

Commission Meetings, Corresp.

June 1986 MSA-51832-22

AGENDA

50 Harry S. Truman Parkway
Annapolis, Maryland

June 4, 1986

4:00 - 6:00 p.m.

1. Approval of the Minutes of May 14, 1986 Chairman Liss
 2. Presentation of Guidance Paper on Forest Interior Dwelling Birds Kevin Sullivan
 3. Presentation and Discussion of Public Access and Reforestation Carolyn Watson
 4. Presentation and Discussion on the Role and Procedures that the Panels Should Follow During Program Development Charles Davis
 5. Date for Subcommittee meeting on State Regulations Chairman Liss
 6. Old Business Chairman Liss
 7. New Business Chairman Liss
- Discussion of Next Meeting Date

CHESAPEAKE BAY AREA CRITICAL AREA COMMISSION

Minutes of Meeting Held
May 14, 1986

The Chesapeake Bay Critical Area Commission met at the Department of Agriculture, Annapolis, Maryland. The meeting was called to order by Chairman Solomon Liss, with the following members in attendance:

Ron Hickernell	Robert R. Price Jr.
Peter de Jong for Robert S. Lynch	Samuel E. Turner, Sr.
Gene Lauer for Parris N. Glendening	Mary Roe Walkup
Florence Beck Kurdle	Thomas L. Jarvis
J. Frank Raley, Jr.	William J. Bostian
Albert W. Zahniser	Anne Sturgis Coates
Shepard Krech, Jr.	John Luthy, Jr.
Barbara O'Neill	Lloyd S. Tyler, III
Ernie Shea for Wayne A. Cawley, Jr.	Ardath Cade
Torrey C. Brown	Constance Lieder
William Eichbaum	

The minutes from April 2, 1986 were approved with a correction made on page 4. In the minutes Chairman Liss had referred to \$50,000 being cut from the Economic Baseline Study, which was incorrect. It should have read that Chairman Liss said that the Commission needed to make two decisions, etc (see Attachment A). Chairman Liss also announced that as of May 13, 1986 the Governor signed the Chesapeake Bay Critical Area bills and they are now in effect. Local governments should notify the Commission within 45 days from the 13th if they intend to develop their Critical Area Programs.

Ms. Kurdle gave a presentation on the draft Handbook that included legislative changes, format changes and substance changes. She emphasized that the Handbook would be a guide to local jurisdictions in the development of their programs and that it should be able to fit in a loose leaf to reflect changes that may occur over time to its contents. She noted that the Subcommittee had met 4 times to review the Handbook. Chairman Liss thanked the Subcommittee for their hard work on the Handbook and stated that it was important to recognize that the Handbook was designed to be made as readable and understandable as possible. Ms. Kurdle asked if it would be appropriate to add the time table to the Handbook. It was decided that the time table should be added and would be included.

Dr. Sarah Taylor announced that there were 60 packages being sent, one to each jurisdiction. The packages contain: copies of Critical Area bills signed by Governor Hughes on May 13th (HB 1345, HB 1434, HB 1495, HB 1496); a "Guide to Local Governments on Funding and Scope of Work"; and Critical Area Commission Criteria and Sequence of Actions for the Development, Approval and Adoption of Local Critical Area Protection Programs (e.g. timetable).

Continuing the discussion on the Handbook, Mr. Eichbaum pointed out that endangered species were left out of certain counties in the Handbook. Kevin Sullivan stated that the information on endangered species was received from the Maryland Forest, Park and Wildlife Service but, stated that the necessary corrections would be made.

Chairman Liss asked for any more comments. The Handbook was then approved as prepared, to be sent to local governments with the option to be edited as needed further along in program development.

Chairman Liss announced a break for refreshments.

Chairman Liss then asked the Subcommittee for the Baseline Economic Study to give the results of their evaluation on those individuals comprising the review panel.

Mr. Price said that the Subcommittee reviewed all of the resumes. Mr. Hickernell said they were impressed with all resumes submitted. The question was asked of what guidelines were used for submission of resumes? Marcus Pollock stated that there were no guidelines used, but rather that people with expertise in various areas were referred to him. Resumes of people from both within and outside of DNR who were willing to help were accepted. Mr. Pollock then reviewed the resumes received:

Diane Brown - Ms. Brown holds an advanced degree in Environmental Management, School of Forestry. In the recent past she has been involved in market studies related to energy and the environment. Ms. Brown is currently the Administrator of Economic Studies for the Power Plant Siting Program. As an administrator of State sponsored economic studies, she has knowledge about the details of the procurement process as well as the design of these studies;

Mark Bundy - Mr. Bundy holds an advanced degree from Ohio State in Fisheries Ecology and is currently working towards his Ph.D. in Resource Economics at the University of Maryland, College Park. He has spent several years with the Department of Natural Resources in a variety of administrative and technical positions for the Department. Mr. Bundy is currently the Director of Special Projects for the Department. In this capacity he is responsible for the coordination and quality control of the Department's research projects.

Eric Van De Verg - Dr. Van De Verg was trained as an Economist at Claremont Graduate School, where he has specialized in mathematical economics, macro and micro theory, urban economics, public finance, and environmental economics. Dr. Van De Verg currently works for the Divisions of Research, Department of Economic and Community Development. Dr. Van De Verg's experience has touched upon some of the important topics which the Commission will consider during this proposed study.

Stephen F. Seniger - Dr. Seniger was trained as a Regional Economist at Washington University. Dr. Seniger specializes in employment and training policy, public expenditure analysis and budgeting, and applied quantitative methods. Dr. Seniger has researched extensively the topics of employment and labor.

Allen V. Kneese - Dr. Kneese holds a Ph.D. in Economics from Indiana University. Dr. Kneese is currently a Senior Fellow, Division of Environmental Quality, Resources for the Future, Inc., Washington, D.C. and as Adjunct Professor, University of New Mexico, Albuquerque, New Mexico. Dr. Kneese has published extensively on a variety of environmental issues including economics and the environment, environmental improvement through economic incentives, among others.

