Maine Natural Resource Conservation Program
Status and Trends 2011-2016

The Nature Conservancy in Maine
March 2018

Maine Natural Resource Conservation Program
5-year Status and Trends Report
September 22, 2011 – September 22, 2016

Summary:

Maine's In-lieu Fee Instrument was signed on September 21, 2011. From the period of September 22, 2011-September 22, 2016, applicants paid $7.9 million into the Maine In-lieu Fee Mitigation Fund to alter 95 acres of wetland and other aquatic resources. From 2011 to 2015, the Maine Natural Resource Conservation Program (MNRCP) funded 52 compensation projects awarding $6.8 million, resulting in the following totals:

1) Protected 4,424 acres (approximately 50% were wetland and 50% were upland buffer
2) Protected 7,386 acres in total with leveraged $$ from other partners
3) Protected valuable habitat (84% are in or adjacent to state or federal priority areas)
4) Improved 7 miles of fish passage (27 miles including partner support)
5) Restored and enhanced 30 acres (40 acres including partner funding)
6) Protected 83 vernal pools

Overall the program has generated more credits than debits across the state and substantial changes to the goals identified for each of the program's regions have not been needed.

Introduction:

Maine's In-Lieu Fee compensatory mitigation program was established in 2008 as a new way for permittees to compensate for impacts to wetlands and other aquatic resources resulting from permitted activities. The program is separated into a permitting component and a compensation project funding component. The permitting side of the program is commonly referred to as In-Lieu Fee (ILF), as permittees are allowed to choose to pay a fee in-lieu of providing other types of mitigation. This component is managed by the Maine Department of Environmental Protection (DEP) and the US Army Corps of Engineers (Corps) through fees which are assessed and collected to provide compensation for permitted impacts. It is not a mandatory fee as the applicant can opt to undertake permittee-responsible mitigation, if they can meet the standards in the state and federal regulations and the agencies approve it. In-lieu fees are sent to Maine DEP which, after taking an administrative fee to cover the agency's administrative expenses (beginning in March 2016), then transmits the fees to The Nature Conservancy in Maine (TNC). The Maine Natural Resource Conservation Program (MNRCP) funds compensatory mitigation projects and is administered by TNC, under a contract with DEP, the program sponsor. TNC keeps the funds in accounts by service area (bioregion). After retaining a set administrative fee to address the administrative work associated with TNC's administration of the MNRCP, the funds are made available for compensatory mitigation projects.

MNRCP began receiving fees in early 2008 under an agreement with the Corps before the Federal Compensatory Mitigation Regulations ("Mitigation Rule") were finalized. When the program began, the state was divided into 19 biophysical subsections. After the Mitigation Rule was finalized, the state was given three years to come into compliance with the regulations with a Program Instrument. The time allowed for development of the Program Instrument proved useful as it became clear in the first few compensation funding rounds that 19 biophysical subsections divided up the in-lieu fee funds to a degree that made it difficult to amass sufficient funds in some regions to undertake meaningful compensation projects. When Maine's Compensatory Program Instrument was prepared and signed on September 21, 2011, the number of regions was reduced to the current seven biophysical sections, referred to as MNRCP Service Areas or MNRCP Regions (see Appendix A). The Mitigation Rule also required that a Compensation Planning Framework be developed as part of the Instrument. The Compensation Planning Framework is used to select,

secure, and implement aquatic resource restoration, establishment, enhancement, and/or preservation activities and is essentially a watershed (or, in this case, bioregion) plan.

As part of Maine's Compensatory Mitigation Program Instrument a status and trends report is required every five years. The instrument states:

> Every five years, the Program Administrator, with assistance from MDEP and the Corps, will produce a status and trends report summarizing the previous five years. The document will examine the goals for each biophysical region and discuss how well the projects assisted with promoting those goals.

This report addresses this requirement for the time period of September 22, 2011 - September 22, 2016.

Status and Trends for Program Goals

As part of the Program Instrument, general goals for the program were established. Each goal is discussed below.

Goal 1: Provide an alternative to permittee-responsible and mitigation bank compensatory mitigation that will effectively replace functions and values lost through permitted impacts.

Many permitted impacts occur in developed areas where resources have already been impacted or stressed. MNRCP requirements focus on mitigation projects within priority habitat and resource areas. Because of this, the functions and values of the resources in many of Maine's compensation projects tend to be higher than those in areas of permitted impacts. Where restoration or enhancement is being done, the goal is to bring degraded resources back to a functional or improved state. Of 36 projects with a restoration or enhancement component, over two-thirds have been undertaken on conservation land, or within watersheds with a large proportion of conservation land. The remaining projects include restoration of tidal flow, and removal of dams and other barriers to fish passage. While these may not be within a statewide priority habitat area (Beginning with Habitat Focus Area) or large areas of conserved lands, they are within priority watersheds for fish habitat restoration and protection.

Resources impacted by permitted activities are carefully tracked and mitigation projects are sought that compensate for the resources and functions and values that were impacted. Impacted resources not compensated in one round are made priorities in subsequent rounds. On the whole, all but one MNRCP Region has more credits than debits. The Aroostook Hills and Lowlands currently has more debits than credits, largely due to a relative lack of conservation organizations in the region and the difficulty of identifying projects, discussed further below. In the other regions, there is a surplus of credits for some resource types and a lack of credits for other types. The debit and credit balance shifts constantly as permits are issued and compensation projects are completed, but several resource types have tended to be more difficult to compensate in some of the regions: vernal pool habitat and coastal wetlands. The debits in vernal pool habitat are caused, in part, by a lag in confirming potential vernal pools identified in compensation project proposals. Vernal pool credits are not claimed by the program until formal spring surveys are done. Coastal wetland credits may be affected by the high cost of coastal properties, and a possible lack of expertise in coastal restoration for many of the organizations typically submitting proposals. This trend may be changing as four projects to restore tidal flow were awarded funding between 2013 and 2015, in addition to six preservation projects awarded during the reporting period. Additional outreach in coastal areas may also increase the numbers of proposals.

Goal 2: Substantially increase the extent and quality of restoration, enhancement, creation, and protection of protected natural resources over that typically achieved by permittee-responsible mitigation for activities that impact wetlands, significant wildlife habitats, and other waters of the State of Maine, which include waters of the U.S.

