JLARC staff over the past four years. The other reports include:

- *Solid Waste Facility Management in Virginia: Impact on Minority Communities*, issued in January 1995;
- *Costs of Expanding Coastal Zone Management in Virginia*, February 1995;
- *Interim Report: Feasibility of Consolidating Virginia's Wildlife and Marine Resource Agencies*, December 1995;
- *Interim Report: Review of the Department of Environmental Quality*, January 1996;
- *Feasibility of Consolidating Virginia's Wildlife Resource Functions*, December 1996;
- *Review of the Department of Environmental Quality*, January 1997;
- *Virginia's Progress Toward Chesapeake Bay Nutrient Reduction Goals*, February 1997; and
- *Review of the Department of Conservation and Recreation*, issued concurrently with this report.

Solid Waste Facility Management in Virginia: Impact on Minority Communities

This study included an examination of DEQ's role in the oversight of solid waste disposal facilities. The report found significant gaps in DEQ's central office oversight, and problems in the solid waste inspection program administered by regional staff.

Costs of Expanding Coastal Zone Management in Virginia

This report looked at the potential cost impacts to Virginia of expanding its coastal zone program in response to the 1990 reauthorization of the Coastal Zone Management Act. The estimated cost impacts stemmed from implementing management measures for nonpoint source pollution. The study estimated that excluding the potential cost of one particular measure - retrofitting existing septic tank systems - the costs of implementing the nonpoint pollution management measures in Virginia would exceed $18.0 million. The septic tank management measure could have had a unique and very costly impact on Virginia, due to the short separation distances from the septic tank trench bottom to the groundwater table that has been permitted under Virginia regulations. With these costs included, the estimated cost was about $156 million for Virginia's existing coastal zone area. Additional costs would have been entailed if the geographic zone to which the measures are applied were expanded.

Interim Report: Feasibility of Consolidating Virginia's Wildlife and Marine Resources Agencies

This interim report provided background information on the roles and responsibilities of DGIF and VMRC. It discussed the history of the agencies, previous studies on the possible consolidation of these agencies, their respective missions and organizational structures, and their funding and staffing resources. The report also identified how other coastal states have organized their wildlife and fisheries activities.

Interim Report: Review of the Department of Environmental Quality

This report focused on issues related to a reorganization of DEQ that followed shortly after its creation in 1993. The report indicated that DEQ's reorganization lacked adequate planning, particularly strategic planning. Several personnel management concerns were also identified. One consequence of inadequate planning and problematic personnel practices was that agency morale and employee trust in agency management appeared to be low at DEQ.

Feasibility of Consolidating Virginia's Wildlife Resource Functions

This report focused on agencies with wildlife management responsibilities, including DGIF, VMRC, DCR, and VDACS. This review found that terrestrial wildlife management is inappropriately fragmented and should be consolidated into a department of wildlife resources. The study further found that while there were some important areas of difference between DGIF and VMRC, there were also some significant areas of overlap and related activities. A number of problems due to these responsibilities were identified. Therefore, a consolidation of DGIF and VMRC appeared feasible and was recommended to be considered.

Review of the Department of Environmental Quality

This report presented final staff findings and recommendations on the organization, operation, and performance of DEQ, focusing on air and water quality programs. The report indicated that, due to weaknesses in inspections, monitoring, enforcement, and planning, DEQ was not meeting its constitutional and statutory mandates to protect State waters. While some concerns were identified regarding the department's air program, the department appeared to be meeting its mandate to protect the State's atmosphere from impairment. In addition, this review identified a number of internal management problems that diminished DEQ's organizational capacity.

Virginia's Progress Toward Chesapeake Bay Nutrient Reduction Goals

This report focused on the Commonwealth's strategy to reduce nutrients from Virginia's portion of the Potomac River Basin, although nutrient reductions in Virginia's other tributary rivers to the Bay were also discussed. This review found that there is reason to expect that Virginia will make some short-term progress in the Potomac Basin towards its nutrient reduction commitments. However, it is unlikely that Virginia will produce a 40 percent nutrient reduction in its portion of the Potomac by the year 2000. In addition, the report concluded that whether Virginia could maintain a 40 percent reduction in the years after 2000 is in great doubt. This report also identified shortcomings with the Commonwealth's Potomac strategy.

Review of the Department of Conservation and Recreation

This report presented the findings from the organization and management review of DCR. The study found that DCR has some organizational strengths which can be built upon in the future. For example, its operational divisions, such as parks, soil and water conservation, and natural heritage, have a record of positive accomplishments over the years. However, the department has had historical management and cohesiveness problems. This review indicated that internal problems at DCR have persisted, and in fact, some management actions during recent years have exacerbated the agency's problems. Although DCR has resource problems, expectations and demands upon DCR continue to increase. The report concluded that DCR needs substantial internal improvements in order to adequately address its added and emerging responsibilities.

JLARC REVIEW

JLARC's review of the natural resources agencies, and agencies with significant natural resources responsibilities, is directed by House Joint Resolution 173 of the 1996 General Assembly (see Appendix A). JLARC is directed to "study the organiza-

tion of state agencies and their functions within the Commonwealth's Natural Resources Secretariat." The study mandate directs JLARC to include:

- a review of the existing division of responsibility and authority among these state agencies, so as to assess the efficiency and effectiveness of current agency structures within the secretariat;
- a consideration of various options or alternatives for changing existing divisions of responsibility and authority of these state agencies; and
- to the extent that the review indicates that certain functions of these agencies might be privatized or eliminated, or might be redundant with functions performed by agencies outside of the Natural Resources Secretariat, an identification of those circumstances or opportunities.

In addition, Item 14 C of the 1996 Appropriation Act directs that, "Pursuant to House Joint Resolution 173, 1996 Regular Session, the Commission shall also examine...the permit and other fee structures utilized by Natural Resources agencies, including a comparison of the Commonwealth's current fee structures with those in similar and neighboring states..."

Study Approach

JLARC staff developed several issue areas to address the study mandates. The issues examined in this review address:

- areas of overlap in the functions of the natural resources and related agencies;
- consequences of overlapping functions;
- options for alleviating problems and the potential impact of those options, including opportunities for privatization; and
- whether the amounts and types of fees charged by Virginia's natural resources agencies are comparable to those of neighboring states.

Research Activities

A wide range of research activities were undertaken to address the study issues. These included: interviews with personnel from relevant government agencies and other organizations, document reviews, site visits, a mail survey of constituent organizations, and a telephone survey of 22 other states. These activities assisted JLARC staff in compiling information about the agencies' responsibilities and structure. Infor-

mation was gathered regarding the responsibilities of agency staff, areas of potential overlap with the programs of other agencies, the consequences of overlapping functions, and whether there appear to be opportunities for privatizing or outsourcing programs. The survey of other states was used to identify alternative structures for, and fees charged by, natural resources agencies.

Structured Interviews. Structured interviews were conducted with the director, deputy director, all of the division heads, and many of the line staff both in Richmond and in the field for each of the natural resources agencies. In some cases, these interviews were conducted in conjunction with other JLARC studies. Relevant staff of other agencies with natural resources responsibilities were interviewed as well. Also, members of federal agencies and related organizations were interviewed.

Document Reviews. As part of the research process, JLARC staff reviewed several of the natural resources agencies' internal reports and planning documents, studies conducted by other agencies and commissions, and the *Code of Virginia*. These documents provided JLARC staff with background information regarding the mission, structure, and operation of the agencies.

A number of additional documents and data were also reviewed. These included: agency position descriptions; memoranda of understanding adopted by the agencies; agency regulations; and board meeting minutes.

Site Visits. JLARC staff conducted site visits to augment information obtained from interviews and document reviews concerning the natural resources agencies. In addition to site visits identified in previous JLARC reports on natural resources agencies, site visits were conducted at five Department of Forestry district offices, one State forest, two State tree nurseries, three DMME division offices, the Museum of Natural History in Martinsville, and the Museum's branch at Virginia Tech.

Mail Survey. A mail survey was sent to 641 constituent organizations of agencies within the Secretariat of Natural Resources, and 240 responded. Constituent organizations were defined as organizations with members or staff who engage in activities related to the responsibilities of, who use the services of, or have some interaction with staff of State natural resource agencies. The survey addressed the level of services provided and constituent organization satisfaction.

Telephone Survey. A telephone survey was conducted of natural resources agencies in 22 other states. These states included: Alabama, Connecticut, Delaware, Florida, Georgia, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, and West Virginia. The survey was conducted to identify alternative structures for natural resources agencies and secretariats, and to compare the fees charged by Virginia's natural resources agencies to those charged by the other states.

REPORT ORGANIZATION

This report is organized into four chapters. This chapter has presented an overview of the responsibilities of the seven agencies of the Secretariat of Natural Resources, and of the four other agencies that have significant natural resources responsibilities. Chapter II discusses the overlap that exists among natural resources functions, the consequences of the overlap, and the areas in need of improvement. Chapter III looks at alternative structures used by other states to organize their natural resources agencies, and the possibility of changing the structure of Virginia's natural resources agencies. Chapter IV includes a comparison of fees charged by Virginia's natural resources agencies to those charged in other states.

II. Structure of Natural Resources Functions

Virginia's natural resources functions are divided among several agencies across three secretariats. The strength of this decentralized system lies in its ability to bring varied expertise and perspectives to bear on environmental issues. Ultimately, with any structure there will always be some separation of responsibilities, whether at the agency, division, or program level, and hence, coordination is necessary under any structure. The challenge lies in ensuring that the environmental programs are working toward similar goals and that they are well coordinated where there are overlapping impacts. The *Code of Virginia* gives responsibility to the Secretary of Natural Resources for ensuring that environmental issues crossing functional areas are identified and that various agencies' resources are jointly brought to bear on cross-cutting issues. However, this clearly requires the expertise of individual agencies to help identify overlapping issues and seek ways to jointly address them.

Overall, there is no single "right" approach to structuring Virginia's natural resources functions. The key to effective resource protection and management is clear, coordinated policy and program implementation, coupled with ongoing assessments of the condition of the natural resources. This review has found that, generally, Virginia has a range of environmental programs "on the books," and as such, does not appear to have a major problem with gaps in natural resources services. Further, this review did not identify programs that should be privatized or eliminated outright. While potential targets of opportunity for privatization were considered, such as the shoreline erosion program at the Department of Conservation and Recreation and the surveying of oyster grounds at the Virginia Marine Resources Commission, further examination of these areas found that, in their current form, they are appropriate State programs.

In addition, while there are overlapping responsibilities in a number of environmental functions, there are many examples of where Virginia's natural resources agencies are working together to address these overlapping issues. In many cases agencies have clearly enumerated their discrete responsibilities within the context of the broader, overlapping roles. However, there are also some areas which would benefit from greater coordination, and yet other areas in which consolidation of agency functions may be warranted. Problems attributable to Virginia's natural resources structure are addressed in this chapter.

VIRGINIA'S CURRENT NATURAL RESOURCES STRUCTURE

In Virginia, 11 agencies are, at least in part, responsible for the conservation of natural resources. These agencies include:

- the Department of Environmental Quality (DEQ),
- the Department of Conservation and Recreation (DCR),
- the Department of Game and Inland Fisheries (DGIF),

- the Virginia Marine Resources Commission (VMRC),
- the Chesapeake Bay Local Assistance Department (CBLAD),
- the Department of Historic Resources (DHR),
- the Virginia Museum of Natural History (MNH),
- the Department of Forestry (DOF),
- the Department of Mines, Minerals, and Energy (DMME),
- the Department of Agriculture and Consumer Services (VDACS), and
- the Department of Health (VDH).

Seven of these agencies are in the Natural Resources Secretariat. Three agencies (DOF, DMME, and VDACS) are in the Commerce and Trade Secretariat. And one agency (VDH) is in the Health and Human Resources Secretariat.

