Phase 7 Plans
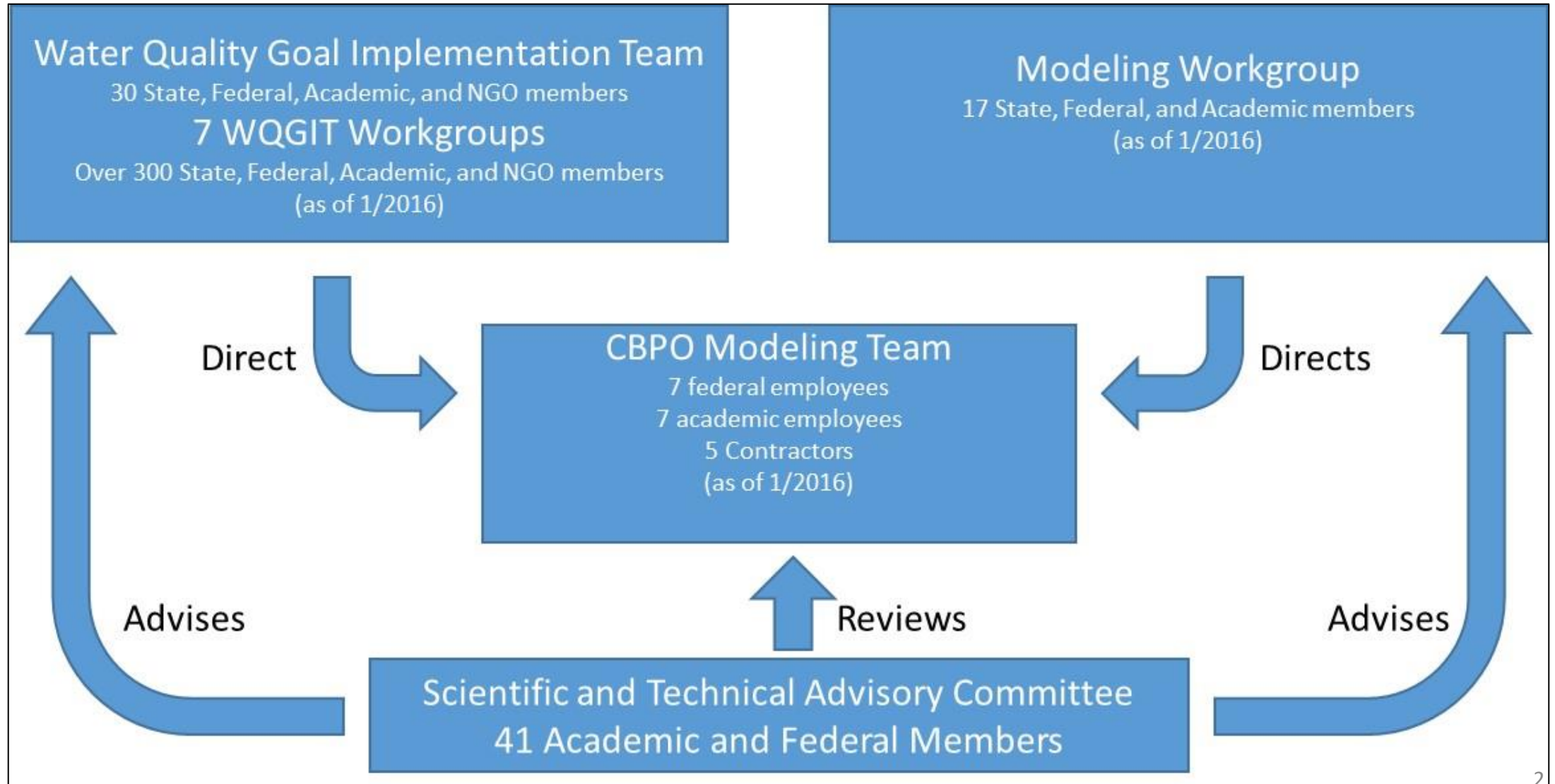
Gary Shenk – CBPO

WQGIT
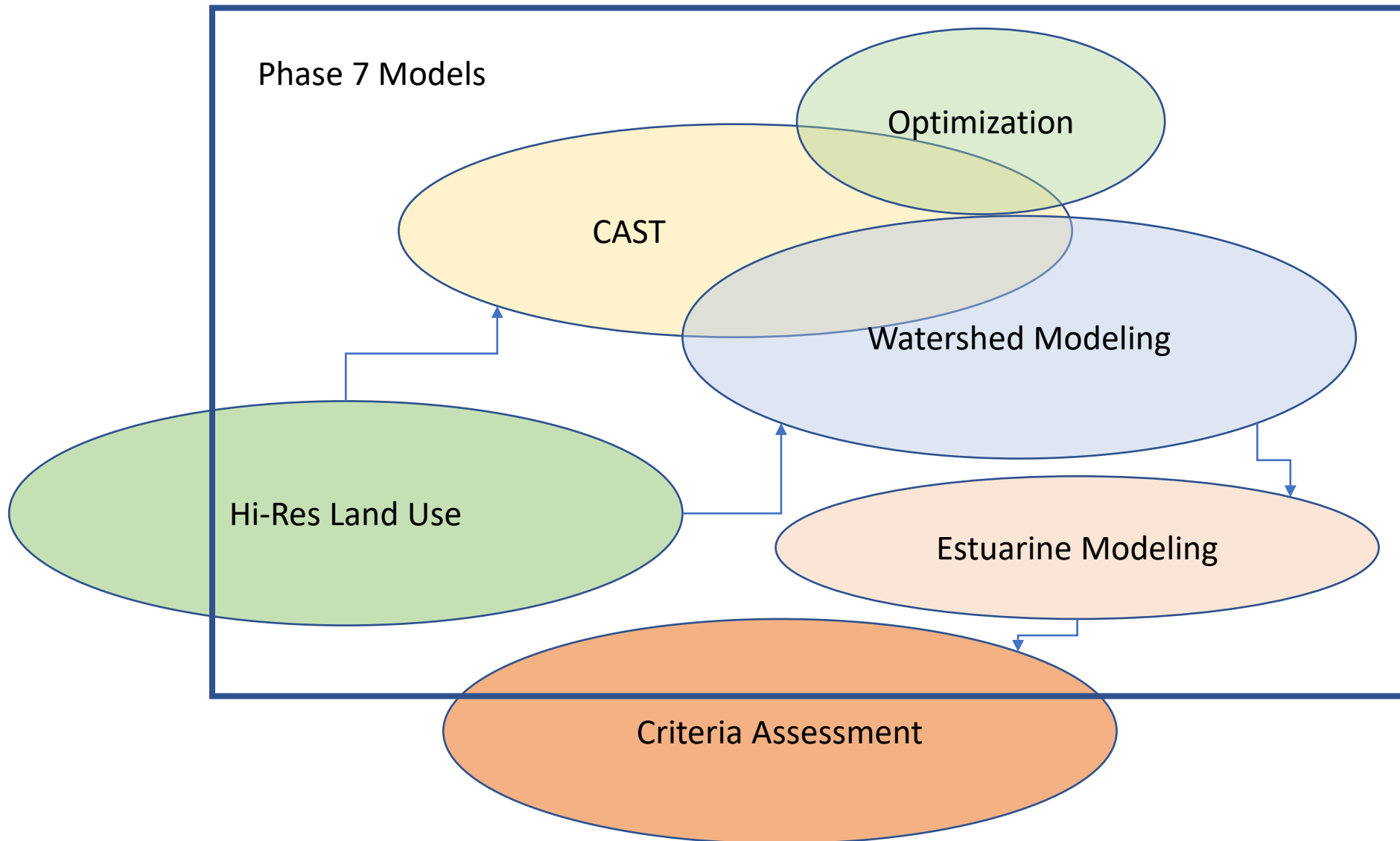
2/28/2022

