**Climate Action for Alaska Leadership Team – Summary Report**

From December 18, 2017 meeting \* Anchorage, Alaska

**Summary Note**

*This document is comprised of individual remarks made during opening remarks and introductions, small group work, and plenary discussions. It does not represent consensus of the Leadership Team, nor the official position of the state. Its value is in recognizing the diversity of opinions, the scale and potential scope of the challenge, and the myriad possibilities for the group to consider. It helps to frame future discussions and informs the work plan.*

**Problem Statement**: An emerging awareness of the rapid changes in Alaska and resulting threats to communities has prompted this process. We believe there is an urgent need to better understand and prepare for the threats to our communities, local and state economies (including fisheries and subsistence activities), safety, public infrastructure (including schools, housing and utilities), and ecosystems. There is a clear need to increase resilience, adapt to and mitigate change, including erosion, ocean acidification and permafrost degradation. These climate-related impacts present the state with challenges and opportunities that necessitate an innovative approach to solution development.  Solutions must grapple with the rapidity of change, be grounded in good science including Indigenous knowledge, and be evaluated realistically against costs and benefits.

We are charged with providing the state tools that facilitate management during times of great uncertainty, stewardship that encompasses food, cultural, and life systems, and wealth creation. To meet this charge, we shall develop recommended pathways for climate-responsive policy, strategy, and planning that result in immediate, near term and future actions.

We undertake this work with a clear recognition that our state economy is dependent on the oil industry and likely will for the immediate future. We perceive no inconsistency in working to increase resilience, adapt to changes, and mitigate impacts to the environment and communities while maintaining the economic viability of our great state. Our challenge is to find a way to do both things.

**Commitment**: Our intent as the leadership team is to foster a collaborative environment in which we encourage cooperation within the group and with external stakeholders. The Leadership Team will deliver to the Governor policy recommendations consistent with the challenge in front of us, and charge. Each team member recognizes the need for a more resilient state and communities, and the clear imperative to take actions today that safeguard our communities, economies and ecosystems for future generations. We understand health in a broader sense of human and ecosystem needs, opportunity to include benefits to Alaskans, and that the future will depend on our ability to adapt to the many changes associated with a changing climate.

We intend to use values of equity, inclusion and justice in our work, make science more useful, and communicate across local communities, the state, nation and world. Our work with partners and communities will realign and create realistic expectations for an economic and energy transition, including attracting investment and financing for clean energy, technological innovation, and new industries. Our efforts to reduce carbon emissions domestically fit within a broader global leadership effort but are entirely driven by and responsive to where Alaska is today, and where it can be in the future. The products of our work should reflect these values.

**Near-Term Actions, Goals, Hopes of Leadership Team**

*These statements were presented by the individual members of the leadership team to describe work that each hopes they and the team can accomplish. These statements have been used to inform the work plan and other activities/products. They reflect a sense of urgency in what the team hopes to accomplish.*

* Alaska has significant assets with which to address the climate challenge – we can work toward value creation during this time of opportunity by identifying our competitive advantages and honing new skills
* Alaska must increase public knowledge of climate change through something like a marketing campaign
* A “climate collaboratory” builds on the need for cooperation between the state, public and research community, and develops a new kind of information sharing and creation
* The development of an official state climate statement or policy should provide clear direction for Alaska, including to relate back to fiscal and budget issues
* Review and embed climate considerations within existing state policy and regulatory framework, thus integrating climate intentionally
* The team can create a platform to hear from communities, work to understand community concerns, generate buy-in and work toward risk assessment and planning, including how to allocate resources in response to climate impacts
* Identify existing resources, collaboration or activities that could be strengthened within the state or nation
* Facilitate corporate and philanthropic funding to be leveraged on behalf of climate activities
* Identify current or emerging technologies that decrease GHG emissions and support community adaptation
* Provide a more robust system of community risk assessment and relocation planning
* Conduct the baseline science necessary for community decision-making, state and federal management decisions, and risk assessment
* Review Health Impact Assessment for impact to food security by region
* Mandate regional energy planning, encourage local food production and strategically deploy roles and responsibilities
* Identify and work toward long term financing through a mechanism such as a Green Bank
* Adopt an official – work toward better partnership with elected officials to communicate priorities and evaluate potential actions
* Increase understanding of climate change, and its causes and impacts, at all appropriate levels of education (K-12, vocational, and university)

