

Air Force Civil Engineer Center



Pease RAB Meeting

**Former Pease AFB,
New Hampshire**

28 February 2022

Battle Ready...Built Right!



Agenda

- **Technical Check and Introduction of Presentations** – Ona Ferguson (Consensus Building Institute)
- **Pre-recorded Presentations**
 - **Air Force Cleanup Update** – Chris King (AFCEC)
 - **Remedial Investigation Update** – Wood
 - **Drinking Water Facility Tour** – Brian Goetz (City of Portsmouth)
- **Welcome, Introductions, RAB Business** – Ona Ferguson (Consensus Building Institute)
- **Open Discussion Time**
- **Public Comments**
- **Meeting recap and Next Steps** – Ona Ferguson (Consensus Building Institute)
- **Adjourn**



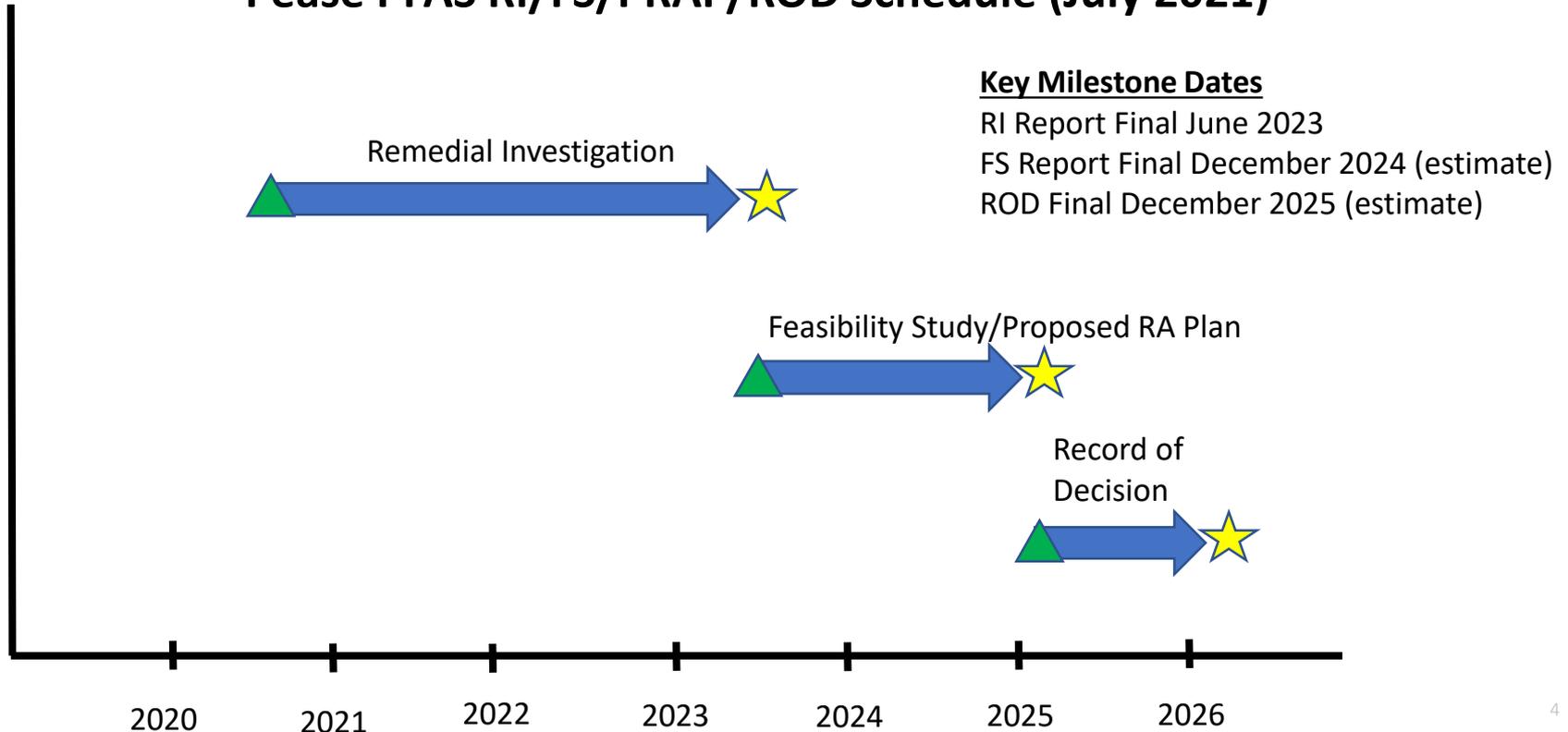
Private Well Update

- New DOD “Guidance on Using State Per- and Polyfluoroalkyl Substances Drinking Water Standards in CERCLA Removal Actions” released
- Allows DOD to consider NH Ambient Groundwater Quality Standards (AGQS) when addressing private wells