Marcus also stated that there would be two members from the Commission on this panel and that all members of the review panel would receive funds to cover travel and lunch. Procurement requires that an evaluation be made of respondents to the RFP for the Baseline Economic Study, hence the need for a panel. The question was asked about the funding level, and as to how persons would be selected to do the Study for the Commission. The Chairman stated that the selection and funding approach would be done in two parts: first decide on who should do the study and then on how to fund. Chairman Liss asked if anyone objected to that procedure? Nobody objected.

Mary Walkup asked about the time frame for this procedure. Marcus Pollock said the start date is September, 1986. It would take approximately 14 months to complete. The completion date would be December, 1987 of the following year. Chairman Liss stated that the appropriate project interval will be part of the Subcommittee's evaluation. The question was asked if anyone had an estimate of the funding available. Chairman Liss responded no. Dr. Sarah Taylor stated that the program has obligated funds through the Commission as well as federal funds from the Coastal Zone Management Program for the Study. Lee Epstein said that if the Commission wanted to talk of actual monies for funding this contract, the Commission meeting should be closed to the public.

Chairman Liss said that the Baseline Economic Study was required by the Legislature and recommended it be done. Ms. Cade supported the recommendation. Dr. Torrey Brown then made a motion to support the Study and it was seconded and voted favorably.

Chairman Liss asked asked if there should be five or seven people on the evaluation Subcommittee? Mr. Hickernell responded by saying he saw no problem with 7 and recommended it. Chairman Liss supported the 7 member panel with the 5 resumes reviewed and two Commission members. He asked for any objections. None were made. Marcus Pollock made the Commission aware that there was a provision in the Scope of Work for the selected contractors that mandated that reports be made to the Commission.

Chairman Liss then asked Charlie Davis to give a presentation on mapping policies. He stated that they had not as yet been sent out, but that once approved, would be provided to all of the affected jurisdictions who requested them from the January 1986 workshop.

Charlie Davis stated that there were only two issues not yet decided upon: Issue I and Issue V. The rest were tentatively agreed upon at the last meeting of the Commission. He also added that notes were provided on some of the issues as requested by the Commission. Ms. Kurdle was concerned about the added wording to Issue IV which states that, "new IDA's and LDA's must be first mapped on the Comprehensive Zoning Map". This wording was added to specifically state that new areas must be designated and approved by the Commission prior to the local jurisdiction allowing extensive growth in these areas. This requirement was

established as part of HB 1435 (1986) that was passed this past Legislative Session. Ms. Kurdle felt that she would have to open the whole county to zoning revisions instead of only the affected Critical Areas. Chairman Liss asked if the language should be corrected in the policy. Mr. Eichbaum stated that the intent of the county should be shown on the zoning map but, that how it's managed by local government through zoning is different. Becky Kurdle said that the Comprehensive Plan should be in sync with new IDA's and LDA's. We want to avoid a piece-by-piece submission to the Commission, she noted. Should there be two maps - one with the 3 management areas designated on it and one with the Comprehensive Zoning? Lee Epstein stated that the three areas have to be shown on the Comprehensive Zoning Map but not necessarily designated/named in the same way as existing zoning classifications. Mr. Hickernell felt the wording of the policy was sufficient at this time. Mr. Raley agreed with Mr. Hickernell. Ms. Kurdle opposed. Mr. Lauer stated that Prince George's County couldn't use a Comprehensive Zoning Map and that they plan to use an overlay system. The question was tabled for the time being.

Charlie Davis went on to review all other policies except for Issue I and Issue V. He asked if anyone had any questions on Issue II - Additional Mapping Rules Used by the Local Jurisdictions for Classifying Intensely Developed Areas, Limited Development Areas, and Resource Conservation Areas. Ms. Walkup asked for examples of additional rules. Charlie Davis gave examples and stated that they would be different for each county or municipality. Chairman Liss then asked for a motion of approval and Issue II was approved.

Charlie Davis brought up Issue III - Scale of Maps of Intensely Developed Areas, Limited Development Areas and Resource Conservation Areas to be Submitted to the Commission. Chairman Liss asked for a motion of approval and Issue III was approved.

Charlie Davis brought up Issue IV - Requirements to Map the Entire Allocation of New Intensely Developed Areas and Limited Development Areas. The question was brought up as to how much information is needed on the maps and where to get inventories, including DNR maps. A question was also asked as to how to verify the accuracy of the maps. Charlie Davis stated that it was the staff's responsibility through the regional planner to handle both issues.

Charlie Davis presented Issue VI - Detail and Scale of Maps and Inventories of Natural Resources Used for Local Program Development. Chairman Liss asked for a motion of approval and Issue VI was approved.

Charlie Davis presented Issue VII - Requirements to Submit to the Commission Maps or Inventories of Resources as required in COMAR 14.15.10.01 A. Chairman Liss asked for a motion of approval and Issue VII was approved.

Charlie Davis presented Issue IV again and asked if the policy was sufficient without changing the language. Ms. Kurdle stated that if the intent is only to indicate a "picture", the wording should be reflective of "show" or "indicate". Chairman Liss asked for a motion of approval on Issue IV in principle only, and that it was to be approved and not to be put on the agenda in June unless specifically requested. Motion approved on Issue IV.

Charlie Davis presented Issue I - Requests to Exclude Portions of the Preliminary Planning Area from the Critical Area Requirements as Specified in Natural Resources Article 8-1807. Chairman Liss explained and clarified policy. Mr. Eichbaum supported Issue I. Chairman Liss asked for a motion of approval and Issue I was approved.

