

# **State Wildlife Action Plan Characterization: RHODE ISLAND**



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## Introduction

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Rhode Island is in many ways, a quintessential New England state. The smallest state in the union, situated between Massachusetts and Connecticut, it still exhibits considerable species diversity.<sup>1</sup> Like other New England states, Rhode Island's early history was dominated by an expanding population and an agricultural economy, resulting in deforestation of significant portions of the state. An early mover in the industrial revolution, the mid 1800s saw a population shift toward cities, as well as damming and development along the state's rivers. These demographic changes have continued, and today Rhode Island boasts the second highest population density of any state. Still, the reforestation of abandoned farms has also resulted in the second highest percentage of forested land in any state.

Rhode Island's natural habitat is also dominated by a variety of important physical characteristics. Glaciation remains the dominant source of the state's physical characteristics, creating Narragansett Bay in the center of the state, Block Island, and many local features. Due to its position as a coastal state and the relative size of Narragansett Bay, Rhode Island's wildlife diversity contains significant contributions from both terrestrial and aquatic sources. As a result, effective management of the entire suite of wildlife diversity in the state requires careful analysis of these different natural systems.

The state's small size and large coastal influence also create management difficulties within the state. Many of Rhode Island's wildlife species are susceptible to threats both within and outside of the state as coastal species exhibit widespread migration patterns, watersheds originate in neighboring states, and terrestrial species have populations that span state boundaries. As a result, effective management activities in Rhode Island must remain mindful of the actions of other states and their effects on Rhode Island's wildlife. Despite these intrastate challenges, increasing population and development remain the major threats to wildlife in Rhode Island. An agency spokesman has asserted that most, if not all, of the issues facing wildlife in Rhode Island can be traced to habitat loss or fragmentation resulting from increasing human pressures.<sup>2</sup>

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<sup>1</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, (RIDEM), "Rhode Island's Comprehensive Wildlife Conservation Strategy." (Wakefield, RI: 2005) p. ii.

<sup>2</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

## **1. Identification of Species of Greatest Conservation Need (SGCN)**

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While Rhode Island’s plan generally follows a habitat based model, utilizing nested hierarchies to develop threats and conservation actions, considerable effort was expended in identifying Greatest Conservation Need Species. Rhode Island utilized the GCN checklist developed by TWW<sup>3</sup> and IAFWA in identifying GCN species, but sought to keep its list inclusive and to “keep common species common.”<sup>4</sup> A total of 364 GCN species were identified in 5 taxonomic groups.<sup>5</sup> In defining GCN species, the state also emphasized focal or indicator species that could serve as proxies for larger guilds of species.<sup>6</sup>

To identify GCN species, Rhode Island researched and compiled the best available quantitative and qualitative information<sup>7</sup> and utilized existing compilations of priority species from a variety of organizations.<sup>8</sup> Utilizing both internal and external experts, an initial list of GCN species was derived through the work of technical and scientific committees,<sup>9</sup> which based their initial screening on species meeting any of the TWW criteria.<sup>10</sup> Following the creation of an initial list, workshops were held to solicit additional input and feedback.<sup>11</sup> After revision by the technical and scientific committees, the list was published on the RI-DEM website and a final period of stakeholder review and comment was initiated before the list of GCN species was finalized.<sup>12</sup>

## **2. Identification of Key Habitat and Community Types**

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Rhode Island utilized both ecoregional analysis and vegetative classifications in identifying key habitat and community types within the state. Given the lack of existing distribution and abundance data on many GCN species (especially amphibians, reptiles, and

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<sup>3</sup> Appendix 1 provides a complete list of names for all organizations referenced in this report.

<sup>4</sup> RIDEM, p. 40.

<sup>5</sup> Taxonomic Groups included Mammals (23 species), Birds (129), Amphibians and Reptiles (21), Fish (34) and Invertebrates (157).

<sup>6</sup> RIDEM, p. 41.

<sup>7</sup> RIDEM, p. 40.

<sup>8</sup> RIDEM, p. 41. Key partner lists were obtained from USFWS, USFS, TCN, NHP, Nature Serve, PARC, and AFS.

<sup>9</sup> RIDEM, p. 42.

<sup>10</sup> RIDEM, p. 40.

<sup>11</sup> RIDEM, p. 42.