Each agency is responsible for various components of Virginia's natural resources. Figure 2 identifies ten natural resources functions and illustrates which agencies have a significant responsibility for each function. All of these functions except air pollution, historic resources, and resource extraction are managed to some extent by more than one agency. As such, there is considerable overlap among Virginia's natural resources responsibilities at a broad level.

These broad functions were further assessed to identify areas where problems exist due to a lack of coordination, duplication, or gaps in services. JLARC staff found that in many cases where there is overlap, Virginia's natural resources agencies have adequately coordinated their work. For example:

> *The Department of Mines, Minerals, and Energy adequately coordinates its point source pollution permitting process with the Department of Environmental Quality. The Department of Environmental Quality and the Department of Mines, Minerals, and Energy are both charged with addressing point source discharges of pollution into the State's waterways. However, the two agencies have clearly delineated responsibilities for these activities. A Virginia Pollution Discharge Elimination System (VPDES) permit is required for anyone who plans to discharge any pollutant into or by the surface waters of the State from a discrete conveyance. DEQ is charged with issuing all VPDES permits with certain exceptions. Coal mining operations are considered an exception and receive their permits from DMME. However, DEQ is provided the opportunity to review and provide comment on DMME's permit regulations. This arrangement eliminates the need for mining operators to seek permits from two agencies.*
>
> * * *
>
> *The Museum of Natural History coordinates its wildlife research with DCR and DGIF. DGIF has contracted with VMNH staff to conduct a number of studies including a genetic analysis of the endangered shrew,*

Figure 2

Natural Resources Functions and State Agencies with Significant Responsibility

Function	DCR	DEQ	DOF	CBLAD	VDACS	DMME	VMRC	DGIF	DHR	MNH	VDH
Air Pollution Prevention		✔									
Solid and Hazardous Waste Manage-ment		✔									✔
Water Pollution Prevention	✔	✔	✔	✔	✔	✔					✔
Wildlife Manage-ment and/or Research	✔						✔	✔		✔	
Resource Extraction						✔					
Historic Resources									✔		
Natural Resources Law Enforce-ment	✔		✔				✔	✔			
Land Acquisition and Manage-ment	✔		✔					✔			
Educational Outreach	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Environ-mental Planning and Review	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔

Source: JLARC staff interviews with agencies with natural resources responsibilities, and review of agency documents and data.

and Museum staff assisted DGIF with an endangered fox squirrel study. VMNH staff also serve on the advisory committee to provide advice to DGIF regarding which species should be listed by the State as threatened or endangered. Also, both DGIF biologists and DCR natural heritage biologists routinely provide VMNH with specimens they collect during their research. Further, VMNH has provided a number of services for Virginia's State parks, including developing exhibits at several State parks and featuring the State parks in its magazine.

* * *

DGIF has assisted DCR and DOF with game and fish management on the land they own. Many of the hunts offered on the State parks and State forests are either managed or coordinated by DGIF, and are often conducted for a specific purpose, such as to control a deer herd. Further, DGIF staff have stocked ponds and lakes for fishing on the State parks and State forests. DGIF staff have also surveyed DCR and DOF lands to assess the health of the fish or animal population.

* * *

DGIF, DOF, and DCR have also adequately coordinated their law enforcement responsibilities. Many DCR park managers, chief rangers, and park rangers are certified to enforce all laws on department-owned lands and waters. Most DOF staff are certified to enforce laws that pertain to forests, such as the law that prevents burning in forest land before 4 p.m. during certain times of the year. All DGIF game wardens are certified to enforce all laws. Where possible, it appears that these three agencies are adequately coordinating law enforcement responsibilities. Game wardens patrol many of the State parks and State forests for hunting and fishing violations, and they are available for emergency response.

* * *

The Code of Virginia *designates VMRC as the State agency responsible for permitting public and private activities that encroach Virginia's submerged bottomlands (the bottoms of rivers and streams). In addition, DEQ issues permits for projects that affect water quality, and the U.S. Army Corps of Engineers (COE) issues permits from the federal government for projects affecting navigable waterways. In some cases, an applicant will need permits from all three agencies prior to beginning a project. Further, DGIF, DCR, DHR, and the Virginia Institute of Marine Science are involved in providing analyses of the potential impact of these projects on wildlife, plants, and land for the*

permitting agencies. In the late 1970s, the agencies involved in this process agreed to develop a joint permit application. This enables an applicant to complete only one application, regardless of which, or how many, permits are needed for the project.

* * *

DEQ, DCR, DOF, CBLAD, DMME, VMRC, DGIF, and DHR are involved in the environmental review process when activities such as road construction are planned which will impact the resources under the agencies' jurisdiction. Each agency provides comments regarding the potential impact of the project on the natural resources to the permitting agency before a project begins.

However, there are also a number of areas where the agencies do not adequately coordinate responsibilities that overlap. These problems are discussed in the next section.

PROBLEMS WITH VIRGINIA'S NATURAL RESOURCES STRUCTURE

This review has identified some problems resulting from Virginia's decentralized natural resources structure. Three areas where problems exist include the coordination of land management activities, long-range environmental planning, and water pollution prevention. It appears that the problems identified in these areas can be alleviated through improved coordination among the agencies involved.

However, there are also areas where it appears that some structural changes should be considered to improve the efficiency and effectiveness of Virginia's environmental programs. For instance, the nonpoint source pollution prevention activities of DCR and CBLAD overlap and appear inappropriately fragmented. It appears that there would be some benefits to consolidating CBLAD with DCR, although the potential benefits would have to be weighed against concerns such as whether there would be a loss of visibility of efforts to clean up the Chesapeake Bay. Further, the Agricultural Stewardship Act, currently administered by VDACS, would be more appropriately placed within DCR, which is the State's lead agency for nonpoint source pollution prevention programs. Also, as mentioned in a previous JLARC report, consolidating DGIF, VMRC, and DCR's natural heritage program is a feasible option to be considered to improve wildlife management in Virginia.

Land Management Activities Need to Be Better Coordinated in Some Areas

Three State agencies own land for the primary purpose of managing the resources that are on the land. These agencies are DCR, DOF, and DGIF.

DCR owns and manages 28 State parks, six historical sites, and 21 natural areas totaling 66,198 acres to protect rare and significant natural and cultural resources, and to make them available for recreational and educational use. DGIF owns and manages more than 180,000 acres on 31 wildlife management areas which are managed primarily for game species, but also for nongame species that may be on the land. DOF owns and manages 50,847 acres on 15 State forests to sustain timber and fulfill benefits such as recreation and water quality.

Since the resources on the agencies' land are not limited to the specific resources that are managed by the agencies, there is some overlap. For example, hunting and fishing opportunities exist on the State parks and State forests, and there is considerable timber on the State parks and wildlife management areas.

This review has found that the agencies adequately coordinate a number of activities such as law enforcement and game and fish management. However, there are some areas where the agencies could better coordinate their activities to improve resource management and enable the public to have more opportunities to use the land.

DGIF and DCR Should Consult More with DOF on Timber Management Activities. Although the agencies coordinate adequately to prevent and suppress forest fires on their land, DGIF and DCR should consult more with DOF on timber management activities. Section 10.1-1122 of the *Code of Virginia* requires the Department of Forestry, in cooperation with the Department of General Services, to develop a forest management plan for all State-owned lands, and to approve all timber sales. However, the *Code* section excludes land owned by DGIF and DCR from this requirement.

DGIF has two full-time foresters and three wage staff who oversee forest management activities on the wildlife management areas. According to DGIF staff, forest management activities are conducted primarily for wildlife management purposes. For example, if a species requires sunlight, DGIF will burn brush or remove trees.

Since DGIF has foresters on staff, it does not appear necessary to revise Section 10.1-1122 of the *Code of Virginia*. However, DOF staff have expressed an interest in more proactively assisting DGIF's forest management activities. This would offer an opportunity to further utilize DOF staff expertise.

DCR also needs to do more to manage the timber on its State parks. During site visits to 16 of the parks, JLARC staff asked DCR park managers whether forest management activities had occurred in the State parks within the last five years. Although all of these parks had forest land on-site, few park managers reported conducting any proactive forest management activities. As noted in Table 2, only two park managers indicated that there had been reforestation on their park, and only two indicated they had conducted timber thinning operations for forest management. Most of

Table 2

Forest Management Activities on 16 of Virginia's State Parks Within the Last Five Years

Activity	Number of Parks*
Develop a timber management plan/survey the timber stand	5
Fight insects or disease	5
Conduct timber thinning after storm damage	4
No forest management needed	3
Reforestation	2
Thinning for timber management	2

*Based on interviews with 16 park managers. Numbers total more than 16 because some park managers identified more than one forest management activity as occurring in the park within the last five years.

Source: JLARC staff interviews with DCR park managers, summer 1997.

the timber management activities reported by the park managers were reactive activities such as insect and disease suppression, and removal of timber following a storm.

Park managers indicate that they are supposed to have resource management plans for each park, which would include forest management plans. However, only five of the 16 park managers interviewed indicated that they had current resource management plans. DCR has attempted to address this deficiency by hiring five environmental specialists to develop resource management plans for the parks. When developing the resource management plans, DCR should consult with the Department of Forestry to address the forest management needs of the parks.

Recommendation (1). **The Department of Game and Inland Fisheries should work with the Department of Forestry to identify areas where DOF staff could provide more proactive assistance in its forest management activities. Areas of consensus should be formalized in a memorandum of agreement.**

Recommendation (2). **The Department of Conservation and Recreation should include the Department of Forestry during the development of all resource management plans for the State parks. Based on the forest management recommendations included in the plans, DCR staff should coordinate its forest management activities with DOF.**

DCR Should Assist DOF in Developing More Recreational Opportunities in the State Forests. As previously indicated, one of the purposes of the State forests is to provide recreational opportunities for the public. The four large State forests (Buckingham, Cumberland, Pocahontas, and Prince Edward) are adjacent to

State parks, and offer recreational activities including hiking, bicycling, horseback riding, picnicking, hunting, and fishing. However, several of the smaller State forests offer no, or limited, recreational opportunities (Table 3).

Table 3

Recreational Opportunities Available on Virginia's State Forests

	Recreational Opportunities Available								
State Forest	**None**	**Hiking**	**Biking**	**Horseback Riding**	**Hunting**	**Fishing**	**Picnicking**	**Camping**	**Canoeing**
Buckingham		✔	✔	✔	✔	✔	✔	✔	
Cumberland		✔			✔*				✔
Pocahontas		✔			✔				
Prince Edward		✔			✔				
Lesesne		✔							
Conway Robinson		✔					✔		
Zoar		✔							
Bourassa	✔								
Niday Place	✔								
Paul		✔					✔		
Whitney				✔					
Matthews	✔								
Crawfords									✔
Hawks	✔								
Devil's Back Bone	✔								

*Cumberland State Forest has a shooting range in addition to hunting.

Source: JLARC staff analysis of DOF data, and JLARC interviews with DOF staff, spring 1997.

DOF staff report that there is potential for additional recreational opportunities in the State forests. However, they have never requested DCR to examine the 11 smaller State forests for this purpose. DCR could help DOF in this regard, because DCR Division of Planning and Recreational Resources staff have experience in identifying and planning recreational opportunities for State and local agencies. Therefore, the Department of Forestry should request DCR to provide an assessment of the recreational possibilities for the smaller State forests, and to examine the four large State forests to identify whether they could be used for additional recreational purposes.

Recommendation (3). **The Department of Forestry should request the Department of Conservation and Recreation to provide an assessment of the additional recreational possibilities for the State forests.**

The Agencies Should Work Together to Promote Recreational Use of the Land by the Public. Since the State parks, historic sites, natural areas, State forests, and wildlife management areas are owned and managed by different agencies, there are no comprehensive documents and there is no information easily accessible to the public that highlight the recreational opportunities offered on all these lands. The *Virginia Outdoors Plan* developed by DCR identifies the State-owned lands and some of the opportunities available, but this is a 360-page document that is not easily accessed by the general public.

