Agenda

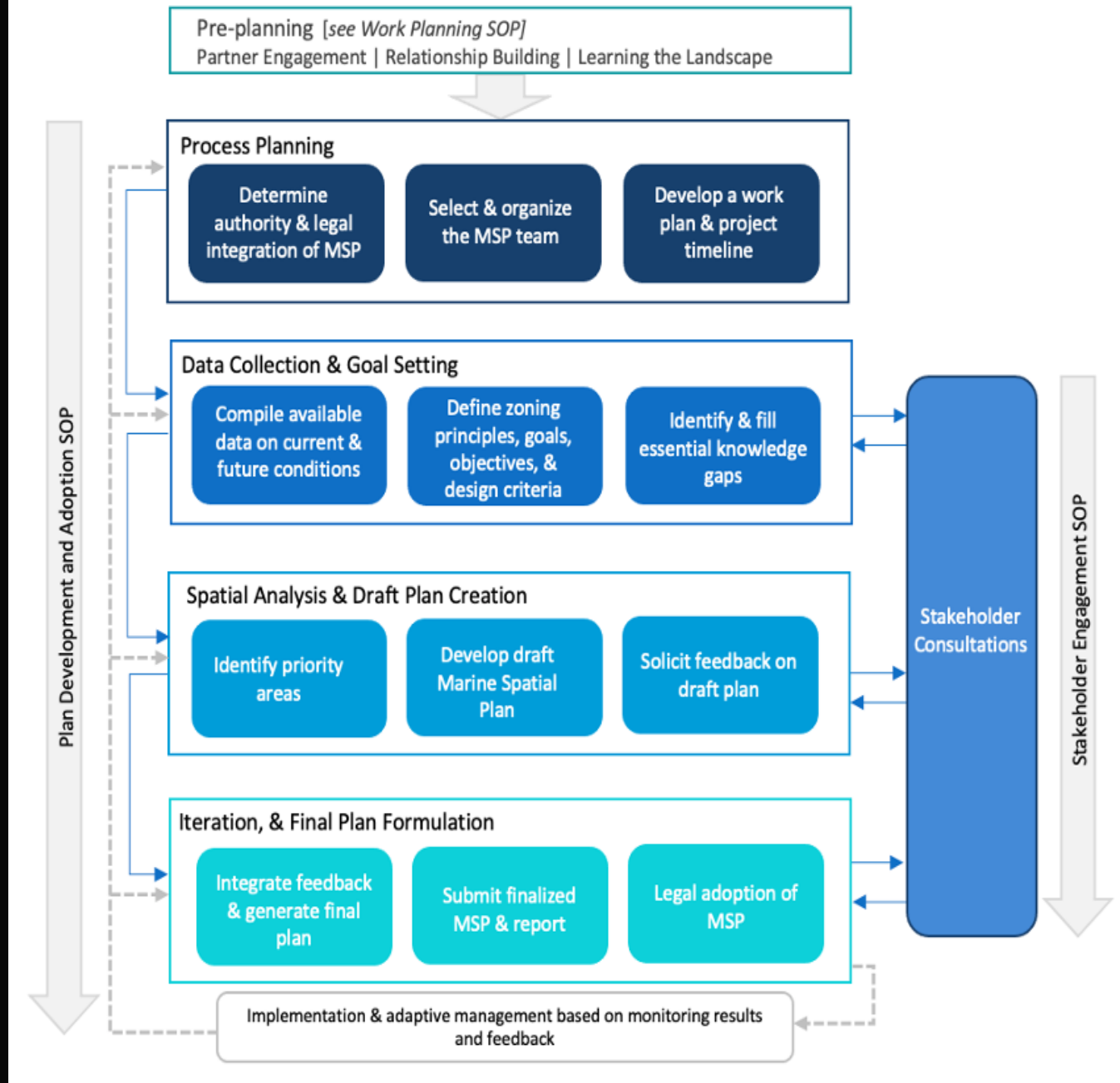|	
10:05 - 10:15 am	WELCOME & REVIEW MEETING MINUTES RECAP
10:15 - 10:30 am	PRESENTATION OF MSP PRINCIPLES, GOALS, & OBJECTIVES
10:30 - 10:55 am	DISCUSSION: FEEDBACK ON PRESENTATION
10:55 - 11:00am	WRAP UP & NEXT MEETING TIME

Marine Spatial Planning
Detailed Process

Marine Spatial Planning
Why we need Principles, Goals, & Objectives

Principles
- Establish a framework for how we want the MSP process to operate
- Ensure that all parties have a clear idea of what will guide the process

Goals and objectives
- Provide specific information on desired outcomes that help to build design criteria, determine the spatial data needs, and develop a map of priority areas for conservation that is the foundation for the remainder of the MSP process
- Provide a means of evaluating the merits of a plan

Marine Spatial Planning
Defining Principles

A **principle** is a basic or essential quality or element determining the intrinsic nature or characteristic behavior of the marine spatial plan (MSP).