<sup>12</sup> RIDEM, p. 42.

invertebrates), a strong focus on habitat characterization was seen as the best method for protecting these species.<sup>13</sup> While Rhode Island's habitat classification scheme was somewhat novel, it sought to incorporate data from existing ecoregional and vegetation classifications. Key ecoregional characterizations such as the USFS Forest Classification System, TNC ecoregional characterization (adapting Bailey's model), the North American Bird Conservation Initiative (in conjunction with Partners in Flight), the EPA/Mass. EPA ecoregion classification, and the WWF ecoregions were all consulted as a part of the plan.<sup>14</sup> In addition, vegetation classifications including the National Vegetation Classification System (federal agencies), the Southern New England Gap Analysis Program, the Rhode Island Geographic Information System (REGIS), and the Natural Communities of Rhode Island classification system were consulted for vegetative analysis.<sup>15</sup>

These existing classification schemes were used as a model to create a new coarse filter habitat model which identified six primary habitat types: Forests, Non-forested Terrestrial, Wetland, Freshwater, Marine and Estuarine, and Other. These broad categories were broken down into sub-groupings and finally into 64 key habitat types.<sup>16</sup> The plan also included a general overview and history of each of the broad classification types<sup>17</sup> which included analysis of trends and broad conservation initiatives. In an effort to further characterize key habitats, each was assigned a relative threat (high, medium, or low) and a condition rank (excellent, good, fair, or poor).<sup>18</sup> Although different classification systems were not created for marine and terrestrial habitats, marine/estuarine systems were a discrete habitat type and unique characteristics could be identified through this process.

The process for identifying key habitat types was similar to the process used for GCN species. Initially, RI-DEM staff reviewed existing habitat classifications and key habitat areas utilized by partner organizations.<sup>19</sup> Due to the significant interstate implications of wildlife management in Southern New England, neighboring states were also consulted in an effort to produce regional consistency and standardization.<sup>20</sup> Special emphasis was also placed on the

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<sup>13</sup> RIDEM, p. 52.

<sup>14</sup> RIDEM, pp. 49-51.

<sup>15</sup> RIDEM, pp. 52-53.

<sup>16</sup> RIDEM, p. 71, Table 2.11.

<sup>17</sup> RIDEM, pp. 53-69.

<sup>18</sup> RIDEM, p. 71, Table 2.11.

<sup>19</sup> RIDEM, p. 69.

<sup>20</sup> RIDEM, p. 70.

REGIS classification system in an effort to increase the potential for future geospatial analysis.<sup>21</sup> Once the initial habitat classification scheme was created, an iterative process of technical committee drafting and public review of habitats was used to create the final listing of key habitats and their relative condition and threat levels.<sup>22</sup> Each GCN species was assigned a primary, secondary, and tertiary habitat in an effort to identify the most critical habitat areas for conservation efforts.<sup>23</sup>

### **3. Identification of Threats to Species and Habitats**

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Rhode Island's threat identification process began with a literature review of global and national threats to biodiversity<sup>24</sup> as well as regionalized and local threats<sup>25</sup> to establish existing classes of threats. By analyzing such a wide range of sources, Rhode Island was able to identify a series of common threats which were identified by multiple sources within the literature and by stakeholder input.<sup>26</sup> This input was used to describe a series of eleven statewide threats affecting Rhode Island.<sup>27</sup> It is significant that these statewide threats were rarely physical or environmental conditions, but often addressed the organizational structure and limitations of management agencies. A final organizational chart identified the four primary statewide threats as (1) a lack of advocacy, authority, and enforcement; (2) lack of information for comprehensive strategy, (3) lack of strategy for comprehensive planning, and (4) habitat loss and fragmentation.<sup>28</sup> Each of the eleven statewide threats was placed into one of these categories.

The section of the plan which directly addressed ecological threats was limited to general statewide threats and focused on habitat loss and degradation at a statewide level.<sup>29</sup> This section

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<sup>21</sup> RIDEM, p. 71.

<sup>22</sup> RIDEM, p. 71.

<sup>23</sup> RIDEM, p. 71.

<sup>24</sup> RIDEM, p. 76.

<sup>25</sup> RIDEM, pp. 76-77.

<sup>26</sup> RIDEM, p. 77.

<sup>27</sup> RIDEM, Table 3.1. General statewide threats included: habitat loss and fragmentation from a lack of conservation planning and coordination, habitat loss from inadequately sized reserves, habitat fragmentation from lack of focal area approach, lack of GCN species and habitat data for comprehensive strategy, lack of research to guide threat assessment and prioritization, lack of strategy to implement landscape-level planning, lack of strategy to support planning and assessment, lack of planning to support priority research, lack of advocacy for environmental review, lack of authority from existing regulations, lack of advocacy for comprehensive wildlife conservation, broad scale temporal and spatial climate change.