Department of Forestry staff acknowledge that they need to better publicize the opportunities available on the State forests. Therefore, DCR, DOF, and DGIF should develop a brochure that identifies the recreational opportunities that are available on State-owned lands. This brochure could be developed similar to, or in conjunction with, the *Virginia State Parks* brochure currently distributed by DCR. This document highlights the opportunities available at each of the State parks and historic sites, and some of the natural areas.

In addition, DCR should promote the recreational opportunities available on the State forests and wildlife management areas as part of its reservations system. DCR operates a reservations center which includes two full-time staff and up to 12 wage operators. The operators are responsible for taking incoming calls regarding camping and cabin reservations and State park information. Operators provide general information on what is available at the State parks. Further, they send out brochures such as the fee guide, the *Virginia State Parks* brochure, DGIF hunting and fishing licensing information, natural area information, and national parks information. They do not provide information on the State forests or the wildlife management areas.

Reservation center staff indicated that they could provide additional information on State forests and wildlife management areas if they had the information to disseminate. Therefore, DGIF and DOF should provide this information to DCR, and DCR should provide it to the public through the reservations center. This will increase public awareness of the recreational opportunities available on the State forests and wildlife management areas.

Recommendation (4). **The Department of Conservation and Recreation, the Department of Forestry, and the Department of Game and Inland Fisheries should work together to develop a brochure that highlights the recreational opportunities available at all State-owned lands.**

Recommendation (5). **The Department of Forestry and the Department of Game and Inland Fisheries should provide information to the Department of Conservation and Recreation's reservations center regarding the recreational opportunities available on the State forests and the wildlife management areas. DCR reservations center staff should disseminate this information to the public as appropriate.**

State Forest Regulations Are Inappropriately Placed Within DCR's Regulations. The Department of Forestry was separated from the Department of Conservation and Historic Resources (now DCR) in 1986. However, the State forest regulations were never transferred from DCR to the Department of Forestry. The State forest regulations include 35 regulations pertaining to activities on the State forests such as pollution of waters, damaging buildings and signs, camping, use of roads, and sale of forest products.

Although Department of Forestry staff report that having these regulations fall under DCR has not caused any problems, it is clear that these regulations belong under the Department of Forestry, and are currently misplaced. Therefore, DCR's forestry regulations should be repealed and DOF should promulgate the forestry regulations.

Recommendation (6). **The Department of Conservation and Recreation and the Department of Forestry should follow the Administrative Process Act requirements to move the State forest regulations from DCR to DOF.**

There Is a Need for Long-term, Broad-Based Environmental Planning and Coordination

A separation of environmental functions into multiple agencies creates challenges to long-term environmental planning. However, these challenges can be overcome through adequate coordination and a clear delineation and follow-through of responsibilities.

From previous JLARC studies on environmental agencies, it appears that a major problem with planning is a lack of follow-through or implementation of assigned responsibilities. For example:

> *DEQ is statutorily charged to "establish procedures for, and undertake, long-range environmental program planning and policy analysis." However, as the JLARC report on DEQ noted, the agency is not adequately conducting this planning. For example, plans the agency is required to complete to assist the Commonwealth, local government, industrial firms, and agricultural interests in achieving and maintaining applicable river basin water quality goals have not been updated in many years, although there has been recent discussion of beginning to revise these plans. Further, DEQ does not conduct water supply planning. Moreover, DEQ ignored the explicit statutory mandate in Section 62.1-44.40 to report annually on the State's water resources policy, failing to issue any reports from 1993, when the law went into effect, to 1997. The General Assembly reiterated this requirement in the 1997 Appropriation Act, and a release of the plan is now anticipated in December 1997, four years after it was requested by law.*

In other cases, although the statutory language is not explicit, planning is an implied responsibility for particular agencies in the course of adequately implementing environmental programs. For example, DCR should conduct planning to coordinate and implement a successful nonpoint source pollution prevention program. However, in the case of DCR, staffing shortages have prevented the agency from conducting needed planning for its nonpoint source pollution prevention efforts, as described in the JLARC report titled *Review of the Department of Conservation and Recreation*.

Prior to the creation of DEQ, the Council on the Environment was charged with: coordinating all State communications on environmental matters with federal agencies; coordinating environmental plans, programs, and functions within the State; reviewing and commenting on environmental impact reports; and preparing an annual environmental quality report. In 1993, the Council on the Environment was abolished, and its staff and functions were absorbed by the newly created DEQ. However, the Council's statutory responsibilities for environmental plan coordination were not specifically transferred to DEQ.

Currently, responsibility for coordinating the various agencies' environmental policies and activities rests with the Secretary of Natural Resources. Section 2.1-51.8:1 of the *Code of Virginia* empowers the Secretary of Natural Resources to "direct the development of goals, objectives, policies and plans that are necessary for the effective and efficient operation of government."

However, a formal written plan to guide the State's long-term environmental efforts across agencies has not been developed. This type of long-term planning approach has been undertaken by the State for economic development issues, and it appears that it would be useful for the environment as well. To address this need, the Secretary of Natural Resources should develop a comprehensive, long-term plan for the State's natural resources agencies. This plan should encourage communication and cooperation among the agencies within and outside of the secretariat. The plan should establish the environmental goals and policies for the current administration, program priorities, resource needs (for example, funding and staffing needs), significant environmental issues facing the State, and strategies for addressing critical environmental challenges. There should be broad-based participation of various groups including private citizens, business representatives, and environmental groups in developing the plan.

Recommendation (7). **The General Assembly may wish to require the Secretary of Natural Resources to develop a formal comprehensive policy to guide the State's environmental efforts. This policy should be a written document, accompanied by companion plans or statements as needed, which is comprehensive, focuses on short- and long-term environmental needs and solutions, and encourages communication and cooperation among the natural resources agencies, the secretariats, and with local and regional groups.**

Each Governor should ensure that the Secretary of Natural Resources develops a comprehensive environmental policy for the State during the first

year of the Governor's term in office. During each Secretary of Natural Resource's first year, the previous policy should either be formally incorporated, amended, or rejected. The policy should then be submitted to the General Assembly.

Water Pollution Prevention Activities Need to Be Better Coordinated

Water pollution prevention responsibilities are assigned across a wide range of agencies. DEQ is responsible for overall water resources management and specifically for the regulation of point source pollution, along with DMME to a lesser extent. DCR, CBLAD, DOF, VDACS, and VDH address nonpoint source water pollution. As will be discussed later in this chapter, it appears that the consolidation of certain nonpoint source functions merits consideration. However, the underlying separation of point source and nonpoint source efforts appears reasonable given the divergent approaches used to address each type of pollution.

While point source and nonpoint source problems are addressed in very different ways, there is still a need for a coordinated approach to identifying water quality problems and developing appropriate strategies to address those problems. Currently, the level of coordination needed does not exist. In particular, improvements are needed in grants management, and planning and assessment of water quality.

Separation of Point Source and Nonpoint Source Pollution Prevention Efforts Appears Reasonable. In Virginia, DEQ is the lead agency for addressing point source water quality issues and DCR is the lead agency for addressing nonpoint source water quality issues. As Virginia began establishing an increasing number of nonpoint source programs in the late 1980s, a decision was made to separate those programs from the point source efforts of, at that time, the State Water Control Board.

While this separation of water quality efforts into two primary agencies creates some problems with coordination of a State water quality approach, these problems do not appear to outweigh the benefits derived from having separate agencies. The approaches taken to address point and nonpoint sources of pollution are very different. Point source efforts generally rely on regulatory programs which require action by the point source discharger. Further, with point sources, by nature it is more clear-cut as to the causes of the pollution. This is in sharp contrast to nonpoint sources, which are generally diffuse and hard to identify on a specific basis.

Nonpoint source prevention efforts generally rely on the voluntary efforts of individual farmers and homeowners to implement practices to minimize pollution runoff. These efforts also rely on local government implementation of programs which minimize the impacts of land development on water quality. While some of these programs are regulatory (for example, the Erosion and Sediment Control Program and Chesapeake Bay Preservation Act), the agencies implementing these programs generally take an assistance-oriented approach rather than a strict enforcement approach to

local compliance. As such, nonpoint source efforts rely on a totally different "philosophy" than point source efforts.

Separation of the functions ensures that each approach is given adequate attention. To effect the overall goal of water quality improvement, however, it is important that these separate entities work in cooperation, on matters such as the coordination of grants management and the coordination of watershed planning and assessment.

Better Coordination of Grants Management Is Needed. There are a number of grant programs in place to address various water quality issues. DCR issues grants through the Water Quality Improvement Fund and other State funds, the Section 319 Nonpoint Source Program, and the Chesapeake Bay Program. DEQ issues grants through the Water Quality Improvement Fund, the Coastal Resources Management Program, and the Water Quality Management Planning (Section 604(b)) Grant Program. Also, CBLAD issues local assistance grants. Further, grant funds are available through the Chesapeake Bay Restoration Fund, which consists of revenues from the sale of Chesapeake Bay license plates. In particular, grants are a major mechanism through which nonpoint source pollution prevention activities are advanced. Table 4 identifies the grant funds available through each program for FY 1998.

Table 4

Water Quality-Related Grant Funds, FY 1998

Grant Program	Amount of Funding
Water Quality Improvement Fund	$15,000,000
Chesapeake Bay Program	2,868,667
Coastal Resources Management Program*	2,627,000
Section 319 Nonpoint Source Program	1,958,653
CBLAD Local Assistance Grants	646,103
Chesapeake Bay Restoration Fund	342,335
Water Quality Management Planning (Section 604(b)) Grant	278,363

*These funds can be used for coastal programs other than water quality improvement projects, such as public access to waterways.

Source: Data provided by DCR, DEQ, and CBLAD.

There is considerable overlap with some of these grants, particularly as they relate to nonpoint source pollution prevention. For example:

> *A number of grants have overlapping eligibility criteria for funding projects. For instance, both the CBLAD assistance grant and DEQ*

Water Quality Management Planning grant allow funding of geographic information systems (GIS). Several of the grants allow funding of projects related to two or more of the following categories: education and training, innovative best management practices (BMPs) demonstrations, tributary strategies development, and local environmental planning studies and staff.

* * *

CBLAD and DEQ both issue planning grants to regional planning district commissions. In addition, they issue grants to localities. Staff reported that localities routinely submit applications for the same project to both CBLAD and DEQ, and a number of these projects each year are independently approved for funding. For example, both agencies recently approved grants to the town of Saxis. Subsequently, CBLAD and DEQ staff jointly met with the local government staff to develop scopes of work that allowed for different deliverables to CBLAD and to DEQ.

During interviews with JLARC staff and on a JLARC staff survey of DCR employees, State agency staff reported the need to better coordinate their respective grant activities. Examples of State agency staff comments include:

There is not enough integration of grant programs. There is no long-term view of how to address a [water quality] problem. With integrated grants, we could do long-range planning.

* * *

Agencies need to coordinate grant objectives, for example, identify which grant should fund regional planning.

* * *

I believe that the [most important] change that we could make would be to manage grants through a strategic planning process. In other words, identify needs and request proposals to address those specific needs. At present we are not managing the considerable grant funds we have in a cost effective or efficient manner.

* * *

We need to get everyone together to see what everyone is funding and then decide, "Is it what the State wants? What are the gaps?" We need policy guidance from the agency head level.

Some of the grants, including the Water Quality Improvement Fund, Section 319 grant, and Coastal Resources Management grant, have interagency grant review committees to help determine the appropriate distribution of the funds. While there is some overlap in the membership of these committees, which helps in coordination, there are still some differences which serve to limit coordination. Consideration should be given to having one interagency committee responsible for reviews for all, or at least most, of the grants. This would provide agencies the information necessary to ensure that duplicative projects are not funded by multiple grants, and it would provide a means through which the outcomes of projects could be communicated across agencies.

