

National Road Research Alliance Geotechnical Team July Meeting

**Terry Beaudry
Reclamation/Grading Engineer**

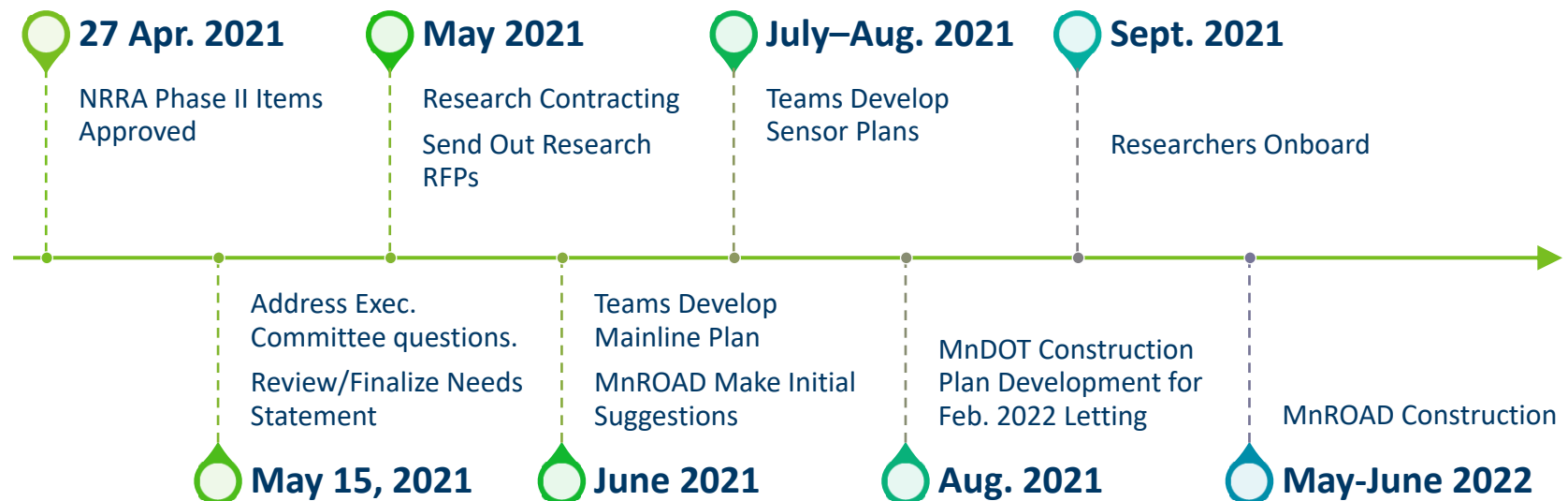
Agenda

1. Welcome and Introductions
 - New Members/New Attendees Introduction
2. General NRRRA Update
 - MnROAD 2022 Construction Schedule
 - 2022 MnROAD Construction Designs/Special Provisions
 - Contract Development for Approved Phase-II Projects
 - Looking for TAP Members for New Projects
 - 2021 NRRRA Meeting/Workshop
3. Update Ongoing Research Projects
4. Final Presentation- *Environmental Impacts on Performance of Pavement Foundation*
5. Questions/Requests

General NRRA Update

- MnROAD 2022 Construction Schedule
- 2022 MnROAD Construction Designs/Special Provisions
- Contract Development for Approved Phase-II Projects

MnROAD 2022 Construction Schedule



2022 MnROAD Construction Designs/Special Provisions

- Looking for input from Geotech Team:
 - Foundation materials (Base, Subbase and Subgrade)
 - In-situ characterization
 - Instrumentation
 - Other ideas

Contract Development for Approved Phase-II Projects

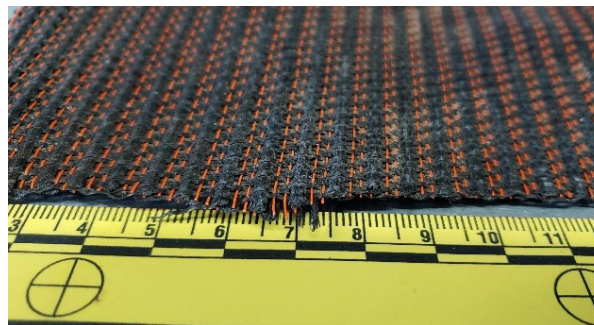
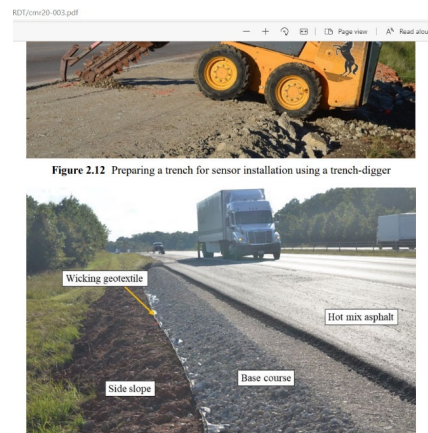
NRRA Team	NRRA Contract Idea	Funding Approved	Update / Action Item
PM-Geo	Flooded Pavements Assessment App–Phase 2	200,000	Contract with University of New Hampshire because they did phase-1 and can most efficiently accomplish phase-2 – working to develop this contract. Share team outline for university to develop contract and get TAP ok
Geo	Performance Evaluation of Wicking Geotextiles for Improving Drainage and Stiffness of Road Foundation	150,000	RFP going into its final review with the Geo TAP in July