 - May result in additional private wells with PFAS above AGQS but below the EPA Lifetime Health Advisories (70 ppt of PFOS and PFOA) to receive removal actions
 - Can include connections to city water or installation of treatment systems
 - Any impacted residents will be contacted once implementation guidance is received
- **Bottom line: HUGE win for the local community and others impacted by DOD PFAS releases**



Remedial Investigation (RI) Schedule

Pease PFAS RI/FS/PRAP/ROD Schedule (July 2021)





RI Update

- Iterative process
- Groundwater Summary - data validated up to this point will be presented (Hank Andolsek, Wood)
- Backyard Produce Summary – validated data (Amy Quintin, Wood)





Pease Generalized Geology

Overburden

Glaciers drop or push clay, silt, sand, gravel, cobbles, and boulders on top of the rock



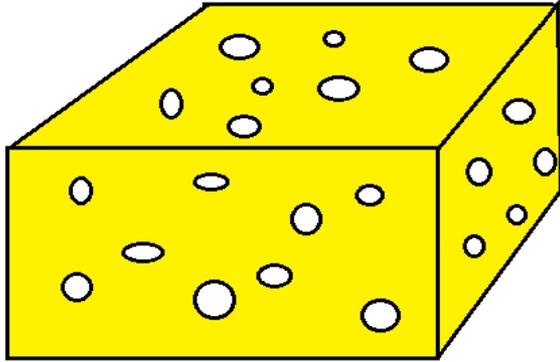
Bedrock

Eroded deposits build up in layers in the ocean and become rock

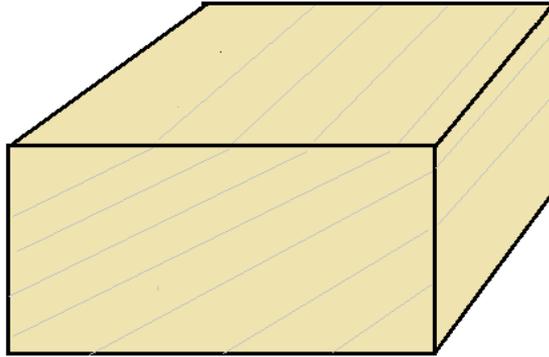




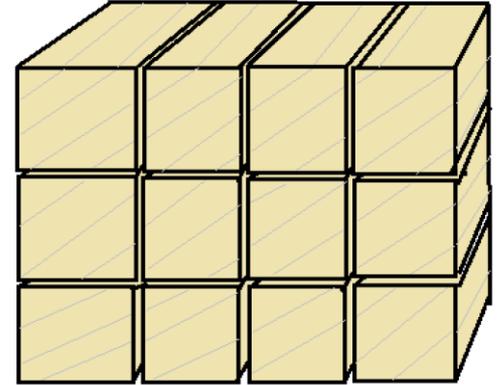
Pease Generalized Geology



sponge
(overburden)



