

WDFW Nitrate Presentation to Chehalis Basin Partnership

January 30, 2026

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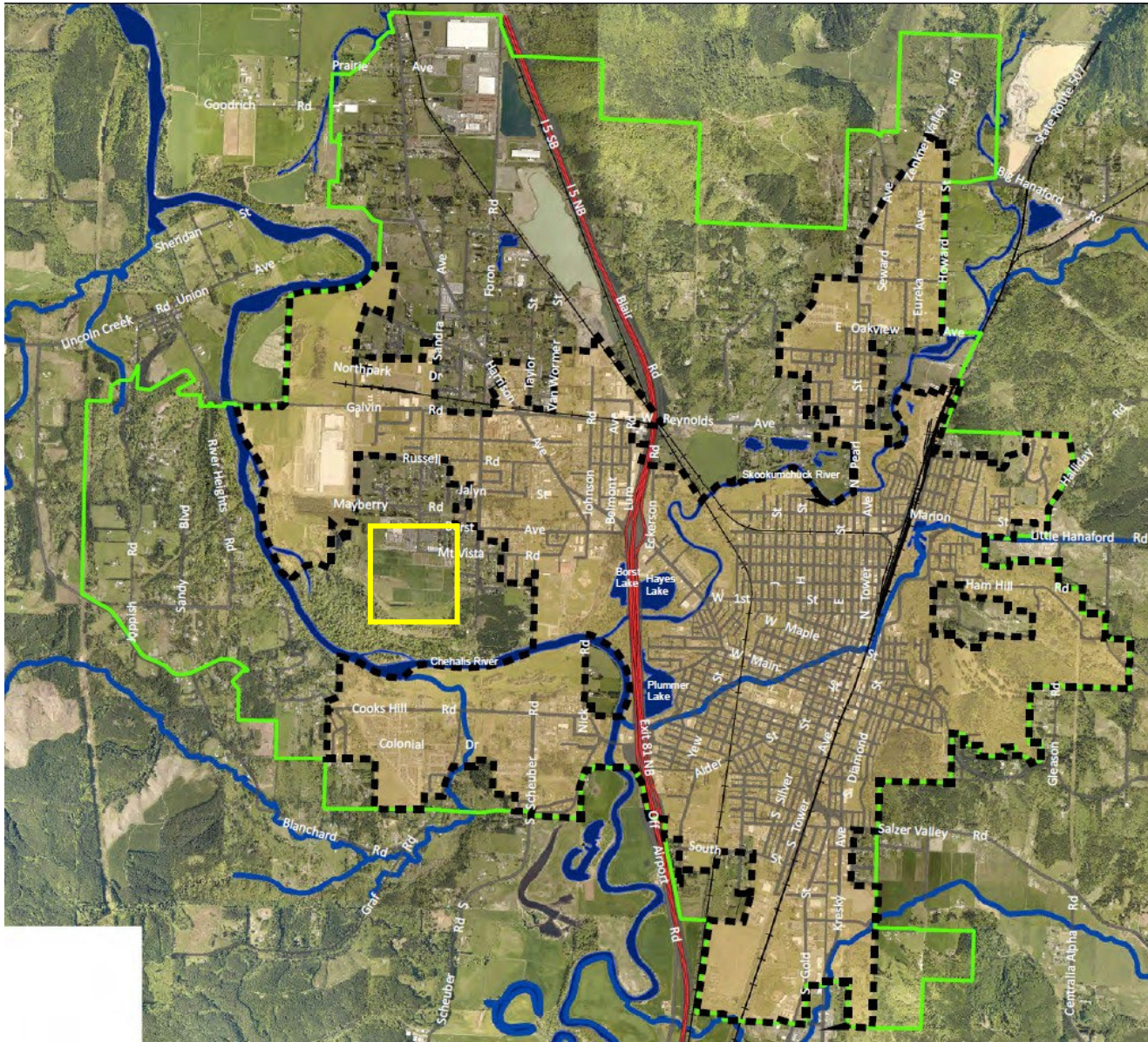
Bob Oke Game Farm

The Bob Oke Game Farm, named after Senator Bob Oke, is owned and operated by the Washington Department of Fish and Wildlife to raise approximately 45,000 pheasants for release across Washington.

The facility sits on 230 acres along the Chehalis River southwest of the city of Centralia, with about 54 acres used for pheasant production.