**Vision**

*These vision statements are emblematic of the many perspectives and priorities in the room. They were provided by the individual members during the meeting. They are not complete, necessarily, but describe a future that is Alaska-encompassing and will help to inform a Climate Policy.*

*2030 and 2050 are dates currently articulated by international bodies, such as the UN in its Agenda 2030, as well as by other nations in their climate and Arctic work. The consistency in dates provides a useful benchmark for the state to relate back to and share its progress in relation to.*

In 2050, Alaska will:

* Have earned the respect of the world by shaping a comprehensive response to the challenge of climate change – enriching its people and communities through adaptation to new and exciting opportunities offered by a changing Arctic
* Be powered by clean energy and healthy natural resources managed to promote the social, ecological and economic health of current and future generations of Alaska residents
* Have transitioned to local food production and consider target goal to decrease food imports
* Have established a clean energy economy that is the leading engine for a zero-carbon Arctic
* Be transitioning to a state-wide focus on sustainability and resilience as reflected in economic diversity and the infrastructure, ecosystems, and government structures that will allow for sustainable communities and ways of life into the future for all Alaskans
* Be a thriving center of entrepreneurship, research and education around climate resilience; healthy communities will have access to resources to sustain Alaskan ways of life providing positive societal benefits in human health, education, food security, resource and community development
* Have a knowledge-based economy with an understanding of the value of Indigenous knowledge; the healthiest fisheries in the world; and the highest rate of science literacy in the nation

In 2030, Alaska will:

* Have addressed fiscal stability and economic growth that lead to public funding of critical issues related to energy security, food security and climate change
* Build a thriving clean energy economy that drastically mitigates the state’s greenhouse gas emissions and funds its ongoing adaptation and research needs
* Have in place an inclusive, holistic plan for the long-term resilience and sustainability of our state, including communities, local economies, and future opportunities. The plan is integrated, universally supported both within Alaska and from outside, funded and being implemented.
* Be a global thought leader in climate change mitigation, adaptation and response. We all agree on the problem and know how to fix it. Alaska is a global best practice leader for resilience to the food, water, transportation and energy challenges posed by climate change, and climate leadership is at the center of Alaska’s new economy.
* Have minimized the state’s contribution to climate change; maximized the resilience of Alaska’s people, wildlife and natural environment to climate change; explored and carefully developed new opportunities as they arise for the benefit of current and future generations.

**Success looks like**

*These goals, objectives and action items were developed by small group work during the in-person meeting. They are broad and diverse and are intended to provide a platform from which the team can decide whether to pursue specific follow up. These goals could be applied to a Climate Policy as well as the Action Plan.*

In 2050, Alaska can be proud that it:

* Developed robust research-decision support systems for natural resource management
* Maintains a sustainable and accessible fish, wildlife and plant harvest, based on science-informed decision-making
* Reduced heavy fuel oil use in its waters while increasing tourism, value added seafood processing, and maritime transportation and shipping
* Developed locally sustainable food production to displace food imports
* Increased affordable and renewable energy use in communities
* Decreased (or eliminated) its reliance on oil and gas production and increased additional economic activity, including renewable energy development
* Increased the numbers of Alaska youth who are sustained by their culture and community, and able to succeed locally and compete globally
* Reduced per capita energy consumption to the lowest level in the Arctic
* Increased the sustainability of its communities and self-determination of Alaska Natives
* Developed community-specific solutions in cooperation with community leadership
* Instituted an emergency relief fund that can be used for climate change related threats
* Incorporated climate change education into school curricula

In 2030, Alaska will be well on its way to:

