FEASIBILITY STATEMENTS FOR PASSERINE GOALS AND OBJECTIVES

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The feasibility, desirability, habitat capability, and possible consequences of the recommended objectives for passerine conservation in Maine are presented below. Some of the objectives are feasible and there is sufficient habitat to meet them. However, because so many species are included under many of the individual objectives, it is not feasible without detailed prioritization, for example "to stabilize then reverse declines" for such large numbers of species even over a 15-year period. Furthermore, some habitat objectives, as written, assume that limiting factors on the breeding grounds are the primary reason for species declines. As a consequence, MDIFW need only alter these limiting factors to stabilize and/or reverse declines. It is widely believed that at least some species are most limited on their wintering grounds especially in the neotropics. The public working group recognized this, but failed to include this important caveat in these objectives. As a result for most species groups, progress toward meeting habitat objectives is possible and will take place, but will not be accomplished in their entirety.

Grassland Passerines

<u>Goal</u>: Increase the populations of grassland passerines, and increase the understanding and appreciation of grassland passerines and their habitat requirements in Maine.

<u>Population Objective 1</u>: Identify grassland passerines whose populations are declining in Maine and stabilize and begin to reverse the decline by 2015. Priority should be given to those species that have greater than 5% of their global populations breeding in Maine.

<u>Desirability</u>: Reversing the declines of these species is sorely needed, especially for Bobolinks. Some steps that would stem the declines in these species will be viewed as undesirable by the farmers who already may operate on a narrow profit margin. Striking a balance between the needs of farmers and grassland birds would be the most desirable. Whether this can be done while stabilizing and reversing population declines, is unknown.

<u>Feasibility</u>: Of the five species of passerines considered in this section, Horned Lark and Vesper Sparrow have inadequate monitoring to determine population trend. It is not feasible to develop such a program just for Vesper Sparrow especially in view of upcoming planning for Upland Sandpiper, which shares blueberry barren habitat with Vespers throughout the state. Monitoring of Horned Larks too is problematic in that the species is largely restricted to Aroostook County agricultural lands where relatively few experienced birders live. It is feasible to build a network of volunteers to do this, but may not be desirable given their low (probably <1%) proportion of global population occurring in Maine.

Stabilizing the populations of Bobolinks and Eastern Meadowlarks is feasible, but not without building significant partnerships, acquiring additional funding, and increasing staff dedicated to grassland bird populations. Population trends for these species have been significantly declining for decades, and the specific actions needed to reverse these declines have only been generalized. It is feasible to work toward this objective, but it remains unclear whether or not it is achievable even with increased funding and/or reallocation of personnel time. Unfortunately, this may only be possible once populations have declined to very low levels.

<u>Capability of the Habitat</u>: Today, Maine is approximately 90% forested, and the amount of grassland and barren habitat is probably stable or declining. Decade-long declines in some grassland species reflect the long-term declines in their habitat. The extensive agricultural lands of the early 1900's are now largely reforested, especially in southern Maine. The amount of

grassland and barren habitat needed to meet this objective probably exists, but will continue to decline in quality through intensification of agriculture, especially haying, on limited remaining lands and to reforestation of lands abandoned within the last few decades.

<u>Possible Consequences</u>: The consequences of not reversing the declines of Bobolink and Eastern Meadowlark may be much reduced population size with occurrence only on the remaining best quality sites. This situation may actually have taken place with Horned Larks, which once bred in the extensive agricultural lands of central Maine but are now largely restricted to Aroostook County. Populations of Vesper Sparrow will persist, but success will be linked closely to conservation of Upland Sandpiper and management strategies employed by the blueberry industry. Agricultural interests could see increasing pressure to alter farming practices shown to be detrimental if any of these species becomes increasingly rare.

<u>Population Objective 2</u>: Through 2015, maintain and monitor grassland passerines whose populations have been stable or increasing since 1980.

<u>Desirability</u>: A stable or increasing population of this grassland species is desirable.

<u>Feasibility</u>: Currently, this objective includes only Savannah Sparrow and is easily obtainable without significant further attention. Savannah Sparrows are adequately monitored by the BBS and would require only periodic review of trend estimates.

