RE: Sentinel Range Wilderness Area (SRWA) and Bartlett Primitive Area (BPA) Draft Unit Management Plan (UMP), and the Draft River Area Management Plans for the West Branch Ausable River and the East Branch Ausable River.

The Adirondack Mountain Club (ADK) appreciates the opportunity to comment on the Sentinel Range Wilderness Area (SRWA) and Bartlett Primitive Area (BPA) Draft Unit Management Plan (UMP), and the Draft River Area Management Plans for the West Branch Ausable River and the East Branch Ausable River.

The Adirondack Mountain Club (ADK) is dedicated to the conservation, preservation, and responsible recreational use of the New York State Forest Preserve and other parks, wild lands, and waters vital to our members and chapters. ADK is a nonprofit organization with 30,000 members in 27 statewide chapters served by a year-round staff offering programs that help people discover, play in, and protect natural places. Since its founding in 1922, The Adirondack Mountain Club has protected wild lands and waters through the work of its dedicated member volunteers and staff. ADK members hike, camp, snowshoe, cross-country ski, paddle, and cycle the lands and waters of the Adirondack Park.

The Adirondack Mountain Club (ADK) appreciates the opportunity to comment on the Sentinel Range Wilderness Area (SRWA) and Bartlett Primitive Area (BPA) Draft Unit Management Plan (UMP), and the Draft River Area Management Plans for the West Branch Ausable River and the East Branch Ausable River.

We respectfully request that you consider the following comments outlined below.

**Unique Plant Communities**

On page 12, 75, and in Appendix C, DEC identifies the presence of the ice cave talus unique ecosystem. This ecosystem is located on the slopes west of Copperas Pond, between the pond and the road. The trails to Copperas and
Winch Ponds could impact this community. The community, which continues north paralleling Route 86, could also be impacted by Rock Climbers accessing Notch Mountain. DEC does not describe management actions to protect the ice cave talus community (see image below).

Source: http://on.ny.gov/2z5xceW

Spruce-Fir rocky summit habitat is also identified by DEC in the UMP as a unique or rare plant community and unique ecosystem (see image below). Like the ice talus cave community discussed above, DEC also identifies Spruce-Fir rocky summit habitat as a community that “require[s] special attention” (page 75).

Source: http://on.ny.gov/2z5xceW
DEC does not explain under *Alternatives for the Pitchoff Mountain Trail* how the proposed management actions protect this sensitive area. DEC must propose management actions that protect these two rare communities.

**Invasive Plants and Forest Health**

The Adirondack Parks State Land Master Plan (APSLMP) states on page 12,

> “The negative impacts of invasive species on natural forest and aquatic communities are well documented. Colonization and unrestrained growth of invasive species cause the loss of biodiversity, interruption of normal hydrology, suppression of native vegetation, and significant aesthetic, human safety and economic impacts. Terrestrial and aquatic invasive species have been identified at increasing rates of colonization along roadsides in campgrounds, and in water bodies of the Forest Preserve. Some of these species have the potential to colonize backcountry lands, lakes and ponds and degrade natural resources of the Forest Preserve.

Efforts should be made to restore and protect the native ecological communities through early detection and rapid response efforts to eradicate or control existing or newly identified invasive species populations. Subject to existing policy and guidelines, the Department will use the basic tools needed to preserve, protect and restore the natural native ecosystems of the Forest Preserve.”