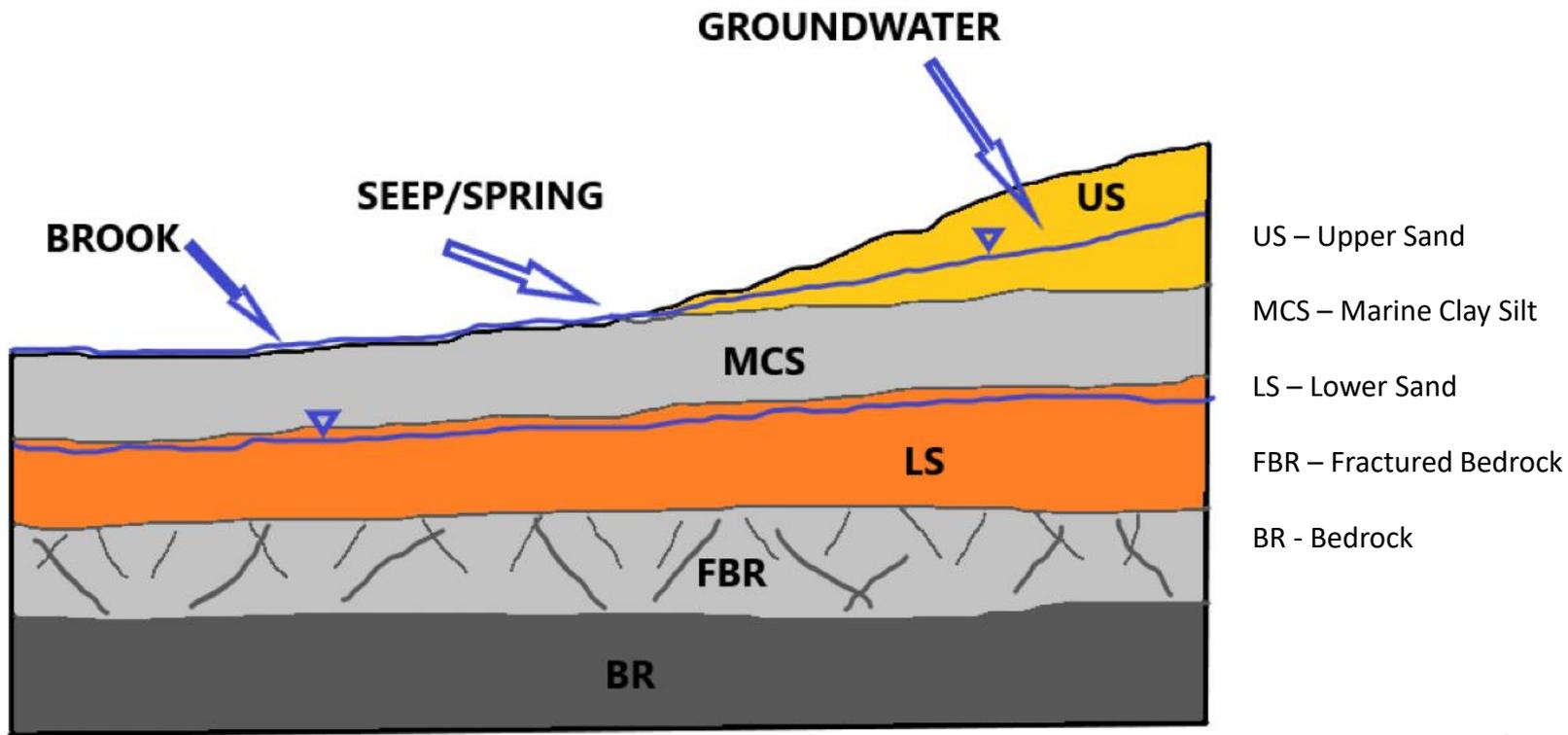
wood
(bedrock)



wood blocks



Pease Generalized Geology





Pease Generalized Geology



Fine-grained
outwash
(Sand)