The Maine Department of Environmental Protection's Biological Monitoring Program produced a report in October 2013 entitled "Evaluating Alternative Wetland Compensatory Mitigation Assessment Techniques" that indicates potential issues and trends on mitigation sites. This was a study geared toward evaluating assessment methods and it included a

small number of sites representing a cross-section of different mitigation projects completed between 1995 and 2007. Nine permittee-responsible mitigation sites were studied. No MNRCP projects were included in the sample; however, the study provides some insights that are applicable to mitigation projects as a whole. Differences were found between the mitigation study sites and reference sites. One of the strongest differences was the dominance of *Typha sp*. (cattail) on seven of the nine permittee-responsible mitigation study sites. *Typha* was not common on the reference sites and, where present, was not dominant. The study also found that the mitigation sites in general had fewer numbers of the types of sensitive aquatic macroinvertebrate taxa and a higher proportion of taxa adapted to a wide range of environmental conditions. Water quality attainment issues were also indicated.

The study found that:

> *Landscape setting and land use in the surrounding watershed appear to have a major influence on water quality and attainment of aquatic life criteria in the mitigation wetlands sampled. Other factors include habitat complexity, the presence of adequate buffers, and the quality of aquatic and riparian habitat. Where ecological connectivity to other wetlands and water bodies is lacking or inadequate, opportunities for colonization and reproductive success of macroinvertebrates and other aquatic life are limited. Design of future mitigation projects should include multiple wetland habitats if possible and consider associations with adjacent or nearby water bodies in the same drainage area. Designs to create wetlands should avoid the "swimming pool" shape with uniform shape and depth. It is beneficial to include variation in shape and topography to develop and maintain emergent fringe and aquatic bed vegetation typical of natural wetlands. This may involve enhancing the organic substrate as appropriate, prevention/control of opportunistic and invasive plants, and selective native emergent/aquatic plantings if needed.*
>
> *Some sampled mitigation wetlands have substantial amounts of residential development, commercial development and/or agricultural activities in close proximity that contribute high concentrations of nutrients and other toxic contaminants through surface runoff or groundwater influx. Adverse effects on wetland health from these stressors can be lessened to some degree through the use of vegetated buffers and stormwater best management practices.*

While additional studies are needed to further assess mitigation sites, including MNRCP sites, landscape context was shown to have a strong influence in the quality of the wetland habitats studied. Landscape context has been a particular focus of the Maine Natural Resource Conservation Program. It is one of the criteria used to evaluate MNRCP projects and, on the whole, project sites that are within natural, undeveloped areas with good upland and riparian buffers score better and are more often funded than those that do not.

Preservation has been allowed as a mitigation tool under MNRCP and it is a stated objective in the Compensation Planning Framework for each of the seven regions that preservation projects be encouraged, particularly in areas of projected development expansion, to ensure that existing aquatic resources remain intact and functional into the future.

For the 5-year period of this report, preservation projects were credited at a ratio of 15 acres preserved to each acre impacted, with credits prorated based on the percentage of costs covered by the MNRCP funding award. As a result, the extent of actual conserved acres is considerably larger than the acres impacted: 95 acres impacted vs. a total of 4,424 acres funded by MNRCP (2,368 acres of aquatic resources and 2,814 acres of riparian buffer and conserved upland). In many of the funded projects, MNRCP was only a portion of the funds used to complete the project. For the reporting period, MNRCP funding has been part of projects that have conserved a total of 7,346 acres. In addition, nearly 28 miles of stream have been opened up to fish passage and approximately 83 vernal pools have been conserved.

As noted above, restoration, enhancement and creation activities funded by MNRCP are often, although not always, carried out within the context of a larger conserved parcel. The conservation status and landscape context of wetland resources on MNRCP projects is anticipated to provide high quality wetland habitat and aquatic resources.

Goal 3. Reduce the extent of cumulative adverse impacts to aquatic resources that are considered protected natural resources under the Natural Resources Protection Act and the Clean Water Act.

Prior to the creation of In-Lieu Fee as an option for mitigation of small impacts, particularly impacts by individual landowners, permittee responsible compensation typically involved on-site preservation or the restoration/enhancement/creation of on-site aquatic resources with (generally) small associated upland buffers. For a number of reasons, the approved compensation was not necessarily located in high priority areas. Where preservation was used, it was often inadequately sized or too isolated for ecological sustainability and restoration/creation projects were often inappropriately located to address specific habitat losses. In-lieu fee provides an option accessible to many different types of permittees. Permittees are required to provide an analysis of alternatives which avoids impacts where practicable and reduces the amount of impact to the minimum necessary to meet the overall purpose of the project. Compensation is required for impacts over a specified permitting threshold that cannot be avoided or minimized.

The In-lieu fee program allows monies resulting from small impacts to be pooled together, maximizing the program's ability to provide meaningful compensation in proximity to permitted impacts which, in turn reduce the extent of cumulative adverse impacts to resources that are protected natural resources. The use of preservation in areas that are experiencing a high degree of development pressure is a valuable tool that allows the program to accomplish Goal 3.

Goal 4. Provide MDEP and Corps permit applicants greater flexibility in compensating for adverse impacts to protected natural resources.

Maine's in-lieu fee option for compensatory mitigation has generally been well-received. In-lieu fee provides an alternative for permittees having to provide their own mitigation, either by carrying out a mitigation project on the permit site or searching out an off-site location. This is especially useful for individuals or smaller entities that may not have the expertise to do their own mitigation, but it is also useful for very large projects where some types of compensation may be more difficult to complete. It is common for some of the larger projects to use a combination of permittee-responsible mitigation and in-lieu fee payments.

Goal 5. Achieve ecological success on a biophysical region basis by directing ILF funds to protected natural resource types and functions that are appropriate to the geographic service area, and by integrating ILF projects with other conservation activities whenever possible.

The program carefully tracks the types of resources impacted by permitted activities and the types that are compensated by approved compensation projects within each of the seven regions. Impacted resource types that have not yet been compensated are given priority in the evaluation of new projects. The state of Maine has identified a number of statewide focus areas of conservation significance across the state. Proposed compensation projects within these areas have been a particular focus for funding. Preference is also given to projects within or adjacent to other state, federal and local habitat focus areas and those that build upon other conservation activities. To date 84% of approved projects have been in or adjacent to state and federal priority areas.