DEC should review the latest invasive species distribution information (on the Adirondack Park Invasive Plant Program (APIPP) ArcGIS map\(^2\) and on the APIPP Target and Watched Species Page,\(^3\) and on the iMapInvasives website\(^4\)) for infestations affecting the forest preserve. DEC must develop and/or revise prevention/management plans in collaboration with APIPP as part of this UMP revision. Below are maps of invasives identified in or near the Sentinel Range Wilderness Area. Attached at the end of this document is the list of invasives represented in the polygon on the NYiMapInvasives map below.
Below are lists of Target and Watched Species from the APIPP website. DEC should update this UMP to reflect these lists.
<table>
<thead>
<tr>
<th>Target</th>
<th>Plants</th>
<th>Animals</th>
<th>Plants</th>
<th>Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knotweed species <em>(Reynoutria spp.)</em></td>
<td>Emerald ash borer <em>(Agrilus planipennis)</em></td>
<td>Mile-a-minute <em>(Persicaria perfoliata)</em></td>
<td>Eurasian Boar <em>(Sus scrofa)</em></td>
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<tr>
<td>Common reed grass <em>(Phragmites australis)</em></td>
<td>Hemlock woolly adelgid <em>(Adelges tsugae)</em></td>
<td>Slender falsebrome <em>(Brachypodium sylvaticum)</em></td>
<td>Asian longhorned beetle <em>(Anoplophora glabripennis)</em></td>
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<tr>
<td>Purple loosestrife <em>(Lythrum salicaria)</em></td>
<td>Sirex (European) woodwasp <em>(Sirex noctilio)</em></td>
<td>Wineberry <em>(Rubus phoenicolasius)</em></td>
<td>Quagga mussel <em>(Dreissena rostriformis bugensis)</em></td>
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<tr>
<td>Japanese barberry <em>(Berberis thunbergii)</em></td>
<td>Balsam woolly adelgid <em>(Adelges piceae)</em></td>
<td>Japanese stiltgrass <em>(Microstegium vimineum)</em></td>
<td>Fishhook waterflea <em>(Cercopagis bengoe)</em></td>
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<tr>
<td>Swallow-wort species <em>(Cynanchum louseae &amp; Cynanchum rossicum)</em></td>
<td>Zebra mussel <em>(Dreissena polymorpha)</em></td>
<td>Japanese angelica tree <em>(Aralia elata)</em></td>
<td>Rusty crayfish <em>(Orconectes rusticus)</em></td>
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<td>Oriental bittersweet <em>(Celastrus orbiculatus)</em></td>
<td>Chinese mystery snails <em>(Oopangopaludina chinensis)</em></td>
<td>Lesser celandine <em>(Ficaria verna)</em></td>
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<tr>
<td>Bush honeysuckles <em>(Lonicera spp.)</em></td>
<td>Spiny waterflea <em>(Bythotrephes cederstroemi)</em></td>
<td>Porcelain berry <em>(Amelopsis glandulosa)</em></td>
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<td>Garlic mustard <em>(Alliaria petiolata)</em></td>
<td>Asian clam <em>(Corbicula fluminea)</em></td>
<td>Hydridra <em>(Hydridra verticillata)</em></td>
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<tr>
<td>Burning bush <em>(Euonymus alatus)</em></td>
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<tr>
<td>Runkthorn</td>
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<td>Plant Name</td>
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<tr>
<td>Buckthorn species</td>
<td>Rhamnus catharticus &amp; Frangula airinuis</td>
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<tr>
<td>Autumn olive</td>
<td>Eleagnus umbellata</td>
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<td>Multiflora rose</td>
<td>Rosa multiflora</td>
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<td>Norway maple</td>
<td>Acer platanoides</td>
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<td>Cup plant</td>
<td>Elphium perfoliatum</td>
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<td>Yellow Iris</td>
<td>Iris pseudacorus</td>
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<tr>
<td>Giant hogweed</td>
<td>Heracleum mantegazzianum</td>
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<td>Scotch broom</td>
<td>Cyttis scoparius</td>
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<tr>
<td>Tree of heaven</td>
<td>Allanthus altissima</td>
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<tr>
<td>Eurasian watermilfoil</td>
<td>Myriophyllum spicatum</td>
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<tr>
<td>Variable-leaf watermilfoil</td>
<td>Myriophyllum heterophyllum</td>
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<td>European frog-bit</td>
<td>Hydrocharis morsus-aranæ</td>
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<tr>
<td>Water chestnut</td>
<td>Trapa natans</td>
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<tr>
<td>Curly-leaf pondweed</td>
<td>Potamogeton crispus</td>
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<tr>
<td>Fanwort</td>
<td>Cabomba caroliniana</td>
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Under *Forest Health*, the Department of Environmental Conservation (DEC) should add Hemlock Woolly Adelgid (HWA) on page 20 to the invasive insect pests discussed that have the potential to negatively impact forests in the Adirondack Park. HWA was discovered in 2017 near Lake George in the Adirondack Park. HWA has already caused significant decline in the Catskill Park, and has been identified on other New York State Public Lands including Letchworth State Park, and Allegany State Park. **HWA is also identified by APIPP as a target species.**

Hemlocks are a foundation species. Foundation species are critical species in the habitats they help create. In the case of hemlocks they moderate stream water temperatures for trout and other animals, provide a buffer for nutrient inputs to maintain water quality, stabilize shallow soils especially in steep gorges, provide shelter for animals and plants, which is especially important in winter, provide critical habitat for migrating neo-tropical birds, and provide acidic substrate for lichens.

Hemlock in the Sentinel Range Wilderness Area potentially serve as an important habitat component in the deer wintering areas identified on page 42 of this UMP, including “south of the village of Upper Jay (east of Bartlett Road), the southern flank of Sentinel Mountain along Clifford Brook, and within the broad area defined by Owen Pond, Copperas Pond, Winch Pond, an Marsh Pond (Ed Reed, NYSDEC, unpublished data).” Deer wintering areas in this unit should be surveyed for the presence of hemlock and regularly monitored for HWA so that an infestation of HWA can be identified early and hemlocks can be treated and protected.

