

Performance Evaluation of 2005 Wildlife Action Plan Implementation

Overview

The 2005 Wildlife Action Plan identified 121 species of greatest conservation need, their key habitats, priority threats and hundreds of on-the-ground conservation actions needed to stabilize or reverse declining species populations. Since 2005, New Hampshire has received an average of \$560k (\$469k - \$740k) annually from the State Wildlife Grants Program to implement the Wildlife Action Plan.

Following the guidelines provided by the State Wildlife Grants Effectiveness Measures Project (AFWA 2012), this document summarizes an evaluation of performance on the implementation of the first Wildlife Action Plan from 2005 – 2014. The resulting information will be used to communicate with partners about the Wildlife Action Plan and also to help managers learn from and improve upon the conservation actions they implement.

Conservation Actions for Species and Habitats

Conservation actions from the 2005 Wildlife Action Plan were tracked (by species and habitat) for initiation and linked to threats that were targeted. The evaluation includes new actions identified and initiated during the past 10 years for emerging issues such as White Nose Syndrome.

A total of 1,100 actions were identified for species and habitats in 2005 (Table 1 and 2), 843 species and 257 for habitats. NHFG and partners were successful in initiating 47% (393) of the actions identified for species from 2005 – 2014. The greatest number of action implemented targeted species ranked as higher risk. NHFG and partners were successful in 40% (102) of the actions identified for habitats from 2005 – 2014.

Since the creation of the 2005 Wildlife Action Plan, a new reporting database has been established for evaluating performance. The Tracking and Reporting Actions for the Conservation of Species (TRACS) system categorizes actions and links them with standardized metrics. This system was applied to all actions from the 2005 Wildlife Action Plan for summarizing performance.

Over two-third of action-needs identified for species and habitats were ‘monitoring’ and ‘research’ (Table 3). Ninety-five percent of SGCN species had identified distribution research for the first 10 years of implementation. Significant research projects were completed on terns, black racer, hognose snake, Blanding’s turtle, and wood turtle, to name a few.

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Actions targeting habitat protection and restoration and management of habitat were the second largest action type identified in the 2005 Wildlife Action Plan. Since 2005, over 4,250 acres have been targeted for land acquisition or habitat management for specific species or habitat. This includes protection of land around bat caves, timber rattlesnake den conservation, habitat management for Pine Barrens and Karner blue butterfly, and shrublands for NEC and American woodcock. Some are actions for multiple species, but cover one habitat type - such as Pine Barrens or shrublands.

Actions to create land-use plans, species management plans, and environmental review guidelines for species and habitats formed the third-largest action category identified in 2005. More than 60 plans have been tracked to include species and habitat actions that were identified including: Gulf of Maine plan for terns, recovery plans for fish species such as bridle shiner and brook lamprey, wind power siting plans, and town natural resource inventory plans. In addition, environmental review guidelines were completed for 20 species.

The remaining actions resulted in over 3,235 permits reviewed for impacts to rare wildlife, the development of six major databases to track wildlife including the Wildlife Sightings Database and the Dragonfly database, technical assistance to an undocumented amount of landowners, outreach and education to over 3,500 people, the release and translocation of over 13,000 animals, and the installation or removal of over 1,300 structures such as dams, bat gates and nesting structures for birds.

Change in Risk due to Targeted Action (2005 – 2015)

Risks, or *threats*, that were targeted by all initiated actions were summarized as part of this evaluation (Table 4). Change in risk was completed by comparing 2005 risk assessment to the 2015 assessment. Not all actions identified directly addressed a threat. The majority of actions identified were targeted at species, and multiple actions were aimed at collecting more information on the species to evaluate their condition, threats, and to determine potential actions. Actions identified for habitats were most effective at targeting threats, while general strategies (actions not identified in species or habitat profiles) had the least amount of direct effect on threats.

The greatest number of actions identified in the 2005 Wildlife Action Plan targeted impacts to wildlife and habitats from development and recreation. Over 50% of these actions were initiated since 2005. Actions targeting altered natural disturbance was the next highest identified and implemented group, followed by transportation.

