



Feb 08, 2023

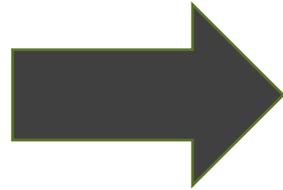
Consent Order Toxicity Studies – Status Update

*Frannie Nilsen, PhD
DEQ Environmental Toxicologist*



PFAS in North Carolina

Consent Order
Paragraph 14
Study PFAS



PFMOAA

PMPA

PFO2HxA

PEPA

Nafion BP2

Chemours Consent Order: Toxicity Study Details

“The following studies, which shall be conducted following applicable USEPA, OECD protocols as defined in the USEPA TSCA, OPPT or other appropriate programs as determined by DEQ.”

Rodent Toxicity Studies:

- 28-day oral immunotoxicity study in rats
- 28-day oral immunotoxicity study in mice
- 90-day repeated dose oral toxicity study in rats
- 90-day repeated dose oral toxicity study in mice

***Rodent Studies: mouse and rat;
classic tox and immunotox***

Ecological Toxicity Studies:

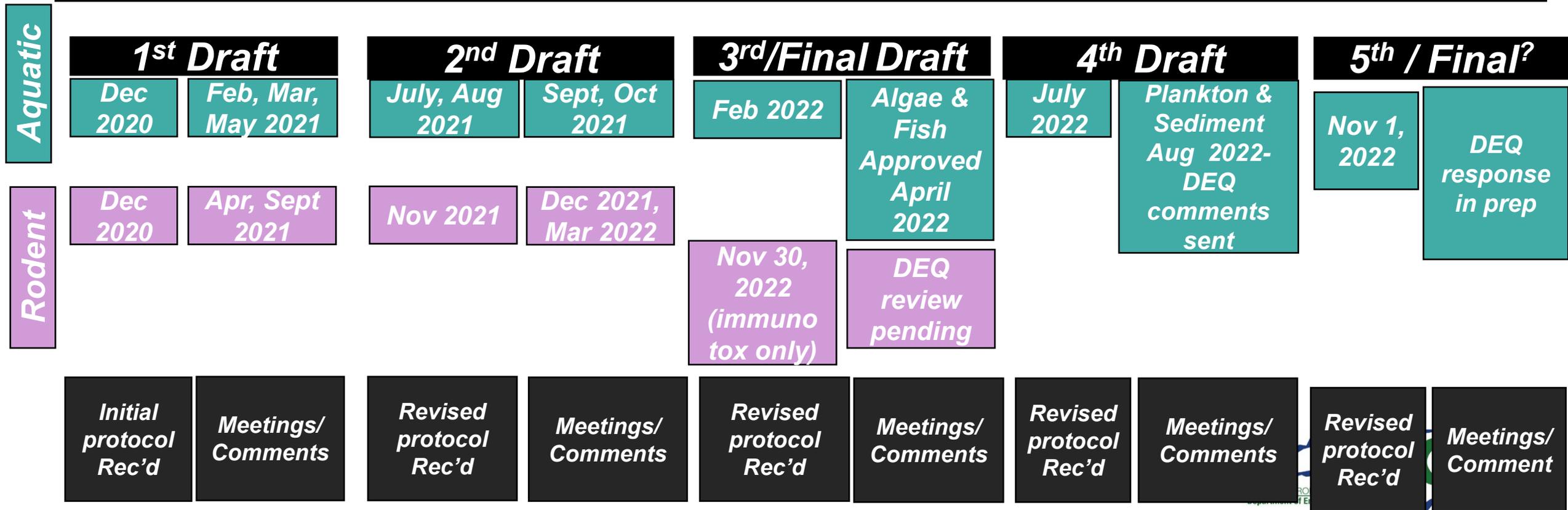
- Algal acute (72-hour growth) toxicity study
- Daphnid acute toxicity study
- Daphnid chronic (reproduction) toxicity study
- Fish acute toxicity study
- Sediment 10-day freshwater invertebrates toxicity test