<u>Capability of the Habitat</u>: Sufficient habitat exists to meet this objective; reduction in patch size would be the only immediate concern.

<u>Possible Consequences</u>: Maintaining stable or increasing populations of Savannah Sparrows will benefit conservation of this species in our region, although Maine holds only a small portion of the global population of this species.

<u>Habitat Objective 1</u>: Identify all priority grassland habitats in Maine and improve habitat quality at 50% of these sites by 2007.

<u>Desirability</u>: This would be the most likely means to achieve both population goals and is clearly desirable.

<u>Feasibility</u>: Priority grassland bird populations were identified by the grassland bird survey conducted by Andy Weik (1997-1999). Priority habitats can be identified simply from this database. Research is needed to

fully understand what constitutes high quality habitat and how it can be maintained and or enhanced through management practices. For example, why are hayed fields of similar size occupied by several species of grassland birds, whereas sites of similar size that are only mowed (i.e., bushogged) less acceptable? Improving habitat quality at ½ of these sites could be achieved within the time frame though not without significant outreach, partnerships, research, and assistance.

<u>Capability of the Habitat</u>: Improving habitat quality will likely take the form of altering (i.e., delaying) mowing practices, increasing acreage of controlled burns, etc. Grassland habitats in Maine should respond favorably (i.e., improve in quality) to such management practices.

Possible Consequences: Achieving this objective could help to stabilize the populations of declining grassland birds. Failure to achieve this objective will permit the continued erosion of populations of several species in Maine. Delaying timing of mowing is a logical step toward improving habitat quality, but would result in lowered quality of hay and potentially less production per acre with reduced "second crops". Lowering hay quality and quantity has obvious negative effects on farmers. However, the average landowner seeking to "keep their fields clear of brush" could do so with no economic impact by delaying mowing. Airports might actually spend less money if they were to allow grassy approaches to runways develop over the course of the growing season. Use by gulls and geese too would likely be reduced if mowing were less frequent.

<u>Habitat Objective 2</u>: By 2015, improve management practices to enhance grassland passerine populations on at least 100 additional grassland sites.

<u>Desirability</u>: This approach would be significant in helping to achieve both population goals and is clearly desirable.

<u>Feasibility</u>: Research is needed to fully understand what constitutes high quality habitat and how it can be maintained and or enhanced through management practices. For example, why are fields of similar size that are hayed occupied by several species of grassland birds whereas sites that are only mowed not as acceptable? Improving habitat quality at ½ of these sites could be achieved within the time frame though not without significant funding, partnerships, research, assistance, and outreach.

<u>Capability of the Habitat</u>: Improving management practices will likely take the form of altering mowing practices, increasing acreage of controlled burns, etc. Grassland habitats in Maine should respond favorably (i.e., improve in quality and in fledging success) to such management practices.

Possible Consequences: Achieving this objective could help to stabilize the populations of declining grassland birds. Failure to achieve this objective will permit the continued erosion of populations of several species in Maine. Delaying timing of mowing is a logical step toward improving habitat quality, but would result in lowered quality of hay and potentially less production per acre with reduced "second crops". Lowering hay quality and quantity has obvious negative effects on farmers. However, the average landowner seeking to "keep their fields clear of brush" could do so with no economic impact by delaying mowing. Airports might actually spend less money if they were to allow grassy approaches to runways develop over the course of the growing season. Use by gulls and geese too would likely be reduced if mowing were less frequent.

<u>Outreach Objective</u>: By 2005, develop and begin implementing an outreach program that increases the understanding and appreciation of grassland passerines and their habitat requirements in Maine.

<u>Desirability</u>: A public informed about a broad array of species, which in general emphasizes the value of grasslands and barrens, would be a positive step toward conservation of these habitats for passerines and other wildlife.

<u>Feasibility</u>: Development of a formal outreach program is possible, but will require significant funding and partnerships with other agencies and conservation NGO's. Many programs may already be in place via the Maine PIF Working Group and simply need to be fleshed out. Development of outreach materials (e.g., posters, pamphlets, signage) will require more funding than is currently available and likely will require reliance on MDIFW's Division of Information and Education.

Capability of the Habitat: Not applicable.

<u>Possible Consequences</u>: A successful outreach program could help build private partnerships for stewardship, monitoring, and protection of early successional habitats that are not currently in place.

