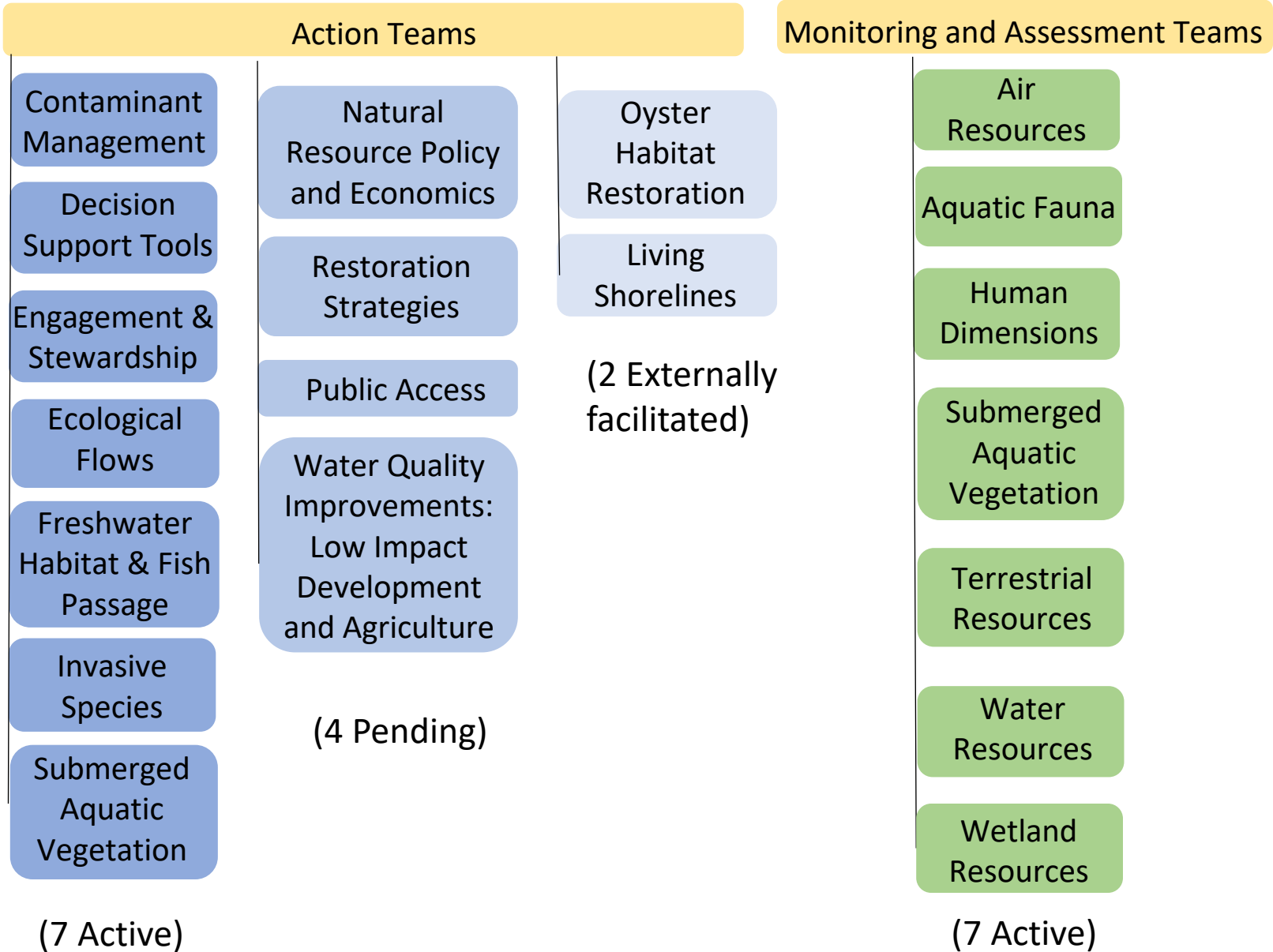


Action Team and Monitoring & Assessment Team Updates

Kelsey Ellis
Albemarle-Pamlico National Estuary Partnership

30 April 2018
APNEP Leadership Council Meeting
Raleigh, NC





| | | 2017 | 2017 | 2017 | 2017 | 2017 | 2017 | 2017 | 2017 | 2017 | 2018 | 2018 | 2018 | 2018 |
|--|--|-------------------------------|------|------|------|------|------|------|------|------|------|------|-------|------|
| Team | | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | March | Apr |
| Monitoring and Assessment Teams | Air Resources | | | | | | | | | | | | | |
| | Aquatic Fauna | | | | | | | | | | | | | |
| | Human Dimensions | | | | | | | | | | | | | |
| | Terrestrial Resources | | | | | | | | | | | | | |
| | Water Resources | | | | | | | | | | | | | |
| | Wetland Resources | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Action Teams | Contaminant Management | | | | | | | | | | | | | |
| | Decision Support Tools | | | | | | | | | | | | | |
| | Ecological Flows | | | | | | | | | | | | | |
| | Engagement and Stewardship | | | | | | | | | | | | | |
| | Freshwater Habitat & Fish Passage | | | | | | | | | | | | | |
| | Invasive Species | | | | | | | | | | | | | |
| | Submerged Aquatic Vegetation (combined AT and MAT post-2017) | | | | | | | | | | | | | |
| | Natural Resource Policy & Economics | PENDING | | | | | | | | | | | | |
| | Restoration Strategies | | | | | | | | | | | | | |
| | Public Access | | | | | | | | | | | | | |
| | Water Quality Improvements: Low Impact Development & Agriculture | | | | | | | | | | | | | |
| | Living Shorelines (NCCF and NCDCM-led) | EXTERNALLY FACILITATED | | | | | | | | | | | | |
| Oyster Habitat Restoration (externally facilitated by Oyster Steering Committee) | | | | | | | | | | | | | | |



MONITORING & ASSESSMENT TEAMS

- 7 Monitoring & Assessment Teams
- 2017 – MATs met to develop list of potential ecological indicators and metrics for AP ecosystem assessment
- STAC reviewed teams' initial indicator lists in March 2018

| MAT | # Members | # Indicators/ Metrics |
|--|--------------------------------------|--------------------------|
| Air Resources | 8 | 8 |