***Aquatic Tox Studies: algae,
zooplankton, fish, and sediment worms***



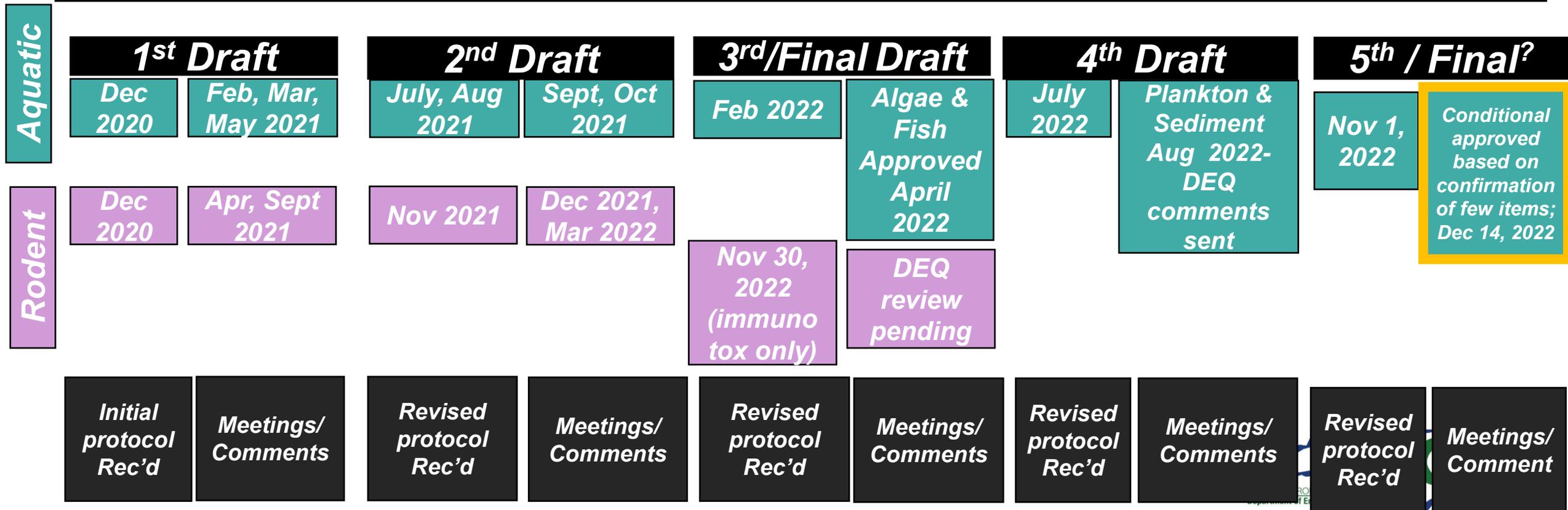
Current Status of Consent Order: Toxicity Study Review & Approval Process

Toxicity Study Protocol Review Timeline



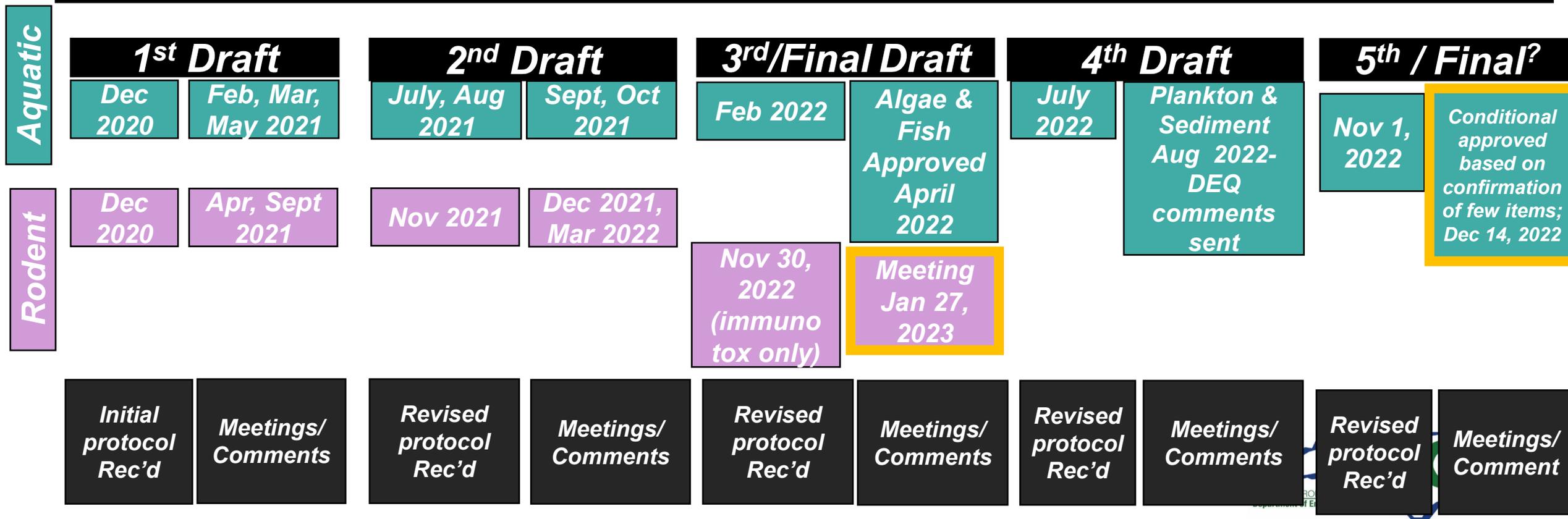
Current Status of Consent Order: Toxicity Study Review & Approval Process