Forest Passerines

<u>Goal</u>: Maintain the diversity and abundance of forest passerines, and increase the understanding and appreciation of forest passerines and their habitat requirements in Maine.

<u>Population Objective 1</u>: Identify forest passerines whose populations in Maine are declining, and stabilize and begin to reverse the decline by 2015. Priority should be given to those species that have greater than 5% of their global populations breeding in Maine.

<u>Desirability</u>: Meeting this objective is highly desirable. Maine has a large responsibility for conservation of several forest passerines.

<u>Feasibility</u>: This objective is not feasible without prioritization given current levels of staffing and funding especially in view of the other species needs identified in this document. Of the 54 species in this group, 40% are either in decline or not adequately monitored by the Breeding Bird Survey (BBS) in Maine. Meeting this objective will require significant effort given that some of these species have a limited range in Maine and/or have specific habitat requirements within this general habitat category. To be feasible, this will require some prioritization, possibly beyond that described above, or would require a significant effort to monitor many small, relatively dispersed populations. The MDIFW will likely be able to work toward this objective and may be able to meet it for some species, but probably will not for all species, even over the 15-year planning period.

<u>Capability of the Habitat</u>: With a large proportion of Maine currently in forested habitat, the landscape within Maine appears capable of supporting this objective. Exceptions to this may be in portions of Maine where fragmentation may be significant enough over the next 15 years to interfere with conservation efforts targeted at area sensitive forest passerines.

Possible Consequences: Meeting this objective would contribute favorably to statewide (and regional) conservation of these species. In contrast, failure to meet this objective for "at risk" species will permit their continued decline, and ultimately, in their listing as either threatened or endangered in Maine and possibly their loss from some forests in our state. A proactive approach targeted at these species could prevent a conservation crisis for species such as Bicknell's Thrush. The potential exists that increased federal regulations could limit scope, siting, and intensity of harvesting if species such as Canada Warbler reach extremely low population levels. Large forest landowners could play an important role in conserving many of these species. Thus, it is more likely that cooperative relationships could be

attained that would ensure sufficient habitat without the need for increased regulation.

<u>Population Objective 2</u>: Through 2015, maintain and monitor forest passerines whose populations have been stable or increasing since 1980.

<u>Desirability</u>: A stable or increasing population of all forest passerines is desirable.

<u>Feasibility</u>: This objective should be obtainable without significant further attention. These 32 species are adequately monitored by the BBS and would require only periodic review of their trend estimates. It is possible that nonsignificant (i.e., "stable") trends for some species could become significant downward trends with increased BBS data. The opposite too may occur and should be considered.

<u>Capability of the Habitat</u>: With the large proportion of Maine currently in forested habitat, the landscape within our state appears capable of supporting this objective. Exceptions to this may be in portions of Maine where fragmentation may be significant enough over the next 15 years to interfere with conservation efforts targeted at area sensitive forest Passerines.

<u>Possible Consequences</u>: Meeting this objective would contribute favorably to statewide (and regional) conservation of these species. In contrast, failure to meet this objective will permit continued decline of several species and ultimately in their listing as either threatened or endangered in Maine, and possibly, to the loss of viable breeding populations of some species. A proactive approach targeted at these species could prevent a conservation crisis for species such as Olive-sided Flycatcher.

<u>Population Objective 3</u>: For forest passerines whose populations are assumed to be cyclical, work in conjunction with partners throughout the planning period (2000-2015) to try to determine long-term, cyclical patterns.

<u>Desirability</u>: Understanding the cyclical patterns of forest passerine populations would help in developing effective conservation programs for these species. In some instances, however, the key limiting factor may be beyond our control, or to modify it may be undesirable.

<u>Feasibility</u>: This objective is feasible, but cannot be achieved without significant partnerships and increased funding. Willing partners probably exist, but roles and strategies would need to be identified. One impediment

to meeting this objective would be the length of a given cycle for a species and whether that could be evaluated within the 15-year planning period.

<u>Capability of the Habitat</u>: Initially, it seems that there is sufficient habitat to meet this objective, however, the complexities of factors driving these cycles are not fully known.