<sup>28</sup> RIDEM, p. 93.

<sup>29</sup> RIDEM, pp. 77-86.

provided long-term trend data related to both the size and spatial scale of wildlife habitat within the state.

Once the threats were identified through literature review and stakeholder input, the Technical and Scientific teams sorted the threats by assigning them to particular species, taxa, and habitats.<sup>30</sup> After the threats had been assigned, they were cross-listed by taxa<sup>31</sup> and habitat type.<sup>32</sup> The threats for individual species were included in Appendix 3. Throughout the process, threats were aggregated at the highest level possible, and were listed for the entire state, specific habitats, specific taxa, and finally specific species.<sup>33</sup> While there was no explicit prioritization of threats, this hierarchical structure provided a basis for comparing the scope of each threat.

#### **4. Description of Conservation Actions for Species and Habitats**

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As with previous elements, Rhode Island began their development of conservation actions through an assessment of relevant literature. By analyzing existing conservation action at the national, regional, state and local level, Rhode Island sought to identify conservation strategies that had proved effective elsewhere or that had been identified by key partners, thus increasing the likelihood that actions would take place and be effective.<sup>34</sup> After the initial literature review, conservation actions were aggregated by the RI-DEM and associated with specific threats.<sup>35</sup> These lists were then reviewed by (1) Scientific and Technical Committees, (2) key stakeholders (over 100 were invited to participate and 30 became active in the process), and (3) the general public through notice and comment review.<sup>36</sup> Throughout this process, attention was also paid to substantive areas where there was a lack of existing knowledge and new research, inventory, and monitoring actions were identified to correct these knowledge gaps.<sup>37</sup>

Once the list of conservation actions were compiled and paired with threats, they were placed within a three-tiered system for organizational purposes. The first tier corresponded to

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<sup>30</sup> RIDEM, p. 86.

<sup>31</sup> RIDEM, Table 3.4.

<sup>32</sup> RIDEM, Table 3.5, Table 3.6.

<sup>33</sup> RIDEM, p. 86 and Chapter 4.

<sup>34</sup> RIDEM, p. 98.

<sup>35</sup> RIDEM, p. 98.

<sup>36</sup> RIDEM, p. 98.

<sup>37</sup> RIDEM, p. 98.

state-wide threats and included highest priority conservation actions that could benefit all species and habitat types.<sup>38</sup> These actions tended to be structural in nature, focusing on increasing agency capacity and organization.<sup>39</sup> Given the resource and staffing constraints faced by the agency, development of conceptual strategies for conservation was considered an important prerequisite for efficient conservation. The second tier was based on specific taxa or suites of species. Recognizing that many conservation actions have the potential to conserve multiple species, this section identified sixteen different taxa, identifying focal or indicator species as well as specific conservation actions.<sup>40</sup> The final tier analyzed the 64 habitat types contained a description of each habitat type, the associated GCN species, the current condition, and proposed actions.<sup>41</sup>

Finally, a spatial analysis of the state was completed, identifying the number of key habitats and stressors in each area.<sup>42</sup> By assigning one point for each habitat type and negative one point to each stressor, a map was created which identified the areas which were most important for conservation as well as the areas under the most significant threats.<sup>43</sup>

Although the three-tiered system provides implicit prioritization based on the scope of each threat, the plan also emphasized that each conservation action identified would have significant positive impacts on Rhode Island's biodiversity and should be considered a priority.<sup>44</sup>

## **5. Proposed Plans for Monitoring Species, Habitats and Conservation Actions**

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Rhode Island's plan clearly recognizes the importance of monitoring in wildlife management. Effective monitoring, coupled with adaptive management, was seen as a critical component of efficient management, given limited staff and fiscal resources.<sup>45</sup> The plan also recognizes that environmental conditions in Rhode Island will continue to change due to shifting land use patterns, climate change, national and global population trends, and the development of

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<sup>38</sup> RIDEM, p. 99.

<sup>39</sup> RIDEM, pp. 100-11.

<sup>40</sup> RIDEM, pp. 111-31.

<sup>41</sup> RIDEM, pp. 132-258.

<sup>42</sup> RIDEM, pp. 259-60.

<sup>43</sup> RIDEM, Figure 4.2.

<sup>44</sup> RIDEM, p. 101.

<sup>45</sup> RIDEM, p. 262.

new data and information.<sup>46</sup> Effective monitoring is required to adapt conservation strategies in light of these changing conditions.