Toxicity Study Protocol Review Timeline



Current Status of Consent Order: Toxicity Study Review & Approval Process

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Chemours Consent Order: Aquatic Toxicity Study Status

Ecotoxicity Studies

Algae

Approved- awaiting timeline from contract lab

Daphnid (acute)

Revision reviewed; DEQ response in prep

Daphnid (chronic)

Revision reviewed; DEQ response in prep

Fish

Approved- awaiting timeline from contract lab

Sediment

Revision reviewed; DEQ response in prep



Chemours Consent Order: Aquatic Toxicity Study Status

Ecotoxicity Studies

Algae

Approved- Range Finding Results under DEQ review

Daphnid (acute)

Conditionally Approved – waiting on response from Chemours

Daphnid (chronic)

Conditionally Approved – waiting on response from Chemours

Fish

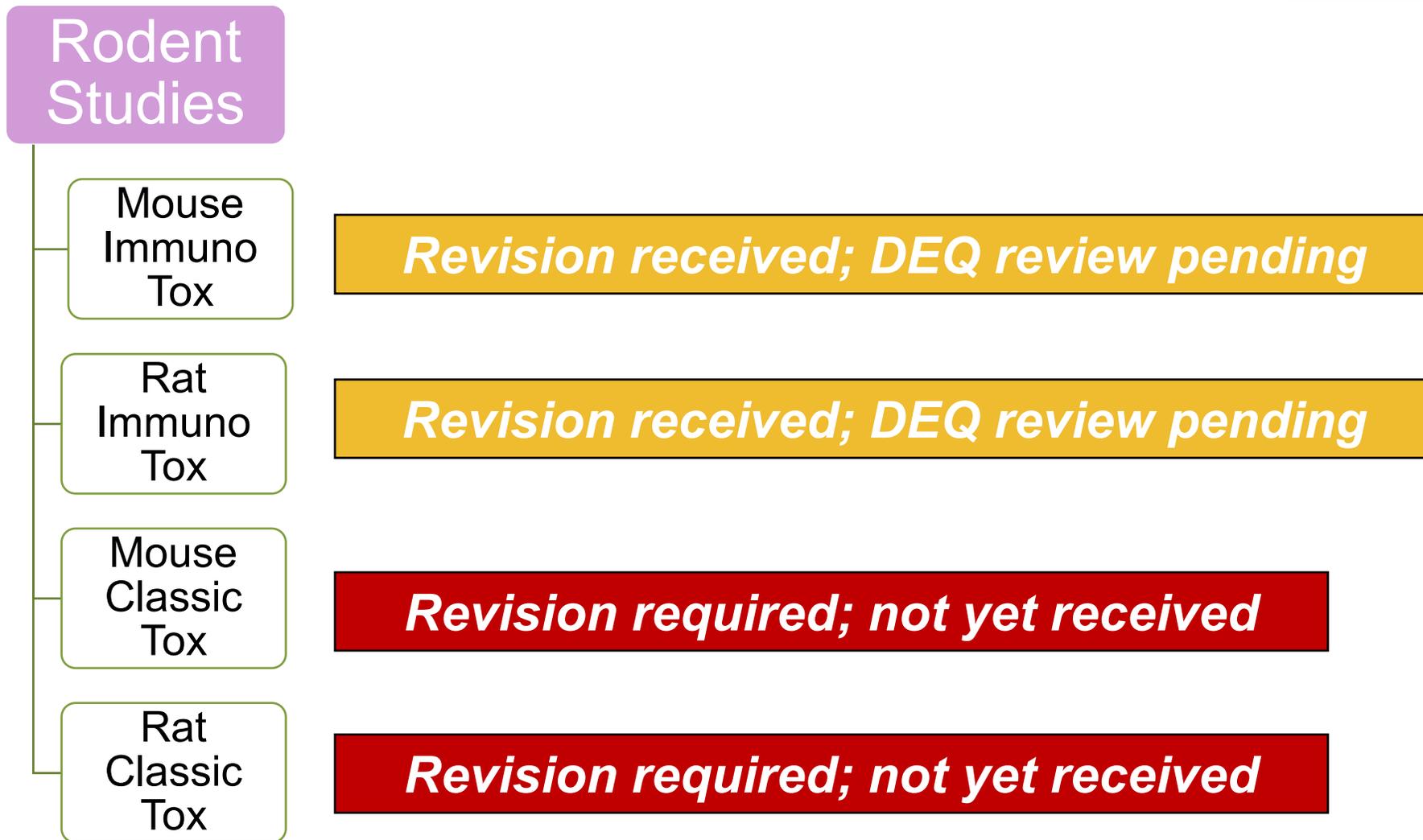
Approved- awaiting timeline from contract lab