- Principles should reflect the ultimate results we want to achieve with the MSP.
- Principles do not stand by themselves, but should be reflected throughout the MSP process and, in particular, in the goals and objectives we identify later.

Marine Spatial Planning
Example Principles

Ecosystem Integrity Principle	Primary focus on maintaining ecosystem structure and functioning within a MSP area. Recognizes that ecosystems are dynamic, changing and sometimes poorly understood (therefore requiring precautionary decision-making).
Integration Principle	Working in sectoral and institutional compartments are usually efficient to manage, but it creates significant costs of non-coordination that should be identified and addressed. MSP can play a critical role in facilitating coherence and integration among levels of government to help create complementary and mutually reinforcing decisions and actions.
Public Trust Principle	Marine resources, including marine space, belong to the people and are held in trust by the government for its people and future generations. Marine space should be managed as a "commons", i.e., as part of the public domain, not owned exclusively or to be benefited by any one group or private interest.
Transparency Principle	Processes used to make decisions should be easily understood by the public, allow citizens to see how decisions are made, how resources have been allocated, and how decisions have been reached that affect their lives.
Precautionary Principle	Decision could cause severe or irreversible harm to society or the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who advocate taking the action.
Polluter-pays Principle	The costs of pollution or damage to the environment should be paid by the responsible party.

Marine Spatial Planning
Defining Goals

A **goal** is a statement of general direction or intent.

- Goals are high-level statements of the desired outcome that you hope to achieve.
- They are intended to be broad and distinct from objectives in that they cannot be measured.

Marine Spatial Planning
Example Goals

1. Protect areas of historical, cultural recreational, and societal importance

2. Support maritime infrastructure needs

3. Improve water quality and reduce ocean pollution

4. Enhanced coastal and maritime tourism while improving the local amenity and ecological value of key coastal areas

5. Ensure sustainable commercial and recreational fisheries

6. Promote development of marine renewable energy solutions

7. Promote scientific and technological research

8. Encourage sustainable and economically viable mariculture

9. Protect biological diversity, productivity, and ecological function across all habitat types.

10. Preserve unique, rare, and/or threatened species and habitats.

Marine Spatial Planning
Defining Objectives

An **objective** is a statement of desired outcomes
or observable behavioral changes that
represent the achievement of a goal.

- While goals can be broad, objectives should be detailed and specific.
- To the extent possible, objectives should be SMART (described on next slide).
- There may be several objectives that aim to achieve a single goal.

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SMART Objectives

Specific	Is the objective concrete, detailed, focused, and well-defined?	Does the objective define an outcome?
Measurable	Can we measure what we want to do?	Can the objective be quantified?
Achievable	Can the objective be obtained with a reasonable amount of effort and resources?	Can we get it done? Do we have or can we get the resources to attain the objectives?
Relevant	Will this objective lead to a desired goal?	Does sufficient knowledge, authority, and capability exist?
Time-bound	When will we accomplish the objective?	Are start and finish dates clearly defined?

Marine Spatial Planning
Example Objectives

Goal	Objective(s)
• Protect areas of historical, cultural, recreational, and societal importance	1. Ensure that at least 50% of areas of historical and cultural value are preserved 2. Facilitate preservation of at least 50% of the highest value areas of recreational, and societal importance
• Ensure sustainable commercial and recreational fisheries	1. Maintain or enhance biomass of species targeted by fisheries by conserving areas known to serve important biological functions for those species (e.g. spawning grounds, feeding grounds etc.)
• Protect biological diversity, productivity, and ecological function across all habitat types	1. Conserve at least 30% of live coral and healthy reefs 2. Protect productivity and ecological function by conserving at least 30% of all representative habitats
• Promote development of marine renewable energy solutions	1. Maintain or expand the amount of area devoted to ocean renewable energy including wind and floating solar