Possible Consequences: Meeting this objective would contribute favorably to statewide (and regional) conservation of these species. In contrast, failure to meet this objective could permit a population to decline below a level from which it could not recover. Opportunities for conservation would then be limited to listing as either threatened or endangered in Maine, and ultimately, though not likely, to the loss of viable breeding populations. A proactive approach targeted at these species could prevent a conservation crisis for species such as Red Crossbill. The potential exists that increased federal regulations could limit scope, siting, and intensity of harvesting if cyclical species reach extremely low population levels. Large forest landowners could play an important role in conserving many of these species. Thus, it is more likely that cooperative relationships could be attained that would ensure sufficient habitat without the need for increased regulation.

<u>Habitat Objective:</u> Maintain and enhance a sufficient amount of high quality habitat to prevent and reverse population declines of forest birds in Maine.

<u>Desirability</u>: This objective is desirable for forest species in general.

<u>Feasibility</u>: This objective assumes that habitat on the breeding grounds is the primary limiting factor for this group of birds. It may be, but for those species for which it is not (e.g., Veery?), this objective is not achievable. The feasibility of this objective is in question because relationships between habitat quality, quantity, and population dynamics are unknown for nearly all species. It is possible to work toward this objective (specifically through examining species/habitat relationships), but it is unlikely to occur even for all priority species within the current planning period. Research into species/habitat relationships will require increased funding, and possibly, reallocation of personnel time.

<u>Capability of the Habitat</u>: Where sufficient amounts of high quality habitat do not exist, forest habitat could be enhanced through changes in forest practices. Management strategies for forest habitats have been examined by numerous studies, but remain to be fully understood for all species.

<u>Possible Consequences</u>: Failure to meet this objective will undermine any steps toward achieving any population objective. The potential exists that

increased federal regulations could limit scope, siting, and intensity of harvesting if species reach extremely low population levels. Large forest landowners could play an important role in conserving many of these species. Thus, it is more likely that cooperative relationships could be attained that would ensure sufficient habitat without the need for increased regulation.

Outreach Objective: By 2005, develop and begin implementing an outreach program that increases the understanding and appreciation of forest passerines and their habitat requirements in Maine.

<u>Desirability</u>: A public informed on the importance of conservation of forest birds is desirable. Also, based on the responsibility that Maine has for several species (i.e., > 5% of global population for several species), this objective is greatly needed.

<u>Feasibility</u>: Development of a formal outreach program is possible, but will require significant partnerships with other agencies and conservation nongovernmental organizations (NGO's) and adequate funding. Many of these may already be in place via the Maine Partners In Flight (PIF) Working Group and simply need to be fleshed out. Development of outreach materials (e.g., posters, pamphlets, signage) will require more funding than is currently available and likely will rely heavily on MDIFW's Division of Information and Education.

Capability of the Habitat: Not applicable.

<u>Possible Consequences</u>: Many of these birds are common in suburban backyards, not just northern Maine; therefore, even the average homeowner can and should play a role in their conservation. An informed public may enhance nesting opportunities for, and survival of, forest passerines through simple action in their woodlots and backyards. Increasing awareness even among professionals could affect habitat management decisions and presumably populations of forest Passerines.

Shrubland Passerines

<u>Goal</u>: Increase or maintain the populations of shrubland passerines, and increase the understanding and appreciation of shrubland passerines and their habitat requirements in Maine.

<u>Population Objective 1</u>: Identify shrubland passerines whose populations in Maine are declining, and stabilize and begin to reverse the decline by 2015. Priority should be given to those species that have greater than 5% of their global populations breeding in Maine.

<u>Desirability</u>: With the exception of Brown-headed Cowbird, stabilizing and reversing the decline of shrubland species is highly desirable. Many birds in this group suffer from loss of habitat (i.e., reforestation), as have grassland species.

<u>Feasibility</u>: This objective is not feasible without prioritization given current levels of funding and allocation of staff time, especially in view of the other species needs identified in this document. Of the 32 species in this group, over 1/2 are either in decline or not adequately monitored by the BBS in Maine. Meeting this objective will require significant effort given these species often have a limited range in Maine and/or have specific habitat requirements. To be feasible, this will require some prioritization above that described in the objective above, or a significant effort would be needed to monitor small, relatively dispersed populations. It is likely that MDIFW will work toward this objective, and may be able to meet it for some species, but probably will not for all species, even within the 15-year planning period.