* Increasing societal awareness of, preparation for, and interest in doing something about climate change
* Implementing low cost, easy solutions by collaborating with multiple partners
* Having a fiscal plan in place that allows Alaska to invest in its future
* Increased equitable access to food systems and improved food security and health, including to form regional task forces
* Increased access by Alaska coastal residents to Alaska’s fisheries, and increased benefit from those fisheries to Alaska
* Efficient and cost effective coastal erosion adaptation
* Has mobilized private, philanthropic, state, federal and international funding sources
* Regional plans for climate change and adaptation, including analyses of resources and actions
* Recognition of climate change as a “slow moving” disaster
* Private sector economic development and diversification
* A comprehensive climate change policy, and an action plan that is realistic, ensures adaptation, and mitigates climate change impacts
* Resolving the threats to communities - mitigation measures for “threatened” or at risk communities are in place and in action
* Trained local workforces to carry out climate-related work at regional and community level
* Inclusion of climate-related adaptation and mitigation measures embedded within community or regional comprehensive plans
* Innovative climate change insurance programs
* Universal access to affordable broadband
* Subsistence activities are safe and ensure access to healthy food resources
* Heavy fuel oil use is banned, and maritime traffic is fueled by renewable and low emission fuels
* Transition to and leadership in a green economy underway
* A leader in collecting baseline research of the ocean, with the best ocean researchers in the nation
* Redesigned research system that is coordinated to address state’s decision-support needs and includes both Western science and Indigenous knowledge
* Lowered energy costs in rural Alaska, including with the development of renewables and efficient micro-grids
* Understand and measure how energy is used across the state in order to develop a pathway to derive better value from that energy
* Culturally relevant consultation of matters on climate change, and healing of Alaska Natives
* On the way to achieve financial, economic, cultural, and health security in these rapidly changing times
* Sharing our story across the state, nation and globe, as America’s only Arctic state
* Identify and develop opportunities from climate change, including increased value-added activities, energy development and knowledge export
* Working toward shared services at the local, regional and statewide levels
* Cultivate and strengthened partnerships, including with the military
* Decreased its (revenue) reliance on oil and gas production and increased additional economic activity, including renewable energy development

\* Collaboratory – A vision for University of Alaska

*The University of Alaska could host a Climate Collaboratory that links experts and decision makers across the state, nation and globe. The Collaboratory goes well beyond UA as a center of research, and instead develops a culture of new approaches to science, accomplished across borders. Instead of “directors,” there will be matchmakers, who inspire and develop new networks and collaborations between people, and who work to pass on these relationships to new generations of collaboration managers. It will be both a physical and virtual space, with access to searchable data and discussions. The Collaboratory will identify and share success stories of mitigation, adaptation and response in communities in Alaska and across the Arctic. The Collaboratory will act as a knowledge hub, where the combination of financial, knowledge and leadership resources make a significant impact and help develop pathways to address climate related challenges.*

**Policy Areas and Action Items**

*The following references potential direction for the Working Groups of the leadership team, and begins to articulate policy statements and action items for a future Alaska Climate Policy and Action Plan. This is by no means comprehensive and there remains a great deal to address within each of these areas.*

INFRASTRUCTURE AND THE BUILT ENVIRONMENT

* Phased implementation plan for communities that are relocating, with associated budget allocation
* Partnerships established with federal agencies
* Develop Alaska design; design/engineering standards incorporate expected climate change metrics
* Statewide adoption of zero-energy building policy
* UA campuses become early examples of how to achieve “zero energy districts” – as they are small communities.
* Adopt a statewide residential building code with energy standards for new construction.

HUMAN CAPACITY BUILDING AND RISK ASSESSMENT

* Create and align workforce development programs to prepare residents to participate in all aspects of development at the local level in high schools, regional training centers
* Local knowledge and empowerment for risk assessment and capacity building
* Anticipate, evaluate and respond to risks from climate change related to erosion, including community infrastructure and services
* Support community efforts to adapt and relocate when necessary
* Encourage and foster planning for marine tourism and shipping
* Champion and promote planning and investment now in analysis and risk assessments for tourism and shipping in the Arctic
* Action items: Fire breaks (CFWP), food security, flood preparedness (Emergency/FEMA, implement and distribute remotely sensed info to communities), heating systems
* All UA students required to take “energy literacy” class as General Education Requirement
* Explore/require secondary school curricula in energy literacy
* Link expertise in energy education and training that already exists in the K-12, vocational and university sectors.