Charlie Davis presented Issue V - Review Procedures for Local Critical Area Protection Programs, Including Maps Showing Intensely Developed Areas, Limited Development Areas and Resource Conservation Areas. Chairman Liss explained the quorum as required by the Commission's existing Bylaws: 13 yes votes to approve a policy. Should the Commission change its Bylaws to reflect the Legislative statement of that bill? Ms. Cade stated that the motion for approval should reflect how many members are present. She supported changing Commission Bylaws to meet the Legislative mandate of a majority of votes, not 13 "yes" votes. Mr. Bostian opposed the changes. Chairman Liss agreed with Mr. Bostian but also felt that the Commission should arrive at a compromise for overall approval of issues that would not restrict the Commission. Ms. Leider stated that the Legislature wanted a full Commission participation and that the Commission's current Bylaws most accurately reflect that intent. Lee Epstein stated that the Bylaws require a 2/3 vote to change the existing voting system, and that there must be a two week advanced notice. He also noted that in an Advice to Counsel memo to Chairman Liss, he had determined that the Commission could continue their existing

system, since that system is even more stringent than the Legislature's changes. Ms. Cade suggested a majority vote in favor of a motion and that at least 10 members must agree on the vote. Ms. Coates felt that the Commission had worked effectively so far under present Bylaws. Dr. Torrey Brown motioned to continue present Bylaws. The motion was approved with 1 dissention.

The question was brought up having substitutes at meetings and whether or not they could vote. Chairman Liss explained that substitutes are allowed to attend meetings but they cannot vote. This is reflected in the Bylaws.

Chairman Liss went back to the Mapping Policies and asked, as-a-whole, that they be voted on as proposed. Motion was approved.

NEW BUSINESS

Chairman Liss then appointed a Subcommittee to work on municipal/county relations. The proposed membership consisted of Mr. Clarence Burns, Ms. Mary Walkup, Mr. Bob Price and two representatives each from the Maryland Municipal League and the Maryland Association of Counties for a total of eight people. Chairman Liss would be ex-officio. The Subcommittee should develop a forum for solving differences. He then appointed a second Subcommittee consisting of Mr. Jim Gutman, Mr. John Luthy, Ms. Barbara O'Neill, Mr. Tom Jarvis, Dr. Torrey Brown, Ms. Connie Leider, Ms. Ardath Cade, Mr. Wayne Cawley and Mr. Bill Eichbaum to work on State regulations.

Dr. Sarah Taylor stated that Kevin Sullivan is preparing a draft of the State regulations for State projects in Critical Areas and that this Subcommittee would work with Kevin. The Subcommittee on municipal/county relationships would work with Charlie Davis.

Dr. Sarah Taylor reviewed the Chesapeake Bay Critical Area Commission's progress to date and for the rest of the fiscal year. She stated that this presentation was made to the Secretaries and Administrative Units on the Bay Initiative forum and that coordination was underway as to how data resources and other information would be funneled to the affected jurisdictions.

It was asked how proposals, problems, questions would be handled. It was decided that these should be referred to the regional planner from the local jurisdictions.

Mr. Price asked how the Shoreline Access policy is going to be developed. Dr. Sarah Taylor explained that Carolyn Watson will be sending out questionnaires and convening a workshop to develop the polices. Mr. Price asked that a Subcommittee of the Commission be appointed to work with the effort. Dr. Sarah Taylor stated that Carolyn Watson will present any gathered information at the next Commission meeting, and that the next steps will be decided as how to involve the Commission.

OLD BUSINESS

Chairman Liss announced a few changes on the panels for local governments. Ms. O'Neill would be deleted from Baltimore City and replaced by Chairman Liss. Ms. Coates will be deleted from Cecil County and replaced by Chairman Liss. Chairman Liss asked for one volunteer to be deleted from both St. Mary's County and Prince George's County. Mr. Price volunteered to be deleted from St. Mary's County and Mr. Raley volunteered to be deleted from Prince George's County. Chairman Liss suggested that the role of the panels be discussed at the June 4th Commission meeting.

Chairman Liss asked Lee Epstein to give the status of legal questions and matters that arose at the Arpil 2nd meeting. Lee Epstein presented all questions and gave Onswers: First, the Attorney General had agreed in an official opinion that Commission public hearings are not Commission meetings for the purposes of counting membership/attendance. Second, it was noted that an M.O.U was signed with Coastal Resources Division of DNR that will facilitate compliance with 8-1814(b) of the statute, concerning Coastal Zone Consistency determination. One legal question was still unanswered, interpretation of the Commission's "should/shall" language. Chairman Liss asked Lee Epstein to forward his latest memorandum and to ask the Attorney General's opinion on the "should/shall" question.

Chairman Liss asked the Commission if they would prefer Commission meetings to be held on the first Wednesday of each month or be changed to another day. It was voted to keep the first Wednesday of each month.

Chairman Liss asked for a motion to approve panels for local programs as changed. Motion was approved. Mr. Eichbaum requested that a part of the June meeting be dedicated to a presentation by the staff on the role and procedures that the panels should follow during the program development process.

Chairman Liss asked for a motion for adjournment of Commission meeting. Motion was approved.

ATTACHMENT A

Minutes - 4/2/86
Page Four

Revised as of 5/14/86

still unclear.

Chairman Liss then indicated that the economic impact of the criteria needed to be addressed by the Commission. Baseline information and a further analysis is needed, and Marcus Pollock has drafted a request for proposal for a study to be undertaken. Chairman Liss said that the Commission needed to make two decisions: 1) whether it agreed that the study should be made, and 2) how it should be funded. Marcus Pollock, Administrative Officer, discussed specifics for a study and told the Commission that on February 21st, the Commission advertised that a request for proposal was being solicited. 21 inquiries were made, and a pre-proposal conference was held. He proposed that a review committee be created to review the proposals. A number of individuals were slated for the committee. J. Frank Raley said that a member of the business community should be on the committee. Ellen Fraites said that she would take the request for funding the Economic Study to the Governor's Council on the Bay at their May 2nd meeting to see if additional State support could be generated.

There being no Old Business, the meeting was adjourned.

These Minutes were prepared by Helene Tenner.

