

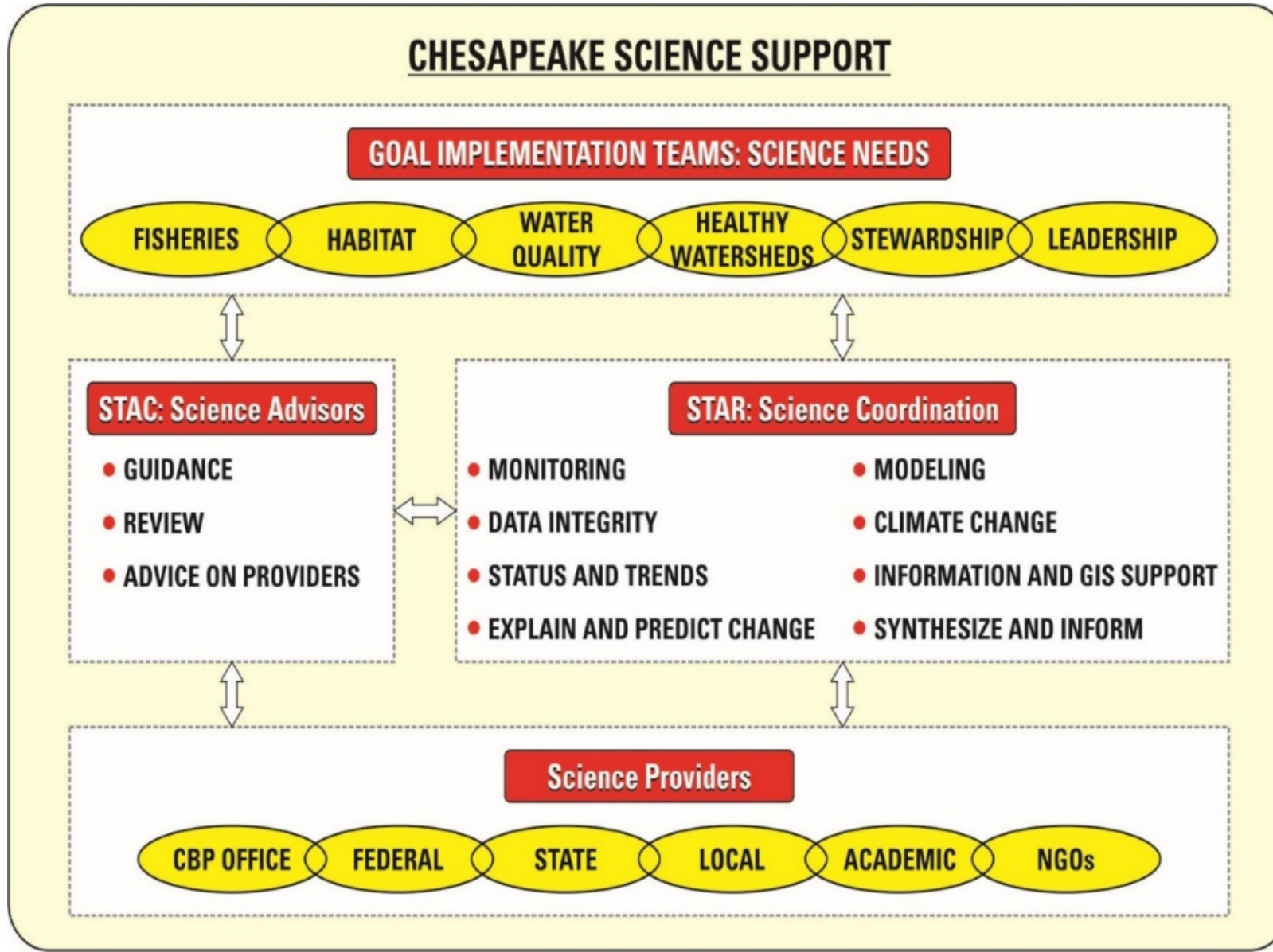
Strategic Science & Research Framework: Assessing Existing Resources