Marine Clay Silt



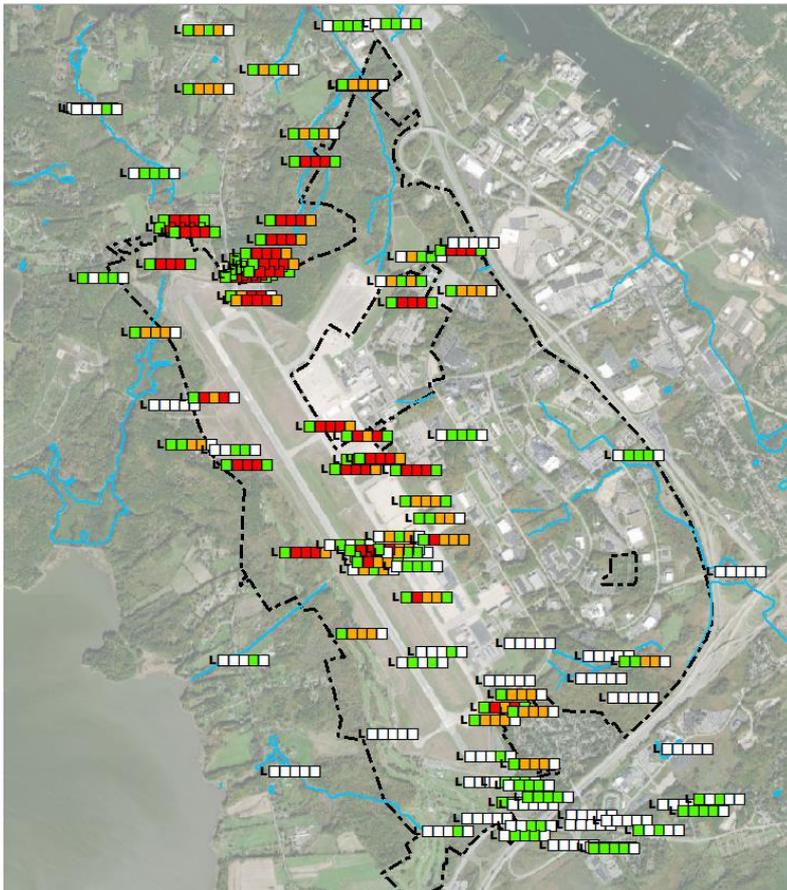
Coarse-grained
outwash in braided
channels (Sand and
gravel) over
weathered bedrock

Shallow

Deep



RI Field Work – GW Figures – Box Plot Legend



Contaminant and corresponding AGQS/RSL guidance value

| PFBS | PFOS | PFOA | PFHxS | PFNA |
|-----------|---------|---------|---------|---------|
| *600 ng/L | 15 ng/L | 12 ng/L | 18 ng/L | 11 ng/L |



Non-detect (ND)