(Commission Review Draft)

A Guide to the Conservation of
Forest Interior Dwelling Birds in the
Critical Area

Guidance Paper

No.1

Chesapeake Bay

Critical Area Commission

June, 1986

INTRODUCTION

The Chesapeake Bay Critical Area criteria require that protection be provided to forest interior dwelling birds and their habitat. Many of these birds are species which are either restricted to relatively large, undisturbed, generally mature forest areas, or whose populations depend on such areas. The Critical Area Commission developed protection requirements because these species have undergone substantial declines in abundance in parts of Maryland over the past 30 years. These declines are the result of the direct loss, and the fragmentation and isolation, of the forest habitat necessary to sustain such birds. The criteria suggest that riparian forests of 300 feet in width or wider, and upland forests of at least 100 acres, are likely to be habitats for interior dwelling birds. When development, or the cutting of trees, is proposed for such forests, the criteria require that these activities are to be conducted in a manner that would conserve these species and their habitat.

The purpose of this paper is to provide guidance to local jurisdictions, developers, land owners and other interested persons on the species to be protected by these regulations, the means to be used to determine their presence, and suggested protection or management measures. Information about the distribution of these species in Maryland has been collected in the Maryland Bird Atlas Project and will be made available by the Maryland Forest, Park and Wildlife Service to local jurisdictions

who are developing Critical Area programs. While this information can be used to generally describe bird populations in broad areas, the geographical unit of the Atlas Project (10 square miles) may be too large to permit an accurate characterization of the species on a specific site. The guidelines provided in this paper are intended to be applied to site-specific investigations of the forested areas described above, which may be proposed for development, timber harvesting, or other disturbance, or which may be proposed for special protection.

LIST OF SPECIES

Observations have been made in Maryland over a period of many years on the relative abundance and distribution of interior dwelling birds which are restricted to, or depend on, large upland or riparian forests (Robbins, et al., 1986; Robbins, 1980). This research indicated that although these species were occasionally found in small woodlots or nonforested habitat, they showed a high degree of association with the forests mentioned above. Based on data compiled in the Maryland Breeding Bird Atlas and on the research of other investigators (i.e., Lynch and Whigham, 1982, 1984; Whitcomb, et al., 1981) a list of such species has been prepared and is shown in Table 1. Certain of the bird species listed are marked with an asterisk because they are uncommon and highly sensitive to disturbance. The presence of these species is a significant indicator of high-quality

habitat. The other species listed are usually common in large, relatively undisturbed upland or riparian hardwood forests. However, when such forests become isolated, fragmented, or otherwise disturbed, these species tend to disappear. Thus, their absence is a significant indicator of poor habitat quality.

PRESENCE OF SPECIES

The Critical Area criteria do not specify the degree of presence of these species which would necessitate the institution of protection measures. For example, would a determination that Acadian flycatchers are present be sufficient to protect a particular area?

The Commission has determined that "presence", as used in the criteria, should be related to the overall habitat quality afforded by a given forested area for interior dwelling birds. Accordingly, the following guideline is suggested:

In upland forests of approximately 100 acres or more in extent, and in riparian forests of approximately 300 feet or more in width, protection measures for interior-dwelling birds are necessary when it has been determined, based on standard survey techniques, (see Survey Methods, below), that such species are present as follows:

- a) At least four of the species listed in Table 1 whose presence are found to be "probable" or "confirmed" based on breeding criteria described in the Maryland Breeding Bird Atlas Handbook; or

TABLE 1

List of Forest Interior Dwelling Bird Species
 Afforded Protection in the Critical Area

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Flycatcher, Acadian	<i>Empidonax virescens</i>
*Hawk, red-shouldered	<i>Buteo lineatus</i>
Ovenbird	<i>Seiurus aurocapillus</i>
*Owl, barred	<i>Strix varia</i>
*Redstart, American	<i>Setophaga ruticilla</i>
Tanager, scarlet	<i>Piranga olivacea</i>
Vireo, red-eyed	<i>Vireo olivaceus</i>
Vireo, yellow-throated	<i>Vireo flavifrons</i>
Warbler, black-and-white	<i>Mniotilta varia</i>
*Warbler, hooded	<i>Wilsonia citrina</i>
*Warbler, Kentucky	<i>Oporornis formosus</i>
Warbler, northern Parula	<i>Parula americana</i>
Warbler, prothonotary	<i>Prothonotaria citrea</i>
*Warbler, Swainson's	<i>Limnothlypis swainsonii</i>
*Warbler, worm-eating	<i>Helmitheros vermivorus</i>
*Waterthrush, Louisiana	<i>Seiurus motacilla</i>
Whip-poor-will	<i>Caprimulgus vociferus</i>
Woodpecker, hairy	<i>Picoides villosus</i>
Woodpecker, pileated	<i>Dryocopus pileatus</i>
* Species especially sensitive to disturbance	

- b) At least one of the sensitive species listed in Table 1 is found to be present according to the same criteria.

It should be noted that the areal extent of upland and riparian forests specified in the criteria is intended to be a general guideline. Interior-dwelling species may be present in smaller forests or absent in larger ones.

SURVEY METHODS

The Critical Area criteria require that designations of forest areas which provide habitat for interior-dwelling birds shall be made using standard biological survey techniques. An example of an acceptable method would be the standard point count technique described in Lynch and Whigham (1982, 1984) and Whitcomb, et al. (1981). The Commission expects that surveys of these species shall be done using one or more of these methods, and according to the breeding criteria and procedures described in the Maryland Breeding Bird Atlas Handbook. (See Appendix A.) Surveys should, therefore, meet at least the following minimum requirements:

- 1) Conducted only during the "Safe Dates" of breeding presence shown in Table 1 of the Handbook (generally mid-May through early August);

- 2) Conducted under appropriate weather conditions, and at a rate of at least three visits per site during the breeding season, each survey separated by at least an interval of a week.
- 3) Breeding presence to be determined as "probable" or "confirmed" as described in the Handbook; and
- 4) Surveys to be conducted by a qualified observer who is capable of identifying birds by their songs.