Further, it may be feasible for some of the grants, at a minimum, to be combined into a joint application process. For example, the nonpoint source portion of the Water Quality Improvement Fund and Section 319 Nonpoint Source Program grants generally can be used in the same manner, and are both distributed by DCR, with assistance from two different interagency grant review committees. By combining these grants' applications into one process and having one interagency grant review committee, the State agency staff could better coordinate the grant projects and help ensure that the best projects get funded. Further, the cost-share funds distributed through both the Chesapeake Bay Program grant and Water Quality Improvement Fund could be administratively consolidated to reduce the need for soil and water conservation districts to submit two requests for the funds.

Recommendation (8). **The Secretary of Natural Resources should require agencies to designate appropriate staff for an interagency grants management committee, responsible for the review of all grant projects.**

Recommendation (9). **The Secretary of Natural Resources should form a task force, with State agency representation, to examine the feasibility of developing a joint application process for water quality grants.**

Coordinated Planning and Assessment Is Needed. The agencies involved in water pollution prevention do not adequately undertake and subsequently coordinate their planning and assessment efforts. Little effort is made to share data across agencies or to adequately track the pollution prevention activities being undertaken in each watershed. With regard to DCR's nonpoint source efforts, this issue is discussed further in the JLARC report titled *Review of the Department of Conservation and Recreation*.

The General Assembly created an avenue for improved coordination of water quality efforts in 1995 through a change in DEQ's statutory responsibilities. In Sections 10.1-1193 through 10.1-1197 of the *Code of Virginia*, DEQ was given responsibility for promoting and coordinating watershed planning and permitting across State agencies. Further, this law created a Watershed Planning and Permitting Coordination Task Force composed of the agency heads, or their designees, of DEQ, DCR, CBLAD, DOF, VDACS, and DMME. Section 10.1-1194 states:

> The Task Force shall undertake such measures and activities it deems necessary and appropriate to see that the functions of the agencies represented therein, and to the extent practicable of other agencies of the Commonwealth, and the efforts of state and local agencies and authorities in watershed planning and watershed permitting are coordinated and promoted.

However, to date DEQ has not undertaken any effort to carry out this responsibility, nor has the Task Force been established.

This Task Force could provide an appropriate vehicle for addressing the coordination problems with statewide water pollution prevention activities. The Task Force could be used as a forum for setting policy, identifying discrepancies in different agencies' activities, particularly as they may impact local communities, and working toward resolution of those discrepancies. Further, it could be used to aid development of federally-required strategies to address impaired waterways, particularly those addressing impaired waterways due to both point and nonpoint sources.

Currently, there is a lack of information compiled on a watershed basis to assess the condition of and pollution prevention activities in each watershed. This interagency Task Force could be used to direct the development of a comprehensive database maintained on a watershed basis. To aid in watershed planning and assessment, the agencies should strive to include in the watershed database: the results of government and citizen water quality monitoring, including the identification of impaired water segments; land use patterns; point source locations; best management practices implemented to reduce or prevent nonpoint source pollution; and current water quality improvement projects ongoing in each watershed.

Such a database would help in identifying the needs of each watershed and planning for improvements, and would help position the agencies to better assess the impact of control practices and watershed projects which have been implemented. It could also be used in targeting grants from the Water Quality Improvement Fund and other grant programs to problem areas and in the selection of appropriate grant projects for each watershed. In addition, it could be used in identifying the appropriate placement of water quality monitoring stations.

Recommendation (10). **DEQ should comply with its statutory mandate to coordinate and promote watershed planning across agencies and take steps to convene the Watershed Planning and Permitting Coordination Task Force as a means of coordinating the water pollution prevention activities. The department should report to the General Assembly annually on the activities conducted pursuant to this statutory mandate.**

Substantial Overlap Exists in the Nonpoint Source Pollution Prevention Responsibilities of Certain Agencies

As previously described, nonpoint source pollution prevention is addressed by several agencies, including DCR, CBLAD, VDACS, DOF, and VDH. For most of these agencies, pollution prevention is a relatively small part of their responsibilities. For example, DOF monitors for water quality problems that may be caused by logging operations. However, they have many other duties related to forestry, including promotion of the forestry industry, forest fire suppression, and operation of the State's tree nurseries.

This is not the case for CBLAD and DCR's Division of Soil and Water Conservation. Both groups' primary focus is on addressing water quality through reducing nonpoint source pollution. DCR is the State's lead nonpoint source agency, focusing on the impact of land use on water quality statewide. CBLAD was created in 1988 in order to address the impact of land use on Chesapeake Bay water quality, focusing on the Tidewater area. Given their overall consistency of purpose, and to achieve a greater unity of effort on nonpoint source issues, there may be some advantages to consolidating CBLAD into DCR. It is also recognized, however, that such a change could raise some concerns as to whether the visibility and attention given to Chesapeake Bay issues would be negatively impacted. This would also need to be a factor given consideration.

In addition, nonpoint source efforts would be further streamlined if responsibility for the Agricultural Stewardship Act were moved from VDACS to DCR. Through these changes, agriculture and urban land development-related impacts on water quality would largely be addressed by a single agency.

Similarities in the Work Conducted by CBLAD and DCR. CBLAD's program focuses on the impact of land use on water quality within the Tidewater area. To achieve this, CBLAD staff assist local governments in meeting the land management requirements of the Chesapeake Bay Preservation Act. The requirements include resource protection area buffer management, site design, and incorporating water quality protection objectives into local comprehensive plans and zoning and subdivision ordinances.

CBLAD was created at the recommendation of the Chesapeake Bay Land Use Roundtable, which was formed to consider policies and actions that could be taken to make land use decisions more sensitive to water quality concerns. The Roundtable concluded in its 1988 report:

> The effects of land use...on the water quality and health of the Bay have received considerably less public attention and investment than point sources of pollution.... If we do not deal with issues of land development and management...we will not be able to achieve our water quality and habitat protection goals for the Chesapeake Bay.

It was believed that a separate entity was needed to bring attention to the impact of land use decisions on the Chesapeake Bay. The CBLAD agency response to this report provides additional description of the conclusions reached by the Roundtable (Appendix B.)

At the time CBLAD was created, DCR did not have many of the nonpoint source pollution prevention programs it currently has. However, as discussed in the JLARC report, *Review of the Department of Conservation and Recreation*, DCR's nonpoint source programs expanded substantially in the late 1980s and early 1990s. Currently, DCR has a wide range of programs addressing the causes of nonpoint source pollution. Its programs focus on the impact of land use on both water quality and water quantity across the State.

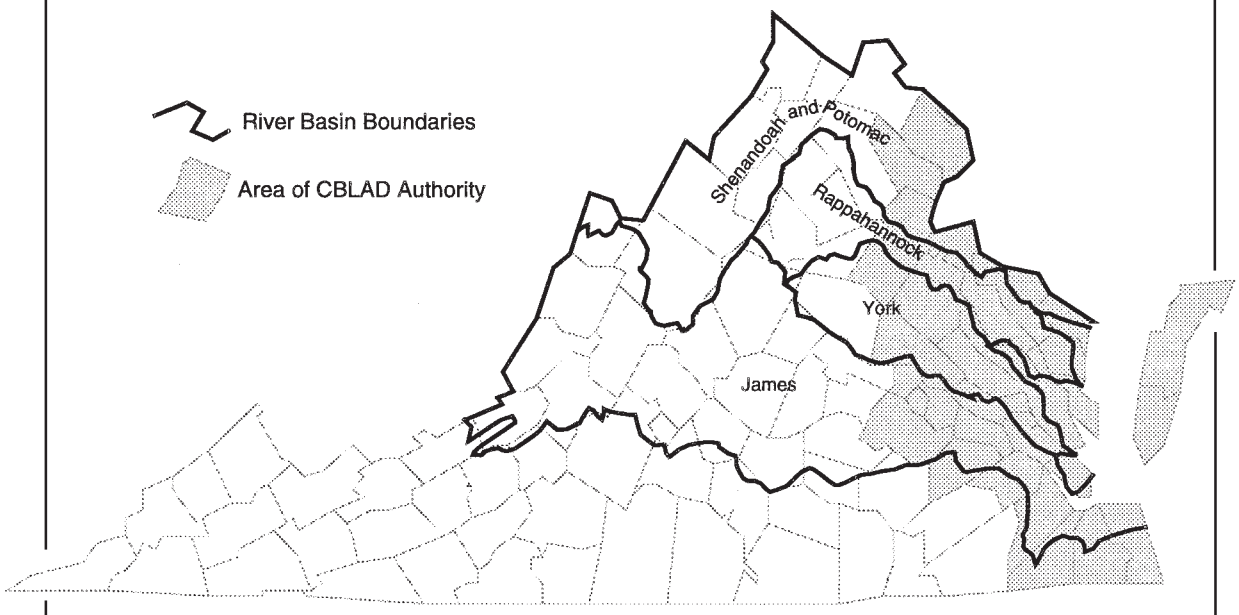
CBLAD was created to address the need to preserve the Chesapeake Bay. Its efforts are important, but are geographically limited since its jurisdiction does not include much of Virginia's portion of the Shenandoah and Potomac Basin nor the full Chesapeake Bay drainage area (Figure 3). The Chesapeake Bay model indicates that the Shenandoah and Potomac Basin accounts for most of the nutrients from Virginia that impact the Chesapeake Bay. As an agency with statewide jurisdiction, DCR's Division of Soil and Water Conservation addresses the impact of nutrients on the Chesapeake Bay from areas outside of the Tidewater area, and hence, also plays a significant role in efforts to address Bay water quality issues.

There are a number of similarities in the work of CBLAD and DCR's Division of Soil and Water Conservation. To carry out their responsibilities, both agencies have programs which address the same nonpoint source causes – urban land development and agricultural activities (Exhibit 1). Further, there are similarities in how each agency's programs are accomplished. With regard to urban land development, both agencies work through local governments to implement local programs addressing land disturbing activities. Also, both rely on soil and water conservation districts for agriculture-related work. The work conducted by the districts for both groups is overlapping, as the following case example describes:

> *The Chesapeake Bay Preservation Act Regulations require all agricultural land within designated Chesapeake Bay Preservation Areas to have a conservation plan. The plans include three components: a plan to address erosion of soil, a plan to address pesticide management, and a plan to address nutrient management. CBLAD relies on soil and water conservation districts within the Tidewater area, which write and approve the Bay plans, to meet the requirements of the Act. For these services, CBLAD provides funding to the districts to employ agricultural water quality specialists. The primary responsibility of these staff is to write Bay plans. But, the districts also rely on assistance from other agencies to carry out this work. For example, Cooperative Extension provides expertise in the area of pesticide management. The Cooperative Extension staff person who oversees the Inte-*

Figure 3

Comparison of CBLAD's Area of Authority and the River Basins Impacting the Chesapeake Bay



Note: River basin boundaries are approximate, based on computer-generated overlays.

Source: *Code of Virginia*, and National Oceanic and Atmospheric Administration maps.

grated Pest Management Program is housed at DCR. And, the nutrient management portion of the plans are approved, and in many cases written, by DCR's nutrient management specialists. The nutrient management plans for Bay plans are also counted as part of DCR's nutrient management program.

In addition, the agencies undertake similar types of activities. For example, each agency provides grants to localities and other groups for water quality improvement activities. Also, they both conduct reviews of site plans and local programs.