Conditions and Objectives in the Seven MNRCP Service Areas

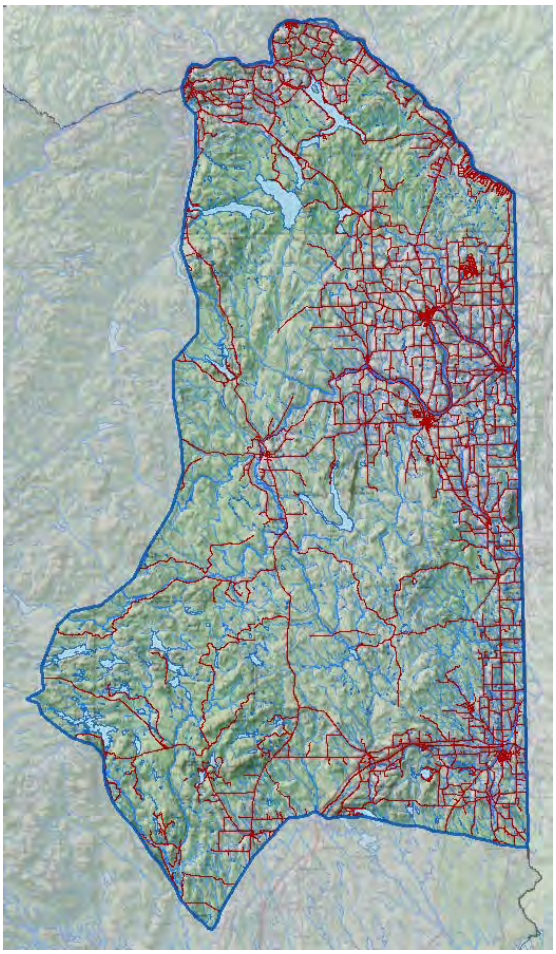
Objectives for each of the seven service areas (regions) were outlined in the Compensation Planning Framework developed in 2011 as part of the Program Instrument. The regional objectives are Included with the proposal information given to the Review Committee and Interagency Review Team and used as part of the review of compensation projects. In addition to the regional objectives, the State of Maine has developed a series of important statewide habitat focus areas through its Beginning with Habitat Program (http://beginningwithhabitat.org/). These focus areas are based on such factors as location of rare flora and fauna, significant wildlife habitats, natural communities, and large blocks of undeveloped land. Focus Areas occur in all of the MNRCP Regions. Appendix B shows

the distribution of Focus Areas across the state. Combining the MNRCP regional objectives with the designated Habitat Focus Areas provides reviewers with an overview of priorities in a given area. Also considered are proximity to federal, regional, and local conservation lands and priorities.

On the whole, the regional objectives outlined in the Conservation Planning Framework have proven to be a useful indication of the compensation needs in the various regions. The Northwest Maine region is the least densely populated region in the state. It has not yet received any in-lieu fees and, therefore, no compensation projects have been undertaken in this region. The four other more sparsely developed regions, Aroostook Hills and Lowlands, Central and Eastern Lowlands, Central and Western Mountains, and Downeast Maine have continued a trend of slow growth over the reporting period. Only two permits for development projects were issued in all four of these regions. Projects using ILF in these regions were largely transportation or energy projects. The Central Interior & Midcoast and Southern Maine Regions have continued to be the most active, with a total of 38 development permits issued using ILF as their mitigation method.

The region descriptions and conservation objectives developed in the Compensation Planning Framework are outlined below. The maps included with each region show the regional boundaries with rivers and lakes and road networks as an indication of the more developed areas of the region. The program will be reviewing the objectives in each of the regions during the next 5-year period to determine if priorities have changed and whether there are objectives that should be added or revised.

Aroostook Hills and Lowlands



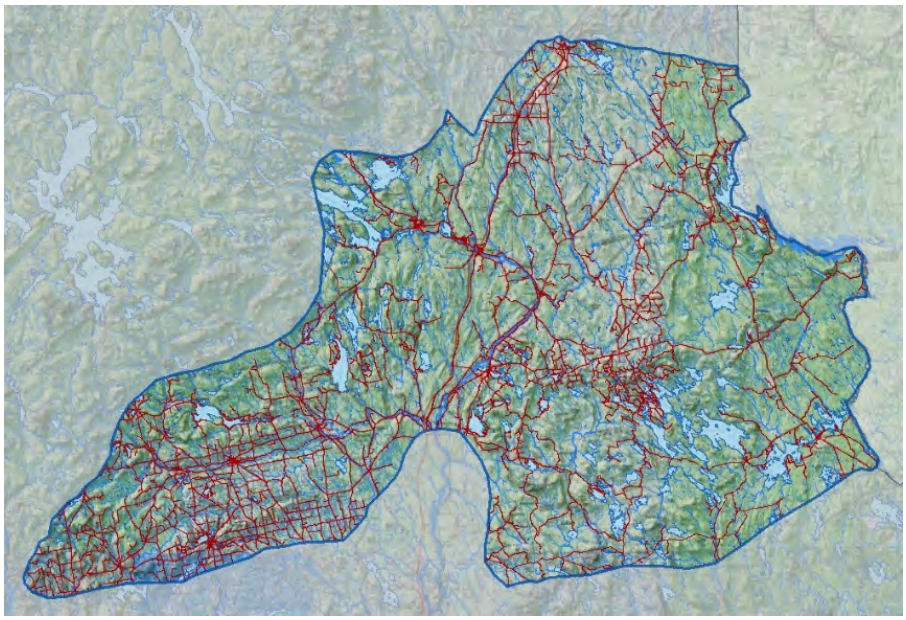
The Aroostook Hills and Lowlands region is one of the least densely populated regions in the state, and also one of the slowest growing. Projections for development expansion over the next 20 years are modest. The Aquatic Resources Base Layer suggests that this region had the potential to support extensive wetland and aquatic resources, covering approximately one million acres. This represents approximately 42% of the regional area and 13% of Maine's total potential wetland and aquatic resources.

Maine Land cover data (MELCD 2004) suggests that very little (1.7%) wetland or aquatic resource area has been converted to development. This region has a relatively strong agricultural history, however, and land cover data suggest that 5% (51,000 acres) of wetland and aquatic resource area has been converted for that use. Development is largely concentrated around towns and along major transportation routes, while agricultural areas are predominantly in the eastern and northern portions of the region. The MELCD 2004 data suggests that 14.9% of the shoreline buffer (100m) around lakes and ponds and 8.7% of the riparian area along streams and rivers has been converted to agriculture or development. Though these numbers are not large, they are the third highest for any of the state's regions, despite the fact that Aroostook Hills and Lowlands is one of the least populated regions. Permitted wetland impacts are predominantly associated with agricultural areas in the north, and other impacts around towns.

