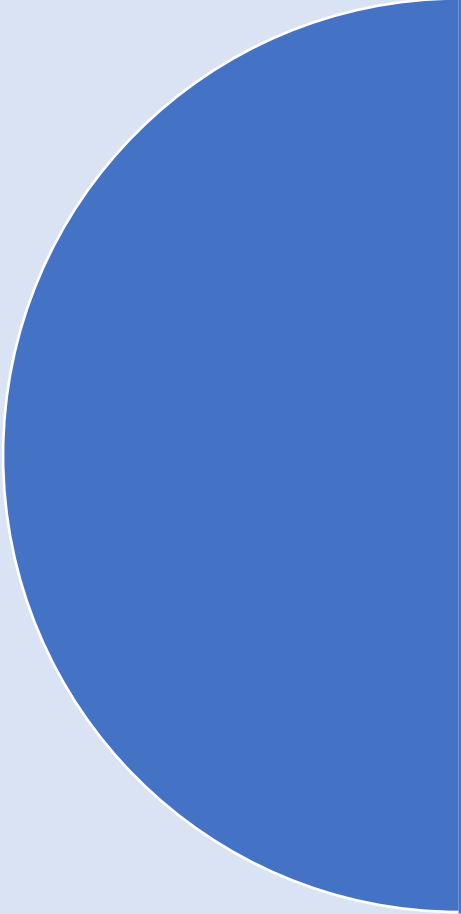# CAST Land Uses

5.10.24

Objective:

Determine how to proceed with agricultural Land Uses in CAST Phase 7.

Background: February 9th

> The AMT agreed to evaluate changing the Land Uses for Phase 7 CAST.

- The specific Land Uses and associated loading rates have not yet been determined
- Will be further investigated at future AMT meetings.

What were some questions?

If we alter Land Uses does the total net load of nutrients change?

Are the current Land Uses accurately representing the different behavior of crops?
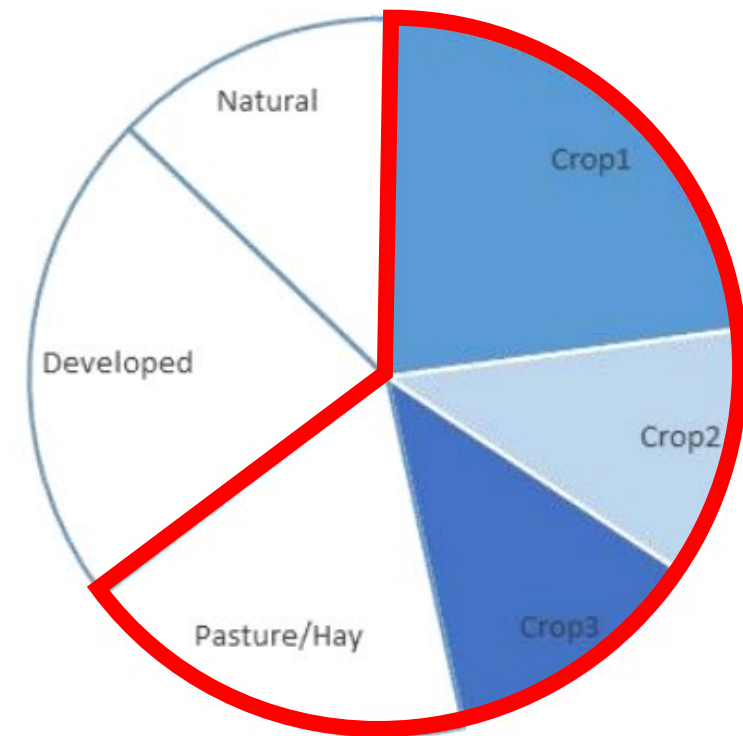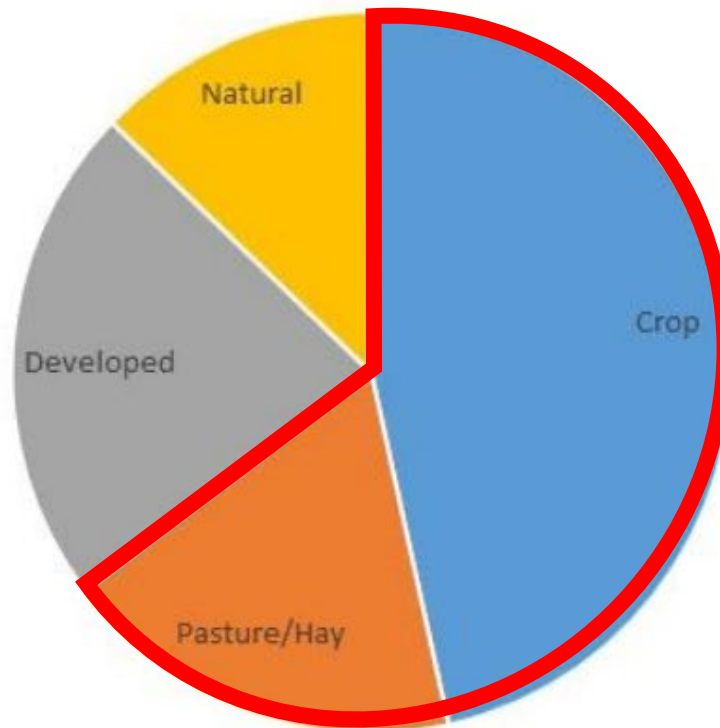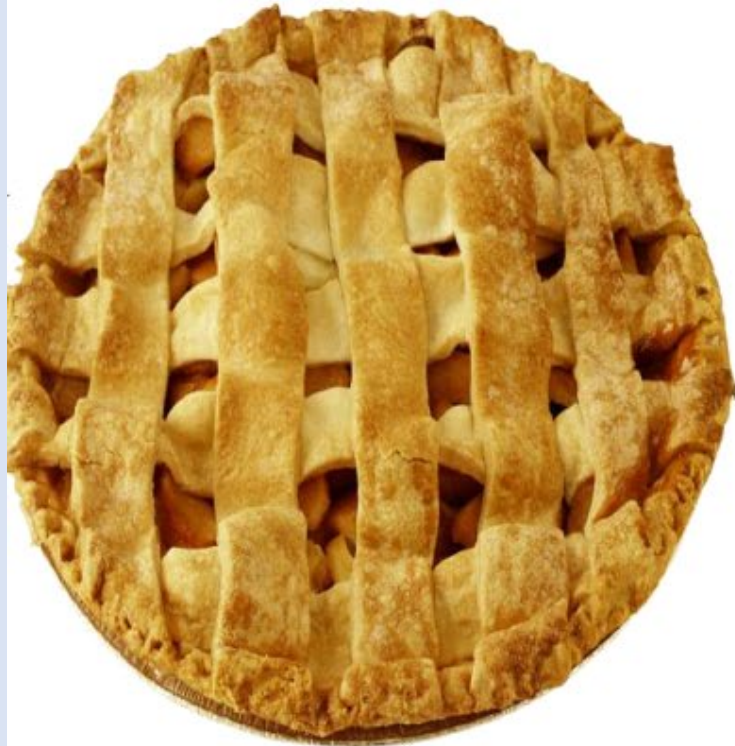
What we found:

If we alter Land Uses does the total net load of nutrients change?

- It depends, there are local changes spatially but not at the scale of the entire watershed.

Efforts to evaluate

-
- Phase 6 Load Review

What we found:

Are the current Land Uses accurately representing the different behavior of crops?

- It depends, there is research supporting the current Land Uses.

- Jurisdictions may have trouble utilizing the specificity of the current setup.

Efforts to evaluate

- [March 8th](#)

- Phase 6 Load Review

Data summary of Relative NO3-N Loading Estimates for Phase 6.0 Land Uses J.J. Meisinger		Avg. ratio (# obs) to Corn, grain - no manure	Std. Error Mean
	Phase 6.0 Land Uses (italicized numbers are citations, italicized letters are footnotes)		
1	Corn or sorghum, grain - eligible for manure (1,2,3,10,11)	1.40 (12)	0.20
2	Corn or sorghum, silage - eligible for manure (10)	1.62 (1)	NA
3	Corn or sorghum, grain - no manure (standard of reference)	1.00 (NA)	NA
4	Corn or sorghum, silage - no manure [A]	1.16 (NA)	NA
5	Small-grain w/ soybean double-crop - no manure (9)	0.79 (2)	0.09
6	Soybean, full-season - no manure (3,4,5,10)	0.71 (6)	0.11
7	Small-grain w/ forage establishment - eligible for manure [B]	0.84 (NA)	NA
8	Other agronomic crops (e.g., cotton, tobacco, peanuts) (15)	0.45 (1)	NA
9	Pasture, direct deposition - eligible for manure (12,13,14)	0.23 (10)	0.05
10	Hay, legume or legume-grass mix (6,7)	0.17 (4)	0.02
11	Other hay, (e.g., peren. grass, orch. grass, tall fescue) (12,13)	0.24 (4)	0.06
12	Agr. open space (e.g., peren. grass, tall fescue) (8)	0.10 (2)	0.01
13	Specialty crops - high input (e.g., potatoes, sweet corn) (10)	1.34 (1)	NA
14	Specialty crops - low input (e.g., orchards, beans, peas) [C]	0.31 (NA)	NA

Let's play in the sandbox

NEED to make decisions to continue testing new inputs

Cannot test multiples of everything the entire time

- Time limited
- Very confusing

Sandbox – meant for testing

- Still provides us with a clear path to test multiple items
- Allows us to make changes later without undoing a consensus decision
- NOT final

Do we have any objections?

- Continue using the current ag Land Uses for use in Phase 7.