Rhode Island's plan has identified monitoring metrics for each of the conservation actions identified in Chapter Four<sup>47</sup> and plans to use these as the basis for its monitoring efforts. Monitoring is not a new concept for Rhode Island and a range of public, private and academic institutions were recognized for their existing programs.<sup>48</sup> In addition, the Comprehensive Watershed and Marine Monitoring Act of 2005 lead to the creation of the Rhode Island Environmental Monitoring Collaborative which has implemented a coordinated monitoring program for aquatic conservation efforts.<sup>49</sup> This will also serve as a model for terrestrial monitoring.<sup>50</sup> Through the planning process, the state conducted an extensive review of existing monitoring actions currently underway in the state<sup>51</sup> and existing gaps in monitoring.<sup>52</sup> In cases where monitoring gaps exist, the creation of monitoring procedures was included in the conservation actions in Chapter 4.<sup>53</sup>

Rhode Island's monitoring program includes an annual review of conservation actions by the RI-DEM, USFWS, as well as review by a Scientific Review Team of Experts.<sup>54</sup> This process will provide data for adaptive management processes on an annual basis.<sup>55</sup> In addition, the plan has placed a strong emphasis on the use of multiple spatial and temporal scales for monitoring, as well as increased use of GIS mapping.<sup>56</sup> Finally, the plan placed a strong emphasis on recognizing and utilizing the monitoring activities of partner organizations. In the hope of effectively including this additional information, the plan places a strong emphasis on improving electronic databases both for aggregating the monitoring data provided by various sources and then disseminating this comprehensive information to user groups.<sup>57</sup>

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<sup>46</sup> RIDEM, p. 262.

<sup>47</sup> RIDEM, p. 262.

<sup>48</sup> RIDEM, p. 263.

<sup>49</sup> RIDEM, pp. 262, 264.

<sup>50</sup> RIDEM, p. 262.

<sup>51</sup> RIDEM, Table 5.1.

<sup>52</sup> RIDEM, Table 5.2.

<sup>53</sup> RIDEM, p. 270.

<sup>54</sup> RIDEM, p. 275.

<sup>55</sup> RIDEM, p. 275.

<sup>56</sup> RIDEM, pp. 271-72.

<sup>57</sup> RIDEM, p. 272.

## 6. Procedures for Strategy Review

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In keeping with the requirements of the CWCS, Rhode Island included a procedure for a complete review of the plan within ten years.<sup>58</sup> The plan stated that the ten year schedule “will be long enough to be practical in terms of administrative loads, but short enough to be responsive to changing conditions, monitoring and research results, and adaptive management revisions.”<sup>59</sup>

However, the fact that a full revision will only occur every ten years does not mean that there will be no strategy review during the intervening period. Prior to the creation of the CWCS there were a number of conservation and management projects in the state which had regularly scheduled revisions, ranging from one to five years.<sup>60</sup> By striving to incorporate the plan strategies into these existing management plans and by learning from them, Rhode Island envisions that a constant and iterative process of review will occur throughout each ten-year revision cycle.<sup>61</sup> As a part of this iterative process of review, the state has set shorter revision periods for many portions of the plan including SWG grant requirements (annual review), GCN species statute review (biannually), review of management plans for conservation partners (every five years), and review of RIEMC’s monitoring (every five years).<sup>62</sup>

By setting full strategy review every ten years, Rhode Island will be able to critically analyze the strategy revisions taking place throughout the state and on smaller subsets of the CWCS and re-integrate them in comprehensive manner.

## 7. Coordination with Federal, State and Tribal Agencies

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Rhode Island’s planning process appeared to place a high emphasis on gathering the information necessary to develop effective conservation strategies. Thus the focus of the planning process was not directed toward the development of partnerships for conservation actions, but the sharing of data and strategies that were already in use or could be utilized within the state. While government agencies were largely treated in a similar fashion to other

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<sup>58</sup> RIDEM, p. 277.

<sup>59</sup> RI DEM, p. 279.

<sup>60</sup> RIDEM, Table 6.1.

<sup>61</sup> RIDEM, p. 279.

<sup>62</sup> RIDEM, pp. 280-81.

conservation partners, the existence of specific conservation mandates for many agencies resulted in significant involvement.