Governance
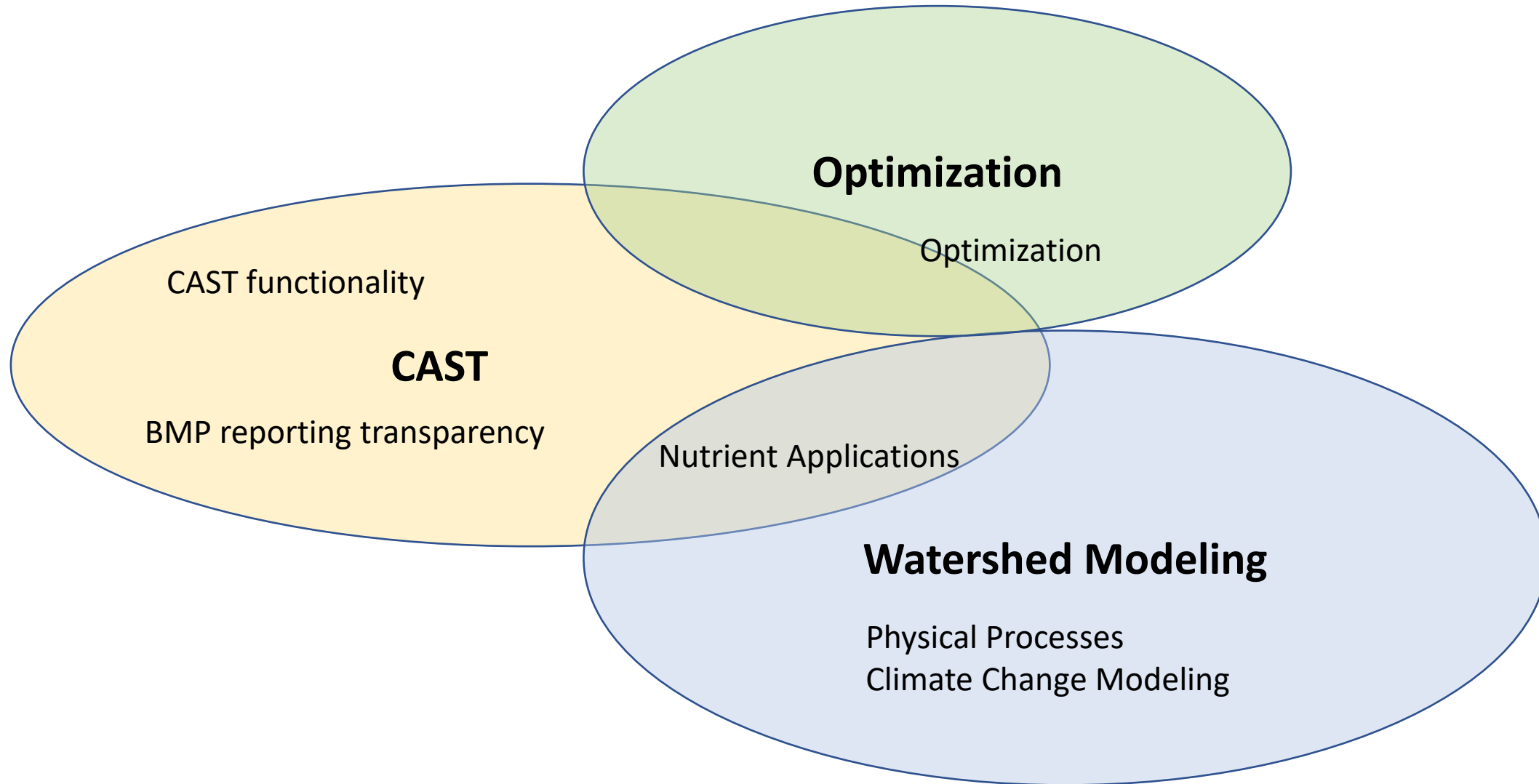
https://cast-content.chesapeakebay.net/documents/P6ModelDocumentation%2F1%20Overview%202018%2005%2022.pdf
https://www.chesapeakebay.net/who/group/modeling_team
https://www.chesapeakebay.net/what/programs/modeling