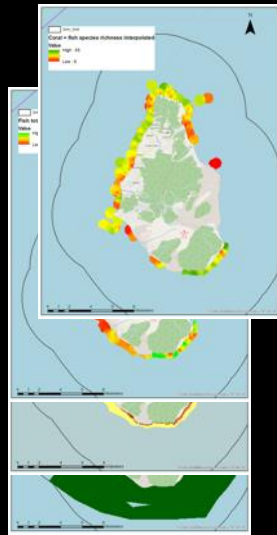# Marine Spatial Planning
Prioritization Modeling

PriortizR Analysis

- Translates conservation <u>objectives</u> into quantitative targets

- Identifies and minimizes costs (e.g., impacts) associated with meeting targets

- PrioritizR selects optimal areas for conservation, which are used as a jumping off point for the marine spatial plan

Marine Spatial Planning
Prioritization Modeling

Solves for optimal areas given quantitative targets (based on MSP objectives) and costs
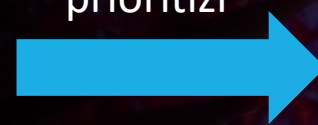

+ Quantitative Targets and Costs

prioritizr

Priority Areas for conservation

Marine Spatial Planning
## *Prioritization Modeling example objectives*

Conservation Objectives	Design criteria to meet objective	Spatial data required
Maintain or enhance biomass of species targeted by fisheries	Protect areas with high target species biomass Protect target species spawning grounds Protect target species feeding grounds	Species biomass Location of spawning grounds Location of feeding grounds
Protect species diversity	Protect areas with high species diversity Protect areas with unique species	Species richness Species distribution
Conserve at least 30% of live coral and healthy reefs	Protect areas with high coral cover	Coral cover
Protect productivity and ecological function	Protect species across all functional groups Protect representative habitats	Species distribution with functional groups defined Habitat map
Recover areas with high human impacts	Protect coral reefs with high levels of run-off/ pollution Protect coral reefs with high fishing intensity	Watershed modeling, nutrient and pollutant levels Fishing effort
Protect connectivity between habitats	Protect a network of habitats (sources and sinks of larvae and species)	Species distributions; larval connectivity; species movement

Marine Spatial Planning
Prioritization Modeling

Resulting map of priority conservation areas:

Priority conservation areas,
selected by PrioritizR – achieves
conservation targets at lowest
possible cost
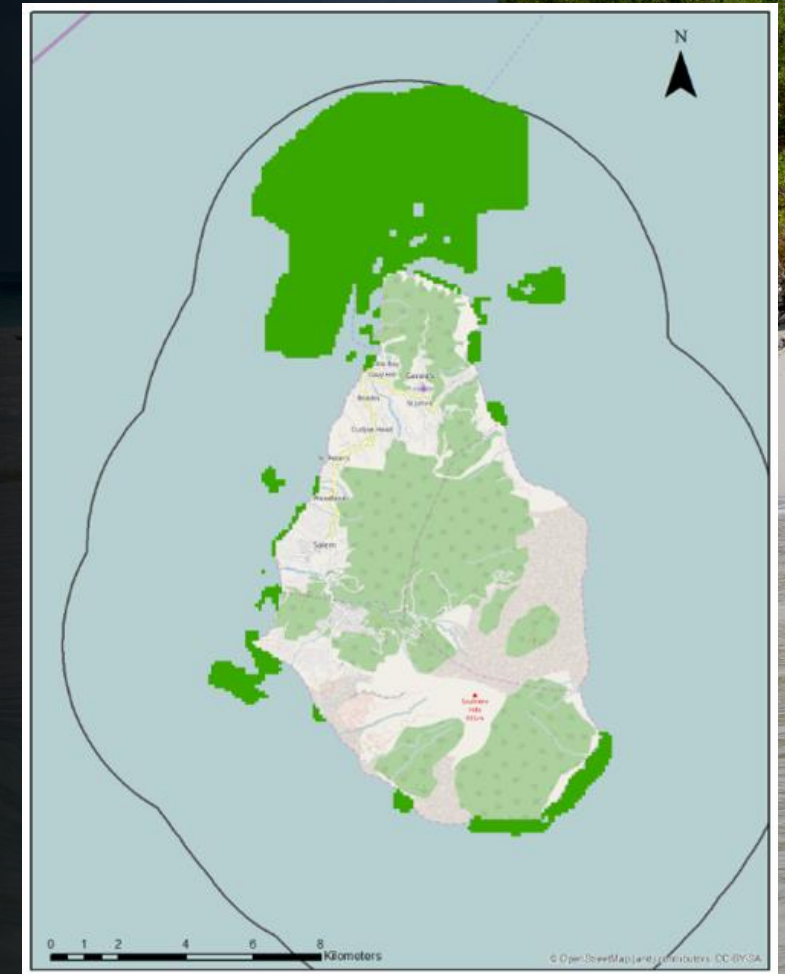
Marine Spatial Planning
Prioritization Modeling