| Aquatic Fauna | 10 | 42+ |
| Human Dimensions | 10 | 55 |
| SAV* AT and MAT recombined Feb 2018 | 18 | 5+ |
| Terrestrial Resources | 14 | 37+ |
| Water Resources | 16 | 34 |
| Wetland Resources | 13 | 18+ |
| TOTAL | 89 (37 partner orgs.) | ~200 |



ACTION TEAMS

- **Contaminant Management (5 Actions)**
 - Nutrient criteria development team - research recommendations; team dissolved into DEQ efforts
- **Decision Support Tools (5 Actions)**
 - Team lead identified; strategy/next steps discussed informally
- **Ecological Flows (2 Actions)**
 - Ecological flows evaluation of NC/VA coastal plain
- **Engagement and Stewardship (4 Actions)**
 - Inventory and mapping exercise of existing initiatives aligned with CCMP Actions; Team feedback/prioritization survey
- **Freshwater Habitat and Fish Passage (7 Actions)**
 - Exploration of dam removal opportunities, participation on regional committees



ACTION TEAMS

- **Invasive Species (4 Actions)**
 - Assistance with NC Aquatic Nuisance Species Management Plan, co-sponsoring *Phragmites* workshop
- **SAV* (2 Actions)**
 - Interpretation of 2013-2014 aerial imagery, SAV Sentinel Network activities by partners – protocol development and monitoring/data collection
- **Natural Resource Policy & Economics (5 Actions)**
 - EPA funding opportunity – local, on the ground projects that build coastal resiliency; organizing/sponsoring Fall 2018 workshop for planners
- **Restoration Strategies (4 Actions)**
 - Lake Phelps Water Budget project



ACTION TEAMS

- **Public Access (1 Action)**
 - Potentially no formal team – more an information-gathering exercise
- **Water Quality Improvements: Low Impact Development & Agriculture (8 Actions)**
- **Living Shorelines (NCCF and NCDCCM-led, 6 Actions)**
 - Interagency workgroup discussions about Army Corps new NWP 54, which deals with living shorelines.
- **Oyster Habitat Restoration (Oyster Steering Committee-led, 3 Actions)**
 - Externally led as Northern Oyster Workgroup. Will likely meet in May. Oyster Steering Committee currently writing report on state of the oyster in NC and recent discussions have focused on NC's mariculture industry