Fifty-four percent (n = 338) of threats evaluated during both 2005 and 2015 did not change in categorized threat. Thirty-two percent (n=201) of threats decreased in assessed risk score and 13.5% increase in assessed risk score (See Chapter 4: Risk Assessment). Changes in threat categories from 2005 to 2015 may have been due to actual changes in risk or other assessment measurements, such as changes in the amount of information available for making assessments. See Appendix E and Appendix G for detailed information on the threat assessment.

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Table 1. Summary of species specific actions identified and initiated.

Species Risk Level	# Species	% Total Species	Actions Identified	Actions Initiated	% Identified Actions Initiated by Risk Level	% Actions Identified per Total Actions	% Actions Initiated by Total Actions Initiated	Actions Per Species
NA	27	0.24	143	54	0.38	0.17	0.05	5.3
1	20	0.18	64	10	0.16	0.08	0.03	3.2
2	26	0.23	152	79	0.52	0.19	0.20	5.8
3	24	0.21	261	120	0.46	0.31	0.31	10.9
4	15	0.13	219	130	0.59	0.26	0.33	14.6
	112		843	393				

Table 2. Summary of habitat specific actions identified and initiated.

Habitat Risk Level	# Habitats	% Total Habitats	Actions Identified	Actions Initiated	% Identified Actions Initiated by Risk Level	% Actions Identified per Total Actions	% Actions Initiated by Total Actions Initiated	Actions Per Habitat
2	1	0.05	10	0	0.00	0.04	0.00	10
3	10	0.50	116	52	0.49	0.45	0.51	11.6
4	9	0.45	131	50	0.38	0.51	0.49	14.6
	20		257	102				

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Table 3. Summary of reportable metrics for species and habitat actions identified for the Wildlife Action Plan through 2014.

TRACS metric	Total Actions	Initiated Actions	Completed Since 2005	Description
Acres	83	51	4750	Restoration and Management, Land Acquisition
Animals	4	4	13,100	Number translocation or released from breeding program
Assists	47	26	NA	Working with landowners, Advise developers, Advise land managers
Cases	7	4	6	Unregulated Take
Databases	9	9	6	Wildlife Sightings, Taxa specific databases
Interventions	4	4	1300	Predator Management (trap nights, days)
NA	4	2	NA	Coordination and Administration tasks
Number	29	20	3500*	Number of People Reached or Engaged in Outreach and Education
Plans	54	32	85*	Land Use Plans, Species Management Plan, Environmental Review Guidelines
Projects	768	304	75*	Research and Monitoring of Species and Associated Habitats
Reviews	37	16	3235*	Trapping Regulations, Species Listing Evaluation, Development Plans
Structures	10	10	1300*	Nesting Platforms, Gates, Dam Removals
Studies	12	2	2	Research Projects on Technique Development
	31	12	NA	Unable to categorize action to TRACS
Grand Total	1100	495		

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Table 4. Summary of actions that were identified as affecting a specific threat described in the NH Wildlife Action Plan.

Threat	Risk Level WAP 2005	Species Actions	Habitat Actions	General Strategies	Total Effect of Actions	Cum. Threat Effect 2005-2015	
Development	2.1	88	48	5	141	70	0.50
Recreation	1.1	71	24	3	98	56	0.57
Scarcity	0.8	46	6	1	53	31	0.58
Transportation	0.8	40	29	3	72	37	0.51
Introduced Species	0.7	22	6	2	30	10	0.33
Mercury	0.6	25	3	2	30	9	0.30
Non point Source Pollution	0.6	32	10	1	43	16	0.37
Predation/Herbivory	0.6	12	2	0	14	11	0.79
Altered Hydrology	0.5	46	10	5	61	33	0.54
Unsustainable Forestry	0.5	31	17	3	51	23	0.45
Acid Deposition		8	13	1	22	6	0.27
Altered Disturbance		57	21	2	80	43	0.54
Disease		10	3	0	13	6	0.46
Oil		13	0	0	13	11	0.85
Unregulated Take		33	7	1	41	21	0.51
Climate Change		20	7	0	27	18	0.67
Agriculture		28	7	1	36	23	0.64
Energy		42	9	0	51	30	0.59
Total Effect of Actions		624	222	30	876	454	0.53
Total Actions Identified		843	257	73	1173	650	
Average Effect on Threats		0.74	0.86	0.41	0.75	0.70	