Possible refinements to this type of analysis:

- Can specify how clustered the selected pixels should be

- Can specify certain areas that MUST be part of the network, or other areas that are OFF THE TABLE

- Can define "cost" in other ways
  - MNI = minimize selection of areas with high fishing value
  - Minimize total size of area that still meets objectives

- Could run two separate prioritizations for platform and offshore

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Prioritization Modeling

Important caveats about prioritization modeling:

- It generally aims to protect areas as year-round no-take areas (will not account for seasonally protected areas, although could consider making some seasonal areas fully no-take)

- The model is just a tool for identifying good areas to protect (or priority areas for any purpose) - it does not provide a final answer

- The MSP could result in spatial regulations not included in this modeling (e.g., seasonal protection of nursery areas, aggregation sites, or migratory paths)

- If it is decided that there are certain areas that should definitely be protected or not protected, this can be included in the prioritization up front

- The area protection targets are for each feature, the resulting priority areas may no-total a set % of the EEZ

Recap Marine Spatial Planning

Principles: basic or essential quality or element determining the intrinsic nature or characteristic behavior of the MSP

Goals: statement of general direction or intent

Objectives: statement of desired outcomes or observable behavioral changes that represent the achievement of a goal
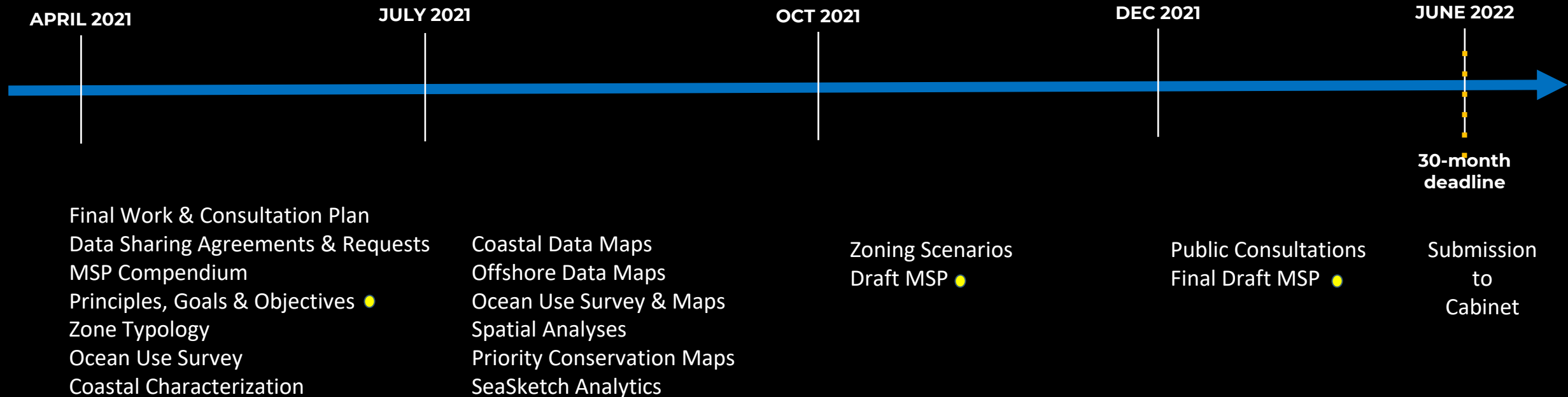
SMART objectives: Specific, Measurable, Achievable, Relevant & Time-Bound