CHALLENGES

- Maintaining high level of partner engagement
 - Team Lead recruitment
 - New Engagement Strategy addresses potential solutions
- Representing diverse communities and stakeholders of the AP region
 - Identifying key stakeholders/community leaders to participate on Teams?
- Staff capacity to concurrently manage all teams
 - 13 currently active teams
 - 4 pending teams
 - 2 externally-facilitated teams





NEXT STEPS

Adaptive process - over time, Team makeup, purpose, and number will change to reflect a shift away from assessment/inventory and towards implementation of the CCMP.

- Monitoring and Assessment Teams:
 - MAT meeting schedule for 2018
 - Biannual in-person meetings (~6 hours)
 - Bimonthly teleconferences (~2 hours)
 - Teams will prioritize their lists during early 2018 and begin assessments of top ~5 indicators/team during late 2018
- Action Teams:
 - Action Teams will continue to meet throughout 2018 – goal is all Teams formally active by end of year
 - Get inventory/assessment efforts underway for currently active Teams
 - Creation of guidance documents for each Action Team, containing:
 - Implementation strategy for fulfilling team's Actions
 - Provides guidance to help teams know what their charge is and how to accomplish it

Questions or feedback?



Extra slides

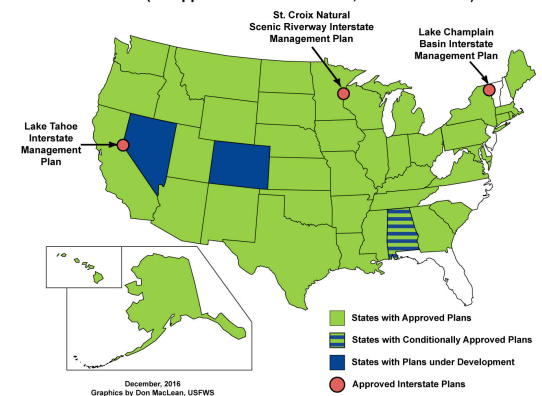




| Team | CCMP Actions | Highlights |
|--|--------------|--|
| Contaminant Management | 5 | Nutrient Criteria Development - report and research recommendations |
| Decision Support Tools | 5 | Team lead identified; informal strategy/next steps discussed. |
| Ecological Flows | 2 | Inventory - Coastal Plain Ecological Flows Evaluation |
| Engagement and Stewardship | 4 | Inventory and Mapping exercise of existing Initiatives aligned with Actions; Team feedback/prioritization survey |
| Freshwater Habitat & Fish Passage | 7 | Exploration of dam removal opportunities, participation on regional committees |
| Invasive Species | 4 | Assistance with NC Aquatic Nuisance Species Management Plan, <i>Phragmites</i> workshop (July 2017) |
| Submerged Aquatic Vegetation (combined AT and MAT post-2017) | 2 | Interpretation of 2013-2014 aerial imagery, SAV Sentinel Network activities by partners |
| Natural Resource Policy & Economics | 5 | EPA local government/SLR funding opportunity; Fall 2018 planning workshop |
| Restoration Strategies | 4 | Lake Phelps Water Budget project |
| Public Access | 1 | Inactive |
| Water Quality Improvements: Low Impact Development & Agriculture | 8 | Inactive |
| Living Shorelines (NCCF and NCDCCM-led) | 6 | Externally led by NCCF/NCDCCM; interagency workgroup discussions about nationwide permit 54. |
| Oyster Habitat Restoration (Oyster Steering Committee-led) | 3 | Externally led by NCCF/Oyster Steering Committee as Northern Oyster Workgroup. Will likely meet in May. |

