

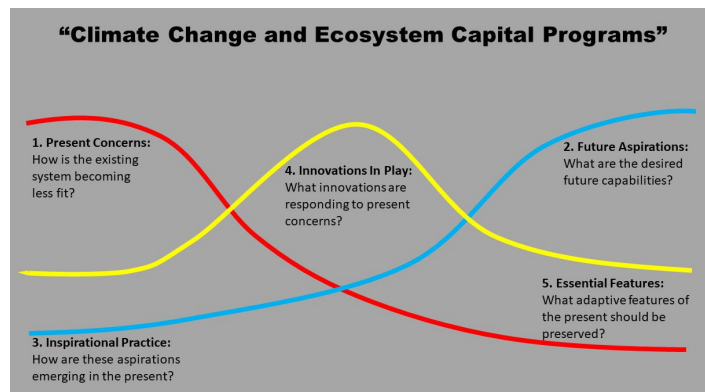
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MEMO February 3, 2021 (Revised Feb 24, 2021)
FROM Paul Cereghino, NOAA Restoration Center
TO Align Grant Coordination Workgroup
RE Climate Change and Ecosystem Capital Programs Brainstorm

On January 6, 2021, Jay Krienitz (WDFW) invited Paul Cereghino (NOAA; facilitating), Tara Galuska (RCO), Carrie Byron (PSP), Babbak Talabi (Ecology), Ben Donetelle (RCO), David Dunn (Ecology), and Lynn Helbrecht (WDFW) to an open conversation about capital programs and climate change. This group represents a mix of capital program managers, and staff involved in analysis of climate change policy. This effort aimed to support the work of the Align Grant Coordination Workgroup, which convenes state and federal funding programs that invest in ecosystem services. These programs span interests in water quantity, water quality, habitat services and ecosystem processes, and are all affected by climate change and play a role in a coordinated resilience strategy.

Each program has begun to adjust operations in response to climate change predictions and anticipated effects on ecosystems. If agencies and programs collaborate in this work it offers increased coherence and efficiency for state and federal stakeholders. By contrast, if climate change strategies are implemented haphazardly among siloed programs this would further exacerbate the lack of policy coordination that the Align Workgroup was developed to address.

To explore these issues, we used a “Three Horizons Framework” to consider pathways for system change. This framework asks participants to consider both present concerns and future aspirations as well as the practices, innovations and essential features that might get us from here to there. The “system” we considered was “the capabilities of existing ecosystem capital programs to make investments that in aggregate support climate change resilience”.



Present Concerns - How is the existing system becoming less fit?

We presume that climate change resilience depends on investing systematically over time to create systems that provide ecological functions at large scales. We observed both a limited capability in the landscape for the integrated large scale planning necessary to design climate change resilience, and an inability of the existing capital program system to support that need.

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Climate change resilience depends on large scale multi-benefit investments. Such investments require coherent integrated plans at a landscape scale, which are rare and particularly so in rural landscapes and poorer counties.

- There are limited resources for evaluating landscapes using a systems approach that integrates different public interest issues (housing, transportation, working land conservation, water quantity or quality, and habitat services).
- The Growth Management Act which drives local integrated planning is focused on urban growth areas that accommodate growth, and not the cultivation of climate change resilient ecosystems between urban growth areas that will support cities in a global ecological crisis.
- Local districts and governments in lower population density areas commonly lack staffing or resources for integrated planning, and almost no grant sources provide for this capacity.
- There are no standard practices or strategies for integrated landscape planning under climate change.

Neither Funding Programs or Local Actors are well positioned or resourced to generate, fund or evaluate large scale integrated resilience plans.

- Funding programs are designed to be lean, and while they evolve judiciously, they have difficulty with the costs of significant transformation.
- Existing funding programs are not necessarily equipped through existing review procedures to evaluate innovative or large-scale local proposals for ecosystem investments intended to generate resilience.
- Local governments already struggle to maintain existing planning processes, which do not include investment for integrated capital planning and may promote capital planning silos.
- There is no central authority that is developing standards for integrated landscape scale planning and capital project development.
- Capital program allocations may be affected by competing interest groups which may not see value in integrated programs, particularly as existing narrow-purpose programs only fund a fraction of project demand within their interest area.
- An existing narrow-purpose funding program may not have the capability to evaluate the integrity of a large multi-benefit proposal.