Regional conservation objectives:

- Encourage preservation projects, particularly in areas of projected development expansion, to ensure that the region's extensive aquatic resources remain intact and functional into the future.
- Pursue opportunities to restore marginal or non-productive agricultural land to priority resource types.

Central and Eastern Lowlands



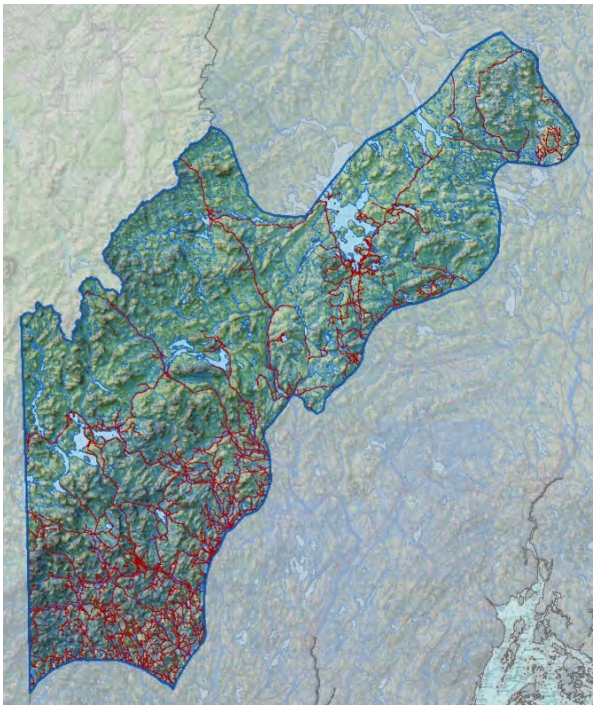
The Central and Eastern Lowlands region is another sparsely populated region, with low levels of projected growth. Projections for development expansion over the next 20 years are modest, and generally associated with extensive expected growth from the south. The Aquatic Resources Base Layer suggests this region had the potential to support the most extensive wetland and aquatic resources in the state (tied with Northwest Maine), covering approximately 1.4 million acres. This represents 44% of the regional area and 18% of Maine's total potential wetland and aquatic resources.

Maine Land Cover data (MELCD 2004) suggests that very little (1.4% or 21,000 acres) wetland and aquatic resource area has been converted to development. By comparison only 0.7% of wetland and aquatic resource area has been converted to agricultural use (11,000 acres). The converted acres are well scattered, but much of the developed land appears to occur along major rivers and around towns. Although these impacts may be locally dense, the overall numbers are still very low; MELCD 2004 data suggests that 4.5% of the shoreline buffer (100m) around lakes and ponds and 2.6% of the riparian area along streams and rivers has been converted to development or agriculture. Permitted wetland impacts are also scattered and associated with areas around towns.

Regional conservation objectives:

- Encourage preservation projects, particularly in areas of projected development expansion, to ensure that the region's extensive aquatic resources remain intact and functional into the future.
- Support efforts to restore fish passage in the Penobscot River watershed.

Central and Western Mountains



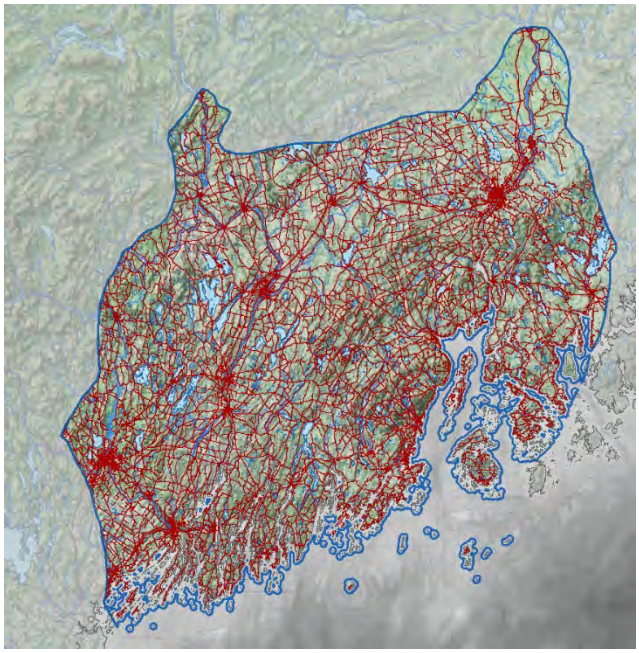
The Central and Western Mountains region is the largest region in the state and sparsely populated, with low levels of projected growth. Projections for development expansion over the next twenty years are modest, and generally associated with extensive expected growth from the east. The Aquatic Resources Base Layer suggests this region had the potential to support approximately one million acres of wetland and aquatic resources. This represents 24% of the regional area and 14% of Maine's total potential wetland and aquatic resources, making it the region with the lowest potential concentration of wetland and aquatic resources.

Maine Land Cover data (MELCD 2004) suggests that very little (1.2% or 12,000 acres) wetland and aquatic resource area has been converted to development. An additional 1.1% of wetland and aquatic resource area has been converted to agricultural use. The converted acres are well scattered, but much of the developed land appears to occur around waterbodies. Although these impacts may be locally dense, the overall numbers are still very low; MELCD 2004 data suggests that 3.7% of the shoreline buffer (100m) around lakes and ponds and 2.9% of the riparian area along streams and rivers has been converted to development or agriculture. Permitted wetland impacts are also scattered.

Regional conservation objectives:

- Encourage preservation projects, particularly in areas of projected development expansion, to ensure that aquatic resources remain intact and functional into the future.
- Support efforts to restore fish passage in the Penobscot River watershed.
- Pursue opportunities to restore marginal or non-productive agricultural land to priority resource types.

Central Interior and Midcoast



The Central Interior and Midcoast region is one of the fastest growing regions in the state, with several urban areas projected to grow considerably and large areas of agricultural cultivation. Projections for development expansion over the next twenty years are considerable. The Aquatic Resources Base layer suggests this region had the potential to support extensive wetland and aquatic resources (including both saltwater and freshwater types), covering approximately 1.5 million acres, the second highest acreage of any region in Maine. This represents 40% of the regional area (or 39% of the section area if intertidal offshore wetlands are excluded from the calculation) and 19% of Maine's total potential wetland and aquatic resources.