Using established protocols, the RI-DFW identified all potential stakeholders in the CWCS and made initial contact informing these groups of the planning process.<sup>63</sup> Given their expertise, representatives from several agencies served as members of technical committees and also provided other forms of informal consultation, such as strategy reviews.<sup>64</sup> The plan provided a detailed description of the potential impact of each relevant federal, state, tribal, and local agency on wildlife conservation in Rhode Island as well as the level of collaboration that has existed in the past.<sup>65</sup>

Several Federal agencies, including USFWS, NRCS, EPA, USDA, USFS, the Army Corps of Engineers, USFS, NOAA, NPS, and US DOD were all listed as participants in the plan;<sup>66</sup> however, one DWF employee asserted that the USFWS was the only strong collaborator due to their involvement with the Federal Refuge System in Rhode Island.<sup>67</sup> Similarly, RIGIS, the Department of Administration, the Coastal Resource Management Council, and Department of Transportation were all listed as state collaborators,<sup>68</sup> but only the Department of Administration was considered a key collaborator by one RI-DFW employee who attributed their involvement to the National Heritage Program which was housed under their authority.<sup>69</sup> Similarly, this RI-DFW employee did not observe significant collaboration by tribal or local agencies, despite their presence in the written plan.<sup>70</sup>

Despite this apparent disconnect between the plan itself and the observations of at least one individual who was involved in the planning process, both observations may be correct. First of all, the lack of observed collaboration may reflect a lack of interest on the part of some potential conservation partners rather than a lack of effort on the part of RI-DFW to actively solicit their involvement. Second, to the extent that the planning process was focused on gathering information rather than developing collaborative implementation strategies, the

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<sup>63</sup> RIDEM, p. 282.

<sup>64</sup> RIDEM, p. 285-86.

<sup>65</sup> RIDEM, pp. 286-305.

<sup>66</sup> RIDEM, p. 286.

<sup>67</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>68</sup> RIDEM, pp. 278-89.

<sup>69</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>70</sup> Ibid.

exchange of data highlighted in the plan may not have required significant and ongoing collaboration throughout the planning process.

## 8. Public Participation

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Rhode Island provided many opportunities for public participation throughout the planning process. One of its primary goals was to “involve the public at multiple levels and at each stage of the process.”<sup>71</sup> Public outreach was one of the primary goals of the project and the state utilized mail, e-mail, a website, press releases, and articles in conservation magazines in an effort to reach the public.<sup>72</sup> Using the same processes described above for collaboration with government agencies, RI-DFW identified a list of over one hundred potential stakeholders and contacted them directly in order to involve them in the planning process.<sup>73</sup> Potential public participants were then placed into one of three groups based on their capacity for involvement in the planning process.

Tier One Collaborators were identified as organizations with significant conservation programs or roles to play in the planning process and included all organizations with the capacity to contribute significant data or scientific knowledge to the process.<sup>74</sup> These groups were by far the most involved and participated in a variety of workshops and informal meetings related to the plans.<sup>75</sup>

Tier Two organizations were identified as those groups with a strong interest, but limited programs and technical capacity.<sup>76</sup> These organizations were still encouraged to participate in the planning process, but RI-DFW seemed to focus more on disseminating information to these groups than actively involving them in the planning process. This may be in part because of the low response rate that they received from initial efforts to contact interested organizations.<sup>77</sup>

Finally, any group not included in Tier One or Tier Two was considered part of the general public and included in Tier Three. They were viewed primarily as beneficiaries of the

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<sup>71</sup> RIDEM, p. 308.

<sup>72</sup> RIDEM, App. 8-2.

<sup>73</sup> RIDEM, p. 308, App. 8-1.

<sup>74</sup> RIDEM, pp. 309-10.

<sup>75</sup> RIDEM, pp. 309-10.

<sup>76</sup> RIDEM, p. 310.

<sup>77</sup> RIDEM, p. 309.

plan,<sup>78</sup> and, again, RI-DFW seemed to focus on disseminating information rather than active collaboration with these organizations and individuals.

Despite the efforts of RI-DFW to generate broad participation in this project, one organization stood out in their involvement in the planning process. When asked to name the most important collaborators to the plan, a RI-DFW employee specifically mentioned the role that The Nature Conservancy played in the process.<sup>79</sup> TNC has a long history of collaboration with RI-DEM and this history of collaboration, coupled with their extensive data and strategy resources, allowed TNC to play a significant role in the generation of data and the development of conservation strategies.<sup>80</sup> In addition, TNC was awarded a grant from the Doris Duke Charitable Foundation to provide assistance in the planning process and was able to use those funds to provide additional GIS support among other things. While other organizations were certainly involved in the planning process, both TNC and RI-DFW representatives considered TNC to be an integral part of the planning process.

