

V. Monitoring and Evaluation

Monitoring and evaluation are needed to track progress in achieving the management visions, goals and objectives for the Units, and effectiveness of particular approaches to resource management. Monitoring and evaluation will be conducted on wildlife, ecological, timber, and recreational management efforts in the Central Penobscot Region.

Implementation of Plan Recommendations

The Bureau will develop, within two years of plan adoption, a process for implementing, accomplishing, and tracking the management recommendations put forth in the Plan. This will include a framework of recommendations with priority levels assigned and targeted timeframes established by priority level. This framework will be utilized to determine work priorities and budgets on an annual basis. The Bureau will document, on an annual basis, its progress in implementing the recommendations, its plans for the coming year, and adjustments to the target timeframes as needed.

Ecological Reserves

There are currently seventeen Ecological Reserves on BPL lands throughout the state. Ecological Reserves are established “*for the purpose of maintaining one or more natural community types or native ecosystem types in a natural condition . . . and managed: A) as a benchmark against which biological and environmental change can be measure, B) to protect sufficient habitat for those species whose habitat needs are unlikely to be met on lands managed for other purposes; or, C) as a site for ongoing scientific research, long-term environmental monitoring, and education.*” (Title 12, Section 1801). The Maine Natural Areas Program (MNAP) is conducting long-term ecological monitoring within these Reserves contingent on funding and staffing capacity.

There are two Ecological Reserves in the Central Penobscot Region, one in the Nahmakanta Unit and one in the Wassataquoik Parcel. The MNAP staff conducted natural resource inventories on the Nahmakanta Unit in 2010 and 2011 as part of the reserved lands management planning process. Additionally, MNAP’s natural resource inventory report dated 2012 incorporates information in the 1995 Plan and Ecological Reserve Inventory surveys from 1992 and 1995. MNAP is also monitoring these lands as part of its long term monitoring of Ecological Reserves to detect ecological change within Ecological Reserves and to compare Ecological Reserves to areas under different management regimes. Baseline data was collected on Nahmakanta in 2005 and on Wassataquoik in 2007 using a methodology described in the Ecological Reserves Monitoring Plan (2003) (see <http://www.maine.gov/doc/nrimc/mnap/reservesys/reports.htm> for details). Nahmakanta will be revisited in 2015, and Wassataquoik will be revisited in 2017.

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Recreation

Data on recreational use is helpful in allocating staff and monetary resources for management of the Unit, and generally determining the public's response to the opportunities being provided.

In addition to gathering data on use, the Bureau will monitor use to determine:

- (1) whether improvements to existing facilities or additional facilities might be needed and compatible with general objectives;
- (2) whether additional measures are needed to ensure that recreational users have a high quality experience (which could be affected by the numbers of users, and interactions among users with conflicting interests);
- (3) whether use is adversely affecting sensitive natural resources or the ecology of the area;
- (4) whether measures are needed to address unforeseen safety issues;
- (5) whether changing recreational uses and demands present the need or opportunity for adjustments to existing facilities and management; and
- (6) whether any changes are needed in the management of recreation in relation to other management objectives, including protection or enhancement of wildlife habitat and forest management.

Wildlife

The Bureau, through its Wildlife Biologist and Technician, routinely conduct a variety of species monitoring activities statewide. The following are monitoring activities that are ongoing or anticipated for the Central Penobscot Region:

- (1) The Bureau will cooperate with the Maine Department of Inland Fisheries and Wildlife in the monitoring of game species, including deer, moose, grouse, and black bear;
- (2) The Bureau will identify and map significant wildlife habitat such as vernal pools and den trees in the process of developing its detailed forest management prescriptions. The boundaries of any sensitive natural communities will also be delineated on the ground at this time. Any significant natural areas or wildlife habitat will then be subject to appropriate protections.

Fisheries

Periodically, Fisheries Division staff will conduct management activities to monitor and assess fish populations in the Central Penobscot Region, including but not limited to: summer and winter creel surveys, trapnetting, gillnetting, electro-fishing, water quality monitoring, stream habitat surveys, etc. These surveys will be conducted according to all accepted procedures and policies of the Maine Department of Inland Fisheries and Wildlife, and results will be available for public inspection and review.

Timber Management

Local work plans, called prescriptions, are prepared by professional foresters in accordance with Bureau policies specified in its *Integrated Resource Policy*, with input from other staff. These

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documents are then peer-reviewed prior to approval. Preparation and layout of all timber sales involve field staff looking at every acre to be treated. Trees to be harvested are generally hand marked on a majority of these acres. Regional field staff provides regular on-site supervision of harvest activities, with senior staff visiting these sites on a less frequent basis. After the harvest is completed, roads, trails, and water crossings are discontinued as appropriate, although some management roads may remain open to vehicle travel. Changes in stand type resulting from the harvest are then recorded so that the Bureau's GIS system can be updated.

The Bureau is currently developing a post-harvest monitoring plan to assist forest managers in assessing harvest outcomes on all managed lands. The monitoring plan will also address water quality and Best Management Practices (BMP's) utilized during harvest activities.

Third party monitoring is done mainly through the forest certification programs of the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). Each program conducts rigorous investigations of both our planning and on-ground practices. The Bureau's forest management program successfully underwent a full recertification audit in December of 2011, and will host annual surveillance audits until the next full audit in 2016.

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