Future Aspirations - what are the capabilities of a future system that are able to overcome these concerns?

We presume that our future aspirations for capital investments achieving climate change resilience hinge of our ability to select projects clearly identified through robust integrated and adaptive planning. We offer the following description of that future system:

We have clear standards and strategies for integrated planning that creates ecological systems that are, in very specific ways, resilient under climate change, and these plans provide a basis for development and sequencing of incremental actions.

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- **Right Actions – we can tell if an action proposed for funding is part of a program for climate resilience.** Individual actions are easily compared to an integrated plan both in how they contribute to 1) a future target ecosystem and infrastructure condition, as well as 2) how their specifications are consistent with those target conditions.
- **Resilience Targets - we know what we are trying to make resilient, and where we are not, and will need to adapt** - These plans are based on a clear reckoning of what specific functions are being made resilient, and why those functions are the right targets in a world of changing ecosystem services.
- **Engagement – local partners are fully engaged in defining resilience** - Planning appropriately engages local governments and communities.
- **Adaptive Management – because we don't know what we are doing, we make hypotheses and track results** - Plans are implemented through true adaptive management approach with federal, state, and local coordination, with appropriate monitoring.
- **Equity – climate resilience is not just for rich counties** - Planning is not limited by a community's ability to pay, but based on values of equity and greatest social good.
- **Integrated – resilience plans work in synergy with the funding system** - Planning approaches are integrated with the processes of capital investment programs.

Inspirational Practices - Where can these aspirations be observed emerging in the existing system?

We observed a number of examples where our existing system uses practices that involve some of the aspirational qualities we identified for a future capital project system. These examples may provide both inspirations and warnings, and often involve prescribed or self-organized planning, analysis, coordination among agencies and interest groups.

- [Washington Interagency Climate Adaptation Network](#) has emerged for the exchange of practices and policies among state Health, Insurance Commissioner, Ecology, Fish and Wildlife, Parks, UW CIG, Transportation, and Natural Resources.
- [Washington Coastal Hazards Resilience Network](#) has developed and secured federal funding to develop cross-agencies strategies related to sea level rise.
- [Natural Resource Damage Assessment Trustee Councils](#) (under CERCLA, OPA, and MTCA) creates consent-based natural resource trustee councils that are empowered to pursue integrated solutions on oil spills and waste sites across agencies within a geography.
- [Environmental Impact Statements](#) under SEPA and NEPA government decisions (including permitting of private development proposals) require systematic consideration of impacts across a range of issues, as well as cumulative effects.
- [Local Integrating Organizations](#) - work to distribute limited NEP Funds to support ecosystem recovery within geographic areas.

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- [Salmon Stronghold Approach](#) - currently proposed by the Wild Salmon Center, to identify those locations where we are most likely to preserve ecosystems services into the future. This could relate to evaluation of how to more precisely target ecosystem service resilience in landscapes.
- [Washington Prescribed Fire Council](#) has assembled cross agency representatives to coordinate on training and policy development around a particular resilience strategy.
- [Sync](#) - empowered by the legislature to coordinated among “grey infrastructure” investments.

Innovations In Play - What innovations are actively working to change the system in question?

We Observed a range of ongoing efforts, both locally, within funding programs, and at the legislative level that may accelerate movement toward meeting future aspirations.

- **Farm, Fish and Flood planning groups** have been actively working to coordinate the interests of different stakeholders to bring proposals to floodplains by design, which has a combination of being able to make relatively large funding investments (\$10-20M) that span multiple interest groups (salmon recovery, flood reduction, agricultural viability). Other programs also are able to span interest groups (ESRP, CRP) but are unable to meet this funding level.
- **ESRP Regional Pre-Design Projects** - provides a unique set of capital investments that develop the capability to create designs that enable the process-based projects we need to restore dynamic nearshore ecosystems. These investments increase the performance of a wide range of projects.
- [2020-21 HB 1099](#) Entitled “Improving the state's climate response through updates to the state's comprehensive planning framework” including drafting of a model climate change resilience comprehensive plan element.
- **Stormwater programs set aside** - Ecology’s stormwater program sets aside a portion of its annual resources to support planning.
- **Selection Criteria Adjustment** - Many programs including the Salmon Recovery Funding Board have begun to consider climate change in selection criteria.
- **SRFB Targeted Investment Program** - The SRFB may adopt one or more Targeted Investments priorities each biennium. The priorities include Future Threat Abatement and Emergency Response, both of which could include acclimate change related project.