Phase 7 Development Tracks

Phase 7 Development Tracks

Phase 7 Development Tracks and Lead

- Land Use – Peter Claggett
- CAST – Olivia Devereux
- Optimization – Lewis Linker
- Watershed Modeling – Gary Shenk
- Main Bay and Tributary Models – Lewis Linker
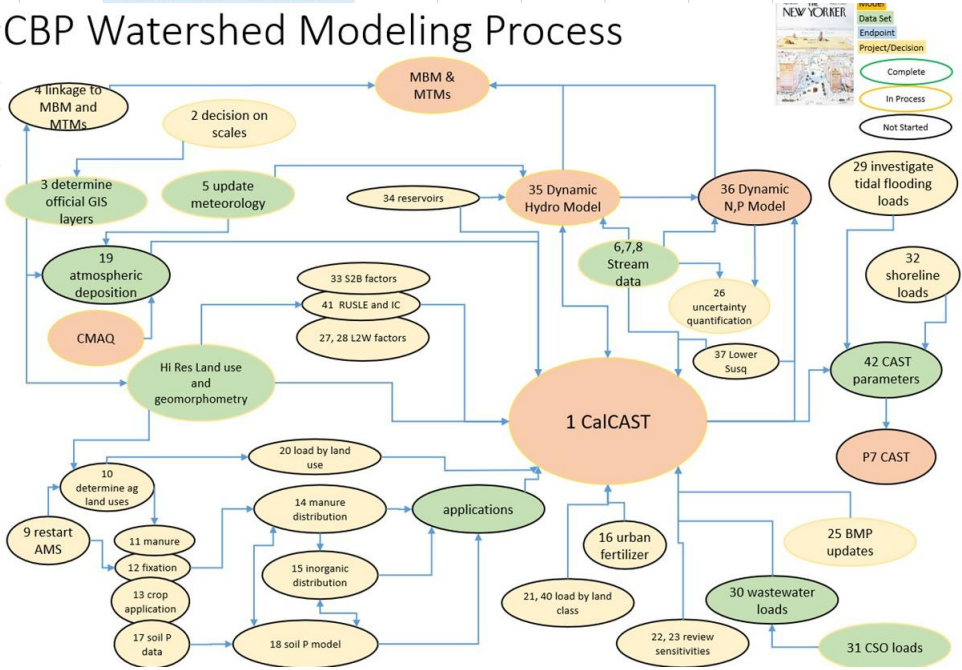- Criteria Assessment – Peter Tango

Each Track Will Provide Schedule Documents

Format will vary by Track

Each Track Will Provide Schedule Documents

Gantt Chart

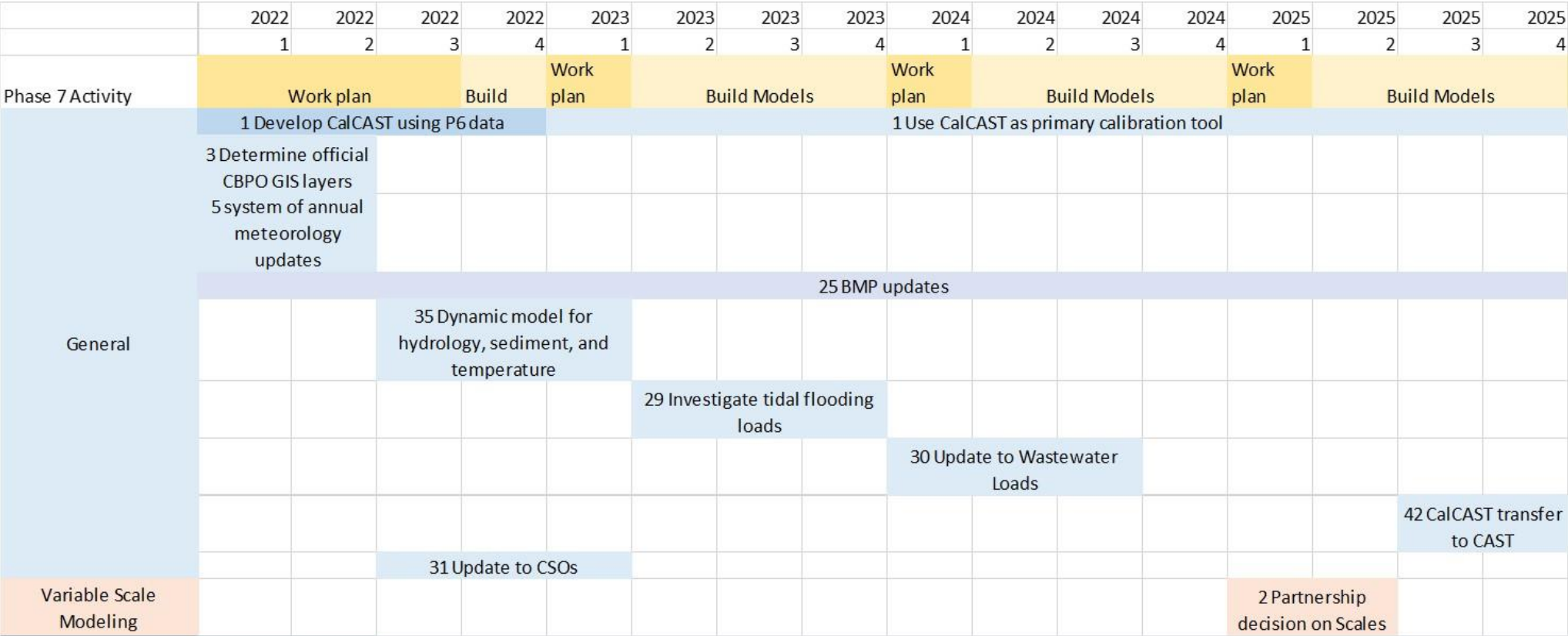| Phase 7 Activity	2022 1	2022 2	2022 3	2022 4	2023 1	2023 2	2023 3	2023 4	2024 1	2024 2	2024 3	2024 4	2025 1	2025 2	2025 3	2025 4
	Work plan			Build	Work plan	Build Models			Work plan	Build Models			Work plan	Build Models		
	1 Develop CalCAST using P6 data				1 Use CalCAST as primary calibration tool											
General		3 Determine official CBPO GIS layers														
		5 system of annual meteorology updates														
	25 BMP updates															
			35 Dynamic model for hydrology, sediment, and temperature													
					29 Investigate tidal flooding loads											
								30 Update to Wastewater Loads								
													42 CalCAST transfer to CAST			
			31 Update to CSOs													
Variable Scale Modeling													2 Partnership decision on Scales			