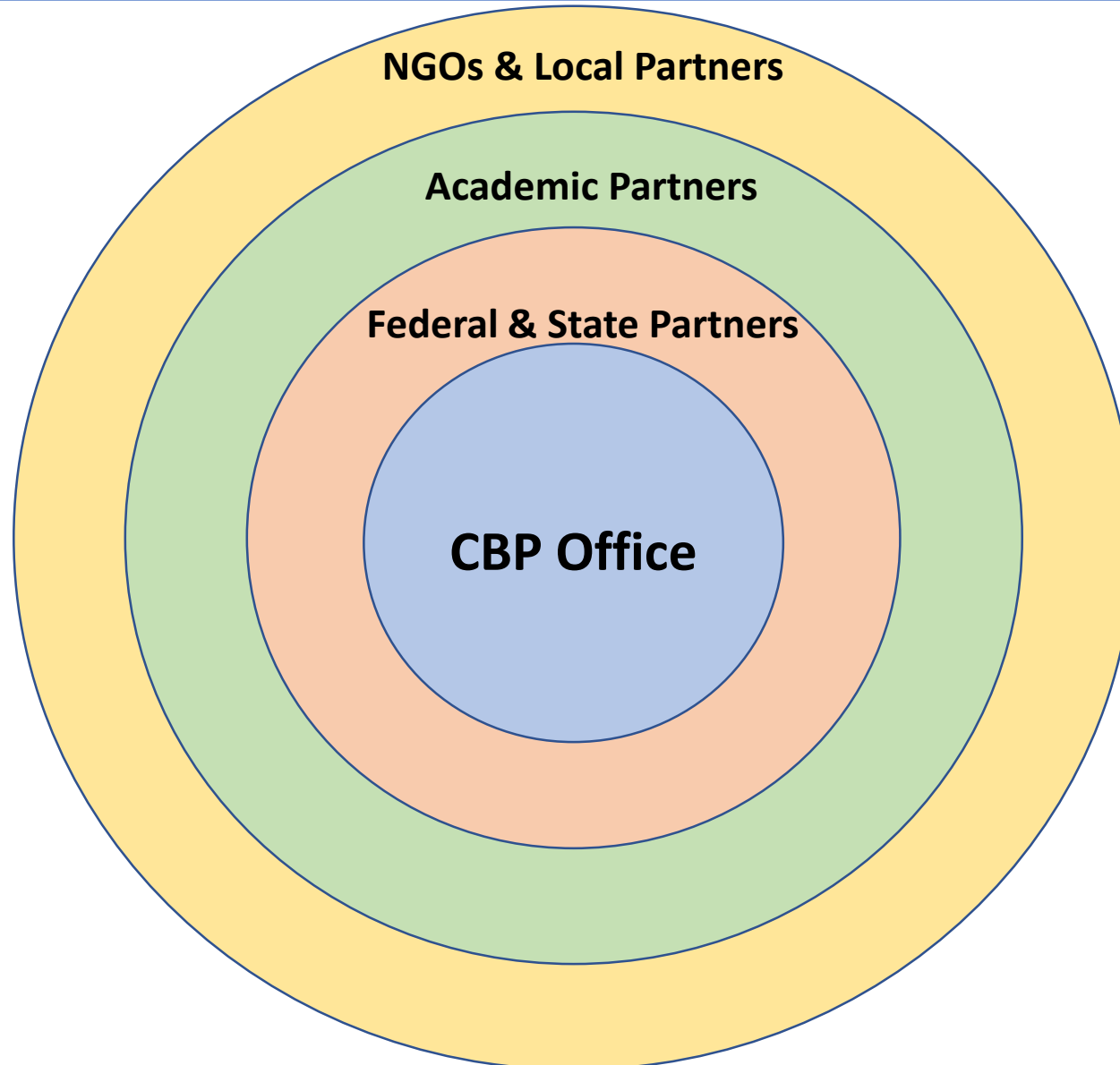
Emily Trentacoste, STAR Co-Coordinator

STAR 6/19/19

Science Providers

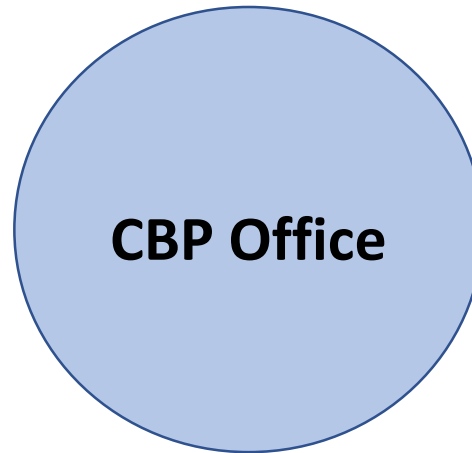


Assessing Resources from Science Providers



Assessing Resources from Science Providers

CBP Office:
Modeling Team
GIS Team
Researchers
GIT-funding
EPA Agreements



Needs related to climate change estimations:

- Impacts to fish distribution
- SAV habitat availability
- Healthy watershed vulnerability
- Impacts to public access sites
- Mapping projected climate impacts for protected lands
- Human behavior response
- Impacts on invasive species
- Green infrastructure performance
- Impacts to wetlands
- Impacts to fish species abundance

Green text = modeling
team work can
contribute

Needs related to other modeling:

- Groundwater model to predict groundwater influence
- Black duck bioenergetics model
- Finer scale water quality monitoring
- Estuary model for local waters

Green text = Modeling team helped identify some follow-up opportunities

Needs with GIS component:

Green text = GIS team identified capacity to work on it

- Regional fish habitat assessment
- Baywide inventory of shoreline condition
- Stream health reporting
- Development of black duck indicator
- Climate change impact on SAV habitat
- Generate mercury info in watershed
- Observed vs. expected monitoring trends
- Explaining water quality standards attainment
- Monitor forest buffer coverage trends
- Monitor tree canopy coverage trends
- Characterize watershed vulnerability to stressors
- Change in land use for informing other outcomes
- Climate change impacts on public access sites
- Diversity Indicator Target/Goal & EJ Screen
- Expanded analysis and mapping of climate change impacts on protected lands
- Improve methodology for data collection for Protected Lands Indicator
- Develop additional watershed health criteria
- Improve understanding of indigenous cultural landscapes
- Understanding sea level rise impacts
- Understand climate change impacts on wetlands

Purple text = GIT-identified as
high priority

Needs utilizing GIT-funding:

- Regional fish habitat assessment
- Monitoring vertical water column habitat
- Oyster restoration monitoring
- Shoreline threshold analysis
- Forage fish indicator
- Ecosystem factors affecting blue crab mortality
- Climate related changes in fish distribution
- Stream restoration and biological lift
- Cross-GIT collaboration of monitoring for brook trout
- Watershed vulnerability under different stressors
- Healthy watersheds sustainability indicator
- BMP installation at schools
- Methodology for data collection for Protected Lands Indicator

EPA Grants, Contracts, Agreements

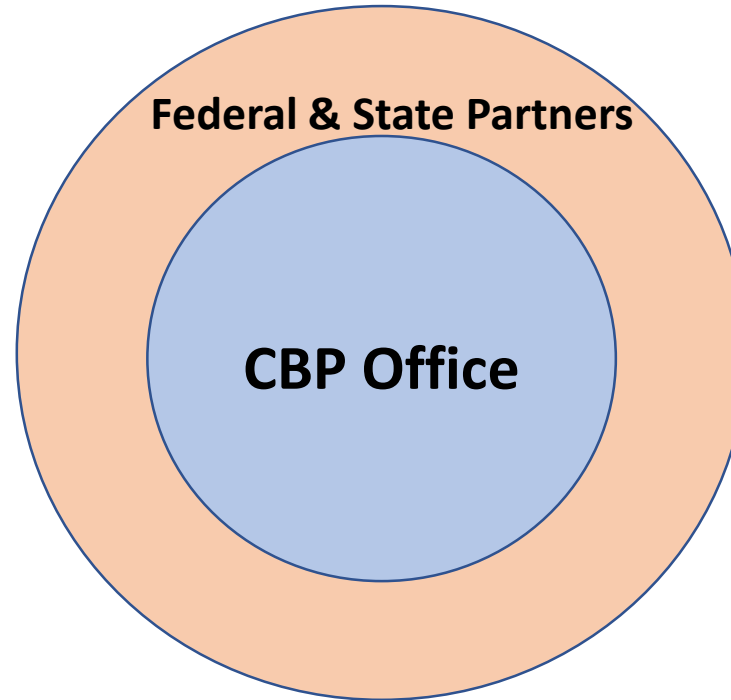
- STAC support
 - Includes synthesis support (first is climate related)
 - Can STAR provide input to STAC on synthesis topics?
- UMCES technical support
 - In-office research positions
- Chesapeake Monitoring Cooperative
 - C-STREAM intern analyzing what data are available
- Chesapeake Conservancy
 - Land use change, geospatial analysis and mapping support
- Potential new RFAs and RFA renewals (e.g. climate)
- Contractual support – still assessing