- Invasive Species Action Team
 - 11 members (10 partner orgs.)
 - 4 CCMP Actions
 - **A2.1:** Facilitate the development of protocols and conduct rapid assessments to determine presence and potential threat of invasive species.
 - **B2.6:** Minimize and rapidly respond to the introduction of invasive species through the development and implementation of integrated prevention and control strategies.
 - **C3.1:** Develop and refine integrated invasive species eradication and control strategies.
 - **D1.3:** Coordinate outreach and engagement efforts regarding the impacts of invasive species.
 - Last met in Jan 2017
- Other activities
 - July 2017: NCCF workshop on *Phragmites* science and management in NC
 - APNEP co-sponsored this workshop; staff attended and presented
 - Ongoing: NC Aquatic Nuisance Species Management Plan
 - APNEP staff working closely with state partners to move this plan forward
 - Early 2018: reconvene the NC ANSMP Steering Committee
 1. Review and update the 2016 plan
 2. Get approval from new administrations of partner agencies
 3. Present updated and approved plan to NC Governor for signature
 4. Submit signed 2018 plan to national ANS Task Force

Status of State ANS Management Plans
(43 Approved Plans - 40 State, and 3 Interstate)



- Freshwater Habitat & Fish Passage Action Team
 - 18 members (14 partner orgs.)
 - 7 CCMP Actions
 - **B2.1:** Facilitate the development and implementation of an integrated freshwater habitat protection strategy.
 - **B2.4:** Facilitate the development of policies to minimize dredge and fill activities in naturalized areas and sensitive habitats.
 - **B2.5:** Facilitate protection of designated anadromous fish spawning areas and inland primary nursery areas from marina impacts.
 - **C4.1:** Install fish ladders and eel-ways on existing dams and other permanent barriers.
 - **C4.2:** Facilitate the removal of dams, culverts, and other in-stream barriers.
 - **C4.3:** Restore degraded anadromous fish spawning habitats.
 - **C4.4:** Facilitate research to improve fish passage.
 - Last met in April 2017
- Other activities
 - April – May 2017: APNEP staff and partners met onsite with owners of Rocky Mount Mills Dam to discuss options for a fish passage project
 - May 2017: APNEP staff attended a Dam Removal Training workshop by American Rivers
 - June – Sep 2017: APNEP staff participated on the Atlantic Coastal Fish Habitat Partnership Science & Data Committee
 - 2-d workshop in VA on ACFHP's Southeast Mapping Prioritization Project – spatial prioritization of diadromous, estuarine, and coastal fish habitat along the southeast U.S.
 - Aug – Sep 2017: APNEP staff and partners met to discuss opportunity for removal of Gooch Mill Dam
 - Dec 2017: APNEP staff participated in a 1-d workshop of the VA Alosa Task Force
 - Ongoing effort by staff and partners to form a subcommittee on cooperation between monitoring in NC and VA

- Submerged Aquatic Vegetation Team
 - 18 members (12 partner orgs.)
 - AT and MAT recombined in Feb 2018: high overlap in membership and interconnectedness of SAV science and management
 - 2 CCMP Actions
 - **B2.2:** Develop and implement a submerged aquatic vegetation (SAV) protection strategy.
 - **C3.3:** Develop and implement a submerged aquatic vegetation (SAV) restoration strategy.
 - Last met in March 2018

- Other activities
 - 2017 - Ongoing: Interpretation of 2013-2014 aerial imagery for A-P region
 - New SAV maps and change-detection results available soon
 - 2017- Ongoing: SAV Sentinel Network activities by APNEP partners
 - ECU protocol established and in use for in-water monitoring of SAV in low-salinity areas
 - Stations identified in Currituck Sound, Albemarle Sound, Pamlico River, and Neuse River
 - UNC-W/NERRs protocol under development for in-water monitoring of SAV in high-salinity areas
 - 2018: APNEP and its partners will not conduct a new aerial survey of SAV this year, but plan to do so in 2019
 - Team's reasons to delay survey for one year include:
 - Allow more time for ongoing research to develop high-salinity in-water monitoring protocols
 - Limited availability of partners to participate in a ground-truthing effort this year
 - Desire to first see and review 2013-2014 interpretations, which are not yet available
 - High interest in devoting some attention this year towards understanding species composition (i.e., adding value to basic aerial mapping)
 - 2018: Potential for outreach in Kitty Hawk Bay area regarding the value of SAV and water quality
 - SAV Team providing guidance to NC Aquatic Weed Control Program and Town of Kill Devil Hills regarding plans for herbicide treatment of Eurasian watermilfoil in KHB