<u>Capability of the Habitat</u>: Shrubland passerines could benefit from expanded shrub habitat. Existing habitat may be sufficient to meet this objective for some species, but not all.

<u>Possible Consequences</u>: Meeting this objective would contribute favorably to statewide (and regional) conservation of these species. In contrast, failure to meet this objective for "at risk" species will permit their continued decline, ultimately in their listing as either threatened or endangered in Maine, and perhaps the loss of some species at some sites. A proactive approach targeted at these species could prevent a conservation crisis for species such as Prairie Warbler and Field Sparrow. The potential exists that increased federal regulations could impose restrictions on land use should some shrubland species become endangered or threatened. However, it is more likely that cooperative relationships could be developed that would ensure sufficient habitat without the need for increased regulation.

<u>Population Objective 2</u>: Through 2015, maintain and monitor shrubland passerines whose populations have been stable or increasing since 1980.

<u>Desirability</u>: A stable or increasing population of these shrubland passerines is desirable.

<u>Feasibility</u>: This objective is easily obtainable without significant further attention. These 14± species are adequately monitored by the BBS currently and would require only periodic review of their trend estimates. It is possible that nonsignificant trends (i.e., "stable") for some species could become significant downward trends with increased BBS data. The opposite too may occur and should be considered.

<u>Capability of the Habitat</u>: All shrubland species could benefit from expanded shrub habitat. Existing habitat may be sufficient to meet this objective for most species covered by this objective.

<u>Possible Consequences</u>: Maintaining stable or increasing populations of shrubland passerines will benefit conservation of these species in our region, although Maine holds only a small portion of the global population for most of these species. Chestnut-sided Warbler is the only species with >5 % of its global population in our state.

<u>Habitat Objective</u>: Maintain and enhance a sufficient amount of high quality habitat to prevent and reverse population declines of shrubland passerines in Maine.

<u>Desirability</u>: This objective is desirable for shrubland species in general. Trade offs will occur where improving habitat for some species will result in increasing Brown-headed Cowbird populations.

<u>Feasibility</u>: This objective assumes that habitat on the breeding grounds is the primary limiting factor for this group of birds. It may be, but for those species for which it is not (e.g., Eastern Towhee?), this objective is not achievable. The feasibility of this objective is in question because relationships between habitat quality, quantity, and population dynamics are unknown for nearly all species. It is possible to work toward this objective (specifically through examining species/habitat relationships), but it is unlikely to occur even for all priority species within the current planning period. Research into species/habitat relationships will require additional funding, and possibly, reallocation of personnel time.

<u>Capability of the Habitat</u>: Where sufficient amounts of high quality habitat do not exist, shrub habitat could be enhanced though vegetation management

plans along utility corridors. Management practices for upland habitats are well known, although what constitutes high quality habitat for all species in question has not been thoroughly addressed. Shrub-dominated upland habitat, because it is often ephemeral, may not be in sufficient quantity (or quality) to meet this objective for all species in this category. Wetland habitats too are difficult to assess because they are influenced by natural fluctuations of beaver populations. Wet shrublands are likely sufficient to support this objective for wetland-associated species.

<u>Possible Consequences</u>: Failure to meet this objective will undermine any steps toward achieving either population objective. The potential exists that increased federal regulations could impose restrictions on land use should some shrubland species become endangered or threatened. However, it is more likely that cooperative relationships could be developed that would ensure sufficient habitat without the need for increased regulation. Cooperative relationships with utility managers could improve habitat quality for several shrubland species and could be part of mitigation negotiations when new corridors are proposed.

Outreach Objective: By 2005, develop and begin implementing an outreach program that increases the understanding and appreciation of shrubland passerines and their habitat requirements in Maine.

<u>Desirability</u>: A public informed on the importance of conservation of shrubland birds is highly desirable. These birds are common in suburban backyards, and even the average homeowner can play a role in their conservation.

<u>Feasibility</u>: Development of a formal outreach program is possible, but will require significant partnerships with other agencies and conservation NGO's and increased funding. Many programs may already be in place via the Maine PIF Working Group but may simply need to be fleshed out. Development of outreach materials (e.g., posters, pamphlets, signage) will require more funding than is currently available and will likely require heavy reliance on MDIFW's Division of Information and Education.