The current structure has resulted in some duplication of effort across the two agencies. For example:

Exhibit 1

Primary Nonpoint Source Pollution Prevention Activities of CBLAD and DCR

Activity	CBLAD	DCR
Ensure development of conservation plans for agricultural land	✔	✔
Ensure localities have adequate erosion and sediment control and stormwater management ordinances/programs	✔	✔
Review State agency erosion and sediment control and stormwater management plans	✔	✔
Tributary Strategies development	✔	✔
Award grants	✔	✔
Public information/education	✔	✔
Training	✔	✔
Local technical assistance	✔	✔
Assistance to soil and water conservation districts	✔	✔
GIS management	✔	✔
Ensure localities incorporate water quality protection objectives into local comprehensive plans and zoning/subdivision ordinances	✔	
Polecat Creek Water Quality Assessment Project	✔	
Floodplain management program		✔
Shoreline erosion program		✔
Nonpoint source watershed assessment		✔

Source: JLARC staff analysis of the *Code of Virginia*, interviews with CBLAD and DCR staff, and documents provided by CBLAD and DCR.

All State agencies are required to abide by the State Erosion and Sediment (E&S) Law. In accordance with the E&S Law, DCR is mandated to review and approve the E&S plans for all State agency land-disturbing projects, using local program requirements when more stringent than the State requirements. In addition, the Chesapeake Bay Preservation Act requires State projects undertaken in the Tidewater area to follow the local government requirements established in response to the Chesapeake Bay Preservation Act. CBLAD staff review State E&S and other site plans to ensure this compliance.

The Chesapeake Bay Preservation Act E&S requirements are consistent with the State E&S Law, except that the provisions apply to all land-disturbing activities affecting over 2,500 square feet rather than the 10,000 square feet threshold in the State E&S Law. However, since both laws require compliance with local E&S program requirements, both DCR and CBLAD staff are essentially reviewing State plans against the same set of program requirements.

Consistent with a 1994 memorandum of agreement between DCR and CBLAD, CBLAD staff refer their E&S-related comments on State plans to DCR for incorporation into DCR's plan review process. This ensures that State agencies do not receive duplicative and/or conflicting comments concerning their E&S plans. However, this arrangement does not address the more fundamental issue that there are two agencies conducting duplicative State agency E&S plan reviews. This is an inefficient use of staff resources.

There are further problems with regard to local E&S program reviews. For example:

> *The 1994 memorandum of agreement between DCR and CBLAD also calls for a sharing of information on local E&S program reviews conducted by DCR. The MOU states that DCR will provide CBLAD with the results of the local E&S program reviews for Tidewater localities. In turn, the MOU says that CBLAD will use the DCR results as the E&S component of any CBLAD local program implementation review "to minimize disruption and confusion for the localities involved." Neither of these MOU provisions are being followed. As a result, DCR and CBLAD are conducting duplicative reviews of local E&S programs.*

As with the State plan reviews, this approach to the review of local programs is an inefficient use of staff time.

The agency's respective stormwater management (SWM) programs have also created problems. For example:

> *Both agencies review State agencies' SWM plans. Unlike the E&S program, however, each agency individually provides comments back to the agencies concerning any changes needed to the SWM plans since DCR's and CBLAD's regulations are different. This clearly raises the potential that the comments sent to State agencies may be inconsistent, causing confusion among State agency staff. For example, the College of William and Mary received conflicting comments from the two agencies as to where to locate certain stormwater management structures.*

Since at least 1994, DCR and CBLAD have identified the need to resolve inconsistencies in their respective SWM regulations. The agencies this year reached agreement on the provisions of the regulations. The agencies are currently soliciting public review and comment on the proposed changes, and expect to have the new regulations enacted in 1998. However, changing the regulations does not address the more fundamental issue as to why two State agencies need to use the same set of regulations in carrying out their charge. Further, once the revised regulations become effective, the same type of duplication occurring with the reviews of local erosion and sediment con-

trol programs will occur with regard to stormwater management unless DCR and CBLAD implement procedures to eliminate this duplication.

Other problems resulting from having separate agencies were found as well. For example, both agencies have developed their own geographic information system (GIS). However, they do not routinely share data. This also creates the potential for duplicative efforts.

Further, dealing with two agencies results in an increased workload for the soil and water conservation districts, which are responsible for writing conservation plans. The districts have to report their accomplishments to two agencies, which each require separate forms and information. As one district staff person indicated:

> I do not feel my efforts are being hampered, but I do feel frustrated by having to deal with so many agencies. It is hard to keep everyone happy at the same time. This is especially a problem when it comes to duplicate reporting requirements.

These problems stem from having two agencies involved in such similar and overlapping responsibilities. It appears that efficiencies would be achieved through a consolidation of efforts. Program activities could be better coordinated, and less time would be spent on duplicative activities. Further, the funding currently needed for the administration of a separate agency could be redirected toward the implementation of program objectives. Service to the clients – local governments and soil and water conservation districts – could subsequently improve.

The consolidation would also reduce the number of State agencies with a significant role in Chesapeake Bay clean-up from three to two. There would be one agency, (DEQ), with primary responsibility for point source pollution issues, and one agency, (DCR), with primary responsibility for nonpoint source pollution issues.

Staff interviewed at both DCR and CBLAD noted the similarity between the mission and responsibilities of the two agencies, and that conflicts arise between the two agencies' related duties. Several staff concluded that combining the functions would be beneficial and merits consideration, although there were differences as to where the combined functions should be housed.

It is recognized that the benefits to combining CBLAD's and DCR's nonpoint source efforts need to be juxtaposed against potential concerns, such as a potential loss of some visibility to Virginia's efforts to clean up the Chesapeake Bay, potential loss of benefits derived from having work performed in a small agency, and ensuring that the effort in the Tidewater area would not be diminished. CBLAD's concerns about such a merger are expressed in its agency response to this report (Appendix B.)

However, it appears that the 1997 Water Quality Improvement Act, for which DCR has primary nonpoint source responsibility, may become the State's framework

for achieving its water quality goals, including goals for the Chesapeake Bay and the tributary rivers that run to the Bay. If this is the case, CBLAD's activities may be a more effective element of that framework if they are included within DCR and its efforts on those issues.

An alternative structure was introduced in the 1996 Governor's budget proposal. This proposal would have moved all of the Chesapeake Bay program activities currently at DEQ into CBLAD, and moved the Chesapeake Bay grant program activities from DCR to CBLAD. While this would consolidate the grant programs to some extent and combine some of the point source and nonpoint source pollution prevention efforts, the overall effect would be to cause greater fragmentation. Under the structure proposed in 1996, two agencies would be sharing responsibility for providing point source pollution expertise and water quality monitoring, DEQ and CBLAD, while two agencies would also be sharing responsibility for providing nonpoint source pollution expertise, DCR and CBLAD. Further, it would have placed the Coastal Resources Management Program, which has a broader focus than the Chesapeake Bay clean-up, into an agency with a more limited focus.

Agricultural Stewardship Act Responsibilities Should Be Transferred to DCR. The Agricultural Stewardship Act (ASA) went into effect on April 1, 1997. The purpose of the ASA is to reduce nonpoint source water pollution caused by agricultural practices. The Act is often called a "bad actor" law, since it attempts to control agricultural operations which are causing a pollution problem rather than enforcing blanket requirements on all agricultural operations.

The ASA is administered by the Virginia Department of Agriculture and Consumer Services, but relies upon the cooperation of soil and water conservation districts and DCR's Soil and Water Conservation Board for full implementation. Several aspects of the program suggest that it may be more appropriately placed within DCR's Division of Soil and Water Conservation.

The ASA is complaint-driven. A complaint alleging that an agricultural operation is causing pollution can be filed with either VDACS or the local soil and water conservation district. Similarly, the ensuing investigation can be handled by either the department or the district. If the investigation finds no causal link between the agricultural operation and the pollution, the case is closed. If the operation is found to be causing pollution, a corrective action plan must be submitted to and approved by the VDACS Commissioner. Appeals of the Commissioner's findings can be filed with the Virginia Soil and Water Conservation Board.

Each soil and water conservation district may decide their level of involvement in ASA complaints. Where the district chooses not to participate, the VDACS staff will conduct the investigation. Seven of the 46 districts have chosen to have no involvement with ASA complaints in their jurisdiction. One district will only investigate specific types of complaints, and the remaining 38 districts will decide their level of involvement on a case-by-case basis.

DCR is the State agency charged with providing assistance to the districts for conservation programs which address agricultural land use. The department has provided this assistance for many years and has developed a strong relationship with the districts. DCR is already providing the districts with support on agriculture-related conservation programs such as nutrient management and the Agricultural Best Management Practices program. District directors reported that they depend on DCR staff to a great extent for the range of conservation programs they implement. And, while VDACS staff expended substantial time and other resources providing training to district directors and personnel, several DCR staff reported helping the districts formulate their individual policies for handling ASA complaints and acting as a resource to answer questions about the Act. In addition, when asked by JLARC staff, most district directors reported having no interaction with VDACS other than through the ASA.

DCR is also charged with providing staff to carry out activities for the Soil and Water Conservation Board. Section 10.1-503 of the *Code of Virginia* requires the DCR director to provide employees to the Board as needed to carry out its functions. Therefore, in instances where an ASA complaint is appealed to the Board, the department staff will likely become involved. DCR staff, as well as VDACS staff, assisted the Board with developing a policy to address appeals of findings under the ASA.

Further, the ASA was passed to address issues of nonpoint source pollution. DCR is the State's lead nonpoint source pollution reduction agency. In particular, it has major programs devoted to reducing nonpoint source pollution from agricultural lands and provides assistance to districts in their efforts to do the same.

Since the potential source of nonpoint source pollution addressed by the ASA is agriculture-related, it is appropriate to place responsibility for the program with an agency which has both agriculture and nonpoint source pollution expertise. DCR is the only agency with extensive expertise in both areas. In fact, the primary focus of its Bureau of District and Landowner Assistance is on reducing nonpoint source pollution run-off from agricultural lands. Placement of the ASA at DCR would help ensure that any corrective action plans which must be developed are consistent with other agriculture programs geared toward nonpoint source pollution prevention.

While VDACS has hired two program staff with experience on nonpoint source pollution agriculture issues, the primary focus of the agency is to promote economic growth and the development of agriculture in the Commonwealth. Given DCR's expertise on nonpoint source pollution prevention on agricultural lands and its close association with the Soil and Water Conservation Board and the districts, it appears appropriate for overall responsibility for the ASA to be moved to DCR.

Recommendation (11). **The General Assembly may wish to amend Sections 10.1-559.1 through 10.1-559.11 of the *Code of Virginia* to require primary responsibility for the Agricultural Stewardship Act to be moved from the Virginia Department of Agriculture and Consumer Services to the Department of Conservation and Recreation. Correspondingly, the two VDACS staff positions devoted to implementation of the ASA should be transferred to DCR.**

The Option of Consolidating Virginia's Wildlife Resource Functions

JLARC's 1996 report titled *Feasibility of Consolidating Virginia's Wildlife Resource Functions* noted that there would be a number of potential benefits to consolidating wildlife programs currently administered by DGIF, VMRC, VDACS, and DCR. The study found that some overlap exists between the functions of these agencies, and that efficiencies could be gained from merging the programs. However, the report also noted a number of concerns associated with this option. A detailed discussion of the advantages and disadvantages of this option for changing some of the agency structures within the Natural Resources Secretariat is contained in the 1996 report. VMRC and DGIF voiced strong opposition to a merger at the time of the 1996 report, and indicated their continued objections during this review.

III. Comparison of Virginia's Structure to Other States

As a part of this review, JLARC staff examined the organizational structure of natural resources functions for 22 other states. This examination indicates that there is not any one model which has been consistently used by all states for the structure of their natural resources functions. Many states use structural models that involve the use of either a few larger agencies or a single "super-agency." These larger natural resources agencies perform multiple environmental functions, and essentially combine the functions now performed by many Virginia agencies under one roof. Other states, like Virginia, have taken a decentralized approach to the structure of their natural resources agencies.