EMERGENCY RESPONSE AND IMMEDIATE ACTION

* Identify climate command centers (e.g. UAF decision theatre and/or ADAC)
* Provide incident command training and scenario exercises at the local and regional level
* Expand broadband coverage for interactive team effort
* Facilitate and secure public and private investment in support of critical search and rescue, oil spill response and broader emergency response and infrastructure at local and regional level
* Conduct emergency response training to local staff at local community level and identify what each community needs

SOCIAL AND CULTURAL HEALTH AND COMMUNITY RESILIENCE/ ECOSYSTEM HEALTH, BIODIVERSITY AND ENVIRONMENTAL THREATS

*The working group determined that social/cultural health and resilience was inextricably linked to ecosystem health and that it was impossible to define separate policies or goals. All of the items below apply to both objectives.*

* State adopts a One-Health approach/policy – ecosystem health is part of human/community health and vice versa
* State’s top priority to ensure resilient, healthy communities in the future; State will facilitate coordination and collaboration on actions to ensure resilience
	+ Implement recommendations from state (DHSS) (Health impact assessment) and interagency working group
	+ Implement one-health research approach
	+ Generate and consolidate baseline scientific information – including western science and Indigenous knowledge
	+ Develop and share indicators
	+ Undertake surveillance  / monitoring
	+ Identify disproportionately important places
* Develop, implement and fund community plans:
	+ Energy security
	+ Resilience
	+ Infrastructure / facilities
	+ Emergency response
	+ Developed with local residents
	+ Action oriented
	+ Funding, training and capacity building and a commitment to ongoing  workforce development
* Update construction standards
* Foster the delivery of affordable in home, water and sewer, sanitation services, and fund the future phases of the state’s water and sewer challenge test projects

LOCAL, REGIONAL, NATIONAL AND GLOBAL ENGAGEMENT, COLLABORATION AND INFORMATION SHARING

* Strengthen or create statewide network of local governments to share best practices, resources, purchasing with regards to climate change and resilience
* Assess and potentially integrate, adapt, inform national & international goals for Alaska
* Utilize Alaska Municipal League as a tool to get info out on local clean energy policies and initiatives, as well as international activities such as UN and Arctic Council
* Utilize BIA’s list serve for tribes as a tool and email info out about EU, UN, AC activities that may affect state and federal governance
* Participate in national and international collaboration on climate
* Appoint a cabinet level person to attend AC, UN, EU meetings that are creating projects in Alaska and report to Alaska network
* UA needs a single office dedicated to the energy transition, or perhaps the larger “resilience” mission (which would include energy, food, etc.)
* Link Alaska’s expertise in remote renewable microgrids with NGOs, international partners and others facing the same challenges reducing fossil fuel imports to generate heat, electricity and provide transportation.

INVESTMENT AND FINANCE

* Explore philanthropic opportunities for state action on projects and processes
* Work with the Coalition for Green Capital, existing green banks, foundations and others to establish a state green infrastructure development bank for Alaska
* Identify possible new sources of funding: e.g., reinsurance
* Energy entrepreneurship
* Funding applied from energy efficiency savings
* Tribal / muni / state funding combined with industry/corps for universities
* Increase research funding
* Consideration of carbon tax
* Invest in Alaska resident access to sustainable fisheries
* Explore revenue generation from current industrial use of North Slope natural gas and direct funds to climate change efforts (not re-injection of gas, but use in buildings and other processes, including flaring).

RENEWABLE ENERGY / EFFICIENCY

* Alaska is committed to being a world leader in energy efficiency and renewable energy, and has pathway in place to achieve this goal
* Encourage and support development of sustainable renewable energy strategies to effectively displace fossil fuels on all fronts (electricity, heat, transportation)
* Adopt an Alaska or region specific Renewable Portfolio Standard (RPS) and energy efficiency resource standard (EERS)
* Statewide building codes for efficiency – residential and commercial
* Encourage regional affiliation/interconnection in order to achieve efficiencies and local expertise
* Develop/expand education, training and workforce development programs related to EE/RE
* UA mission explicitly states that part of university’s role is to help lead state toward fossil-fuel-free economies
* Develop strategies to encourage or require private electric utilities to adopt renewable portfolio

ECONOMIC OPPORTUNITY / TECH INNOVATION

* Explore Series A Venture Capital fund
* Explore Alaska Science (Climate Change) and Tech Fund + EETF charges
* Consider DOE / “Microgrid Foundry”
* Explore opportunities for greater regional and village ANCs, non-profit organizations, regional governments and companies to support the transition to cleaner energy systems within regions through targeting training, workforce development, and business incubation.

COMMUNITY and INDUSTRY EMISSION (including self-generators) REDUCTION

* Require disclosure of fuels delivered to communities by wholesalers, suppliers and retailers
* Develop incentives for communities and industries to reduce emissions
* Publish emission inventory – by industry, by region, by community
* Transition communities to renewable energy
* Inventory methane emissions from dumps/landfills statewide