Essential Features - what adaptive features of the present should be preserved?

As we work towards the required transformation for addressing climate change in capital programs we identified a set of features in existing programs that should be preserved.

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- **Continuous and incremental evolution of programs** - the adaptation of individual funding programs, based on interaction of customers, funders, and policy staff creates a mechanism for problem solving that doesn't require legislative intervention, and can be rapid, precise, and nuanced. This continuous improvement capability is valued by programs and has resulted in a range of administrative efficiencies. Sharing and coordinating these strategies among programs is an asset that should not be lost through haphazard reinvention or centralization of funding systems.
- **Existing cross program collaboration** - Existing collaboration among capital programs created the springboard for this exploration, and mechanisms for identifying specific situations where integration is naturally occurring through local proposal development (for example floodplain projects using FbD, PSAR, ESRP, State Salmon, and CRP resources).
- **Existing knowledge and science frameworks and networks** - To support RFP development and proposal review each program has built a network of cross-agency technical expertise around their area of ecosystem interest.
- **Evolution to address resiliency** - Individual programs have begun adjusting their investment strategies in response to climate change. This process should continue and accelerate, and not be eclipsed by climate change as a "separate issue" to be addressed by isolated programs. Given the cross-cutting importance and impact of climate change, our challenge is to integrate an understanding of future ecosystem conditions and more precisely defined resiliency targets at multiple scales, across all our investments.

Potential First Steps

We identified a set of initial steps that could inform coordinated climate change response among capital programs.

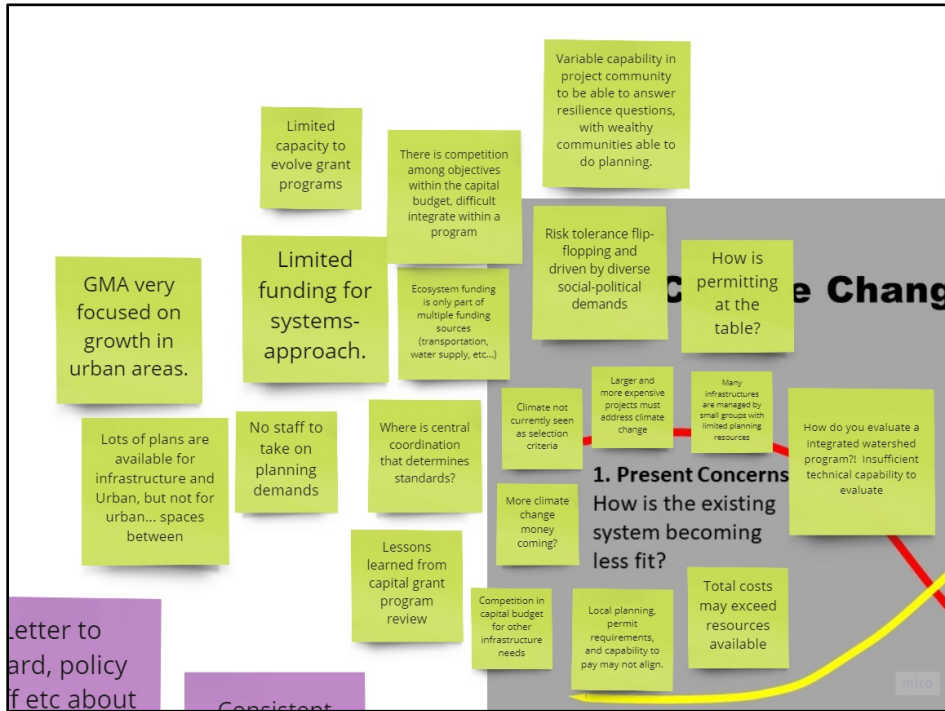
1. **Develop shared picture of existing funding system** - our ability to evolve our funding system requires a clear understanding of how it operates as a whole to affect landscapes at the scale necessary to create climate change resilience. This integrated cross-program view of capital investment systems requires collaboration among state and federal partners, and an observation of overlapping work and gaps between programs (for example agricultural system planning).
2. **Gather examples of high quality ecosystem-scale resilience planning** - Early adopters are making efforts to conduct ecosystem-scale assessments and designs. We need capture, publicize and learn from these efforts.
3. **Consistent description of needs among programs** - To be able to present a clear narrative and coordinate investments requires that programs develop a precise understanding of what each program needs to better direct capital funds to on-the-ground projects.
4. **Present findings and concerns to relevant boards and leadership** - The perspective of capital program managers is unique, because of their broad and detailed interactions with a wide range of on-the-ground efforts. This perspective can help policy makers identify opportunities and threats.