The previous chapter has identified a number of problems that have resulted from the decentralization of Virginia's natural resources functions. However, the problems related to decentralization do not appear sufficient to warrant a major overhaul to Virginia's natural resources structure. Instead, selected structural changes and improvements in coordination as recommended in this report should be sufficient to enable Virginia's environmental programs to be carried out effectively and efficiently.

The Structure of Other States' Natural Resources Functions

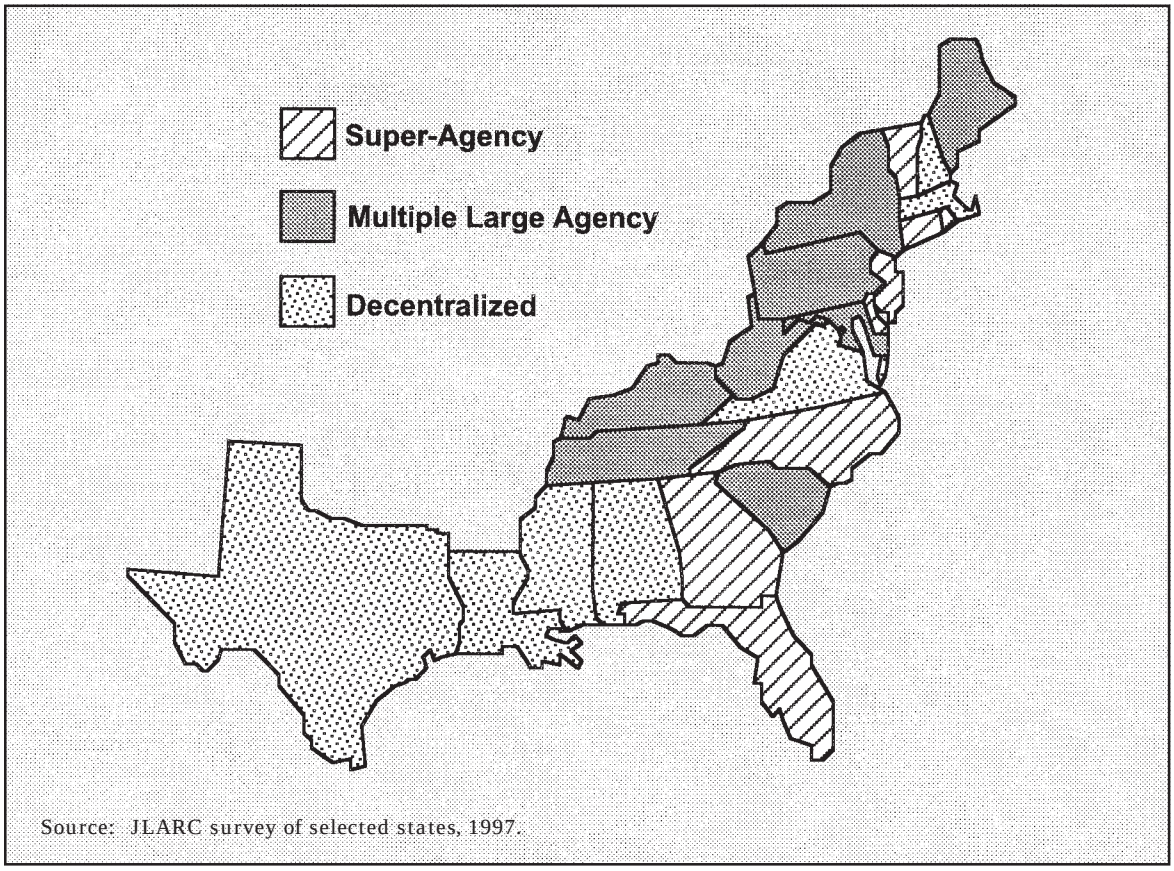
Three general models are used by other states to organize their natural resources functions. The three models include: the "super-agency" approach, the "multiple large agency" approach, and the "decentralized" approach. Of the 23 states examined (including Virginia), eight use the super-agency approach, and eight use the multiple large agency approach to organize their natural resources functions (Figure 4). The remaining seven states, including Virginia, use the decentralized approach for the structure of their natural resources functions. Each model is described below.

The "Super-Agency" Model. States employing the "super-agency" approach to the management of their natural resources responsibilities have created a single agency which handles nearly all of their environmental programs. Most commonly, these agencies contain the functions which in Virginia are performed by DEQ, DCR, CBLAD, DGIF, VMRC, DHR, DOF, and DMME. Among the states which have adopted such a structure, or whose structure closely approximates the model, are: Connecticut, Delaware, Florida, Georgia, New Jersey, North Carolina, Rhode Island, and Vermont. For example:

> *Georgia's Department of Natural Resources (DNR) supervises all of that state's environmental protection efforts. The agency's divisions include: Parks, Recreation and Historic Sites; Coastal Resources; Historic Preservation; Environmental Protection; Wildlife Resources; and Pollution Prevention Assistance. Only the forestry operations are separate from the DNR. The agency was created in 1972 during a reorganization which involved 35 separate agencies.*

Figure 4

Structural Models Employed for the Natural Resource Agencies of Eastern and Southeastern States



Source: JLARC survey of selected states, 1997.

* * *

In Vermont, the Agency for Natural Resources is the one agency responsible for the management and protection of that state's environment. The agency consists of three divisions: the Fish and Wildlife Department; the Forests, Parks, and Recreation Department; and the Environmental Conservation Department. Only the state's historic preservation effort, and the soil component of the state's soil and water conservation program, are outside this agency's control.

In all of these states, the environmental agency head reports directly to the governor.

The "Multiple Large Agency" Model. The "multiple large agency" model is characteristic of those states which have created more than one agency to handle their environmental programs, but which still have multiple programs housed within larger agencies. Most often, states utilizing this structure create an agency similar to Virginia's DEQ and another agency which encompasses the responsibilities of Virginia's DCR, CBLAD, DGIF, VMRC, DOF, and DMME. Several states have adopted this approach,

including: Kentucky, Maine, Maryland, New York, Pennsylvania, South Carolina, Tennessee, and West Virginia. The following case studies illustrate this model:

> *In 1995, the Pennsylvania Department of Environmental Regulation was divided into two separate agencies, the Department of Environmental Protection (DEP) and the Department of Conservation and Natural Resources (DCNR). Spokespersons from both of these agencies report that the division was made to increase the public's awareness of Pennsylvania's natural resources. With the exceptions of the state's fish and wildlife programs and its historic preservation programs, all natural resources programs are now overseen by these two agencies. The DEP is the Pennsylvania agency responsible for the control of point and nonpoint source pollution, while the DCNR is the agency charged with managing the state's parks system and forests.*
>
> * * *
>
> *In Tennessee, four agencies are responsible for the protection of that state's natural resources. These agencies include: the Department of Environmental Control, the Wildlife Resources Agency, the Department of Agriculture, and the Historic Preservation Commission. The Department of Environmental Control serves the Historic Preservation Commission's administrative needs. Unlike many states, however, in Tennessee, the Department of Agriculture oversees the state's nonpoint source pollution control program, the soil and water conservation program, and the state's forests. The Department of Environmental Control supervises the state's point source pollution control program, which includes the environmental effects associated with mining.*

Only two of these states – Maryland and Kentucky – have environmental functions coordinated through a secretary's office similar to Virginia. For the remaining states, each of the environmental agency heads reports directly to the governor.

The Decentralized Model. Of the states examined, Alabama, Louisiana, Massachusetts, Mississippi, New Hampshire, and Texas employ a decentralized model. Like Virginia, the states utilizing this approach have created multiple agencies to handle their environmental programs. However, only Massachusetts is similar to Virginia in that the environmental agencies' activities are coordinated through an office which reports to the governor. Examples of decentralized structures include:

> *Five agencies are responsible for the protection or management of Massachusetts' natural resources. These agencies' operations are overseen by the Executive Office of Environmental Affairs, which provides coordination between the individual agencies as well. In addition, the Executive Office of Environmental Affairs is, itself, responsible for some environmental programs, such as Massachusetts' coastal zone management program.*

* * *

In Texas, the state's natural resources are managed by several agencies. For instance, the Texas Natural Resources Conservation Commission is responsible for the protection of that state's air and water resources, the Department of Parks and Wildlife is responsible for Texas' State parks and wildlife and fisheries resources, and the Texas Forest Service is responsible for the state's forests. In addition, the state's soil and water conservation programs are overseen by an independent State Soil and Water Conservation Board, and the state's oil and gas industry is overseen by the Texas Railroad Commission. Another agency, the General Land Office, is responsible for the use of state-owned lands other than State Parks, and the implementation of Texas' coastal zone management program.

The Feasibility of Changing Virginia's Natural Resources Structure

Clearly, there are a number of approaches that states use to organize their natural resources functions. During interviews with staff and constituents of Virginia's natural resources agencies, several individuals suggested that Virginia consider the feasibility of changing its approach to a larger agency model to improve coordination of programs. Although there would be some advantages to this approach, there would also be some disadvantages. This review found that a drastic overhaul of Virginia's natural resources secretariat is not needed. Rather, if the structural and coordination improvements recommended in this report are implemented, it appears that Virginia's approach would work adequately and no further structural changes would be necessary.

The Potential Advantages of a Larger Agency Structure. There are several potential advantages to the use of larger natural resources agencies. The potential advantages cited by staff in other states include:

- increased likelihood that the public will locate the proper agency to handle their concerns,
- improved coordination between natural resources programs,
- less duplication between natural resources programs,
- the achievement of economies of scale in areas such as administration, and
- the ability to have one agency in charge of all of the natural resource permitting processes.

Many officials in other states recommend large natural resources agencies as a suitable approach for instituting "one-stop" permitting systems. "One-stop" permit-

ting systems minimize the amount of contact a customer must have with agency personnel before obtaining the permits they need. The officials say these systems are characteristic of "core processes," which are activities which cross divisional or programmatic lines. Consolidating programs with similar "core processes," such as permitting, compliance, or enforcement, under one agency, these officials report, allows an agency to perform these tasks more effectively and efficiently. While having several agencies involved in natural resources protection, Virginia does have one agency with primary responsibility for major environmental permits (DEQ), thus allowing for "one-stop" permitting.

The Potential Disadvantages of a Larger Agency Structure. Although there are potential benefits associated with the use of larger natural resources agencies, the contacts with other states revealed that there are potential disadvantages as well. The potential disadvantages associated with the use of larger natural resources agencies, according to staff in other states, include:

- an inability to react quickly to changing events because of increased bureaucracy,
- an inability to acquire specialized knowledge on the part of agency management,
- the possible bureaucratic inefficiencies which may occur in any large organization, and
- the decreased visibility of some programs.

For example:

> *Pennsylvania officials state that the primary reason their state legislature dissolved the state's super-agency, the Department of Environmental Regulation, was that many of the state's environmental management programs were overlooked due to the agency's focus on its environmental regulatory programs. In addition, the state officials report that the use of multiple large agencies, rather than a single agency, has improved the ability of these agencies' managers to master the complex information needed to make decisions about environmental regulatory and environmental management matters.*
>
> * * *
>
> *South Carolina officials state that despite its benefits, the use of a large agency structure is more cumbersome than a smaller agency structure. They report that due to the large number of employees and programs housed within the Department of Health and Environmental Control, the agency is more slow to respond to environmental issues.*

The disadvantages of a larger agency structure point to the strengths of a decentralized structure.

Certain Conditions Favoring Larger Natural Resources Agencies Do Not Exist in Virginia. Certain conditions appear to favor the creation of larger natural resources agencies. These conditions do not exist in Virginia. For instance, many of the states which have adopted the super-agency structure for their natural resources functions are states that are small in geographic size. They include Delaware, New Jersey, Rhode Island, and Vermont. These states lack many of the resources which Virginia possesses and require smaller environmental programs. As a result, these states' natural resources programs can be successfully administered by one agency. For instance, an official from Delaware stated:

> I do not believe that Delaware is a good example for comparison with Virginia due to its small size. Given the [geographic diversity] found in Virginia, more independent agencies may be justified.