## Implementation

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### *Overview*

Although very little time has passed since Rhode Island's CWCS was completed, a number of positive outcomes have been observed. This section will review some of the changes that have taken place in Rhode Island since the completion of the CWCS and consider how the plan has been implemented. Despite challenges created by a difficult economic climate, Rhode Island's plan has resulted in a shift within the RI-DFW toward a more inclusive ecological management plan and SWG funds have been used effectively to mitigate threats identified in the plan.

While Rhode Island has had a number of broad plans in the past, this was the first truly comprehensive management plan for all wildlife and the process of creating this plan has had a transformative impact on the agency. Despite a lack of general lack of concrete implementation of conservation actions, there have been changes in the attitudes and management approaches

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<sup>78</sup> RIDEM, p. 311.

<sup>79</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>80</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

taken within the agency. An agency employee asserted that he uses the plan to expose people within the agency to new concepts and ideas for conservation action.<sup>81</sup> Similarly, an NGO employee has noted that as a result of the plan RI-DFW has a “mandate to work for the protection of all species” and contrasted this to a previous approach that focused on game management.<sup>82</sup> While the full extent of this transformation in RI-DFW to incorporate all species in an ecological management scheme remains to be seen, the initial changes have been viewed as positive.

Outside of the agency itself, it appears that there has been very little transformation as a result of the plan. Although TNC has been active in implementation, its involvement has been attributed to the close connection between the plan’s objectives and TNC’s pre-existing mission rather than any changes within TNC.<sup>83</sup> Efforts to contact other organizations in the state with respect to the plan proved unsuccessful and corroborated a RI-DFW employee’s view that other organizations have not been active in implementation.<sup>84</sup> However, this lack of participation by other organizations may be partially due to a lack of information and both RI-DFW and TNC have shown an interest in increasing outreach efforts to make the plan more accessible to municipalities and NGOs throughout the state.<sup>85</sup> While TNC has been active in plan implementation, there has been little activity from other organizations and very little change within the broader community.

While the conceptual changes in RI-DFW have been beneficial, undertaking concrete conservation actions have been difficult in Rhode Island. This is attributable to larger economic challenges in the state which has resulted in significant budget cuts for the state government.<sup>86</sup> Faced with competing responsibilities and limited resources, RI-RI-DFW cannot undertake many potentially beneficial programs. For example, both RI-DFW and TNC have shown considerable interest in establishing monitoring programs in relation to CWCS goals, but when faced with

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<sup>81</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>82</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>83</sup> Ibid.

<sup>84</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>85</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.; Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>86</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

budget constraints they have chosen to spend money on other programs.<sup>87</sup> Perhaps due to the lack of monitoring or a lack of funding for review, there have not been any changes to the plan since it was first published. The constraints under which RI-DFW works have also made it difficult to identify priorities arising from the plan. One agency employee was emphatic that the plan did not prioritize actions and wanted to encourage all identified conservation actions as beneficial.<sup>88</sup> Since there is very little implementation being done on the ground, it is also difficult to find empirical evidence of agency priorities in implementation. Similarly, while TNC has utilized the plan to obtain additional funding, their priorities for land acquisition have not changed substantially based on the plan.<sup>89</sup> Thus the overarching role of state economic forces has impacted the agency's capacity for implementation and may be partially responsible for the lack of on the ground monitoring and prioritization within the state.

*CWCS Successes:*

1. Conceptual shifts in RI-DFW and increased collaboration with TNC
2. Increased funding for land acquisition programs through SWG funds.

*CWCS Challenges:*

1. Economic challenges have limited resources available for conservation
2. Continued development pressure threatens many species and habitats

## **Who is Involved and What are They Doing?**

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To date, implementation of the plan has primarily been limited to RI-DFW and organizations that have received funding through SWG awards. As the institutional author of the CWCS and the agency with primary responsibility for wildlife management, RI-DFW remains involved with plan issues, but these projects are limited to a small fraction of employees' time

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<sup>87</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.; Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>88</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>89</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

due to competing responsibilities.<sup>90</sup> This is partially due to a hiring freeze in the state government which prevents RI-DFW from increasing staff or even replacing those that retire. As a result, most employees are swamped with existing responsibilities – a problem observed by NGOs<sup>91</sup> – and unable to take on new projects related to CWCS implementation. In addition, the state is unable to meet the matching funds requirement for SWG funds on its own and depends on other organizations to provide the match.