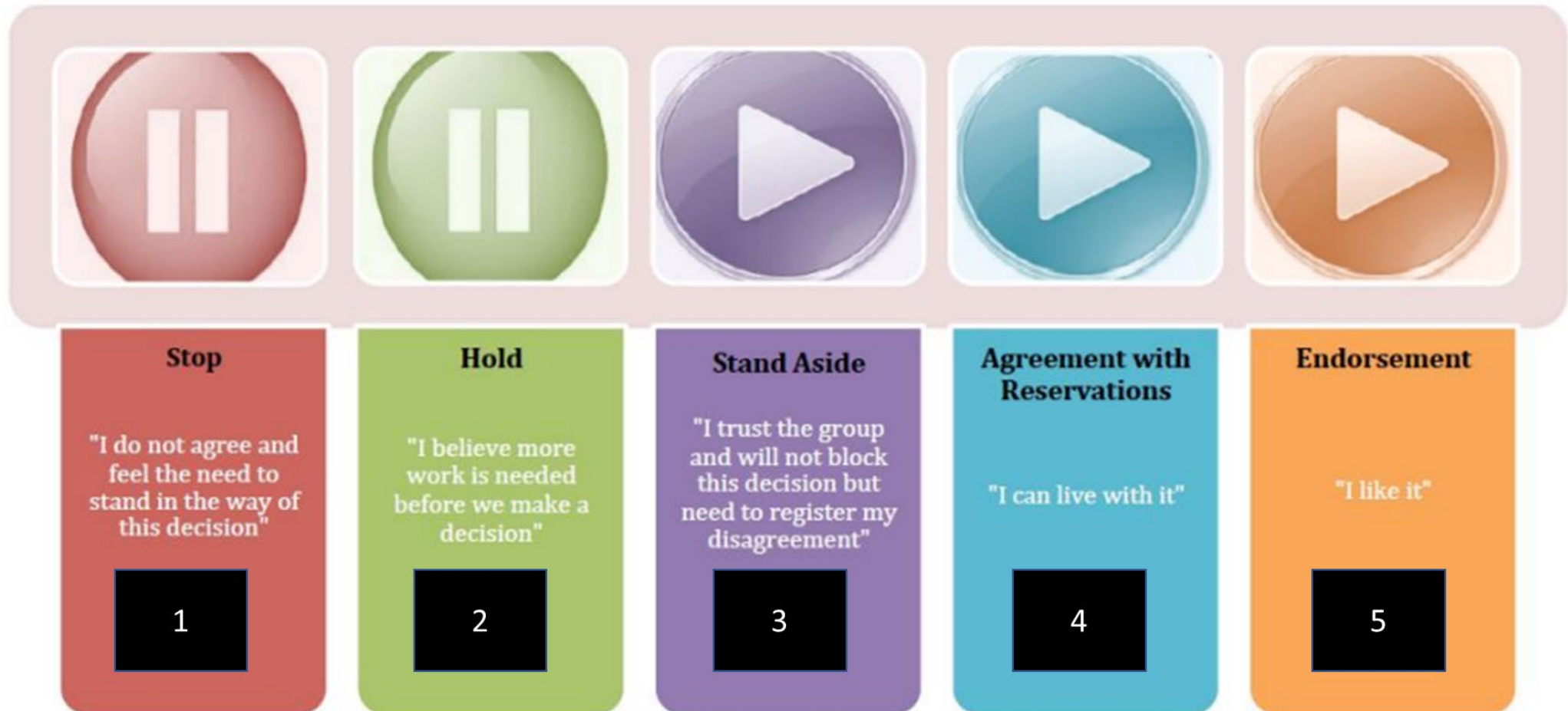| Land Use |
| --- |
| Double Cropped Land |
| Full Season Soybeans |
| Grain with Manure |
| Grain without Manure: **Reference land use** |
| Other Agronomic Crops |
| Silage with Manure |
| Silage without Manure |
| Small Grains and Grains |
| Specialty Crop High |
| Specialty Crop Low |
| Ag Open Space |
| Legume Hay |
| Other Hay |
| Pasture: **Reference Land Use** |

A quick note

This does NOT eliminate the current ability to report to the larger Land Class or Ag sector.

Land class	Chesapeake Bay Average Land Use
Cropland	Double Cropped Land
	Full Season Soybeans
	Grain with Manure
	Grain without Manure: **Reference land use**
	Other Agronomic Crops
	Silage with Manure
	Silage without Manure
	Small Grains and Grains
	Specialty Crop High
	Specialty Crop Low
Pasture	Ag Open Space
	Legume Hay
	Other Hay
	Pasture: **Reference Land Use**

What is your level of agreement?

Consensus Continuum

Stop	Hold	Stand Aside	Agreement with Reservations	Endorsement
"I do not agree and feel the need to stand in the way of this decision"	"I believe more work is needed before we make a decision"	"I trust the group and will not block this decision but need to register my disagreement"	"I can live with it"	"I like it"
1	2	3	4	5

What are we thinking?