What are the key management applications your workgroup could use an Average Air Temperature Increase indicator for?

Seems this indictor may not be needed. More important is the increase in tidal water and freshwater temp increases and relation to aquatic organisms

Air temperature drives changes in water temperature in general. This indicator provides insight into 1) risk of temperature increase to water temperature effects and 2) the regional compartmental presentation of the present indicator hit on DEIJ risk

Of all of the climate indicators, I would like to see this indicator reported annually. It would help explain DO, SAV, chlorophyll etc

This indicator would be useful to help explain stream flow changes and flow to the Bay change (which is updated annually)

4

What are the key management applications your workgroup could use a Total Annual Precipitation Change indicator for?

As in the annual air temperature, this is a key factor affecting the entire watershed and bay. I would love to see this one reported annually.

Total is good as an indicator, however, it would be helpful to see that seasonal breakdown. If a lot of the increase in total happens in winter, and we are putting in summer season BMPs, it is not likely to help mitigate the impacts.

This indicator would be useful to help explain changes in stream flow and annual river flow into the Bay

Seasonally is important with less snow and more rain, changing the spring freshet.

4

What are the key management applications your workgroup could use a Stream Temperature Indicator for?

Relate to thresholds to cold-water fisheries (brook trout) habitat, and consider if needed for other recreational species (such as bass)

I think this should be useful to understand why migratory fish from the tidal waters may not have reproductive success in lower watershed tribs. It is not just brook trout, it is a watershed wide fisheries sensitivity issue.

Connection to regional Bay water temperature increases detected by satellite.

Application to stream BIBI.

Brook trout restoration sites. need to know if the streams can maintain adequate temps to maintain populations

There could be an opportunity to use stream temperature data to better understand how various BMPs impact stream temperature (if there was a coordinated research effort on the subject)

Could help us understand where forest buffers are most needed for cooling streams (in combination with other living resources data)

Helping to define stream health

This is helpful at the community level for looking at limits not only on fish but the Stream Health benthic macroinvertebrate assessment for example.

What are the key management applications your workgroup could use a Relative Seal Level Rise indicator for?

Understanding coastal areas that may be more vulnerable to forest loss

Forest loss, high marsh conversion to low marsh, low marsh loss.

Connections to SAV?

relative sea level rise and wetland vulnerability; risk to infrastructure (drinking water intakes)

Loss of tidal wetlands. decisions on priorities for w wetland migration corridors vs restoration or enhancement

Show people what 1 foot of SLR will do. Tell us in each area the measured rise and how long until we are impacted. Knowing the rate of rise is important. Translating it to when my town will be underwater hits home.

What are the key management applications your workgroup could use a Change In High Temperature Extremes Indicator for?

Marsh browning has been linked to prolonged hot, dry periods.

SAV loss in shallow water linked to high temperature extremes

Seems difficult to find a specific management application

I think we need to look at this in terms of frequency and duration of temperatures above multiple key thresholds for living resources. Plants and animals have been acutely sensitive to short term intense events. This is potentially hugely important

Would choose several important species to apply (such as SAV, selected fishfish and shellfish)

5

What are the key management applications your workgroup could use a Tidal Bay Water Temperature Change indicator for?

Forage fish?

blue crab, striped bass spawning

Information already available has informed us to consider water quality criteria in the context of temperature rise. An indicator will inform the ongoing need for deeper consideration of the issue.

Expectations for SAV beds , and the communities that can be supported.

seasonal variability is important

Changes in deep water and shallow water are important to different species. This tells us to consider whole system changes impacting plant and animal communities.

links between temp and hypoxia, relelvant to striped bass mortality and disease prevalence

Connecting this again to specific temperature thresholds would inform probability of effects for factors affecting change like disease and parasite prevalence.

Basically, if I am a manager, everything around me says temperatures are rising and I better be managing for the change. Keep it simple.

What are the key management applications your workgroup could use a Tidal Bay Water Temperature Change indicator for?

Striped bass suitable habitat

How frequently should an Average Air Temperature Increase indicator be updated?

Annually

I will take annual updates if they are simple and automated to update. Unless there is a change in the pattern (things are on a long-term steady rise), no one in the next 50-100years should be changing their management accounting for temp changes.

2

How frequently should a Total Annual Precipitation Change indicator be updated?

Annually

How frequently should a Stream Temperature Change indicator be updated?

5-10 years

How frequently should a Relative Sea Level Rise indicator be updated?

5-10 years

How frequently should a Change in High Temperature Extremes indicator be updated?

Annually

How frequently should a Tidal Bay Water Temperature Change indicator be updated?

We update tidal bay analyses annually. It is a simple, clear picture of change everywhere. I would leverage that we have a monitoring to analysis to presentation process in place already and maintain annual updates because they already have support.