One noteworthy agency project which highlights these constraints is the Piping Plover management program which was administered through USFWS and partially funded with an SWG award. Through this program, USFWS provides an in kind match of staff and other resources to administer a nesting program for this endangered bird. Without this project in place, the state would be responsible for Piping Plover management and one agency employee said adequate protection would not have occurred due to excessive time demands on an already strapped agency.<sup>92</sup> In sum, RI-DFW has been involved in plan implementation, but they are primarily playing the role of organizer at this point and will continue to do so until improving economic conditions provide the agency with greater access to the resources to institute new conservation programs.

Perhaps the largest beneficiary of the SWG funds to date has been TNC. Unlike the Rhode Island government, TNC has available funding to match SWG funds and has received the vast majority of funds thus far.<sup>93</sup> Aside from their financial capacity, TNC has also benefited significantly from increased collaboration between RI-DFW and TNC. Although the CWCS has not changed TNC's mission or objectives for conservation, one TNC employee believes that the CWCS has shifted the RI-DFW's perspective, making it more compatible with TNC and creating opportunities for increased collaboration between the organizations.<sup>94</sup> For example, the agency has placed a new emphasis on geographic areas and species which were not previously included in their management plans.<sup>95</sup> In one example of a collaborative project, TNC targeted an 1800

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<sup>90</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>91</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>92</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>93</sup> Ibid.

<sup>94</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>95</sup> Ibid.

acre parcel of land for acquisition. The parcel is part of the largest unfragmented forest between Boston and Washington DC and would connect two existing protected areas. While RI-DWF would likely have been supportive of the acquisition in the absence of the state plan, the shift in RI-DWF's mission and availability of SWG funds likely increased its interest. RI-DWF contributed \$1.5 million in SWG funds to this project and their increased interest and financial contribution allowed RI-DWF to exercise a stronger voice in establishing management goals and increased the level of collaboration between the organizations.<sup>96</sup> While TNC has been the only active NGO in plan implementation, it should also be noted that they were the most involved in planning and many of their data and strategies were shared and included in the plan.<sup>97</sup> This involvement undoubtedly shaped the plan in a way that meshed well with TNC's existing mission and has made continued collaboration easier.

As noted above, there is has been very little involvement among other organizations aside from RI-DFW and TNC.<sup>98</sup> In fact, efforts to contact other organizations regarding their involvement were unsuccessful, indicating a potential lack of activity by those organizations with respect to the plan. Despite this lack of activity, both RI-DFW and TNC feel that other organizations – particularly municipalities – will be essential for effective implementation and are searching for ways to increase outreach.<sup>99</sup> RI-DFW currently has a conceptual approach for addressing these outreach issues, but has not been able to implement it.<sup>100</sup> Similarly, TNC has expressed interest in hiring a staff member to conduct outreach within the state and would utilize the plan as part of that outreach effort.<sup>101</sup>

There has also been very little regional or multi-state collaboration in Rhode Island. While Rhode Island does take part in the regional program regarding SWG funding, it is not a

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<sup>96</sup> Ibid.

<sup>97</sup> Ibid.

<sup>98</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.; Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>99</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.; Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>100</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>101</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

significant driver of that program,<sup>102</sup> perhaps due to the time and staff constraints mentioned above. The only significant regional or multi-state work is currently being done through TNC, which currently operates multi-state projects between Rhode Island and Connecticut and between Rhode Island and Massachusetts.<sup>103</sup> This program is an example of TNC's effort to work on a natural ecosystem scale rather than limiting themselves based on political boundaries.

In summary, there has been some activity in Rhode Island which is related to the CWCS, but TNC has been the primary actor. Due to budget and staffing constraints, the state has been less active in implementation, but has been willing to collaborate with other groups and provide guidance when opportunities present themselves. Despite the current lack of support, there is strong agreement that a broad-based effort will be required for successful conservation and outreach is emerging as a key issue in Rhode Island.

## **How Has Funding for Non-Game Wildlife Changed?**

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Funding changes in Rhode Island since the completion of the CWCS have been mostly negative, although this has very little to do with the plan itself. Rhode Island is in the midst of a statewide budget crisis which is having significant impacts on all government agencies.<sup>104</sup> From a funding standpoint, RI-DFW has been unable to obtain additional funding from the state government in order to implement the CWCS. In addition, RI-DFW is in the midst of a hiring freeze and is facing a challenge in reassigning the federal aid application work conducted by a recently retired staff member.<sup>105</sup> While these changes are unrelated to the CWCS plan itself, they have reduced RI-DFW's capacity to seek and obtain both state and federal funding for conservation projects.