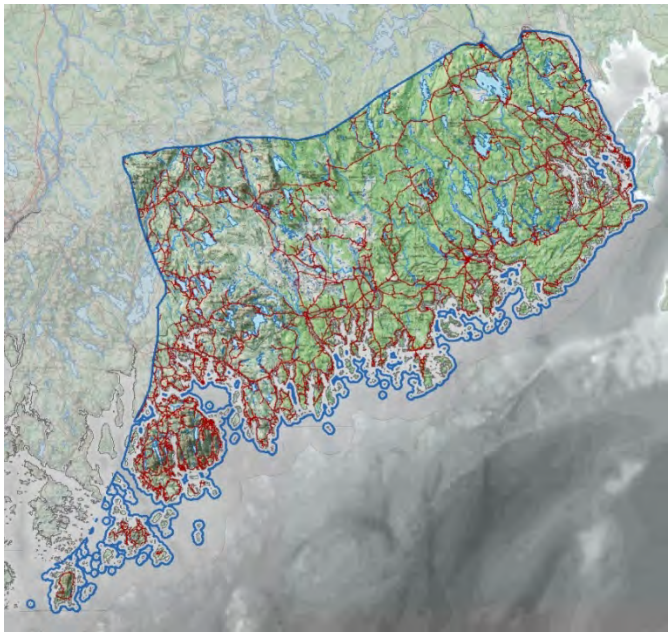
Maine Land Cover data (MELCD 2004) suggests that almost 5% of the original potential aquatic resource cover has been converted to development. An additional 5% has been converted to agriculture. Aside from Southern Maine, this represents the highest percent area converted of any of Maine's regions. The

MELCD 2004 data suggests that 20.4% of the shoreline buffer (100m) around lakes and ponds and 12.1% of the riparian area along streams and rivers has been converted to agriculture or development, the highest levels of any region in the state. This region is also subject to higher development pressures and potential conversion of wetland acres. Between 2006 and 2011, 1,947 Natural Resource Protection Act (NRPA) and Permit-by Rule (PBR) permits were issued for development-related wetland impacts in this ecoregion, the highest number for any ecoregional section in the state. Central Interior and Midcoast is one of Maine's largest ecoregional sections; however, by contrast, Northwest Maine (similar in size) only had 163 permits issued in the same time period (8% of what was issued in Central Interior).

Regional conservation objectives:

- Actively pursue opportunities to restore priority resource types, particularly coastal resources, as well as opportunities to restore marginal or non-productive agricultural land.
- Support efforts to restore fish passage in the Penobscot River watershed.
- Encourage preservation projects, particularly for vernal pools, headwater streams (1st and 2nd order) and their associated upland buffers, and in areas of projected development expansion, to ensure that the region's extensive aquatic resources remain intact and functional into the future.
- Encourage preservation and restoration (e.g., barrier removal) projects in coastal areas that would facilitate the projected future migration of coastal wetland communities in response to climate change and sea level rise.

Downeast Maine



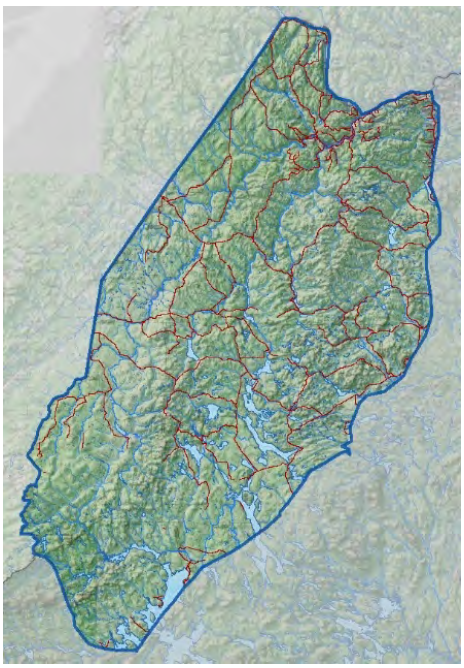
The Downeast Maine region is one of the least densely populated regions in the state, and also one of the slowest growing. Projections for development expansion over the next 20 years are very modest, with the exception of the Mt. Desert Island area. The Aquatic Resources Base Layer suggests that this region had the potential to support 600,000 acres of wetland and aquatic resources, including both saltwater and freshwater types. This represents approximately 39% of the regional area (or 37% of the section area if intertidal offshore wetlands are excluded from the calculation) and 8% of Maine's total potential wetland and aquatic resources.

Maine Land Cover data (MELCD 2004) suggests that very little (1.5% or 9,300 acres) of the original potential aquatic resource cover has been converted to development. An additional 0.6% (or 3,600 acres) has been converted to agriculture. Permitted wetland impacts are largely on the coast and concentrated in the Mt. Desert Island area.

Regional conservation objectives:

- Encourage preservation projects, particularly in areas of projected development expansion, to ensure that aquatic resources remain intact and functional into the future.
- Pursue opportunities to restore priority resource types, particularly coastal resources.
- Encourage preservation and restoration (e.g., barrier removal) projects in coastal areas that would facilitate the projected future migration of coastal wetland communities in response to climate change and sea level rise.
- Support efforts to restore diadromous fish passage.

Northwest Maine



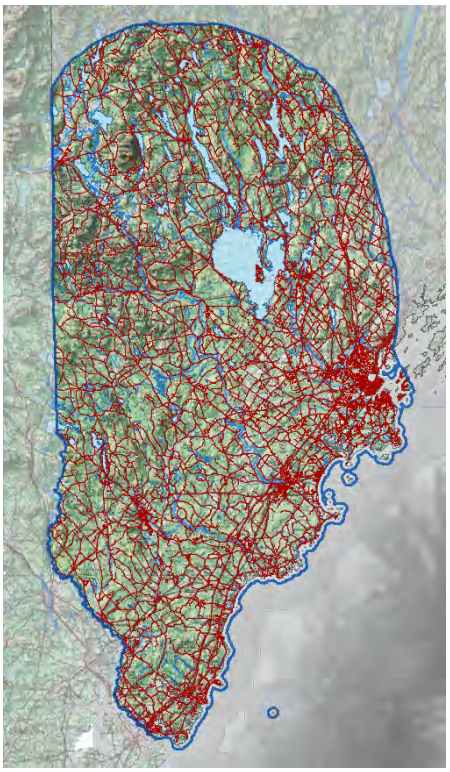
The Northwest Maine region is the least densely populated regions in the state, and the slowest growing. Projections for development expansion over the next 20 years are negligible. The Aquatic Resources Base Layer suggests that this region had the potential to support vast wetland and aquatic resources, covering approximately 1.6 million acres, the highest acreage of any of Maine's regions. This represents approximately 44% of the regional area—tied with Central and Eastern for the highest percent cover of potential original wetland and aquatic resources— and 20% of Maine's total potential wetland and aquatic resources.