Another condition that may favor the creation of larger natural resources agencies is the absence of an office capable of coordinating different environmental programs' activities. Without such an office, a state's environmental programs have only the governor to settle disputes and to provide guidance. As a result, many states have created larger natural resources agencies to ensure that some level of coordination and guidance is provided to their different environmental programs. For instance, a Maryland official stated:

> To implement a holistic approach to the environment, the actors must speak frequently, and they must have an arbiter who is capable of deciding whose position will dominate.

In Virginia, this function is assigned to the Secretary of Natural Resources, and no larger structure appears necessary to provide Virginia's natural resources agencies with coordination or guidance. As noted in the 1997 JLARC report, *The Secretarial System in Virginia State Government*, "One of the reasons for establishing the secretarial system was to encourage the coordination of the activities of agencies with similar missions."

Because the conditions that favor larger agencies do not appear to exist in Virginia, a decentralized model is an appropriate approach for Virginia to use as long as the agencies adequately coordinate their activities and avoid duplication of effort. By implementing the recommendations in this report, this can be achieved without having to significantly change the structure of Virginia's natural resources agencies.

IV. Virginia's Natural Resources Permits and Fees

The 1996 Appropriation Act required that as part of JLARC's study to review natural resource organizational structures and functions, JLARC staff should also examine the permit and fee structures used by the natural resources agencies. Natural resources agencies charge fees for a number of services, programs, and permits. State park fees, hunting and fishing license fees, and environmental permit fees were included in the analysis for this report. Proceeds from these fees are typically used to fund all or part of the program or service being provided. For example, Virginia's Department of Game and Inland Fisheries is almost entirely funded from hunting and fishing license proceeds.

JLARC staff compared Virginia's fee levels for 11 natural resources permits. Data for these fees, which are major fees common to many states, were obtained from up to 20 other southeastern and Atlantic states. This assessment was made to: (1) identify whether there are any funding sources that Virginia's natural resources agencies have not tapped (for example, whether there are any permits for which Virginia does not charge, while other states do), and (2) to compare Virginia's natural resources fee levels to those of the other states. The number of states included in each comparison vary due to a different number of states responding to each survey item, and due to certain fees not being applicable to some states (for example, inland states do not issue commercial fishing licenses).

This review found that Virginia charges a fee for all the services and major permits included in this analysis. Therefore, no additional funding sources for Virginia were identified. For the most part, all of the states charge fees for these services and permits as well. However, there are a few states that do not charge for state park admission, solid waste landfill permits, or water protection permits.

The comparison of Virginia's fee levels to the other states indicates that Virginia's permit and service fee levels are generally in the medium to low range when compared to the other states. Of the 11 fees examined, only one of Virginia's fees is in the higher third of the states that participated in the survey: Section 401 of the Clean Water Act water protection permits. There were four fees in the lower third, including one and two bedroom cabins, hunting, and Prevention of Significant Deterioration (PSD) permits. Five fees were in the middle third. One fee (commercial fishing) could not be ranked due to the wide range of fishing activities and charges that are encompassed in that category.

It also should be noted that in 1996, JLARC staff surveyed constituents of Virginia's natural resources agencies to assess their perspectives on agency fee levels. The majority of constituents for each agency reported that agency fee levels were appropriate.

State Park Visitation and Facility Use Fees

JLARC staff compared state park visitation and facility use fees across states for four items: park admission, primitive camping, one bedroom cabins, and two bedroom cabins. In Virginia, fees for these services are set by the Department of Conservation and Recreation (DCR), which manages the State parks. Virginia's fee levels for all four items rank in the middle to low range of the states that participated in this comparison.

Park Admission Fees. The method that states use to charge admission to their parks varies. Some states charge entrance fees, some charge parking fees, and some charge one or the other depending on the park. Virginia charges either entrance or parking fees, depending on which park is visited.

Of the 16 states which responded to this survey item, only Kentucky, Pennsylvania, and Tennessee do not charge entrance or parking fees for any of their parks. Two other states have limited admission fees: West Virginia charges admission for only one park and North Carolina charges admission for only two parks. Compared to the states that participated in this survey, Virginia ranks in the middle third (Table 5). All of Virginia's State parks charge an admission fee, with costs ranging from $1.00 to $4.00.

Primitive Camping Fees. Virginia's primitive camping fees were compared to 13 other states. To provide primitive camping, state parks typically offer a designated site for camping and a grill, a picnic table, and/or a bathhouse. Water and electrical hookups are not included in primitive camping. All of the states in this comparison charge a fee for primitive camping. In 1996, costs among these states for this activity ranged from 50 cents to $20.00. Virginia's primitive camping fee in 1996 was $8.00 per campsite. When compared to the other states, this ranks in the middle third (Table 6, page 48).

Cabin Fees. State park cabins vary considerably based on condition and amenities. For example, some cabins have kitchen facilities and heating and air conditioning, while others do not. The Department of Conservation and Recreation recently compared one and two bedroom cabin fees with six other states using measures to ensure that the cabin fees were being compared fairly across states. This analysis concluded that Virginia's cabin fees are lower than most of the states nearby (Table 7, page 48).

Hunting and Fishing Licenses

JLARC staff compared Virginia's hunting, recreational fishing, and commercial fishing license fees to several other southeastern and Atlantic states. Virginia's Department of Game and Inland Fisheries (DGIF) is responsible for managing the Commonwealth's inland wildlife and issuing hunting and recreational fishing licenses.

Table 5

Park Admission Fees, 1997

State	Park Admission Fees (Range)
Connecticut	$5.00/7.00
Delaware	2.50/5.00
South Carolina	2.50/5.00
Georgia	1.50/4.00
Texas	0.50/5.00
Virginia	**1.00/4.00**
Florida	1.00/3.25
Louisiana	2.00
Maryland	0.00/3.00
North Carolina*	0.00/3.00
New Hampshire	0.00/2.50
Alabama	0.50/1.00
West Virginia**	0.00/1.00
Kentucky	0.00
Pennsylvania	0.00
Tennessee	0.00

*Only two parks in North Carolina charge an admission fee.

**Only one park in West Virginia charges an admission fee.

Note: For states with a range in fees charged, the order in which these states are listed is based on the mid-point of the range.

Source: JLARC survey of other states, 1997.

The Virginia Marine Resources Commission (VMRC) manages Virginia's commercial fisheries and issues commercial fishing licenses.

This review found that Virginia's fees for hunting licenses rank in the lower third, and its fees for recreational freshwater fishing rank in the middle third of the fee levels compared. Commercial fishing license fees could not be ranked due to variations in the types of licenses required.

Hunting Licenses. Hunting license fees charged in the Atlantic and southeastern states that responded to this item of the JLARC survey range from $9.50 to $32.00. Virginia charges $12.50 for its hunting license, which ranks in the lower third of the states that responded to this survey item (Table 8, page 49).

Recreational Fishing Licenses. JLARC staff compared Virginia's recreational freshwater fishing license fees to 19 other Atlantic and southeastern states. Virginia's fees are in the middle of the range among these states (Table 9, page 50).

Table 6

Primitive Camping Fees, 1997

State	Primitive Camping Fees (Range)
Maryland	$5.00/20.00
Delaware	11.00
Pennsylvania	10.00/12.00
Connecticut	9.00/12.00
Kentucky	8.50
Virginia	**8.00**
Texas	4.00/12.00
North Carolina	5.00/9.00
West Virginia	4.00/10.00
Tennessee	6.25
Alabama	3.00/9.00
Georgia	3.00/8.00
South Carolina	0.50/6.00
Florida	2.00/3.00

Note: For states with a range in fees charged, the order which these states are listed is based on the mid-point of the range.

Source: JLARC survey of other states, 1997; and JLARC review of the "National Association of State Park Directors 1996 Annual Information Exchange".

Table 7

State Park Cabin Fees, 1997

State	One-Bedroom Cabin Fees[a]
Kentucky	$553
Georgia	422
West Virginia	413
Tennessee	350
Maryland	325
Virginia	**300**
North Carolina	N/A[b]

State	Two-Bedroom Cabin Fees[a]
Kentucky	$665
Georgia	487
West Virginia	474
Tennessee	455
Virginia	**412**
Maryland	375
North Carolina	300

[a]Comparison is based on weekly cabin rates during the state parks' prime operating season.

[b]North Carolina does not have one-bedroom cabins.

Source: "Virginia State Parks Cabin Fee Proposal 1997-1998," developed by Department of Conservation and Recreation staff.

Table 8

Hunting License Fees, 1997

State	Hunting License Fees
Mississippi	$32.00*
Massachusetts	27.50
New Jersey	21.75
Tennessee	20.00
Maine	19.00
Texas	19.00
Maryland	15.50
Alabama	15.00
North Carolina	15.00
New Hampshire	14.50
Pennsylvania	12.75
Delaware	12.50
Kentucky	12.50
Virginia	**12.50**
South Carolina	12.00
Florida	11.00
West Virginia	11.00
Louisiana	10.50
Connecticut	10.00
Georgia	10.00
Rhode Island	9.50

*Mississippi's hunting license includes recreational fishing privileges. Although licenses for hunting only are not available, licenses for recreational fishing only are available.

Source: JLARC survey of other states, 1997.

Commercial Fishing Licenses. JLARC staff compared Virginia's commercial fishing fees to 14 other Atlantic and coastal southeastern states. Comparing commercial fishing fee levels is difficult because each state uses a different method to charge fees. Some states charge a flat rate for all commercial fishing, some charge based on the size of boat used, some charge based on the type of species harvested, and others charge based on the equipment used for harvesting. Virginia charges a registration fee for all commercial fishermen and an additional charge based on the type of equipment used.

When comparing some specific fee levels, it appears that Virginia's commercial fishing license fees are higher than some other states (Table 10, page 51). For example, to harvest crabs using up to 300 crab pots, the annual fee in 1997 was $198 in Virginia and $150 in Maryland.

Table 9

Freshwater Fishing License Fees, 1997

State	Freshwater Fishing License Fees
Massachusetts	$27.50
New Hampshire	22.25
Tennessee	20.00*
Maine	19.00
Texas	19.00
New Jersey	16.50
Pennsylvania	16.25
Connecticut	15.00
North Carolina	15.00
Kentucky	12.50
Virginia	**12.50**
Florida	12.00
West Virginia	11.00
Maryland	10.00
South Carolina	10.00
Rhode Island	9.50
Georgia	9.00
Alabama	8.50
Delaware	8.50
Mississippi	8.00
Louisiana	5.50

*Tennessee's fishing license also includes hunting privileges.

Source: JLARC survey of other states, 1997.

Virginia's higher rates are largely due to the $150 registration fee implemented in 1994 for all resident commercial fishermen in Virginia. According to Virginia Marine Resources Commission staff, revenues from these fees are used for the marine improvement fund, which funds projects to improve marine fisheries in Virginia.