Looking for TAP Members

- Performance Evaluation of Wicking Geotextiles for Improving Drainage and Stiffness of Road Foundation - (*150k*)
- Flooded Pavements Assessment App—Phase II- (*200k*)

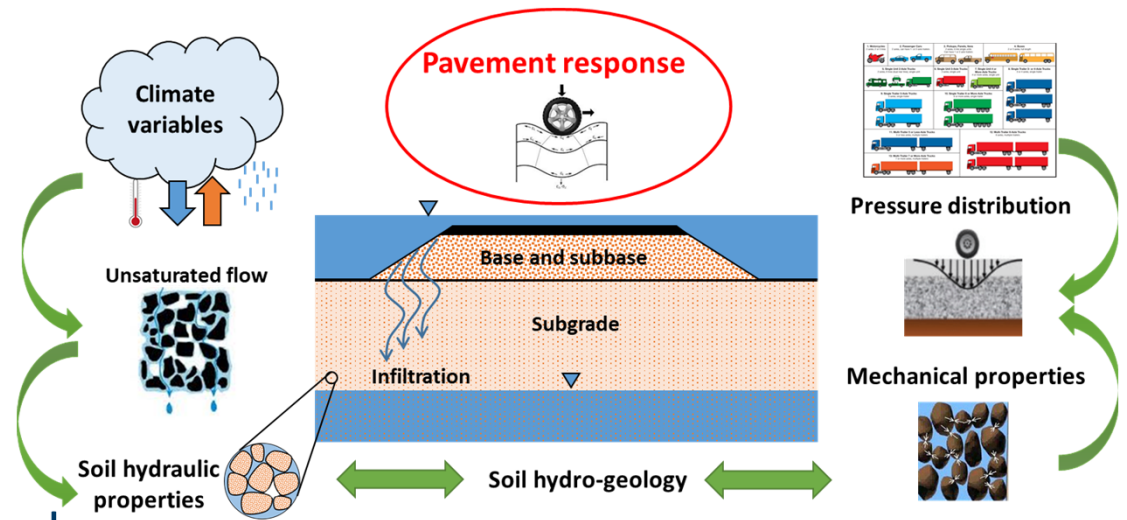
Performance Evaluation of Wicking Geotextiles for Improving Drainage and Stiffness of Road Foundation

- Goal:
Evaluate short- and long-term performance benefits (e.g., maintaining stiffness, improving drainage, and stabilizing moisture profile) of relatively recent developed single-layer wicking geotextile using accelerated laboratory loading testing and MnROAD. Additionally, identify best practices for placing wicking geotextiles in road foundation and improve related specifications.



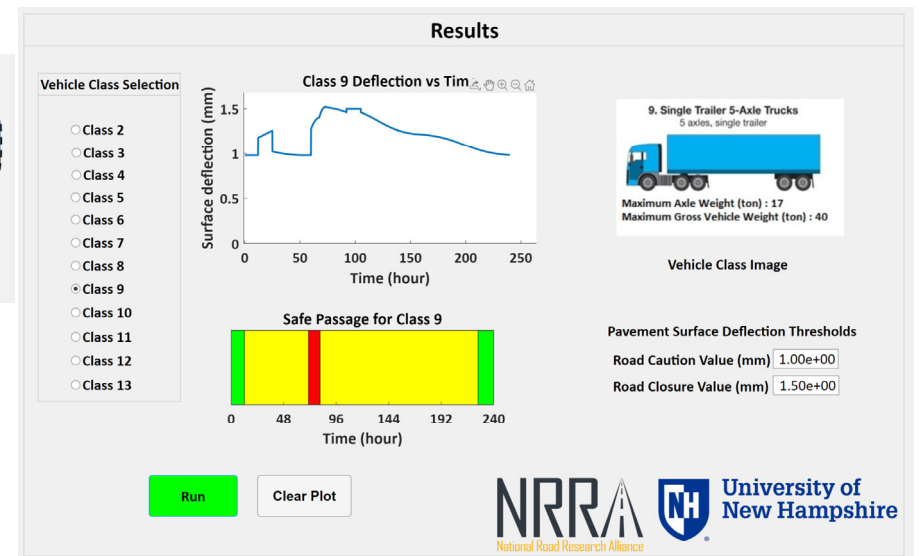
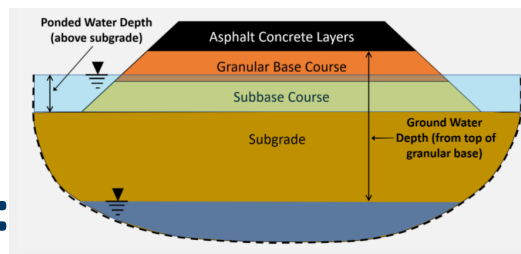
Flooded Pavement Assessment App Phase II