Sediment

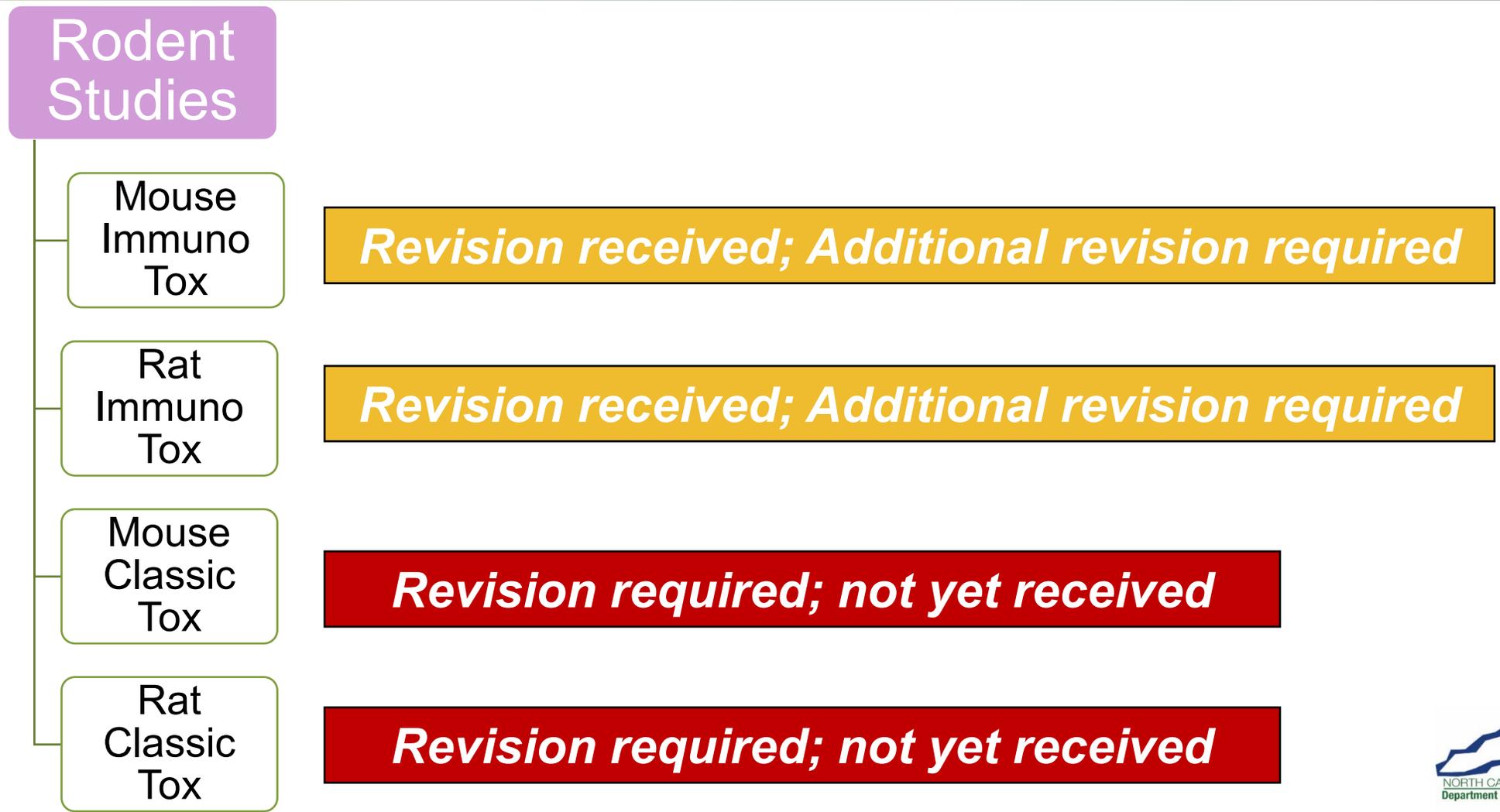
Conditionally Approved – waiting on response from Chemours



Chemours Consent Order: Rodent Aquatic Toxicity Study Status



Chemours Consent Order: Rodent Aquatic Toxicity Study Status



Chemours Consent Order: Proposed Timeline Moving Forward

Currently:

1. Rodent Immunotoxicology –
 - Waiting for revision based on Jan 27, 2023, Meeting
2. Receive timelines and work plans for approved ecotoxicity experiments to begin
 - Currently reviewing Algae range finding data; discussing with Chemours

Early 2023:

3. Receive and review revised 90-day rodent protocols
 - Meet with Chemours and third-party lab
 - Submit comments/questions to Chemours
4. Approve rodent protocols?



Thank you



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