Prioritization Modelling

Supporting work: MSP compendium and characterization + ocean use survey
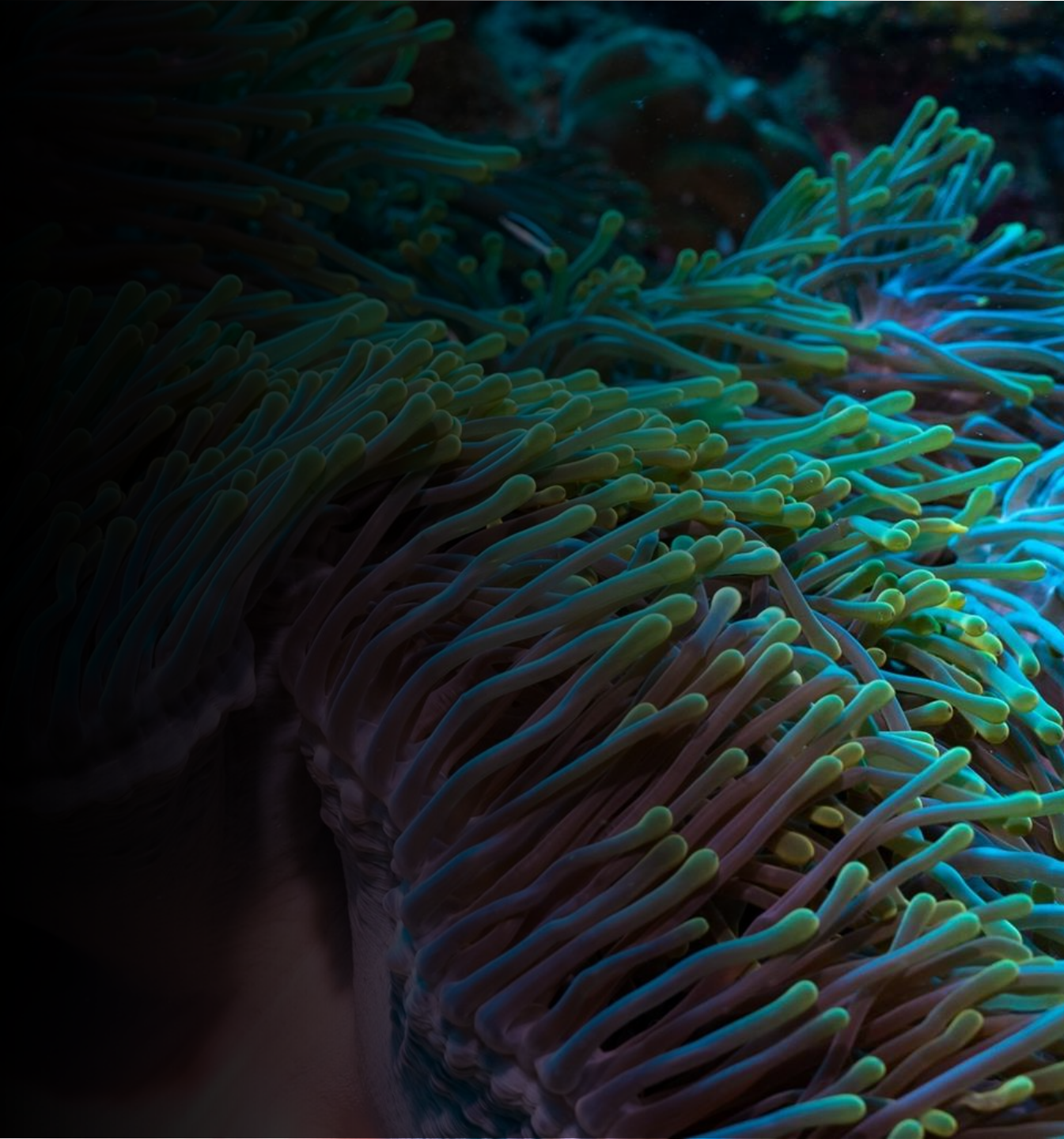
Marine Spatial Planning
Proposed Timeline

APRIL 2021   **JULY 2021**   **OCT 2021**   **DEC 2021**   **JUNE 2022**

30-month deadline

Final Work & Consultation Plan				
Data Sharing Agreements & Requests	Coastal Data Maps		Public Consultations	Submission
MSP Compendium	Offshore Data Maps	Zoning Scenarios	Final Draft MSP ●	to
Principles, Goals & Objectives ●	Ocean Use Survey & Maps	Draft MSP ●		Cabinet
Zone Typology	Spatial Analyses			
Ocean Use Survey	Priority Conservation Maps			
Coastal Characterization	SeaSketch Analytics			

The MSP Subcommittee will review work products

● *Requires Approval from Governance Committee*

Discussion/Questions?

WRAP UP:NEXT MEETING TIME?