Additional details on the censusing of birds can be found in the publications of Laughlin and Kibbe (1985) and Ralph and Scott (1981).

PROTECTION AND MANAGEMENT MEASURES

The criteria require the protection and conservation of forested areas identified as habitat for forest interior-dwelling birds. The criteria do not totally prohibit development, timber harvesting, tree clearing or other activities from occurring in such areas, and several management and protection measures are suggested. The Commission's goal in adopting these criteria is to ensure that the habitats of interior dwelling species are identified, and that during the management or development of these areas habitat conservation is considered along with other factors. However, it is implicit in the criteria that managing such areas to conserve these birds should generally have a higher priority than management for other species, except threatened, or endangered species.

The following is a list of protection and management measures which the Commission believes should be considered in conserving the habitat value of these forested areas. It should be noted that all of the species listed in Table 1 mainly inhabit hardwood forests and, therefore, these protection measures are not applicable to coniferous (i.e., loblolly pine) forests.

- 1) Minimize disturbance during the May-August breeding season (i.e., from off-road vehicles, intensive public use, or logging);
- 2) Focus development or other disturbance on the periphery of the area (i.e., when planning roads, utility line corridors, or structures);
- 3) Retain the continuous cover of branches and foliage which is formed by the crowns of adjacent trees (e.g., the forest canopy) and trees and shrubs underneath the canopy (e.g., understory vegetation).
- 4) Retain standing dead trees (e.g. snag trees) which serve as bird nesting and feeding habitat.
- 5) Discourage the creation of small clearings and the disproportionate expansion of forest edge habitat;
- 6) Provide that if a forest area is temporarily cleared, it be permitted, or encouraged, to return to native forest vegetation;
- 7) Adopt timber harvesting techniques that maintain or improve habitat for forest-interior dwelling species;

- 8) Incorporate protection and management measures into Forest Management Plans, Soil Conservation Plans, and, where appropriate, sub-division ordinances or other local land use regulations.

TECHNICAL ASSISTANCE

In the Critical Area Program, local jurisdictions have the primary responsibility for implementing the criteria requirements for identifying and protecting these habitats. The Maryland Forest, Park and Wildlife Service will be able to provide technical assistance to the jurisdictions and to developers or land owners who are involved in the protection and management of these areas. Other agencies with special expertise on this subject include:

U. S. Fish and Wildlife Service

Patuxent Wildlife Research Center, Laurel, MD 20708

Contact: Chandler Robbins (301-498-0281)

Annapolis Field Office, 1825 B Virginia Street, Annapolis,
MD 21401

Contact: Deborah Rudis (301-269-5448)

Smithsonian Institution

Smithsonian Environmental Research Center, Box 28,
Edgewater, MD 21037

Contact: James Lynch (301-798-4424)

Other organizations involved in the censusing of birds in Maryland which can provide recommendations on trained observers include:

Maryland Ornithological Society

(Additional details to be provided on MOS, ANS, and other organizations)

LITERATURE

CITED

Laughlin, S. B. and D. T. Kibbe (eds.) 1985.

The Atlas of Breeding birds of Vermont, 1985. Vermont
Institute of Natural Science, Woodstock, VT; 456pp.

Lynch, J. F. and D. L. Whigham. 1982. Configuration of
Forest Patches Necessary to Maintain Bird and Plant
Communities. Maryland Power Plant Siting Program
Research Paper PPRP-59: 88 pp.

_____. 1984. Effects of Forest Fragmentation on
Breeding Bird Communities in Maryland, USA. Biological
Conservation. Vol. 28: 287-324.

Maryland Ornithological Society. 1982. Maryland and D. C.
Breeding Bird Atlas Project Handbook, 1983-1987.
Supplement to Maryland Birdlife, Vol. 38, 1982; 20pp.

Ralph, C. J. and M. Scott (eds.) 1981. Estimating Numbers
of Terrestrial Birds. Studies in Avian Biology No. 6.
Cooper Ornithological Society. Allen Press. Lawrence,
KS; 630pp.

Robbins, C. S., D. Bystrak, and P. H. Geissler 1986. The
Breeding Bird Survey: Its First Fifteen Years, 1965 -

1979. U. S. Fish and Wildlife Service, Resource
Publication 157. Washington, D.C.; 196pp.

Robbins, C. S. 1980. Effect of Forest Fragmentation on
Breeding Bird Populations in the Piedmont of the Mid-
Atlantic Region. Atlantic Naturalist. Vol. 33. pp 31-
36.

Whitcomb, R. F., J. F. Lynch, M. K. Klimkiewicz, C.S.

Robbins, B. L. Whitcomb and D. Bystrak 1981. Effects of
Forest Fragmentation on Avifauna of the Eastern
Deciduous Forest; pp 125-206. In: Burgess, R. L. and
D. M. Sharpe (eds.). Forest Island Dynamics in Man-
Dominated Landscapes. Ecological Studies, Vol. 41.
Springer-Verlag. NY.

APPENDIX A

Breeding Criteria and Censusing Procedures
For Forest Interior Dwelling Birds
In the Critical Area

(From: Maryland and D. C. Breeding Bird Atlas
Project Handbook, 1983 - 1987, Supplement to
Maryland Birdlife Vol. 38, 1982.)

BREEDING CRITERIA AND THE CODES

DEFINITIONS OF CODES

POSSIBLE

- O - Species observed in block, but not in breeding habitat. This code is primarily for birds that are not believed to breed in the block. For example, the thousands of Laughing Gulls in plowed fields on the lower Eastern Shore, or the sub-adult Ring-billed Gulls that spend the summer in Maryland. Fly-overs are also in this category, a soaring Turkey Vulture, for example. Any species seen outside the "Safe Dates" (Table I, Appendix) with no further breeding evidence should be recorded as O.
- X - Species heard or seen in breeding habitat within "Safe Dates." Be especially cautious during migration times.