Capability of the Habitat: Not applicable.

<u>Possible Consequences</u>: An informed public may enhance nesting opportunities for, and survival of, shrubland passerines through simple action in their woodlots, farms, and backyards. Increasing awareness, even among professionals, could affect habitat management decisions and presumably populations of shrubland passerines.

Swallows

<u>Goal</u>: Maintain the diversity and abundance of swallows, and increase the understanding and appreciation of swallows and their habitat requirements in Maine.

<u>Population Objective</u>: By 2003, develop and implement a monitoring system for Purple Martins and Bank Swallows that will have a 90% probability of accurately detecting population trends to within 15% by 2013.

<u>Desirability</u>: Knowing population trend for all passerines is desirable. Bank Swallows are currently monitored adequately by the BBS in Maine; their population trend estimate, however, is nonsignificant despite a large negative trend with over 20 routes reporting this species. Unfortunately, this objective ignores Rough-winged Swallow for which no trend data exist. It would be more desirable to have at least some trend data for Northern Rough-winged Swallows than to reduce variation in Bank Swallow trend data. However, this would be difficult owing to the noncolonial nature and some difficulty of identification (i.e., potentially confused with other species of swallows) of Northern Rough-winged Swallows.

<u>Feasibility</u>: This objective is feasible because of the small numbers of colonial nesting sites, but would require significant volunteer participation and coordination. It is unclear how many colonies would be needed to meet the monitoring criteria prescribed in this objective. Furthermore, MDIFW has no data regarding how many colonies of each exist. Clearly, there are fewer Purple Martin colonies in Maine than those of Bank Swallows, therefore, if too few exist, it may not be possible to meet the objective statistically for Purple Martins.

Capability of the Habitat: Not applicable.

<u>Possible Consequences</u>: Achieving this objective would provide trend data for Purple Martin which would assist with evaluating the status of their population in Maine and perhaps suggest management options for enhancing their populations. In contrast, additional data on Bank Swallows would be useful, as high variability exists in their trend estimate from the BBS.

Outreach Objective: By 2005, develop and begin implementing an outreach program that increases the understanding and appreciation of swallows and their habitat requirements in Maine.

<u>Desirability</u>: A public informed on the importance of conservation of Maine swallows is highly desirable. Tree Swallows, in particular, would make excellent models for classroom-based outreach.

<u>Feasibility</u>: Development of a formal outreach program is possible, but will require significant partnerships with other agencies and conservation NGO's. Many of these may already be in place via the Maine PIF Working Group and simply need to be fleshed out. Development of outreach materials (e.g., posters, pamphlets, signage) will require more funding than is currently available and will likely require reliance on MDIFW's Division of Information and Education.

Capability of the Habitat: Not applicable.

<u>Possible Consequences</u>: An informed public may enhance nesting opportunities for Purple Martins and Tree Swallows. Furthermore, knowledgeable Maine citizens may be more sensitive to Bank Swallows nesting in gravel pits, Cliff Swallows on sides of buildings, and to tolerating Barn Swallows in rural outbuildings.

Wetland Passerines

<u>Goal</u>: Maintain the diversity and abundance of wetland passerines, and increase the understanding and appreciation of wetland passerines and their habitat requirements in Maine.

<u>Population Objective</u>: Identify and prioritize species of conservation concern by 2002, determine population trends by 2009, and develop population objectives for all at risk species by 2010.

<u>Desirability</u>: Achieving this objective is critical to understanding the conservation status of several species. It is especially important for species such as Nelson's and Saltmarsh Sharp-tailed Sparrow for which Maine has an inordinate amount of the species' regional/global population.