Format will vary by Track

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Task List

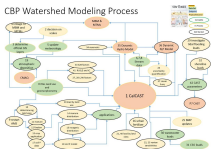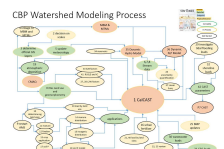| Item	Category	What: short description	Why: who asked for it or why is it necessary	Who in CBPO or elsewhere will do the work	Where in the CBP organizational chart do the decisions lie	When does this need to be done, including general dependencies and development time	How: A very short description with a link to the longer documentation
1	General	Develop CalCAST. CalCAST will be a tool for comparing estimated load to monitored loads given a set of inputs and parameters. It will be used in the calibration	CalCAST allows the CBP to test various data sets and strategies to see which match monitoring data best. Primary suggestion of STAC Phase 6 STAC review and Future of Modeling workshop. Allows efficient incoporation of all other development priorities	Bertani; Bhatt; Shenk	MWG	First priority. The rest of development depends on CalCAST. Need decisions on scale. 2022	A model of loads at a point is developed in Section 12 of the documentation. It will be implemented for speed of calculation with the potential to wrap parameter estimation techiques around it
2	variable scale modeling	Discuss scale and reach decision	Development of various Phase 7 tasks will benefit from knowledge of the output scale	Shenk	WQGIT, MWG	2022-2025	Presentation to WQGIT and MWG on various aspects, discussed in section 2
3	General	determine official versions of GIS layers: NHD, county, shoreline, Lrseg	Counties have updated boundaries. NHD necessary to use many important data sets, shoreline determines watershed/estuarine parameters. Lrseg may change for NHD boundaries	McDonald, Fitch, Ahmed, Bhatt	MWG	early 2022	CBPO discussions, with results to be written into section 2
4	Main bay and tributary models	physical and chemical linkage with estuarine model	Needed to run estuarine models	Bhatt	MWG	late 2022. Need to determine form of dynamic model first for the variable description.	Indentify set of terminal segments. Identify estuarine cell for each terminal segment. Compare old ICM variables with new ICM variables. Do new WSM variables match up?