PROBABLE (Always a one-letter Code)

- A - Agitated behavior or anxiety calls from adult. Parent birds respond to threats with distress calls or by attacking intruders. This does not include response to "pishing" or tape playing.
- P - Pair observed in suitable breeding habitat within safe dates. Use this code with caution.
- T - Territorial behavior or singing male present at same location on at least 2 different days. Territoriality can be presumed from defensive encounters between individuals of the same species, or by observing a male singing from a variety of perches within a small area.
- C - Courtship or copulation observed. This includes displays and courtship feeding, and birds mating.
- N - Visiting probable nest site. Primarily applies to hole-nesters. This code applies when a bird is observed visiting the site repeatedly, but no further evidence is seen.
- B - Nest building by wrens or excavation by woodpeckers. Both groups build dummy or roosting nests at the same time they are building a real one, but an unmated male will exhibit the same behavior.

CONFIRMED (Always a two-letter Code)

- NB - Nest building (except wrens and woodpeckers) or adult carrying nesting material. Carrying sticks is part of the courtship ritual (code "C") for some species, so be cautious with this code.
- DD - Distraction display; including injury-feigning. Agitated behavior can be mistaken for distraction, but is code "A", under PROBABLE.
- UN - Used nest found. Use extreme caution; nests are difficult to identify. If unsure, forget it. Do not collect the nest - a permit is required. This code can be especially useful after the leaves have fallen.

FL - Recently fledged young or downy young. This includes dependent young only. Be cautious of species that range widely soon after fledging. Don't forget to look for dead fledglings or nestlings on the road. Young cowbirds begging for food confirm both the cowbird and the host species.

FS - Adult bird seen carrying fecal sac. Feces of nestlings are contained in a membranous sac, carried away from the nest by the parents.

FY - Adult carrying food for young. Use with caution, a few species feed young long after wandering from nest site, or carry food a long distance. Many also engage in courtship feeding (code "C").

ON - Occupied nest presumed by activity of parents: entering nest hole and staying, parents exchanging incubation responsibility, etc. Primarily intended for hole nesters and nests too high to see the contents.

NE - Nest with eggs or eggshells on ground. Caution: these must be carefully identified. Cowbird eggs in nests confirm both the cowbird and the host species.

NY - Nest with young seen or heard. A cowbird chick in a nest confirms the cowbird and the host species.

EXAMPLES TO USE AS GUIDELINES

1. Woodpecker drumming: POSSIBLE - X within Safe Dates; PROBABLE - T if same place 2 different days. (Note: this refers to territorial drumming, not feeding!)
2. Duck summers on pond without suitable adjacent marshes: POSSIBLE - O.
3. Woodcock nuptial flights for 3 weeks: PROBABLE - T (POSSIBLE - X if observed only once); PROBABLE - C if courtship and display to female observed.
4. Gulls frequenting dumps, plowed fields, parking lots throughout summer in unsuitable nesting habitat: POSSIBLE - O.
5. Song Sparrow seen carrying nesting material: CONFIRMED - NB.
6. Wood Thrush seen on nest for extended period of time, but too high to see contents: CONFIRMED - ON.
7. Great Blue Heron feeding along river away from any known nesting area: POSSIBLE - O. (Note: watch such a bird closely; it could lead to a new colony.)
8. Second year male American Redstart singing abnormal song in hedgerow in early June: POSSIBLE - O.
9. Male House Wren sings all summer and stuffs nest boxes with sticks; no evidence of a mate: PROBABLE - B.
10. Male and female Scarlet Tanagers observed together several times in the same area but no nest or young ever seen: PROBABLE - P.

PROCEDURE

TIMING OF ATLASING

Atlasing is not strictly a summertime effort. It can be virtually a year-round project with most of the effort in June and July. June is the primary month for building a species list for your block because birds are on territory and very vocal. Also, most spring migrant birds have left by June 1.

July and August are the optimum months for recording birds in the PROBABLE and CONFIRMED categories. Though most singing activity has decreased, it is a time when noisy fledglings accompany parents or beg for food in a nest. Also, parent birds are more likely to be seen carrying food for young.

Migrants offer a threat to accuracy. The "Safe Dates" (Table 1, Appendix) indicate those dates when migrants of each species leave in the spring and arrive in the autumn. There is some variation across the state, the lower Eastern Shore being a few days to a week ahead of Western Maryland in spring. This table is not precise, it is intended as a general guide, for use primarily with POSSIBLE and some PROBABLE codes. Because, for many species, the nesting season overlaps the migration period, many PROBABLE and all CONFIRMED codes can be used outside the Safe Dates, e.g., a nest with eggs any time is definitely a legitimate CONFIRMED.

Early morning and evening are the best times to survey your block, bird activity is highest at these times. Most blocks will have birds that are active at night such as owls, woodcocks and Whip-poor-wills. Please make some special after-dark trips to record these species.

EFFORT REQUIRED

Most Maryland and D.C. Atlas blocks have 90 to 100 breeding species. Some may have 110+ or, in some urban areas, as few as 50. Experience has demonstrated a reasonable goal of recording 75% of the potential breeding species in your block. Considering the average number of potential species, we suggest a goal of a minimum of 70 species per block in rural areas; 40 in urban areas. To achieve these goals, be sure you have thoroughly examined all habitats in your blocks, and spend an appropriate amount of time in them.

Most species in a block will be encountered in the first few hours, and it will take more time per species as you approach the potential total; probably no block will have every species discovered in it. Don't miss an opportunity to spend an hour or two in a block away from home just because you feel you can not record enough species in the CONFIRMED category. As many as half the species in a block can be recorded as POSSIBLE in that time.