Feasibility: Identifying and prioritizing wetland passerines of conservation concern is clearly feasible, and much of this analysis already has been done. Determining population trends, however, will be more difficult. Population trend data are adequate for only 3 of 9 species in this category via the BBS. Presumably, not all species would be deemed high priority, however, because several types of wetlands are involved, multiple monitoring programs (albeit small) would need to be implemented. This could not be done without significant volunteer assistance and perhaps volunteer coordination. Design of a monitoring program targeted specifically for Sharptailed Sparrows is in draft form, but no plan has been prepared for other species such as Rusty Blackbirds. Furthermore, availability of volunteers to participate in such programs will be more likely in populated areas of the state where Sharp-tailed Sparrows and Marsh Wrens are more broadly distributed compared to Rusty Blackbirds, which occur in portions of the western mountains and remote northern Maine. It is feasible to develop population objectives (if drafted using the format for other groups of passerines), however, achieving those goals, presumably to "stabilize or reverse declining trends," may be problematic, because wetland creation or alteration may not be desirable and difficult given both state and federal jurisdiction over habitat alteration of wetlands.

<u>Capability of the Habitat</u>: Evaluating the amount of habitat needed for wetland passerines will depend on the population objectives to be developed by 2010.

<u>Possible Consequences</u>: Prioritizing, monitoring, and setting population objectives are critical to maintaining populations of several of the species in all currently occupied habitats. More specifically, some species may be in decline currently, but we lack the data to verify this. Without these data and

subsequent management efforts, populations of some species could decline to the point they require the protection afforded endangered and threatened species, or perhaps, to the point they disappear from some sites.

<u>Habitat Objective 1</u>: By 2015, increase the acreage of upland buffers of saltmarsh habitat in conservation status by 10,000 hectares, with at least 4,000 hectares in York, Cumberland, and Sagadahoc Counties.

<u>Desirability</u>: This level of protection is clearly desirable for the stability of passerine populations in saltmarsh habitats. It will be difficult to evaluate and reverse declining populations without protecting upland buffers. Without such continued protection, chronic loss of habitat quality will continue as has been seen in some southern Maine marshes.

<u>Feasibility</u>: Meeting this objective will not be possible by the Department alone and without substantial funding. Several NGO's (e.g. land trusts) and other agencies should make it possible to work toward this goal. It is difficult to evaluate the feasibility of this objective without, for example, knowing the history of such efforts over the last two decades (i.e., is this amount realistic given past accomplishments?). It may be possible to achieve this objective at least outside the 3 southern counties identified, but no mechanism currently exists to keep an ongoing, statewide tally of lands that are placed in conservation status. Outreach to other agencies, probably the State Planning Office, will be needed to establish the networks necessary to monitor changes in status of conservation lands above those involving MDIFW.

<u>Capability of the Habitat</u>: Sufficient habitat is available to meet this objective. The availability of funds and willingness of landowners, however, remain uncertain.

Possible Consequences: Providing undeveloped buffers around saltmarsh habitat will ensure habitat quality through minimizing disturbance and maintaining water quality. Failure to meet this objective will result in incremental degradation of habitat quality and could lead to a loss of species diversity at some sites. It is likely that these changes will not fully be realized in the current planning period, but rather appear as a chronic decline in habitat quality and ultimately avian richness. Acquisition or easement of lands buffering wetlands would benefit willing sellers and potentially raise the value of neighboring parcels, outside, but adjacent to conservation lands. Seizure of property under eminent domain is not a reasonable option. Towns may receive less property tax revenue for conserved parcels unless funds can be raised at the time of purchase to offset future tax liability.

<u>Habitat Objective 2</u>: Prioritize peatlands by size, and by 2017, increase the acreage in conservation status for peatlands by 12,000 hectares and adjacent buffers by 24,000 hectares.

<u>Desirability</u>: This level of protection is clearly desirable for the stability of passerine populations in peatland habitats. It will be difficult to effectively conserve populations without protecting upland buffers. Without such continued protection, chronic loss of habitat quality will continue.

<u>Feasibility</u>: Prioritization is clearly feasible with cooperation from Habitat Group personnel. Meeting the latter portion of this objective though, may not be possible by MDIFW alone given current levels of funding and staffing. Several NGO's (e.g. land trusts) and other agencies likely will make it possible to work toward this goal within this time frame. It is difficult to evaluate the feasibility of this objective without, for example, knowing the history of such efforts over the last two decades. Furthermore, it may be possible to achieve this objective, but no mechanism currently exists to keep an ongoing statewide tally (i.e., over time) of lands that are placed in conservation status. Outreach to other agencies, probably the State Planning Office will be needed to establish the networks necessary to monitor changes in status of conservation lands beyond those involving MDIFW.