Environmental Permits

JLARC staff compared four of Virginia's environmental permit fees to six other mid-Atlantic and southeastern states. These particular fees were selected because they are applicable to Virginia and the other states in the region. The environmental permits used in this comparison were National Pollution Discharge Elimination System (NPDES) permits (known as VPDES permits in Virginia), Section 401 certification (known in Virginia as the Virginia Water Protection permit), solid waste landfill permits, and Prevention of Significant Deterioration (PSD) permits, which cover air pollu-

Table 10

Commercial Fishing License Fees, 1997

State (Listed Alphabetically)	Commercial Fishing License Fees
Connecticut	$150 includes lobster pot, trawl net, scallop dredge; $50-$100 for finfish
Florida	$50 for individual, $100 for crew (no additional charge for species)
Georgia	$12 for commercial fishing license, plus $50 for trawler up to 18 feet, no extra charge for cast nets and seines, $12 for crabs, no extra charge for oysters, shad, catfish
Louisiana	$55 plus $100 each for oysters, shrimp, crab, and eel
Maine	$30 for fishing-single, $89 for fishing crew, $89 for scallops, $118 for lobster, $63 for shellfish, $100 for eel
Maryland	$50 for fishing guide, $37.50 for finfish, $100 for unlimited fish harvester, $50 for crabs up to 50 pots, $150 for crabs up to 300 pots, $50 for oysters, $250 for oyster dredge boat, $100 for clams
Massachusetts	$260 for lobster, $40 for shellfish, $55 for shellfish and rod and reel, $10 for striped bass
Mississippi	$10 boat fee, plus $60 for shrimp (or more for larger boat), $75 for crab, $100 for gill net, $50 for oyster tongs, $100 for oyster dredging
North Carolina	$1 to $3 per foot for vessel (depending on length), plus $7.50 for shellfish, $7.50 for crabs
Rhode Island	$300 multipurpose ($320 with gill net); $200 for lobster, scallop, or shellfish
South Carolina	$75 for trawler, $25 for powerboat over 18 feet, $10 for gill net, $10 for shad net, $25 for 50 crab pots with $1.00 for each additional pot, $10 for tongs
Texas	$20 plus $100 for oyster fishermen, $25 for oyster captain, $25 for shrimp captain, $30 for clam fishermen
Virginia	**$150 plus $8 for crab dip nets, $29 for up to 100 crab pots, $48 for up to 300 crab pots, $10 for oyster tongs, $15 for gill net**

Source: JLARC survey of other states, 1997.

tion. All of these permits are administered by the Department of Environmental Quality (DEQ) which oversees Virginia's point source pollution programs.

In this comparison, Virginia's NPDES and PSD permit fee levels are relatively low. However, Virginia's fees are the highest of the states surveyed for Section 401 of the Clean Water Act certification.

National Pollution Discharge Elimination System (NPDES) Permits. An NPDES permit is required for anyone who plans on discharging any pollutant into or by surface waters from a pipe, ditch, or other discrete conveyance. There are three categories of NPDES permits depending on the type and volume of discharge being emitted by the facility. Major NPDES permits are issued for a municipal source when the sewage emitted is one million gallons a day or more. A major NPDES permit is issued to companies with industrial discharges based on the quantity of the discharge and the nature of the pollutants being discharged. Minor NPDES permits are issued to commercial, industrial, and municipal sources that fall below the threshold for a major permit.

JLARC staff compared the application and annual fees for major NPDES permits in seven states based on five-year costs for the permits (Table 11). This analysis indicated that Virginia's fees are considerably lower than Maryland, Tennessee, and West Virginia, and are comparable with South Carolina and North Carolina. Pennsylvania's fee is very low compared to the other states.

Table 11

Major NPDES Permit Fees, 1997

State	Application Fee	Annual Fee	5-Year Total
Maryland	$20,000	$5,000	$45,000
Tennessee	1,500	7,500	39,000
West Virginia	7,500	2,500	20,000
South Carolina	0	1,600	8,000
Virginia	**8,000**	**0**	**8,000**
North Carolina	400	1,500	7,900
Pennsylvania	500	0	500

Source: JLARC survey of other states, 1997.

Section 401 Certification Fees. Section 401 of the federal Clean Water Act requires certification for the discharge of dredge material or fill in a waterway or wetland, work or construction in a navigable waterway, or water withdrawal. In Virginia, this certification is known as the Virginia Water Protection permit.

JLARC staff found that Virginia's Section 401 certification fees are generally higher than the other six states surveyed (Table 12). Four of the other states (Pennsylvania, North Carolina, West Virginia, and Maryland) do not charge for Section 401 permits.

Solid Waste Landfill Permit Fees. A solid waste landfill permit is required for any owner or operator of: a sanitary landfill; a construction, demolition, or debris

Table 12

Section 401 Certification Fees, 1997

State	Section 401 Certification Fees
Virginia	**$400 to $3,000; $400 for general permit**
Tennessee	private applications $50; commercial applications $1,000 to $2,500
South Carolina	$50 minor, $500 major
Maryland	no charge
Pennsylvania	no charge
North Carolina	no charge
West Virginia	no charge

Source: JLARC survey of other states, 1997.

landfill; or an industrial landfill, public or private. Virginia's solid waste landfill permit fees are in the middle third of the states surveyed (Table 13). North Carolina, South Carolina, and Maryland do not charge for solid waste landfill permits.

Table 13

Solid Waste Landfill Permit Fees, 1997

State*	Solid Waste Landfill Permit Fees
Tennessee	$3,000 to $21,000
West Virginia	$3,000 to $7,500 plus $1,000 per person listed on application
Virginia	**$3,200 to $14,300**
Pennsylvania	$1,400 to $11,400
Maryland	no charge
North Carolina	no charge
South Carolina	no charge

*States are ranked based on the midpoint of the range. West Virginia's ranking is based on the information that the typical application has between seven and 12 persons listed.

Source: JLARC survey of other states, 1997.

Prevention of Significant Deterioration (PSD) Permit Charges. Anyone planning to construct a new source of air pollution, or to modify, relocate, or reactivate an existing source which will emit 250 tons or more per year of any regulated pollutant, must obtain a PSD permit. A PSD permit must also be obtained for any planned facility which will emit 100 tons or more per year of a regulated pollutant if it is one of 28 specified industries.

The methods that states use to charge for this permit vary. Some states charge a flat rate, while others charge by the ton. For example, Maryland has a flat permit rate of $20,200. Therefore, it is difficult to compare fees for its permit with states where fees vary based on tonnage. Compared to other nearby states, Virginia's fee is less than the fees in North Carolina, Pennsylvania, South Carolina, and West Virginia. Tennessee's fee appears to be clearly less than Virginia's, except if there are instances where the rate per ton leads to a fee above $100,000 in that state. Table 14 indicates the range of permit fees charged by Virginia and five other nearby states.

Table 14

Prevention of Significant Deterioration (PSD) Permits, 1997

State (Listed Alphabetically)	Prevention of Significant Deterioration Permit
North Carolina	$7,820 application fee, plus $5,539 and $15.89 per ton annually
Pennsylvania	$39.00/ton
South Carolina	$30.07/ton
Tennessee	$8.00/ton
Virginia	**$11.00/ton with $100,000 maximum**
West Virginia	$1,000 application fee, plus $10,000 for new major source or $5,000 for major modification, plus $17/ton annually

Source: JLARC survey of other states, 1997.

Constituent Perspectives on Agency Fee Levels

A 1996 JLARC survey of Virginia's natural resources agencies' constituents asked respondents to indicate whether the fees charged by the natural resources agency with which they associate are appropriate, too high, or too low. For each agency, the majority of respondents reported that the fee levels are appropriate (Table 15). The only permits for which less than three-quarters of the constituents did not believe that fees are appropriate are the environmental permits. Fifty-nine percent of the DEQ

Table 15

Constituent Perspectives on Fees Charged by Virginia's Natural Resources Agencies

		Respondents' Assessment of Agency Fee Levels		
Agency	**Fees Charged by Agency**	**Appropriate (percent)**	**Too High (percent)**	**Too Low (percent)**
DCR	State park admission, camping, and cabin fees	92	8	0
DGIF	Hunting and recreational fishing licenses	81	12	8
VMRC	Commercial fishing licenses	79	15	6
DEQ	Environmental permits	59	41	0

Notes: Percentages may not equal 100 percent due to rounding. Twelve of DCR's constituents, 52 of DGIF's constituents, 33 of VMRC's constituents, and 41 of DEQ's constituents responded to this question.

Source: JLARC survey of natural resources agency constituents, 1996.

constituents indicated that the fees charged for environmental permits are appropriate.

Conclusion

Across the types of fees examined for this review, Virginia's natural resources fees do not stand out as being consistently low or high compared to the other states reviewed. In many cases, Virginia's fees were towards the middle, but there were also some exceptions in which a particular fee appeared relatively high or low. Depending on the policy perspective taken, there may be some opportunities to increase or reduce certain fees.

Appendix A

Study Mandates

House Joint Resolution No. 173

1996 Session

Directing the Joint Legislative Audit and Review Commission (JLARC) to study the organization of state agencies and their functions within the Commonwealth's Natural Resources Secretariat.

WHEREAS, the Executive Budget for 1996 to 1998 proposes a number of changes in the location of responsibility and authority for certain programs or functions performed by state agencies in the Natural Resources Secretariat; and

WHEREAS, the transfer or consolidation of programs that is proposed in that budget will impact several agencies, including the Department of Conservation and Recreation, the Department of Game and Inland Fisheries, the Chesapeake Bay Local Assistance Department, and the Department of Environmental Quality, and may impact the services received by citizens or taxpayers from these agencies; and

WHEREAS, the Commonwealth needs to continually strive for the most efficient and effective organization and performance of its agencies; and

WHEREAS, the functional area of natural resources is among those scheduled for review by JLARC pursuant to the Legislative Program Review and Evaluation Act (§ 30-64 et seq.) through Senate Joint Resolution No. 262 (1995); and

WHEREAS, JLARC is currently charged with reviewing consolidation issues pertaining to the services of the Department of Game and Inland Fisheries and the Marine Resources Commission, and related agencies the Commission might identify; and

WHEREAS, JLARC is also conducting a review of the Department of Environmental Quality pursuant to House Joint Resolution No. 531 (1995); and

WHEREAS, information obtained in these JLARC reviews are expected to be relevant to several of the transfers or consolidations of agency functions that have been proposed; and

WHEREAS, JLARC could be requested to incorporate relevant findings from these reviews into a comprehensive review of the organization of the various agencies and agency functions in the Natural Resources Secretariat, thereby providing the General Assembly with a systematic assessment of the efficiency and effectiveness of current organizational arrangements as well as various options and alternatives for potential improvement; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission be directed to study the organization of state agencies and their functions within the Commonwealth's Natural Resources Secretariat. The study shall include (i) a review of existing divisions of responsibility and authority among these state agencies, so as to assess the efficiency and effectiveness of current agency structures within the Secretariat; and (ii) a consideration of various options or alternatives for changing existing divisions of responsibility and authority of these state agencies, including, but not limited to, consolidations of agencies or consolidations of certain functions of these agencies. To the extent that the review indicates that certain functions of these agencies might be privatized or eliminated, or might be redundant with functions performed by agencies outside of the Natural Resources Secretariat, those circumstances or opportunities should also be identified.

All agencies of the Commonwealth shall provide assistance to JLARC, upon request.

The Commission shall report on its progress to the 1997 General Assembly and to succeeding sessions until its work is completed.

Item 14 C - 1996 Appropriation Act

Fee Structure of Natural Resources Agencies

Pursuant to House Joint Resolution 173, 1996 Regular Session, the Commission shall also examine: (1) the permit and other fee structures utilized by Natural Resources agencies, including a comparison of the Commonwealth's current fee structures with those in similar and neighboring states, and (2) the Commonwealth's progress towards meeting the commitments set forth in the 1992 revisions to the 1987 Chesapeake Bay Agreement, for nutrient reductions. The Commission shall report on its progress to the 1997 General Assembly and to succeeding sessions until its work is completed.

Appendix B

Agency Responses

As part of an extensive data validation process, State agencies involved in a JLARC assessment effort are given the opportunity to comment on an exposure draft of the report. Appropriate technical corrections resulting from the written comments have been made in this final version of the report. Page references in the agency responses relate to an earlier exposure draft and may not correspond to page numbers in this version.

This appendix contains the following reponses:

- Chesapeake Bay Local Assistance Department
- Virginia Department of Agriculture and Consumer Services
- Department of Game and Inland Fisheries
- Virginia Marine Resources Commission

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