

The strengths of the **Adaptive Silviculture for Climate Change (ASCC)** project are based on a common set of core criteria that makes the Network distinct from other long-term silviculture and climate-adaptive ecological research experiments. The ASCC Network uses a co-development model that engages forest managers and scientists in the co-creation of locally-relevant climate change adaptation treatments that follows the Northern Institute of Applied Climate Science (NIACS) framework<sup>1</sup> and utilizes the Resistance-Resilience-Transition spectrum of adaptation approaches.

All **Core Sites** of the ASCC Network meet the following criteria and process:

- Engages the ASCC Network PIs at the beginning of the project planning process, throughout implementation of the workshop and treatments, and during data collection and monitoring.
- Follows the ASCC Network co-development framework. This includes utilizing the ASCC workshop process that:
  1. Introduces natural resource managers to conceptual tools and approaches that integrate climate change into the natural resource management planning and decision-making process; and
  2. Uses an adaptive planning process to design specific climate change adaptation experimental treatments (i.e., resistance, resilience, and transition) for the local ecosystem that integrate manager inputs, and that will be part of the long-term, ASCC Network project.
- Follows the ASCC Network experimental design and conceptual framework, including a minimum of 4 full replicates of resistance, resilience, transition, and a no-action treatment, with each treatment unit at least 20-25 acres in size (total minimum acres needed for one full site = 400).
- Follows the definitions of resistance, resilience, and transition based on Nagel et al. 2017<sup>2</sup>, which adopts the Millar et al. 2007<sup>3</sup> definitions.
- Exemplifies the main strengths of the ASCC Network in the long-term:
  1. Scientist-manager partnership
  2. Mission-critical and ethically important research
  3. Scientifically robust, replicated, long-term, operational experiment that is applicable to landscape-scale contexts
  4. Encourages stakeholder engagement and communication and facilitates long-term dialogue and outreach to broader management community
  5. Puts adaptive management theory into practice
- Adheres to the ASCC Network authorship expectations.
- Adheres to the ASCC Network data collection and management best practices.

The ASCC Network may continue expanding dependent upon funding. As such, the ASCC Network Team will determine additional project sites to be given high priority for inclusion in the study based on forest ecosystems of concern, the capacity of new project manager and scientist champions, and willingness to truly engage as partners with the ASCC Network PIs.

To encourage broader application of these foundational climate-adaptive concepts to other forest ecosystems, and to facilitate application in places where the **Core Site** criteria cannot be fully met (i.e., full replication is not possible), we have developed a second tier of **Affiliate Sites** for consideration in the Network. **Affiliate Site Criteria** can be found on the ASCC website here: <https://www.adaptivesilviculture.org/project-sites/affiliate-sites>.

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<sup>1</sup> Swanston, C.W., M.K. Janowiak, L.A. Brandt, et al. 2016. *Forest adaptation resources: Climate change tools and approaches for land managers, 2<sup>nd</sup> edition*. USDA Forest Service General Technical Report NRS-87-2, Northern Research Station, Newton Square, PA. 161p.

<sup>2</sup> Nagel B.J. Palik, M.A. Battaglia, et al. 2017. Adaptive Silviculture for Climate Change: A National Experiment in Manager-Scientist Partnerships to Apply an Adaptation Framework. *Journal of Forestry* 115:167-178. <http://dx.doi.org/10.5849/jof.16-039>

<sup>3</sup> Millar, C.I., N.L. Stephenson and S.L. Stephens. 2007. Climate change and forests of the future: Managing in the face of uncertainty. *Ecological Applications* 17(8):2145-2151.