<u>Capability of the Habitat</u>: Sufficient habitat is available to meet this objective. The availability of funds and willingness of landowners, however, remain uncertain.

Possible Consequences: Providing undeveloped buffers around peatlands will help maintain habitat quality through minimizing disturbance and maintaining groundwater quality. Failure to meet this objective will result in incremental degradation of habitat quality and could lead to a loss of species diversity. These changes will not likely be realized in full during the current planning period, but rather appear as a chronic decline in habitat quality and perhaps avian richness. Acquisition or easement of peatlands and lands buffering wetlands would benefit willing sellers and could potentially raise the value of neighboring parcels outside, but adjacent to, conservation lands. Seizure of property under eminent domain is not a reasonable option. Towns may receive less property tax revenue for conserved parcels unless funds can be raised at the time of purchase to offset future tax liability.

<u>Habitat Objective 3</u>: Identify and prioritize forest riparian and emergent wetland habitats by 2002, and conserve habitat for forest riparian and emergent wetland passerines at 5 priority sites by 2004 and at 20 additional priority sites by 2015.

<u>Desirability</u>: This level of protection is clearly desirable for the stability of passerine populations in forested and emergent wetland habitats. It will be difficult to effectively conserve populations without protecting upland buffers. For forested wetlands, buffering would be less critical as the forest itself provides some level of protection from disturbance. State and federal laws protect forested and emergent marshes. As such, providing upland buffers for these habitats would be more desirable than acquisition of these sites alone.

Feasibility: Identifying and prioritizing forested and emergent wetlands is feasible within the time frame defined, but will require significant cooperation from the Habitat Group and availability of statewide National Wetlands Inventory data. Meeting the latter portion of this objective may not be possible by MDIFW alone given current funding levels. However, the efforts of several NGO's (e.g. land trusts) and other agencies should make it possible to work toward this goal within the identified time frame. It is difficult to evaluate the feasibility of this objective without, for example, knowing the history of such efforts over the last two decades. Further, it may be possible to achieve this objective, but no mechanism currently exists to maintain an ongoing statewide tally (i.e., over time) of lands that are placed in conservation status. Outreach to other agencies, probably the State Planning Office will be needed to establish the networks necessary for monitoring changes in status of conservation lands.

<u>Capability of the Habitat</u>: Sufficient habitat is available to meet this objective. The availability of funds and willingness of landowners, however, remain uncertain.

Possible Consequences: Acquiring forested and emergent wetland habitat would offer lasting protection to those habitats, however, given these habitats are already "protected," conserving upland buffers probably would offer greater opportunities for conservation success for the same cost. Failure to protect the actual wetlands will result in relying on state and federal regulations for protection (i.e., buffers provided by NRPA, shoreland zoning, and provisions of the Clean Water Act). Failure to protect the upland buffer could result in loss of habitat quality, and ultimately, loss of species abundance and richness. Acquisition or easement of lands encompassing or buffering wetlands would benefit willing sellers and potentially raise the value of neighboring parcels, outside but adjacent to conservation lands. Seizure of property under eminent domain is not a reasonable option. Towns may receive less property tax revenue for conserved parcels unless funds can be raised at the time of purchase to offset future tax liability.

<u>Outreach Objective</u>: By 2005, develop and begin implementing an outreach program that increases the understanding and appreciation of wetland passerines and their habitat requirements in Maine.

<u>Desirability</u>: A public informed about a broad array of species, which in general emphasize the value of wetlands, would be a positive step toward conservation of these habitats for passerines and other wildlife.

<u>Feasibility</u>: Development of a formal outreach program is possible, but will require significant partnerships with other agencies and conservation NGO's and additional funding. Many programs may be in place already via the Maine PIF Working Group and simply need to be fleshed out. Development of outreach materials (e.g., posters, pamphlets, signage) will require more funding than is currently available and will likely require reliance on MDIFW's Division of Information and Education.

<u>Capability of the Habitat</u>: Not applicable.

<u>Possible Consequences</u>: A successful outreach program could help build private partnerships for wetland stewardship, monitoring, and protection that are not currently in place.