Results of WAP – Improving Conservation of Wildlife and Habitats

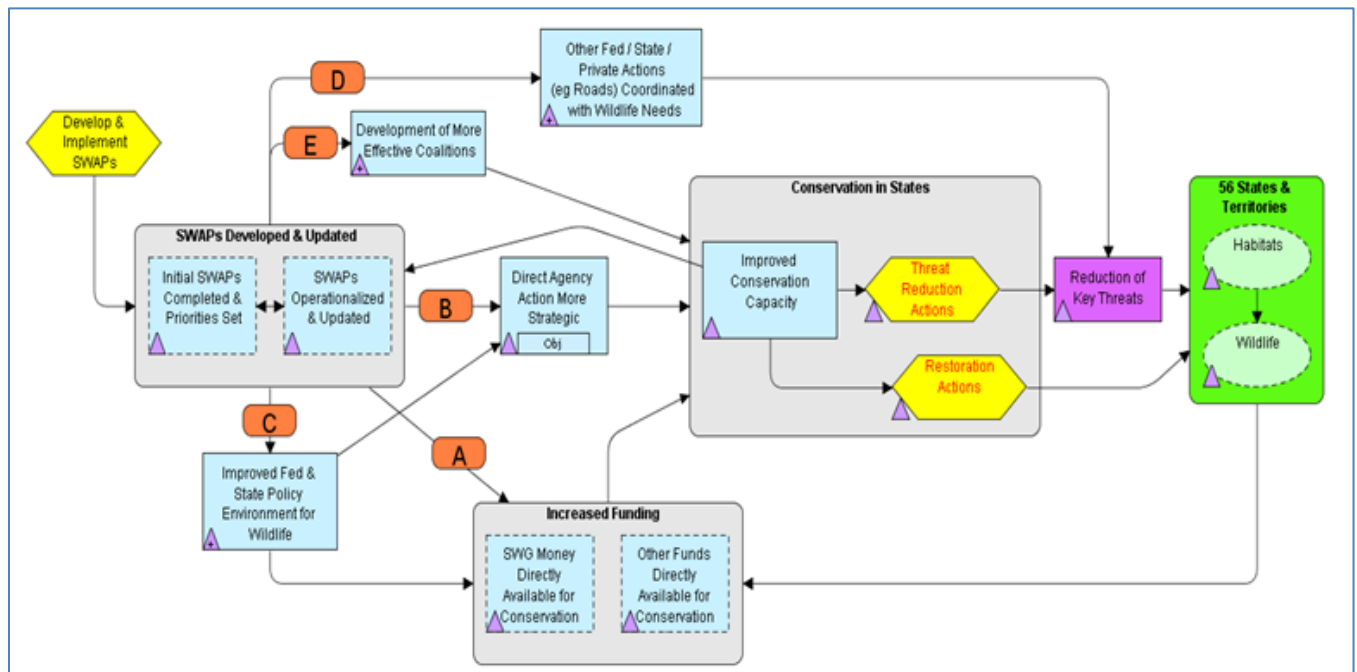


Figure 1. Results chain for implementation of State Wildlife Action Plans (AFWA 2012).

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Table 5. Summary of NH Wildlife Action Plan performance metrics to date (September 2015).

Performance Metrics	Summary to Date
Plan Completed	Yes
Level of partner participation	115
Increased Funding	\$5.65 million SWG plus match from partners
Number of actions implemented	495 species and habitat actions
Reducing risk(s)	54% same, 32.4% decrease, 13.6 % increase
Preventing listing	no new federal species listed, one candidate species not warranted for listing
Target areas protected	4,750 acres restored or acquired for species and habitat specific management 235,000 acres highest ranked habitat protected

Literature Cited

Association of Fish and Wildlife Agencies. 2011. State Wildlife Grants Effectiveness Measures Project: Final Report. Washington DC. Accessed Online. Available at http://www.fishwildlife.org/files/Effectiveness-Measures-Report_2011.pdf.