One of the most significant challenges for RI-DFW has been obtaining the matching funds required for use of SWG funding. To date, the department has been unable to raise any matching funds and has been forced to use SWG funds to support conservation efforts by other

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<sup>102</sup>Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>103</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>104</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>105</sup> Ibid.

organizations.<sup>106</sup> Aside from the Piping Plover project mentioned above, all of the SWG funds have been awarded to TNC for land acquisition projects.<sup>107</sup> This collaboration has represented a new source of funding for TNC and has expanded its ability to undertake conservation projects in Rhode Island.<sup>108</sup> However, TNC has not incorporated the plan in other fundraising efforts and has been unable to leverage the CWCS for non-SWG funding.<sup>109</sup> It should also be noted that TNC has also received several grants from the Doris Duke Charitable Foundation for both planning and implementing CWCS and this has been one additional source of funding related to the CWCS.

## How Has the Agency Changed?

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DWF has changed significantly since the completion of the CWCS. Although many of the changes have been negative, these are not attributed to the plan. Indeed, the plan had had a positive impact on the agency and has transformed its mission and conservation objectives, despite external constraints.

The most significant issue affecting the agency has been the state's budget crisis and the hiring freeze that has been in effect since the plan was completed. One RI-DFW employee asserted that a large increase in staffing was not needed – maybe a couple of people – but that without an increase CWCS implementation would be difficult.<sup>110</sup> This employee was also concerned about a loss of accumulated institutional knowledge as many older employees were retiring and not being replaced.<sup>111</sup> These staffing challenges, and the funding challenges noted above, cannot be attributed to the agency and there is hope that once economic conditions improve, the state can reverse these trends.

Aside from these resource constraints, the CWCS has had a positive impact on the agency. As noted above, the CWCS has given the agency an opportunity to shift its focus from a game management perspective to a broader ecological perspective which includes all species.

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<sup>106</sup> Ibid.

<sup>107</sup> Ibid.

<sup>108</sup> Rhode Island Conservation NGO Representative, telephone interview with Joel Visser, October 23, 2007, Ann Arbor, MI.

<sup>109</sup> Ibid.

<sup>110</sup> Rhode Island Department of Environmental Management Division of Fish and Wildlife, telephone interview with Joel Visser, September 27, 2007, Ann Arbor, MI.

<sup>111</sup> Ibid.

This shift in agency perspective has been further benefited by the resulting collaboration between TNC and RI-DFW. These positive changes have largely been conceptual for RI-DFW, but as the agency develops the resources and capacity to increase its own implementation programs, these changes will likely yield significant benefits.

## **Conclusion**

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In sum, implementation of the CWCS has been a challenge in Rhode Island. Despite an increased emphasis on non-game management within RI-DFW, the agency simply lacks the resources required to undertake the specific actions included in the plan. At the same time, however, the increased emphasis on non-game management should not be underscored – building institutional norms around non-game management will allow the agency to act quickly to implement key aspects of the plan once additional staff and funds are available.

TNC also provides an example of an organization which has not explicitly made changes to its own conservation actions, but is implementing important parts of the plan through its continued efforts and increased use of SWG funds. Many other public and private organizations also have the capacity to incorporate aspects of the CWCS into their existing plans, but require additional support to make this happen. An increased emphasis on outreach has been identified as a key aspect of future implementation and will ensure both the broad support needed to mitigate the development threats in Rhode Island and the central coordination to ensure that compatible efforts are taking place between different groups.

While Rhode Island's wildlife face significant threats from human development as well as from a lack of resources dedicated to conservation, the CWCS is definitely a step in the right direction. Initial implementation actions have proved that the plan can have an impact and increased outreach and funding will provide an opportunity to fully utilize the tools provided by the plan.

## Appendix 1: Organization Acronyms

1. RI-DEM – Rhode Island Department of Environmental Management
2. RI-DFW – Rhode Island Division of Fish and Wildlife
3. EPA – United States Environmental Protection Agency
4. IAFWA – International Association of Fish and Wildlife Agencies
5. NOAA – National Oceanic and Atmospheric Administration
6. NPS – National Park Service
7. NRCS – Natural Resources Conservation Service
8. RIEMC – Rhode Island Environmental Monitoring Collaborative
9. RIGIS – Rhode Island Geographic Information System
10. TNC – The Nature Conservancy
11. TWW – Teaming With Wildlife
12. USDA – United States Department of Agriculture
13. US DOD – United States Department of Defense
14. USFS – United States Forest Service
15. USFWS – United States Fish and Wildlife Service
16. WWF – World Wildlife Fund