> ND < AGQS or *RSL



> AGQS/RSL < 10X AGQS/RSL



>10X AGQS/RSL

Letter indicates lithology

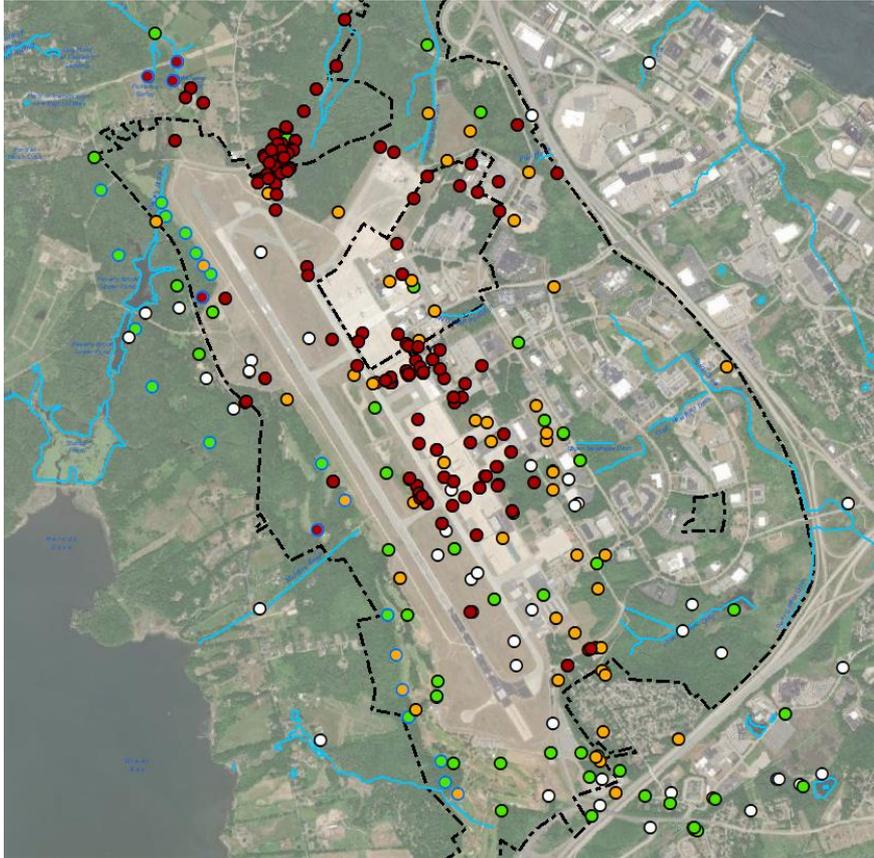
- U** – Upper Sand
- L** – Lower Sand
- O** – Overburden
- H** - Hybrid
- F** – Fractured Bedrock
- D** - Deep Bedrock

AGQS –NH Ambient Groundwater Quality Standard

RSL – Risk Screening Level



RI Field Work – GW Figures – Dot Plot Legend



Contaminant and corresponding AGQS/RSL guidance value



*600 ng/L

15 ng/L

12 ng/L

18 ng/L

11 ng/L



Non-detect (ND)