Hemlock is prevalent in New York State and is especially dense in the Adirondack Park (see figure below).
Imagine the impact to the Adirondack landscape from a severe decline of hemlock—a highly likely scenario without a significant increase in early detection efforts, treatment, and development of bio-controls, such as the predator beetle (*Laricobius nigrinus*).8

We only need look to places such as the Great Smoky Mountains for an example of the devastation in store for the forests of New York State.9 HWA has been advancing quickly through New York State,10 and now is in the Adirondack Park in Lake George, NY. Decline of hemlocks is already well underway in the Catskills.11 Anyone who has hiked, paddled, or driven through the Adirondack Park should realize what we will lose. If we do not act quickly, we may lose the species.12 We must stop or slow the advance of HWA in the Adirondack Park.

On page 76 under *Management Actions--Invasive Plants* DEC discusses the DEC/APA Inter-Agency Guidelines for Implementing Best Management Practices for the Control of Terrestrial and Aquatic Invasive Species on Forest Preserve Lands in the Adirondack Park. These guidelines are in the process of being updated to include Forest Pests (including HWA). The updates to this document will be complete in early 2018 and should be reflected in the final UMP.

**Education, Interpretation, and Research**
Under Education, Interpretation, and Research, on page 55, “6NYCRR §190.8(dd)” is incorrect and should be 6NYCRR §190.8(ad). The paragraph about Adirondack Park Invasive Plant Program (APIPP) should include a brief description of all the critical Spread Prevention and Early Detection, and Rapid Response work coordinated by APIPP. APIPP’s work does not focus only on invasive plants but also on invasive pests, such as HWA. This paragraph should be updated.

Although this section of the UMP is focusing on projects and programs by partner organizations which are engaged with DEC through a TRP or MOU, the section should consider a discussion of Leave No Trace Outdoor Skills and Ethics and a plan to implement this important educational programing and messaging throughout the Forest Preserve, but especially in popular areas which are experiencing recreational impacts. Page 56 of the UMP explains that there is not the same recreational pressure on this Wilderness unit as in the Eastern High Peaks Wilderness, however, there are still recreational impacts that could be lessened by Leave No Trace outreach and messaging at trailheads and rock climbing sites. There is a link to the Leave No Trace Center for Outdoor Ethics on the DEC Sentinel Range Wilderness website, but this information could be delivered more effectively with a link under each recreation type to the Leave No Trace principles interpreted for that type of recreation. For example, the seven principles of Leave No Trace have been applied to Rock Climbing. See the links below for examples of recreation specific principles

https://int.org/blog/leave-no-trace-rock-climbing
https://int.org/blog/hunting-ethics
https://int.org/tags/seven-principles

The Center also offers reference cards and skills and ethics booklets for each recreation type which could be referenced on the DEC website.

https://int.org/shop/product/individual-ethics-reference-cards
https://int.org/shop/product/library-skills-ethics-booklets

**Capacity to Withstand Use**

Recently, the Interagency Visitor Use Management Council, a planning entity composed of federal public land agencies (including the U.S. Forest Service and the National Park Service), posted its Visitor Use Management Framework.13 This framework could provide additional insight to DEC’s long-term planning process which currently involves (1) the goal-achievement process; (2) the Limits of Acceptable Change (LAC) model
employed by the U.S. Forest Service; and (3) the Visitor Experience and Resource Protection (VERP) model employed by the National Park Service.

**Management Principles—Forest Preserve Principles—Management Principles specific to Wilderness Areas**

Under *Management Principles—Forest Preserve Principles* on page 69, DEC discusses Leave No Trace as a potential “minimum tool” to achieve specific management objectives. ADK fully supports this approach as well as the point established under *Management Principles specific to Wilderness Areas* on page 71 which states, 

*Control and Reduce the Adverse Physical and Social Impacts of Human Use in Wilderness Through Education and Minimum Regulation.* When human use must be controlled to prevent misuse and overuse, it is best to do so by education followed by the minimum degree of regulation necessary to meet management objectives. The latter option is sometimes called the minimum tool rule – application of the minimum tools, equipment, regulations, or practices that will bring the desired result (Hendee et al., 1990).

ADK applauds this approach. DEC also explains on page 98 under *Public Use and Access* that “The ‘minimum tool’ concept is used to manage public use and achieve management objectives.” On page 100 under *Public Use and Access—Management Actions* the UMP states one proposed action as “Promote Leave No Trace ethics and techniques with all users.” We fully support this action, but strongly suggest that DEC add an additional action which should be to *Develop a Leave No Trace Skills and Ethics Integration and Outreach Plan.* This plan should cover messaging on the DEC web page, at trailheads, on literature, and programming. The development of the plan should be coordinated with other state agencies and offices to ensure that promotional efforts for Adirondack Tourism that use state funding incorporate Leave No Trace messaging.