Assessing Resources from Science Providers



Federal Partners:

EPA
NOAA
NPS
UFWS
USGS
USFS



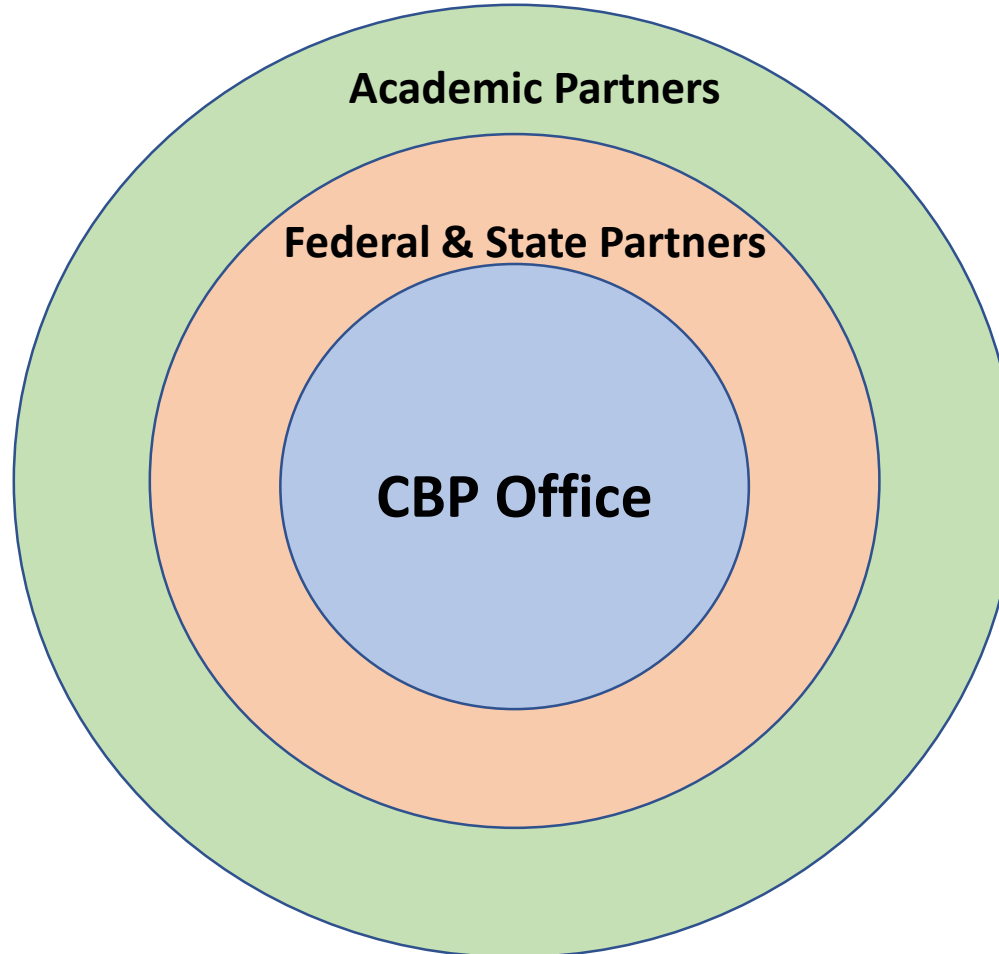
State Partners:

State Agencies
States' partners

EPA Resources

- Office of Research & Development
 - Internal funding opportunities
 - Safe & Sustainable Water Resources Research Program
 - Sustainable & Healthy Communities Research Program
 - Strategic Research Action Plans (2019-2022) – we are beginning to tie into these
- Region 3
 - Bill Jenkins acting as liaison for CBP and Reg 3
 - Reg 3 looking to go through similar exercise