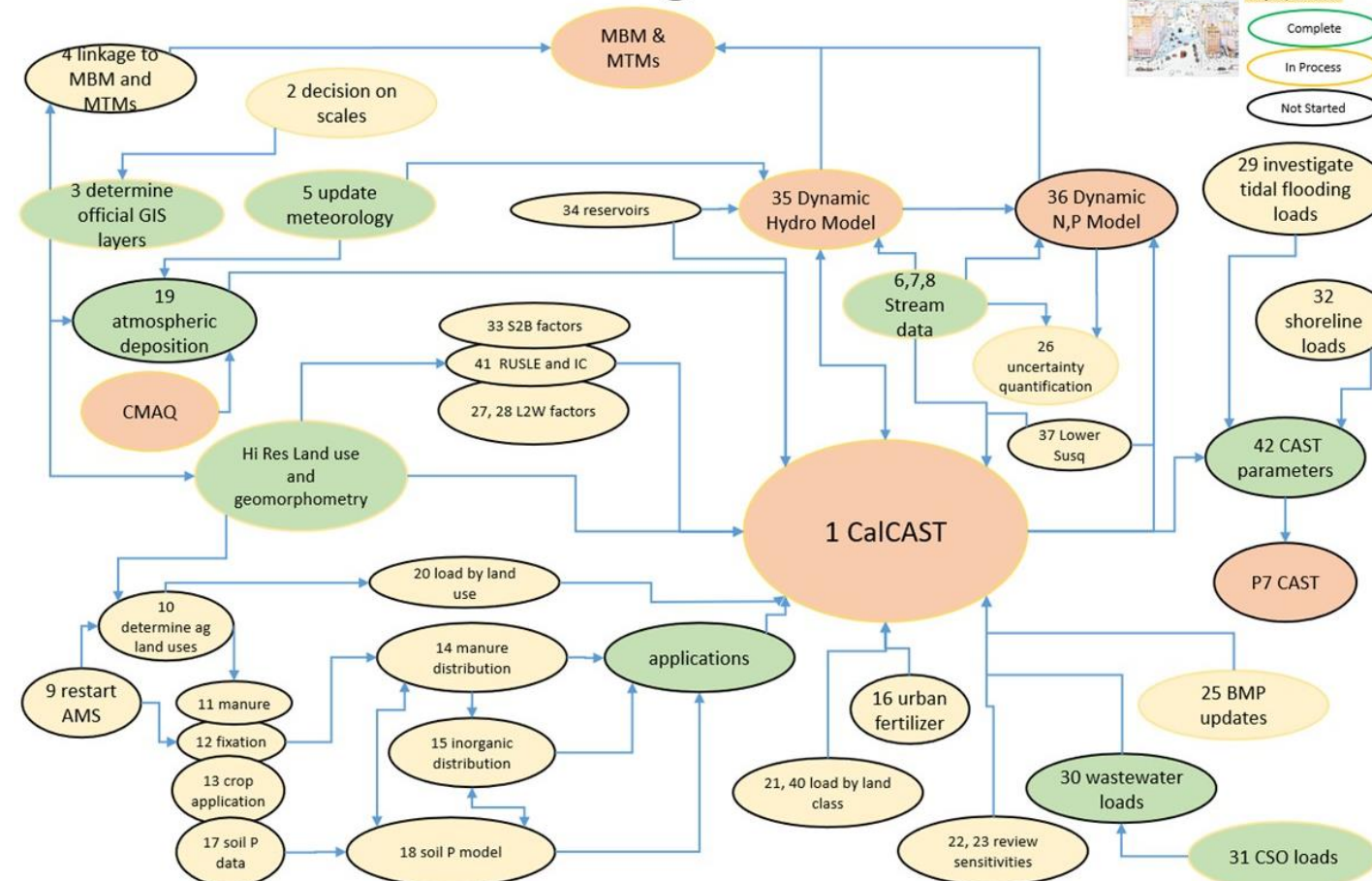CBP Watershed Modeling Process

Format will vary by Track

Each Track Will Provide Schedule Documents

Flow Chart

CBP Watershed Modeling Process

Format will vary by Track

Web page under development

- All six projects
- Linked under each WG/GIT home page
- Linked for all agenda items

Additional Topics from the WQGIT ++

- WQGIT processes – Jeremy Hanson
  - Ongoing discussion of WQGIT processes
  - Not the focus of today's presentation
- Planning Target calculations – Gary Shenk
  - Next decisions in 2027
  - Focus in 2025-2026
  - Can discuss any time
- Co-benefits
  - CBP partnership still figuring this out
  - Require participation from CBP GITs and WGs

Summary and next steps

- Comprehensive Phase 7 plan with six components being developed
  - Can be modified going forward
- Web page with CBP process and model planning documentation
- April WQGIT meeting – Updates for all six components