ADK also urges DEC to commit to integrated training of Leave No Trace skills and ethics on the Trainer or Master Educator Level for DEC staff and Forest Rangers. The Master Educator level of training would be especially important for Forest Ranger staff who have significant one-on-one interaction with Forest Preserve visitors. DEC is a formal partner with the Leave No Trace Center for Outdoor Ethics and already has Master Educators on staff. Both the Center and the DEC Master Educators could help develop a plan for the agency and provide educational support, tools, and materials. ADK, which is one of ten site providers of Master Educator Courses for the Leave No Trace Center, could also assist in developing a plan.
Application of Guidelines and Standards

On page 66, DEC states,

All pond reclamation projects will be undertaken in compliance with the Programmatic Environmental Impact Statement on Fish Species Management Activities of the Department of Environmental Conservation, Division of Fish and Wildlife, dated June 1980 and the Programmatic Environmental Impact Statement on Undesirable Fish Removal by the Use of Pesticides Under Permit Issued by the Department of Environmental Conservation, Division of Lands and Forests, Bureau of Pesticides Management, dated March 1981.

This practice, which uses rotenone to kill fish in waterbodies, is damaging to native species, specifically to amphibians and invertebrates.14 The almost 30-year-old Programmatic EIS cited above must be revised and a new EIS must be prepared that incorporates current research. The 1993 Organizational and Delegation Memorandum #93-05 Policy: Fishery Management in Wilderness, Primitive and Canoe Areas—Amended 11/02/93 must also be revised to remove the practice of pond reclamation. “Pond reclamation,” as it is currently configured and practiced by DEC, must end. We are pleased to see on page 84 under Fisheries--Management Actions, that “no regradations are currently proposed” for this unit.

Historic and Archaeological Site Protection,
On page 66 under *Historic and Archaeological Site Protection* DEC states,
Archaeological sites may be made available for appropriate research. Any archaeological research to be conducted on the property will be under the auspices of appropriate permits. Research permits will be issued only after approval by the New York State Museum and consultation with OPRHP and APA.

**Any archaeological research must also be in consultation with the appropriate Tribal Historic Preservation Office (THPO), that is, with the Saint Regis Mohawk THPO, and the Seneca Nation of Indians THPO.**¹⁵

**DEC must change the UMP to reflect this important mandated consultation.** OPRHP Policy Directive HP-POL-005 (11/01/2016) states,

Historic preservation carried out by federal and state agencies is a collaborative process that encourages communities to be involved in decisions affecting their history. The New York State Office of Parks, Recreation and Historic Preservation and its State Historic Preservation Office (collectively in this document referred to as SHPO) have developed this Policy for incorporating the knowledge and concerns of Indian Nations and Tribes (collectively in this document referred to as Indian Nations) into reviews of projects affecting their historic properties.¹⁶

The policy directive also states,

This Policy clarifies SHPO’s process when reviewing projects that directly or indirectly involve interested Indian Nations; it cannot substitute for the obligations of other State and federal agencies regarding consultation with Indian Nations.¹⁷

DEC must be proactive in this regard and not assume that approval by OPRHP, the New York State Museum, or APA, alleviates the agency from the responsibility of consulting with Native Nations through their THPOs.

**Trails, Trailheads/Parking Areas**

We support DEC’s objectives, management actions, and preferred alternatives under Trails, and Trailheads/Parking Areas. However, we would appreciate a discussion of the management actions conducted during the Columbus/Canadian Thanksgiving/Indigenous Peoples Day Weekend in 2017 which temporarily relocated the trailhead and trailhead parking for Cascade Mountain, Porter Mountain, and the Pitchoff Mountain West to the Olympic Regional Development Authority's Mt. Van Hoevenberg Sports Complex, 1.3 miles west of the current trailhead. Please discuss the results of this action and how the outcome of these temporary actions relates to the proposed management actions in this UMP. What is DEC’s long-term strategy for the Cascade and Pitchoff Parking lots?
Signs
Trailhead signs should include Leave No Trace messaging. Information at trailheads should also be provided to help visitors identify and report certain target invasive species, such as HWA.

Public Use and Access
DEC should work with the New York Department of State (DOS) and their new ArcGIS Information Gateway\(^8\) to disseminate rules, regulations, and educational information specific to locations, and land units. We support DEC’s management actions to reduce group size on the unit to 8 for overnight trips, and 15 for day-use.

Thank you for your consideration of these comments.

Sincerely,

\[signature\]

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518-669-0128 Cell
518-668-4447 x-13 or 25 Lake George

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   http://www.news.cornell.edu/stories/2015/06/cornell-introduces-silver-flies-save-hemlock-forests
   https://blogs.cornell.edu/nyshemlockinitiative/
Contact Jeff Herter at DOS for more information: jeff.herter@dos.ny.gov