Assessing Resources from Science Providers

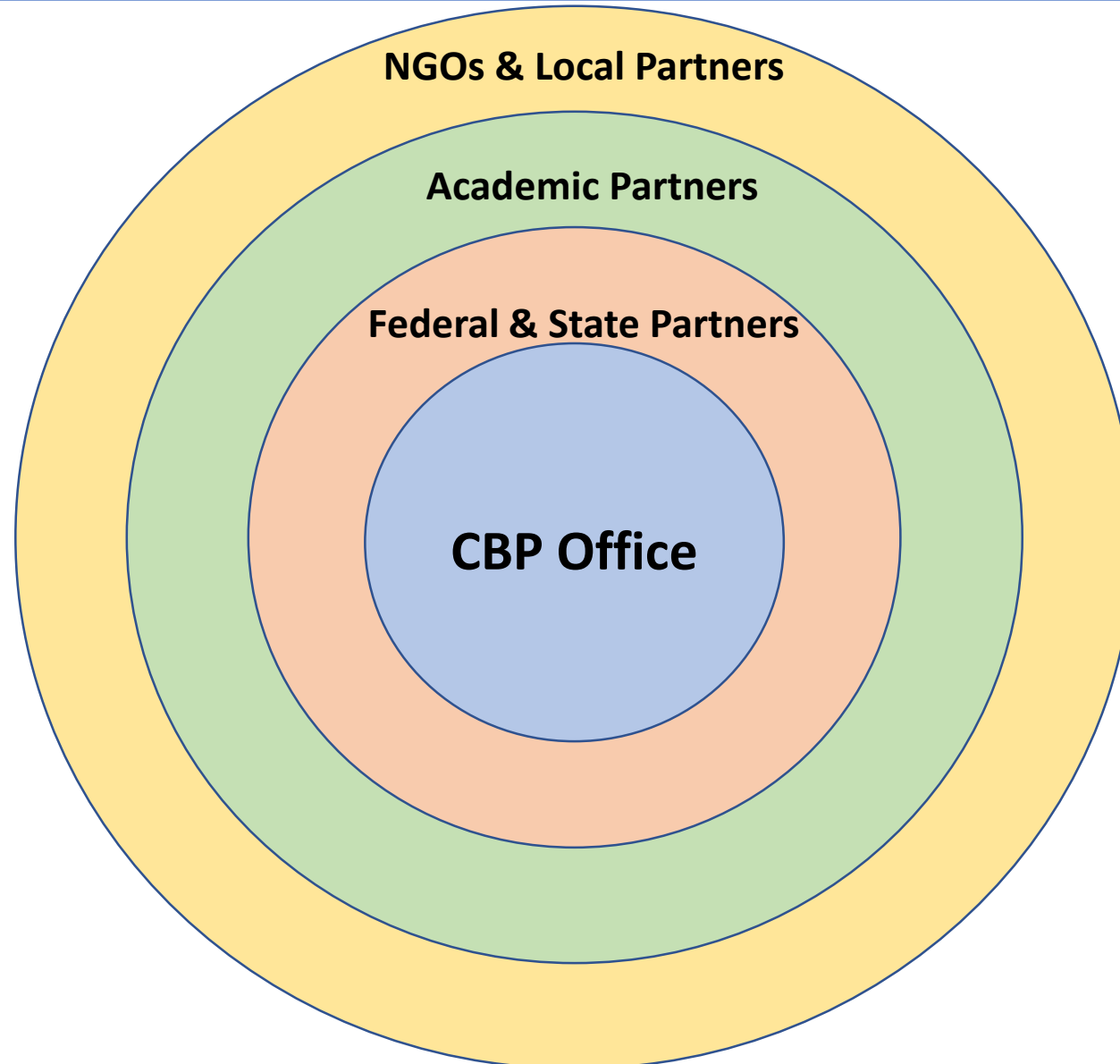


**We have provided
master needs list to
STAC – will follow up**

**Should we provide list
to our other regional
partner academic
organizations?**

Academic partners:
STAC
Regional institutions
Extension institutions
National organizations

Assessing Resources from Science Providers



**Should we provide
list to our regional
partner non-profit
organizations?**

NGO & Local Partners:
Citizen science
Chesapeake NGOs
Local governments

Resource Assessment Next Steps

- Compile resource opportunities need by need
 - When would you like to discuss these? As you prepare for SRS? Or as available?
 - Identify and help develop requests from MB or others
- Identify resources that can contribute to multiple needs
- Identify areas where cohorts can collaborate or coordinate to meet needs
- Match up cohorts with science providers

Incorporating SSRF into SRS

- How would you like to connect the Strategic Science & Research Framework to the SRS process?
 - Discuss science needs, resource assessment, options for resources, help develop requests from MB
- How would you like to update the science needs list?
 - Throughout year, at certain times, spreadsheet vs. database
- Would it be helpful to have STAC subject matter experts involved in your preparations leading up to your STAR dry run, or at the STAR dry run, or both, or neither?