Other Atlases have shown that a total of 20 hours is optimal for achieving 75% coverage, therefore, if all habitats have been examined after 20 hours of cumulative morning and evening fieldwork, the block can be considered adequately covered even if the total is still under the minimum. Once you attain an acceptable level of coverage in your block, please ask for another. Contact your Local Coordinator to find out which are without coverage or in need of help. If you prefer to stay in your original block, do so and try for 100 species, it is not impossible! Remember, every acre of a block does not need to be examined. Thorough coverage of all available habitat is all that is necessary. Obviously, a block with uniform habitat will take considerably less time to cover adequately than one with a diversity of habitats.

UPGRADING

Whatever percentage of the potential total you attain, all birds will not be CONFIRMED. As you atlas, put the emphasis on the PROBABLE codes and building a good species list for your blocks rather than on confirming everything. Though some degree of certainty that the birds recorded in your block actually are breeding is desirable, a species recorded in preferred habitat during the safe dates, can be assumed to be breeding, even if only the POSSIBLE category is attained. If all blocks averaged 95% of their potential breeding species as no more than POSSIBLES, more meaningful distribution maps could be drawn than if they averaged only 50% or less, all in the CONFIRMED category.

We recommend, as a general guideline, trying for 25% of your species in the CONFIRMED category, 50% PROBABLE and 25% POSSIBLE. It is important to confirm the rarer species, so concentrate on those listed as "Rare and Local" on the Field Card, and those listed as "R", "L", "?" or "*" in your region (Table 1, Appendix). Don't waste time confirming abundant species when you could be examining an unusual habitat and bringing the species total in your block closer to the recommended minimum. You will probably confirm most common species without eventrying. Remember that a species needs to be confirmed only once in a block during the 5 years.

KNOWING YOUR BLOCK

Examine the map of your block in advance to determine potential habitats and likely species. Try to get to your block before the breeding season. On pre-season scouting trips you can take notes on actual habitats directly on the photocopy of your map or on the Field Card. Make use of the Access Map that has been included with your packet, which shows your block and those surrounding it. It will give you an idea of the roads by which to get to your block.

Scouting will also familiarize you with your block's boundaries, which is extremely important, especially to those less comfortable with map reading and those in quarter block areas. You also learn the condition of the roads and any obstructions such as washed-out bridges. Scouting trips also offer a good opportunity to make contacts for obtaining permission to enter private land. Most landowners enjoy talking with you once they know what you are doing. Be sure to ask landowners if they know of any nesting birds on their property. This is often a major source of Barn Owl records.

LOCAL COORDINATORS

Washington D.C. and each Maryland county has a Local Coordinator (see back cover) who recruits and encourages observers, oversees coverage, distributes packets and collects completed forms. These are the people to whom you should turn first if you have any questions or problems.

Each Local Coordinator is encouraged to assign assistants. A recommended method is to assign an entire quad to one person ("Quad Captain") who would be responsible for recruiting help for all 6 blocks of the quad. On a smaller scale, if more than one person is working in a block, a "Block Leader" can be designated to oversee the effort.

If you are traveling in another county and wish to atlas there, please contact the appropriate Local Coordinator (see the outside back cover). They will also be very happy to hear of any friends you may have who would like to help, either in your county or another.

RECORDING DATA - THE FIELD CARD

Use one Field Card per block; if 2 people are working the same block separately, 2 cards may be used, and both should be submitted. Do not put data from 2 or more blocks on one card. Ink is preferred on the Field Card, pencil may become hopelessly smeared and illegible. Do not use a water-soluble, felt-tip pen, it won't stand up in an unexpected rain. On every species line of the Field Card there are 3 columns to facilitate upgrading from one category to another, and a fourth column for quarter block designation.

Be sure all pertinent data are completed concerning block name and number, as well as the data concerning visits to the block. Count hours separately only when observers are working separately. When 2 or more observers are working together, the hours count only once. For location, describe the area you covered accurately; this will be a great help in relocating singing males at a later date. If your block is designated for quarter block coverage, you can also use this column to indicate which quarter block you were in. Your Field Cards will be returned to you in the following year, so you will not waste time re-recording the same information.

(SEE SAMPLE OF COMPLETED FIELD CARD ON INSIDE BACK COVER)

REPORTING DATA - THE SUMMARY SHEET

The Summary Sheet is designed to facilitate computer data entry. Data from your Field Card should be transferred to the Summary Sheet at the end of the breeding season, or as soon as you have finished for that year. Please use pencil when filling out the Summary Sheet. This makes it easier to update the status and to correct errors without making a mess of the sheet.

Note that the Summary Sheet has only one 2-digit column for breeding codes, unlike the 3 columns on the Field Card. The code for the highest category attained is to be included here. For the single-digit codes in the POSSIBLE and PROBABLE categories, use the right-hand side of the column. For codes in the CONFIRMED category, use both sides of the column. Following this column there are 4 very narrow columns. These correspond to the 4 quarter blocks. Use these if your block is designated for quarter block coverage or if, for some reason, all of your coverage is restricted to a single quarter block. See the section on quarter blocks (page 3) for more detail.

Summary Sheets and Field Cards are to be returned to your Local Coordinator no later than September 15 of each year! Please make an effort to comply; it will save time, money and effort.

(SEE SAMPLE OF COMPLETED SUMMARY SHEET ON INSIDE BACK COVER)

UNUSUAL SPECIES

One of the most important goals of the Atlas is to document the occurrence of unusual species, for which it is necessary to insist on verification. All species that require verification statewide are included under "Rare and Local Species" on the Field Card. These same species are marked with an asterisk or do not appear on the Summary Sheet. In addition to species unusual throughout Maryland and D.C., it is important to verify species of regional and county interest. Your Local Coordinator will require verification for species listed as "L", "R", "?" or "*" for your region in Table 1 (Appendix). The Appendix has a sample of the Verification Form (p. 19) showing the kinds of information required. The Verification Forms are available from your Local Coordinator.

INCIDENTAL REPORTING

If you should happen to notice a few breeding species in a block other than your own while atlasing or traveling, please don't forget to report them. In either case, rather than using an entire Atlas Field Card and Summary Sheet, an Incidental Records Form should be used. This form is available from your Local Coordinator. If, for any reason, you can not get a copy of this form, please submit such records on a plain sheet of paper. Include species, location, date and breeding evidence. Remember, every record is of value in the Atlas.