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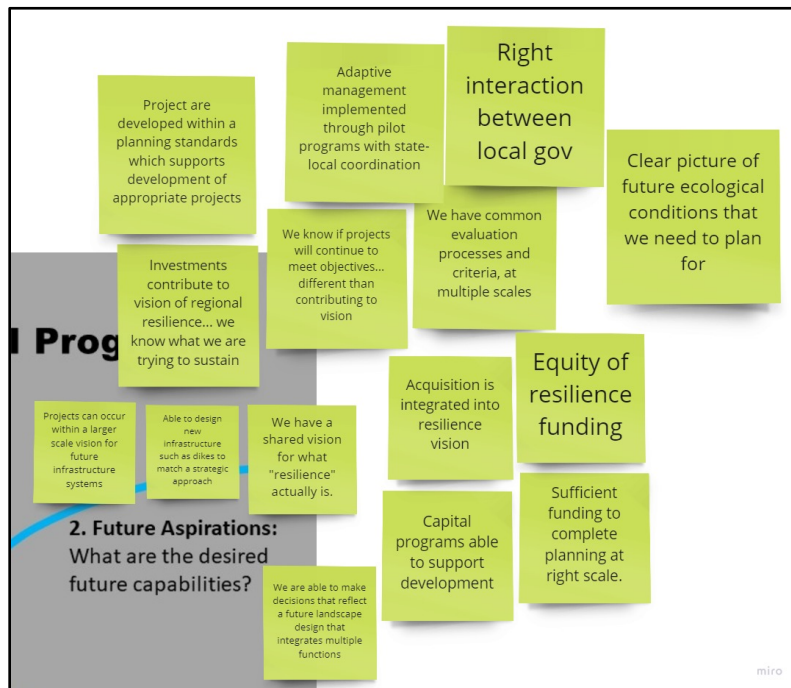
5. **Coordinated investment in planning** - While individual programs may not be able to achieve the level of integrated planning at scale, multiple programs could collaborate to generate those efforts. It is worth identifying existing planning systems, and how they function.

Appendix - Present Concerns Notes

Present Concerns



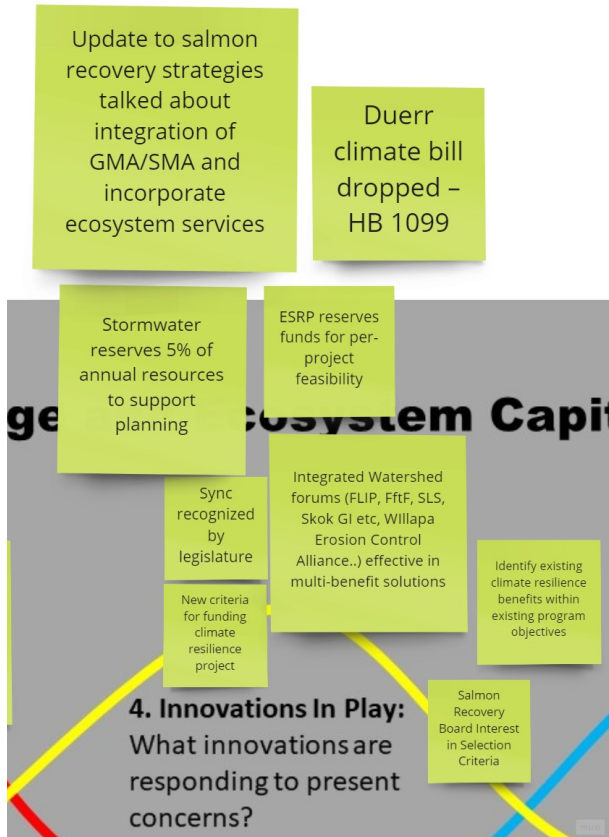
Future Aspirations



Inspirational Practices



Innovations In Play



Essential Features