- Post-flooding Pavement Response Assessment:
 - Mechanistic
 - Coupled and Dynamic
 - Forecasted
 - Tiered I/O (Expert) Levels

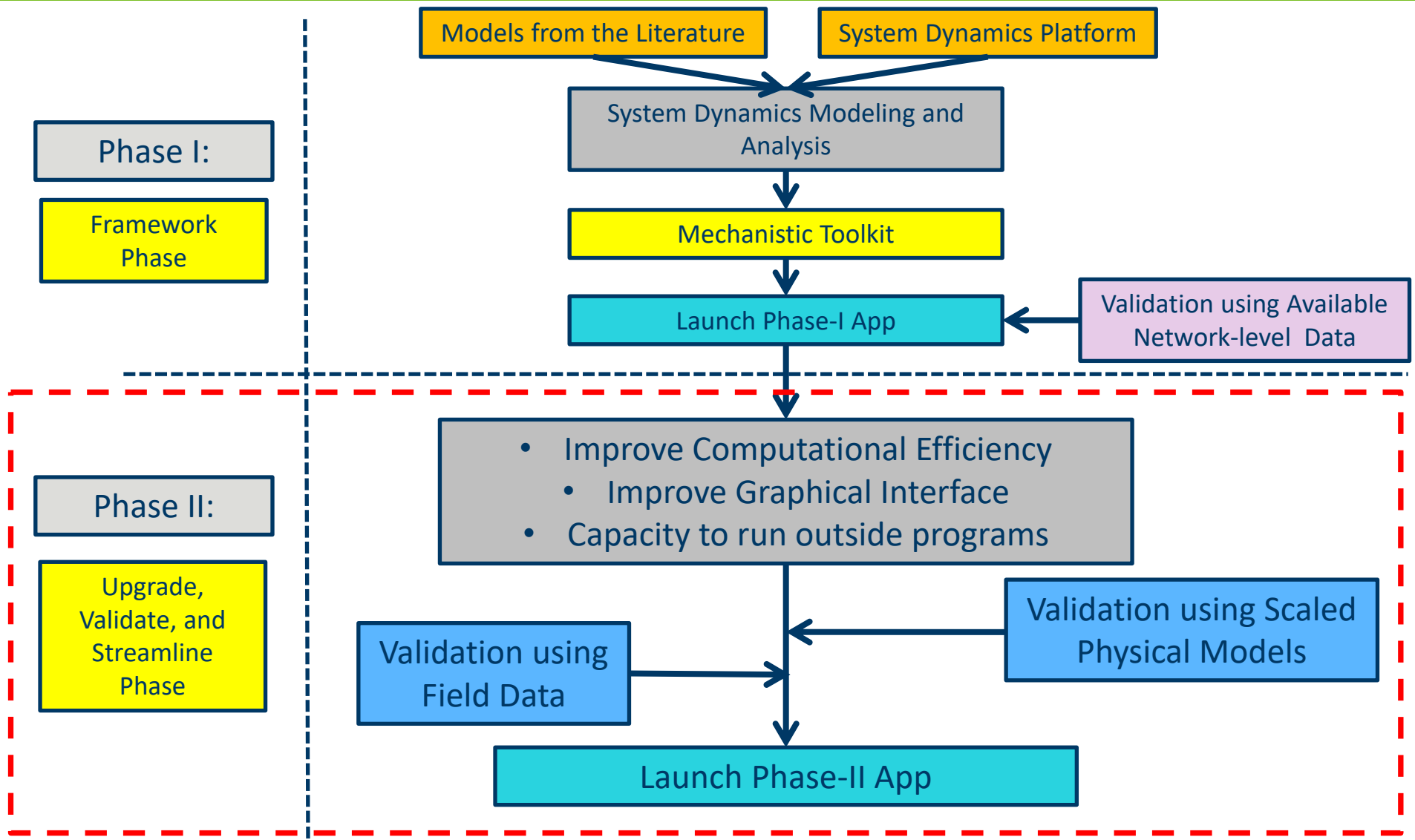


○ Phase II Goal:

Enhance and amplify the recently developed post-flooding roadway assessment App



Flooded Pavement Assessment App Phase II



General NRRA Update

NRRA Annual Meeting/Workshop September 13-15, 2021

- Monday Evening: Reception Dinner
- Tuesday All Day: NRRA Meeting
- Wednesday: MnROAD Open House

Update Research Projects

Project	Team	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9 & 10
Mechanistic Load Restriction Decision Platform for Pavement Systems Prone to Moisture Variations [95%]	UNH									TAP review
Environmental Impacts on the Performance of Pavement Foundation Layers [95%]	MSU				TAP review					
Permeability of Base Aggregate and Sand [95%]	UWM				TAP review					
Improve material inputs into mechanistic design properties for reclaimed HMA Roadways [100%]	MSU/ISU				CTS review					
Continuous Moisture Measurement during Pavement Foundation Construction [25%]	UTEP			In progress	In progress					

Final Presentation- Environmental Impacts on Performance of Pavement Foundation

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