Maine Landcover data (MELCD 2004) suggests that extremely little wetland or aquatic resource area has been converted to development (0.3%) or to agriculture (0.1%). Converted areas are widely scattered and most appear to have occurred along the St. John River and around the town of Fort Kent. Overall, however, the proportion of riparian or shoreline buffer areas that have been converted to development agriculture are very low (the lowest in the state). Permitted wetland impacts are scattered and relatively modest.

Regional conservation objectives:

- Encourage preservation projects to ensure that the region's largely intact aquatic resources remain intact and functional into the future.

Southern Maine



The Southern Maine region is the fastest growing region in the state, with the state's largest metropolitan area projected to grow considerably in the years ahead. Projections for development expansion over the next 20 years are considerable. The Aquatic Resources Base layer suggests this region had the potential to support 595,000 acres of wetland and aquatic resources (including both saltwater and freshwater types), the smallest acreage of any of Maine's regions. This represents 41% of the regional area (or 40% of the section area if intertidal offshore wetlands are excluded from the calculation) and 7% of Maine's total potential wetland and aquatic resources.

Maine Land Cover data (MELCD 2004) suggests that almost 8% of the original potential aquatic resource cover has been converted to development. An additional 6% has been converted to agriculture. This represents the highest percent area converted of any of Maine's regions. The MELCD 2004 data suggests that 19.4% of the shoreline buffer (100m) around lakes and ponds and 14.9% of the riparian area along streams and rivers has been converted to agriculture or development, representing the second highest levels for any region in the state. This region is also subject to higher development pressures and potential conversion of wetland acres. Between 2006 and 2011, 1,057 Natural Resource Protection Act (NRPA) and Permit-by-Rule (PBR) permits were issued for development-related wetland impacts in this ecoregion.

Regional conservation objectives:

- Actively pursue opportunities to restore priority resource types, particularly coastal resources, as well as opportunities to restore marginal or non-productive agricultural land.
- Encourage preservation projects, particularly for vernal pools, headwater streams (1st and 2nd order) and their associated upland buffers, and in areas of projected development expansion, to ensure that the region's remaining aquatic resources remain intact and functional into the future.
- Encourage preservation and restoration (e.g., barrier removal) projects in coastal areas that would facilitate the projected future migration of coastal wetland communities in response to climate change and sea level rise.

Status and Trends by Region

In-Lieu Fee Permits

Since the beginning of the program in 2008, the Northwest Region has had no permits issued which used in-lieu fee (ILF) as the compensation method, and therefore no funds have been available for MNRCP compensation projects in that region. This does not necessarily mean that there have been no wetland impacts in this region. Forest Management is one of the largest industries in this part of the state, but most forestry activities are exempt from natural resource permitting and therefore do not have any mitigation requirements and are not tracked through this program.

All the remaining regions have had permits issued generating in-lieu fees which have been used to fund compensation projects. Fees are made available based on when they are received, as opposed to when the permit may have been issued. Since many permittees don't pay their fee until they are ready to begin work, there can be a time lag between permit issuance and fees being paid into the program..
As might be expected from the descriptions of the MNRCP Regions above, the least populated and slowest growing regions are also the regions that have had the least activity in terms of in-lieu fee payments and MNRCP compensation projects. The two most populous regions, Southern Maine and Central Interior & Midcoast, account for 81% of the permits issued using ILF as their compensation method in this reporting period, and 82% of the fees available for compensation.

The types of projects tended to differ by region as well, with more permits issued for residential and commercial development in the Southern Maine and Central Interior & Midcoast Regions than in other regions. These two regions also had the greatest diversity of types of permits using ILF. The Central and Eastern Lowlands and Central and Western Mountains regions have had a larger percentage of their ILF permits issued for wind power projects and Downeast Maine has had a larger percentage of permits issued for working waterfront and transportation projects.

Fees available for the reporting period are shown in Table 1. Table 2 shows the numbers of permits issued for different types of activities.

Table 1

In-Lieu Fees Received September 22, 2011-September 22, 2016

MNRCP Region	Number of Permits using ILF * during reporting period	Funds Available for Compensation
Aroostook Hills & Lowlands	3	$214,265.70
Central & Eastern Lowlands	2	$300,956.19
Central & Western Mountains	10	$674,361.16
Central Interior & Midcoast	49	$3,677,750.67
Downeast Maine	9	$246,504.39
Southern Maine	51	$2,847,075.50
Totals	124	$7,960,913.61

**There have been a number of permits issued that crossed several MNRCP regional boundaries. The fees and impact amounts are divided by region and counted separately in this table.*

Table 2

Numbers of Permits issued by Permit Type

MNRCPRegion	Transportation	Energy	Development	Municipal	Education & Health	Working Waterfront	Recreation	Region Totals
Aroostook Hills & Lowlands	3							3
Central & Eastern Lowlands		2						2
Central & Western Mountains	2	5	1	2				10
Central Interior & Midcoast	17	10	14	1	3	2	2	49
Downeast Maine	3		1		1	4		9
Southern Maine	9	11	24	1	5		1	51
Permit type totals	**34**	**28**	**40**	**4**	**9**	**6**	**3**	**124**

MNRCP Compensatory Mitigation Projects

Public agencies, non-profit conservation organizations, and private individuals may submit proposals for compensation projects under MNRCP. Projects awarded funding must be maintained in perpetuity in their natural state by a responsible state or federal resource agency or conservation organization demonstrating the technical and financial capacity to maintain the project.

Table 3 shows the breakdown of funds awarded to compensatory mitigation projects during the reporting period. Projects have been awarded funding in each of the regions that have had funds available.

It should be noted that the reporting period begins when the Program Instrument was signed on September 21, 2011. MNRCP Compensation Funding Rounds typically begin in June and end in late November/early December. Therefore, the five funding rounds of 2011, 2012, 2013, 2014, and 2015 are included in this report.