ATLAS TERMINOLOGY

Because there are many approaches to estimating numbers of birds, each with a different goal, it is important to keep the terminology clear. The terms "Survey", "Count", "Census" and "Atlas" all have very different meanings. Remember to refer to this project as an Atlas to prevent any confusion.

Within the Atlas, there are also terms to learn, especially the grid terms: a "quad" contains 6 "blocks" which (in some cases) contain 4 "quarter blocks." Numbering is always west to east, one line at a time, among quads, blocks and quarter blocks. "Categories" describe the 3 different levels of breeding certainty and "codes" are the various subdivisions within each category.

BLOCK BUSTING

Because of the enormity of the task of covering all 1200+ blocks in Maryland and the District, it is recommended that interested individuals organize "Block Busting" expeditions or "Block Parties." These can take various forms. One approach would be to organize a Christmas Count-like approach some time in late June or early July. Each Atlas block could be considered as a territory and anywhere from one to 18 blocks (the area of a Christmas Count circle) could be covered in one day. Weekend forays are another possibility. Block Busting is an attempt to reach, in a short period of time, an acceptable level of coverage in blocks not likely to be otherwise well covered.

As the Atlas project proceeds, we hope it will become obvious where this kind of help is most needed. If you are interested in participating in block parties or have any suggestions, please contact the Block Busting chairman or your Local Coordinator.

Commission
Subcommittee
State Recp



JUDGE SOLOMON LISS
CHAIRMAN

STATE OF MARYLAND
CHESAPEAKE BAY CRITICAL AREAS COMMISSION
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401
301-269-2418 or 269-2426

SARAH J. TAYLOR, PhD
EXECUTIVE DIRECTOR

COMMISSIONERS

- William Bostian
Wicomico Co.
- Ann Sturgis Coates
Town of Snow Hill
- Clarence Du Burns
Baltimore City
- James E. Gutman
Anne Arundel Co.
- Parris Glendening
Prince George's Co.
- Donald P. Hutchinson
Baltimore Co.
- Shepart Krech, Jr.
Talbot Co.
- Florence Beck Kurdle
Anne Arundel Co.
- John W. Logan
Caroline Co.
- John Luthy, Jr.
Dorchester Co.
- Robert S. Lynch
Harford Co.
- Barbara W. O'Neill
Cecil Co.
- Robert R. Price, Jr.
Queen Anne's Co.
- J. Frank Raley, Jr.
St. Mary's Co.
- Harry T. Stine
Charles Co.
- Samuel E. Turner, Sr
Talbot Co.
- Lloyd S. Tyler, III
City of Crisfield
- Mary Roe Walkup
Kent Co.
- Albert W. Zahniser
Calvert Co.

June 12, 1986

Dear Commission Member:

There will be a State Regulations Subcommittee meeting on July 2, 1986 at 2:30 p.m. at the Department of Agriculture, before the monthly Commission meeting. If you cannot attend, please telephone me ASAP at 269-2418.

Sincerely,

Jennifer J. Delve
Secretary

CABINET MEMBERS

- Torrey C. Brown, M.D.
Natural Resources
- Wayne A. Cawley, Jr.
Agriculture
- William Eichbaum
Health and Mental Hygiene
- Ardath Cade
Economic and Community Development
- Constance Lieder
Planning

*Commiss
Subcommittees
Legal network*

STEPHEN H. SACHS
ATTORNEY GENERAL

ELEANOR M. CAREY
DEPUTY ATTORNEY GENERAL

DENNIS M. SWEENEY
DEPUTY ATTORNEY GENERAL

CHARLES O. MONK, II
DEPUTY ATTORNEY GENERAL



THOMAS A. DEMING
ASSISTANT ATTORNEY GENERAL
COUNSEL TO SECRETARY

M. BRENT HARE
JUDITH C. FINN
MARIANNE D. MASON
PAMELA D. ANDERSEN
HOWARD P. NICHOLSON
LEE R. EPSTEIN
HENDERSON J. BROWN, IV
ELIZABETH MAUMENEE
ASSISTANT
ATTORNEYS GENERAL

STATE OF MARYLAND
OFFICE OF
THE ATTORNEY GENERAL
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401
(301) 269- 2251

June 24, 1986

Dear Local Planning Attorney:

As you know, in 1984 the General Assembly enacted the Critical Areas law, commencing a process which will ultimately result in the development and implementation of local critical area programs around the Bay. Over the next year-and-a-half, local jurisdictions will be studying and designing their own programs, using the Critical Area Commission's Criteria for guidance.

It seems to us that just now it may be especially helpful to the local jurisdictions' own lawyers to begin a dialogue, wherein we can share common concerns over legal issues, identify alternative approaches and creative solutions to those problems, and in general discuss anything on our collective minds relating to local critical area programs -- from TDR's to taxes.

What we are proposing here is convening a group of the local jurisdictions' planning commission, town, or county attorneys to meet over the course of the next six months. We may want to aim at ultimately holding a seminar for our public and private colleagues somewhere down the road, but in the meantime, we think that a series of meetings might be an excellent start.

Please write or telephone Lee Epstein as soon as you can, so that we can gauge the extent of interest in this idea. As soon as we have a sense of that interest, we can begin to plan the first meeting -- perhaps an informal one over dinner in early July. Once organized, we could plan to meet at both Eastern and Western shore locations.

Thank you for your continuing interest in the Critical Area program. We hope to see you all soon, and welcome your input.

Yours sincerely,

Solomon Liss
Solomon Liss, Chairman
Chesapeake Bay Critical Areas Commission

Robert R. Price, Jr. (V.R.G.)

Robert R. Price, Jr.
Commissioner

Lee R. Epstein

Lee R. Epstein
Assistant Attorney General

SL/jtd