> ND < AGQS or *RSL



> AGQS/RSL < 10X AGQS/RSL



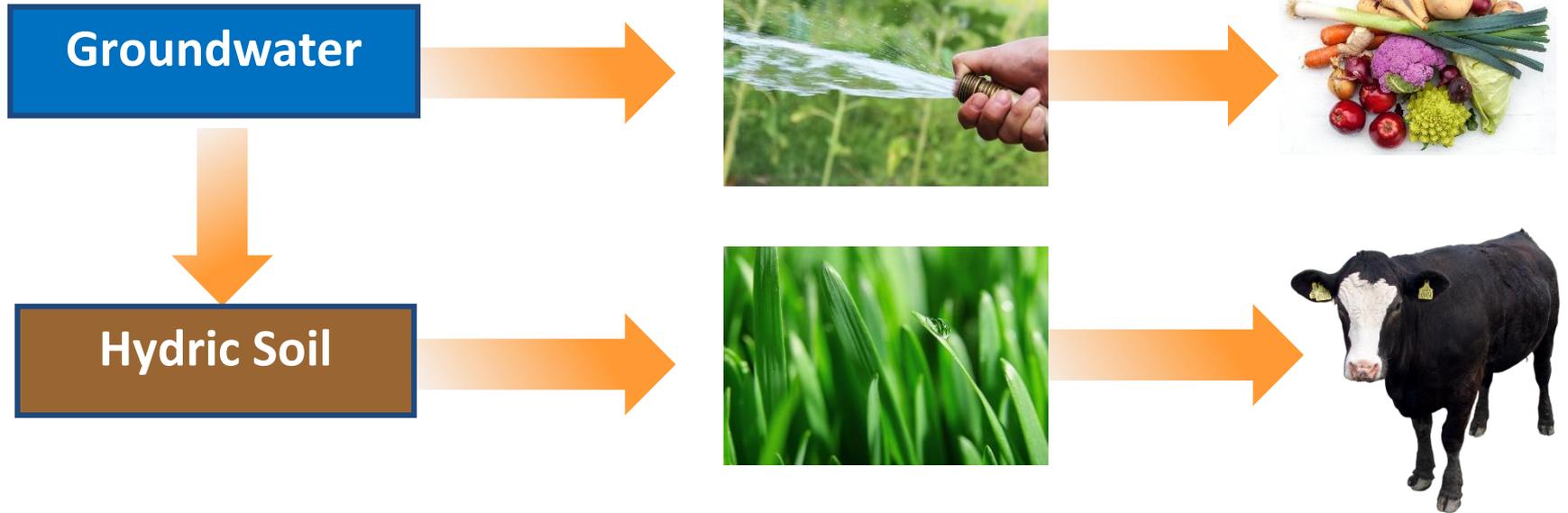
> 10X AGQS/RSL

PFOS Distribution in
Overburden shown on map



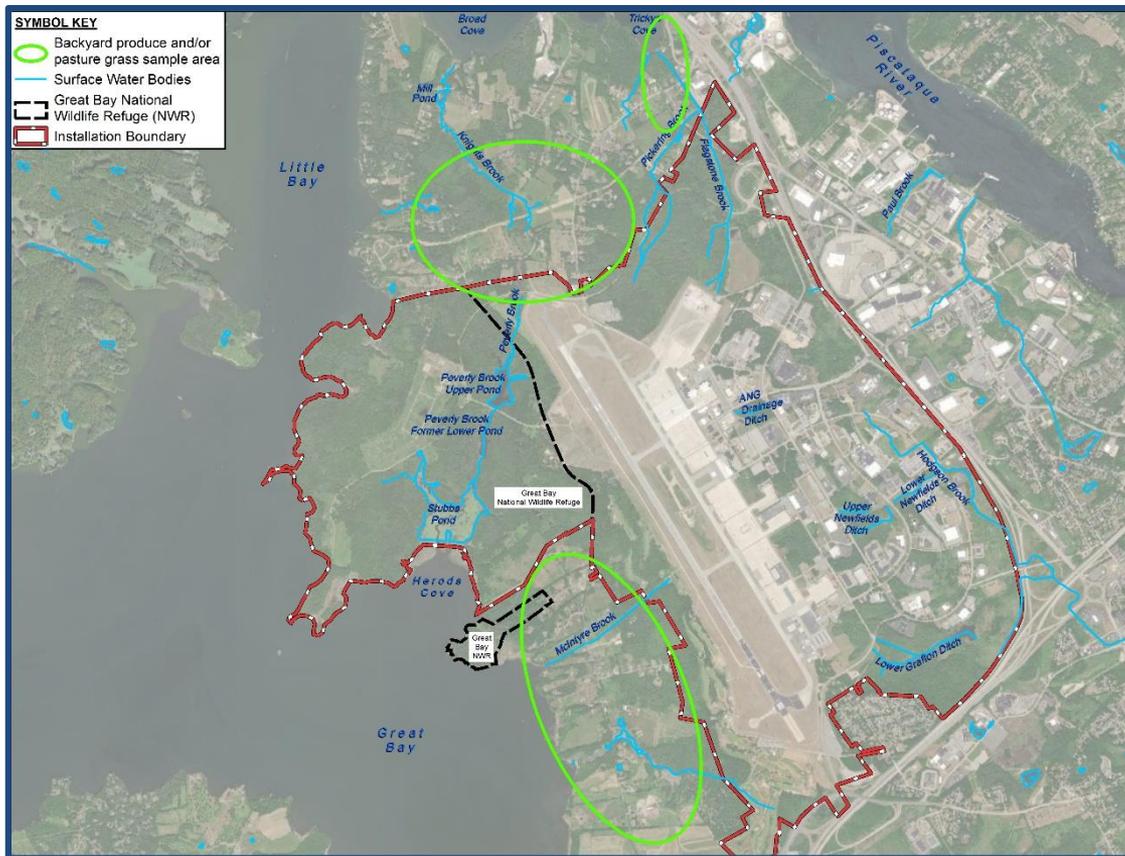
RI Field Work – Backyard Produce

Potentially complete pathways





RI Field Work – Backyard Produce



- 12 Properties
 - Approximately 3 samples of fruit/vegetable from 11 gardens
 - Pasture grass from 3 farms
- Location selection = PFAS in private wells & residential input/questionnaires



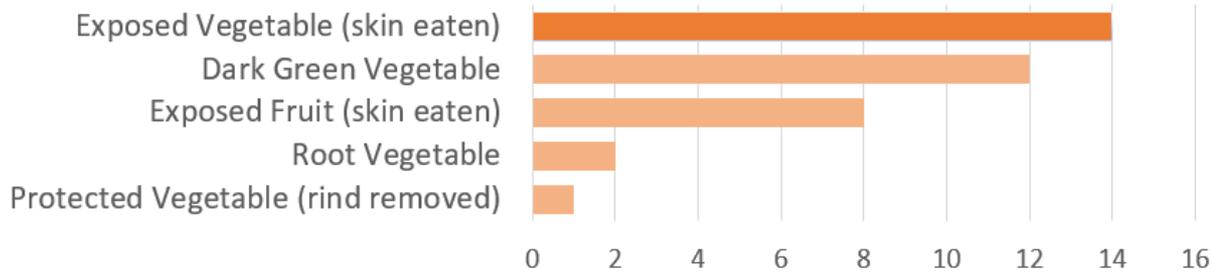
RI Field Work – Backyard Produce

| | | Results | What Does it Mean? | |
|---|------------------|---|--|---|
|  | Fruit/ Veggie | No PFAS uptake from soil/water | No concern consuming fruit/veggie |  |
|  | Pasture Grass | No PFOS/PFOA Uptake from hydric soils | No concern for eating beef cattle grazing on grass |  |



RI Field Work – Backyard Produce

Produce Type: **Vegetables eaten with skins** sampled most often



No PFAS detected in
fruits or vegetables



Exposed Vegetable:
Tomato, Eggplant,
Pepper, Cucumber,
Summer Squashes



Dark Green Vegetable:
Kale, Lettuce, Swiss
Chard, Herbs (Sage,
Basil, Mint)