Table 3
Compensation Projects Awarded Funding 2011-2015

MNRCP Region	Number of Compensation Projects 2011-2015	Funds Awarded
Aroostook Hills & Lowlands	1	$42,000.00
Central & Eastern Lowlands	1	$115,000.00
Central & Western Mountains	3	$213,745.50
Central Interior & Midcoast	29	$4,060,607.22
Downeast Maine	1	$114,480.00
Southern Maine	17	$2,262,564.66
Totals	**52**	**$6,808,397.38**

In the 2011-2015 funding rounds there were also seven projects that were approved for funding but the projects did not move forward and funds were returned to the region from which they were allocated. The reasons for the projects not being completed were varied. Three projects involved conservation easements on large properties with forestry or agricultural uses planned. It was difficult to fit MNRCP requirements into the planned uses and, ultimately, the projects moved forward without funding from the program. Two projects were on land with proposed recreational facilities and, again, the intensive uses didn't fit well with the requirement that no impacts occur to wetlands and other aquatic resources. On one project, negotiations with the landowner broke down and on another there was a restriction held by an abutting property owner that prevented the proposed restoration work from being done. While many of these issues could not be foreseen, the problem with conflicting priorities and land uses has been a recurring one. Program staff try to identify potential issues early in the process and work with sponsors to find ways to meet the program's requirements.

To-date, 46 of the 52 projects awarded funding in the 2011-2015 funding rounds have been sponsored by land trusts or other conservation non-profit organizations. Twenty-three different non-profits have been awarded funding; almost half of which have received funding for more than one project. Four projects were sponsored by government agencies (three towns, and a state agency), one was sponsored by a regional water district, and another was sponsored by the Casco Bay Estuary Project which is affiliated with the University of Maine. In the early years of the program, from 2008-2010, more projects were submitted by state government agencies, but they have stepped back in recent years. Preference is not given to non-profit organizations over local agencies but these organizations tend to stay well-informed about any and all potential funding sources, they are familiar with grant proposal writing, and they have been the most active in bringing projects to the program. Even so, there has been a learning curve for many of the non-profit organizations since compensation program requirements are different than the typical conservation grant programs with which they may be familiar. The requirement that aquatic resources on a site not be impacted by trails or management activities such as forestry has proven to be a stumbling block for some projects. Protection from development is not always protection from impact. Project success has been variable among municipal project sponsors with some municipalities using the program very successfully and others struggling with program requirements or staffing capacity.

As well as being the lesser populated areas in the state, the Aroostook Hills and Lowlands, Central and Eastern Lowlands and Central and Western Mountains are less well-represented by conservation non-profit organizations, as seen in Appendix C. Because such a high percentage of project sponsors have been land trusts, the lack of this type of organization in these regions has made it more difficult to find suitable compensation projects. Initial outreach was begun in 2016 to find qualified organizations in these areas with projects that would meet MNRCP requirements. This resulted in proposals from two new organizations in these regions. More will be done in coming years to engage with potential project sponsors.

The Southern and Central Interior & Midcoast regions specifically include vernal pools in their preservation objectives. It has proven easier to find vernal pool credits in Southern Maine, which has a surplus of credits, than in Central Interior & Midcoast. Vernal pool credits have been a priority in this region for several years. Project sponsors often list "potential" vernal pools in their proposals, but often don't know for certain how many true vernal pools may exist on the project site. Formal, documented surveys are uncommon when proposals are submitted. MNRCP does not credit vernal pools on a project without substantiating information. In 2013, surveys were completed by the program on 15 projects awarded funding to formally determine how many vernal pools might be present. A total of 53 pools were found. A second round of surveys was completed in 2017 and additional pools were documented which reduced the deficit in the Central Interior and Midcoast Region.

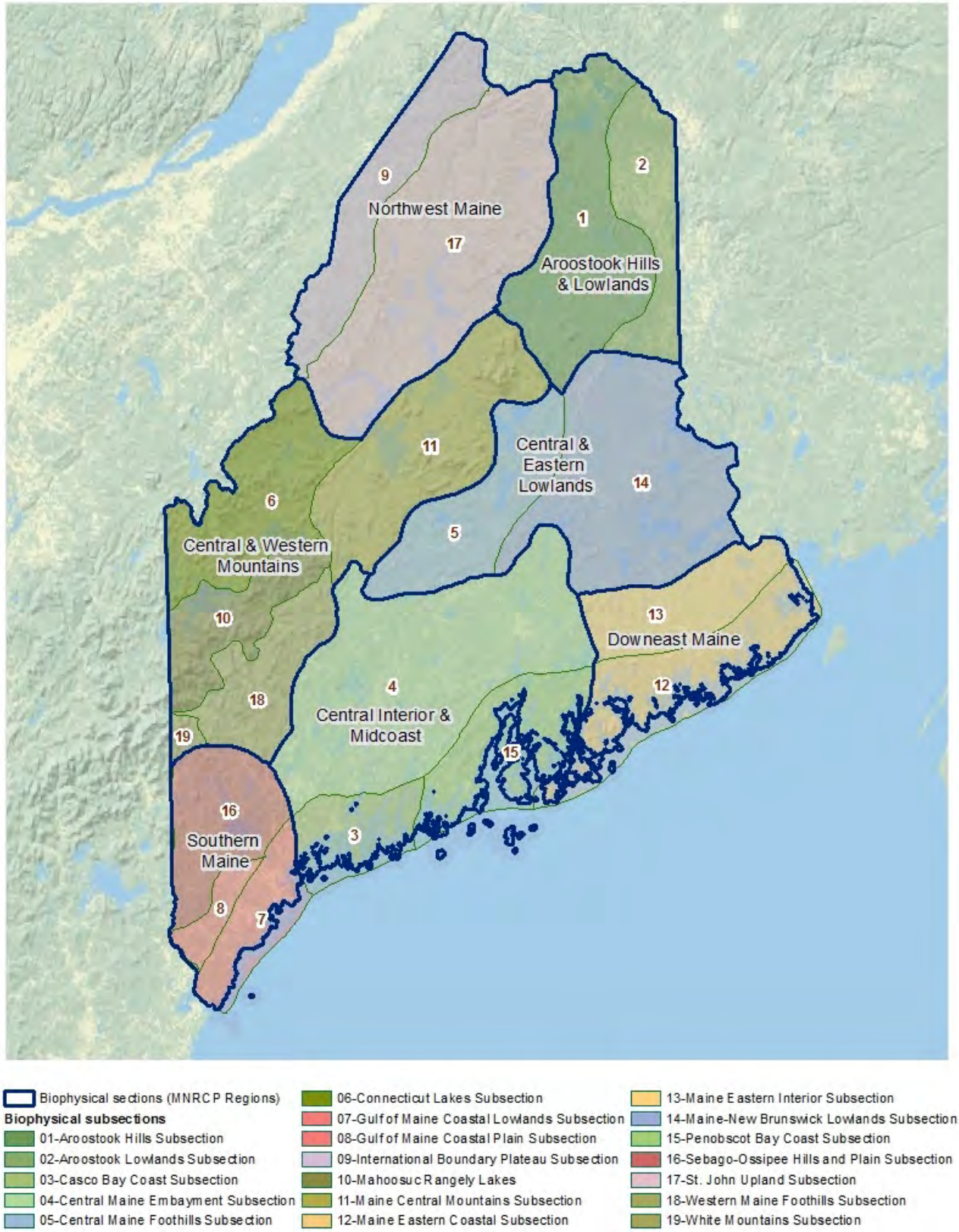
The Central and Eastern Lowlands, Central and Western Mountains, and Central Interior and Midcoast regions all have a specific objective to support efforts to restore fish passage in the Penobscot River Watershed, a high priority watershed in the State of Maine. The Downeast Region, which has a number of smaller coastal rivers, has a more general objective to support efforts to restore diadromous fish passage. In the 2011-2015 period, funds were awarded to six projects that support diadromous fish passage restoration as part of statewide endeavors to improve diadromous fish numbers.

Conclusions

Looking at the MNRCP program as a whole, it has proven to be a successful method of providing compensatory mitigation for the State of Maine, used by small landowners and large corporations alike. A number of conservation landowners, such as land trusts and water districts, have been encouraged to venture into undertaking restoration and enhancement projects on their lands, which they may not have done without this source of funding. Future program efforts will emphasize greater outreach in some of regions with lesser conservation capacity, to identify potential projects, particularly restoration and enhancement projects, and a more diverse group of project sponsors. Regional priorities will also be assessed to determine if additions or changes to priorities are needed.

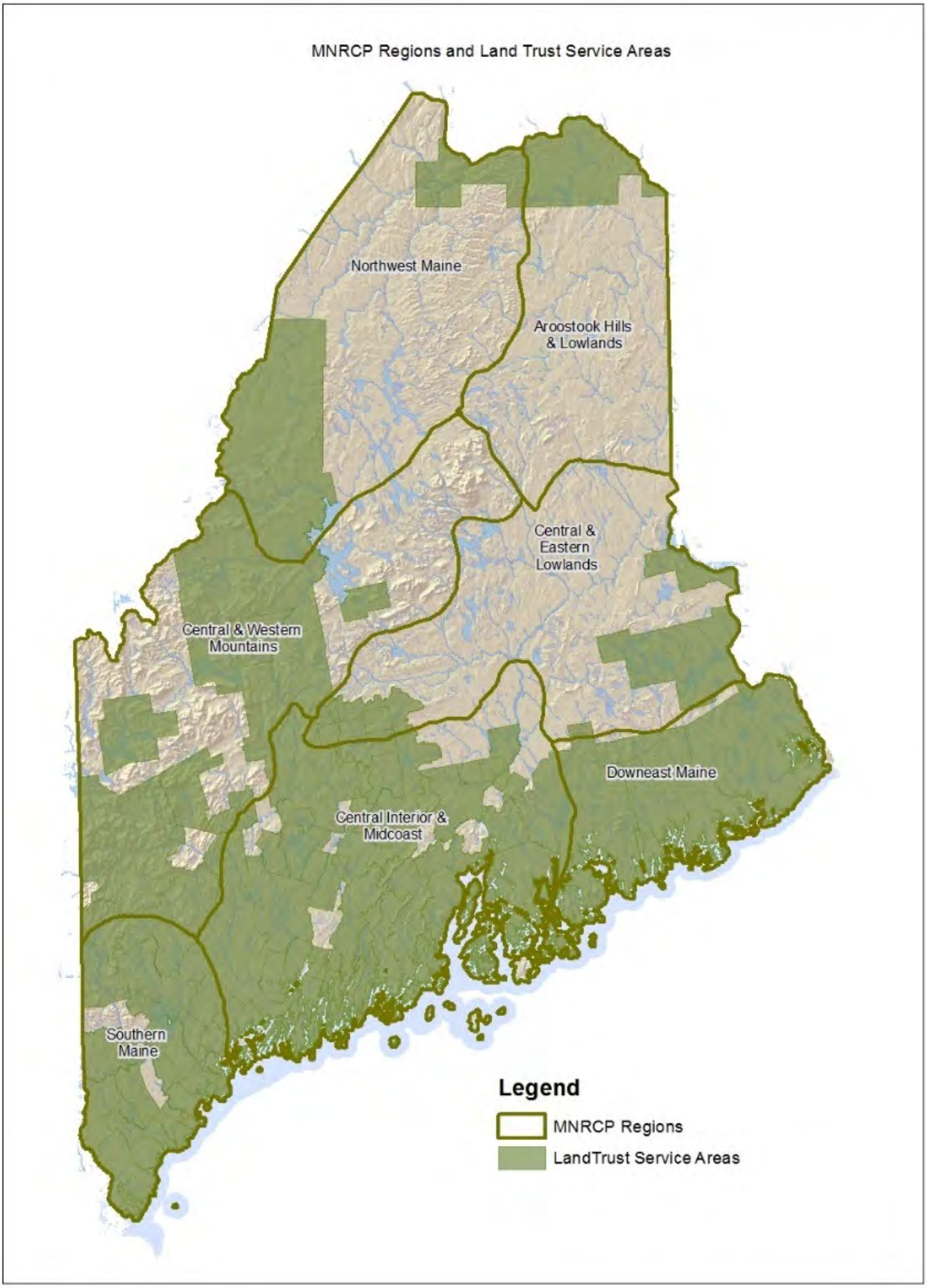
Appendix A

MNRCP Regions (Biophysical Sections) and subsections



Appendix B
Locations of Statewide Habitat Focus Areas in MNRCP Regions

Appendix C


MNRCP Regions and Land Trust Service Areas
Northwest Maine
Aroostook Hills & Lowlands
Central & Eastern Lowlands
Central & Western Mountains
Downeast Maine
Central Interior & Midcoast
Southern Maine
Legend
MNRCP Regions
LandTrust Service Areas

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