Exposed Fruit:
Apple, Strawberry



Root Vegetable:
Onion

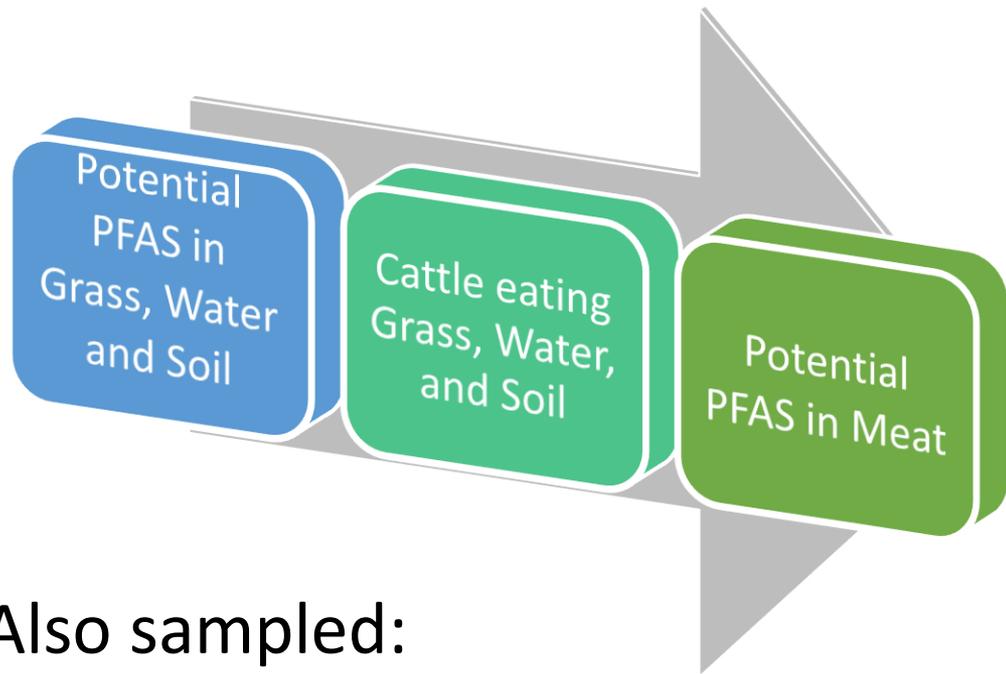


**Protected
Vegetable:**
Butternut Squash





RI Field Work – Pasture Grass

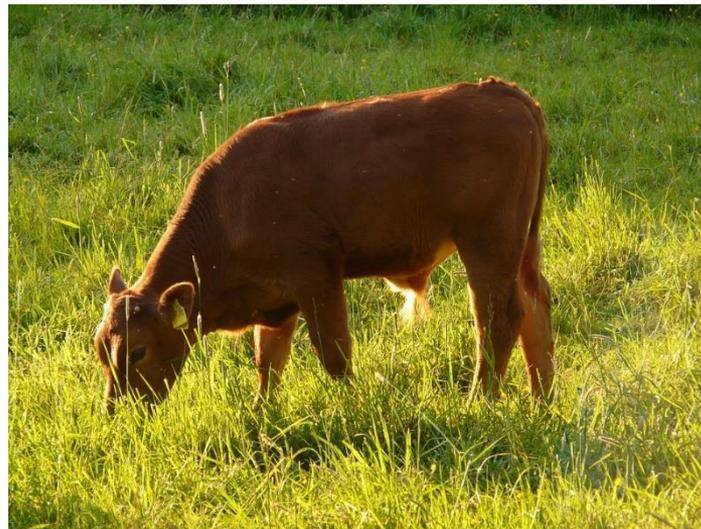


Also sampled:

- Hydric soil/ Groundwater/ Sediment/ Surface Water

3 Farms

- 8 Pasture Grass samples collected per farm
- In and out of active pasture





RI Field Work – Pasture Grass Results

| Location & # Samples | | Grass Results |
|----------------------|----|---|
| Dry Soil | 12 | No PFOS/PFOA detected. One sample: 0.9 J $\mu\text{g}/\text{kg}$ Perfluorobutanoic acid (PFBA) |
| Hydric Soil | 11 | No PFOS/PFOA detected. Two samples: Perfluoropentanoic acid (PFPeA) (0.8 J and 0.7 J $\mu\text{g}/\text{kg}$) |
| Sediment | 1 | PFOS, PFOA, PFBA, PFPeA, PFHxS and PFHxA detected |





RI Field Work – Pasture Grass Summary



No PFAS in
pasture grass in
active pasture
areas



PFOS/PFOA only
detected in one
grass sample in
perennial water



• Limited PFAS in
3 dry or hydric
pasture grass
samples



RI – Upcoming Results

- The next RAB meeting will include:
 - Soil, surface water, and sediment results
 - Shellfish, freshwater fish, and poultry eggs results





Remedial Investigation Timeline

Field work for the Remedial Investigation:

- Started in May 2021
- Scheduled into Fall 2022

Draft RI Report scheduled March 2023





End