The facility began operations in 1946 and has continued without interruption since then.





Bob Oke Game Farm

Located west of I-5 along the Chehalis River in Centralia

Urban Growth Boundary- (green line)



Background of nitrate issue

- **Prior to 2024**
 - Meetings with the City of Centralia
 - Implementing best management practices
 - City monitored and installed new wells
- **Mott MacDonald Report and WDFW next steps (March 2025)**
 - Five recommendations from Mott MacDonald Report
 - WDFW implemented recommendations
 - 40% bird reduction
- **WDFW Report (November 2025)**
 - Fall soil samples
 - Additional wells and groundwater sampling
 - Best management practices
 - Work implements all five recommendations from Mott MacDonald Report

Action:

Drilled new wells to evaluate nitrate levels and groundwater elevation in other parts of the farm



Well data

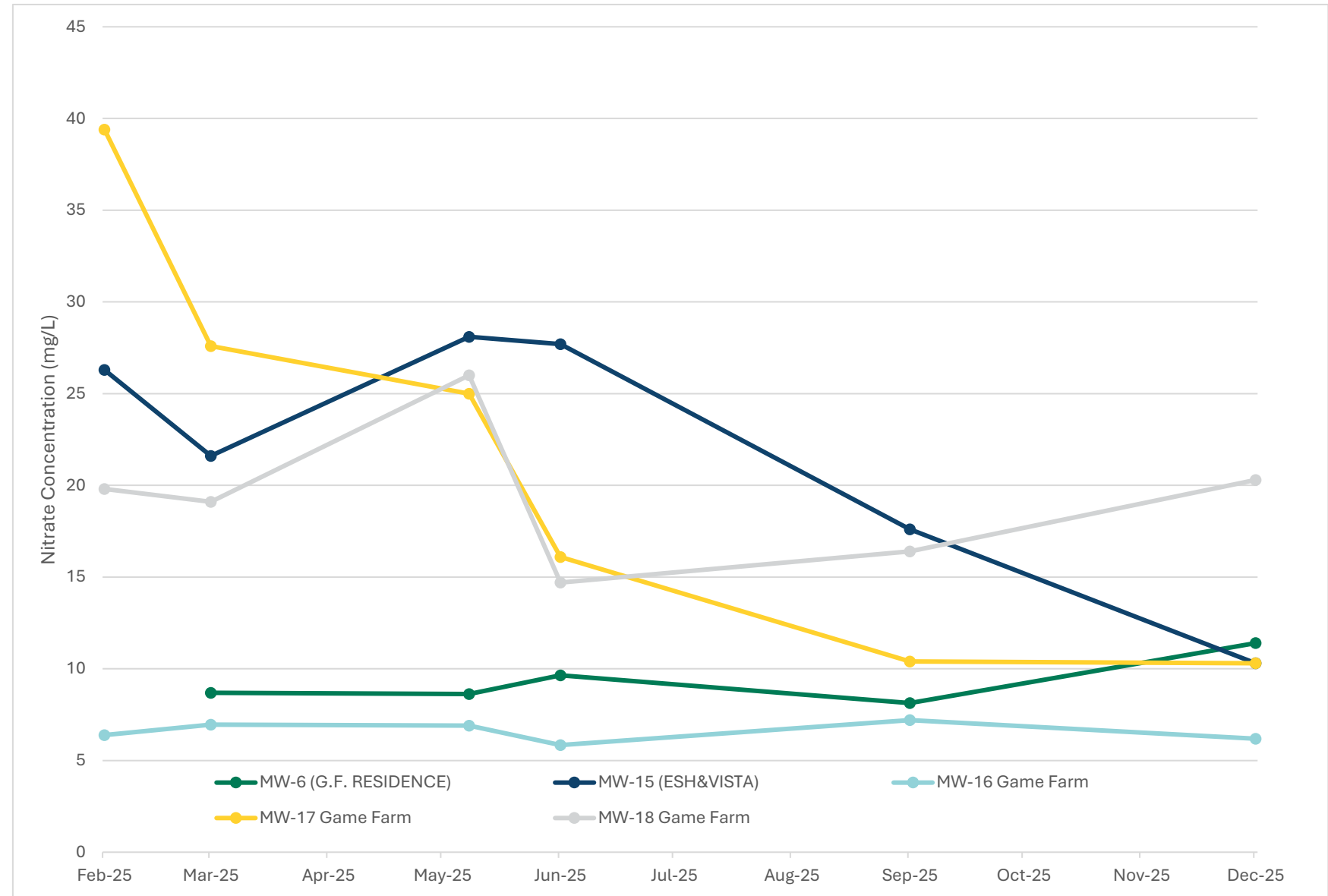
Nitrate levels

June 2025



Well data

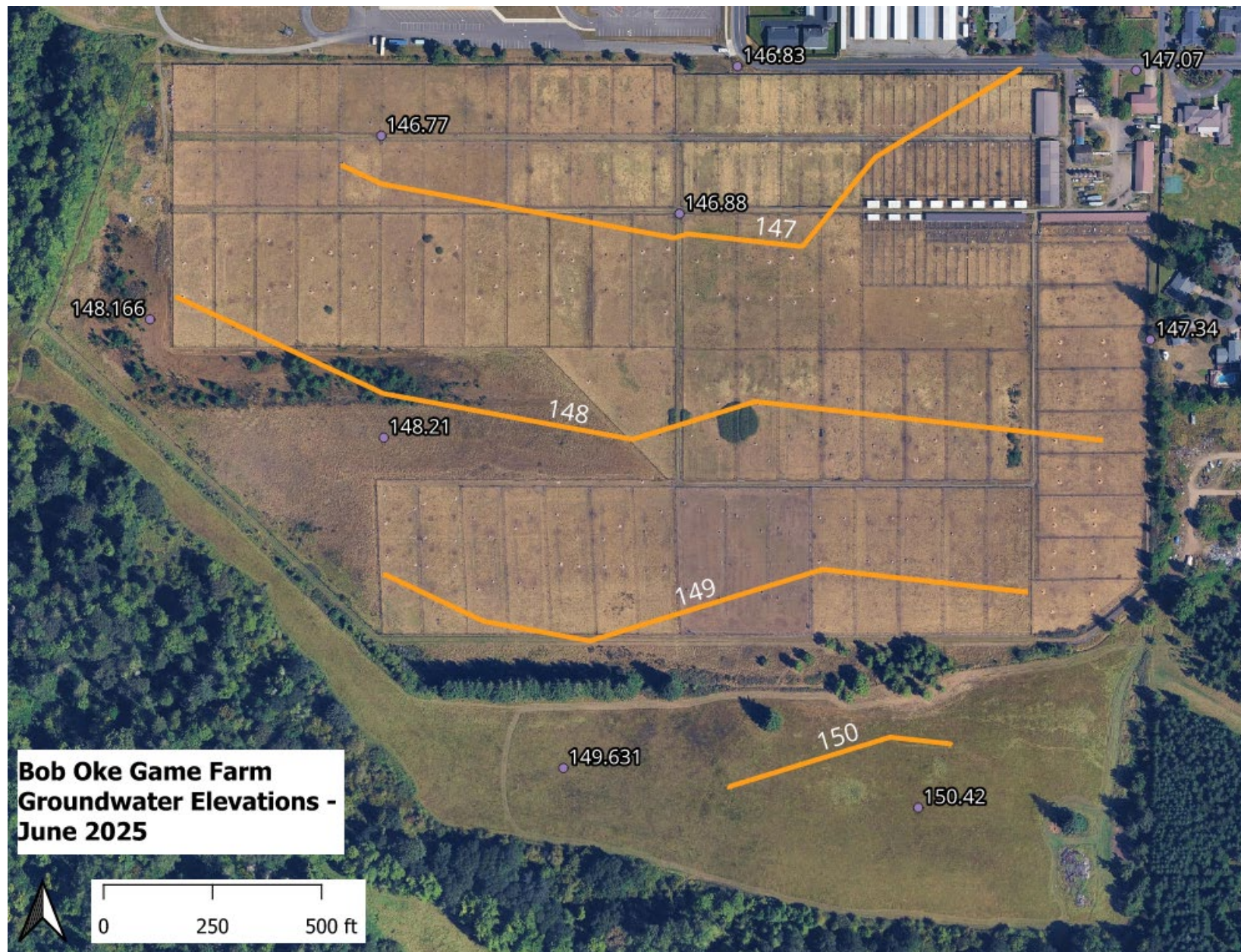
All nitrate results from on-site wells



Well data

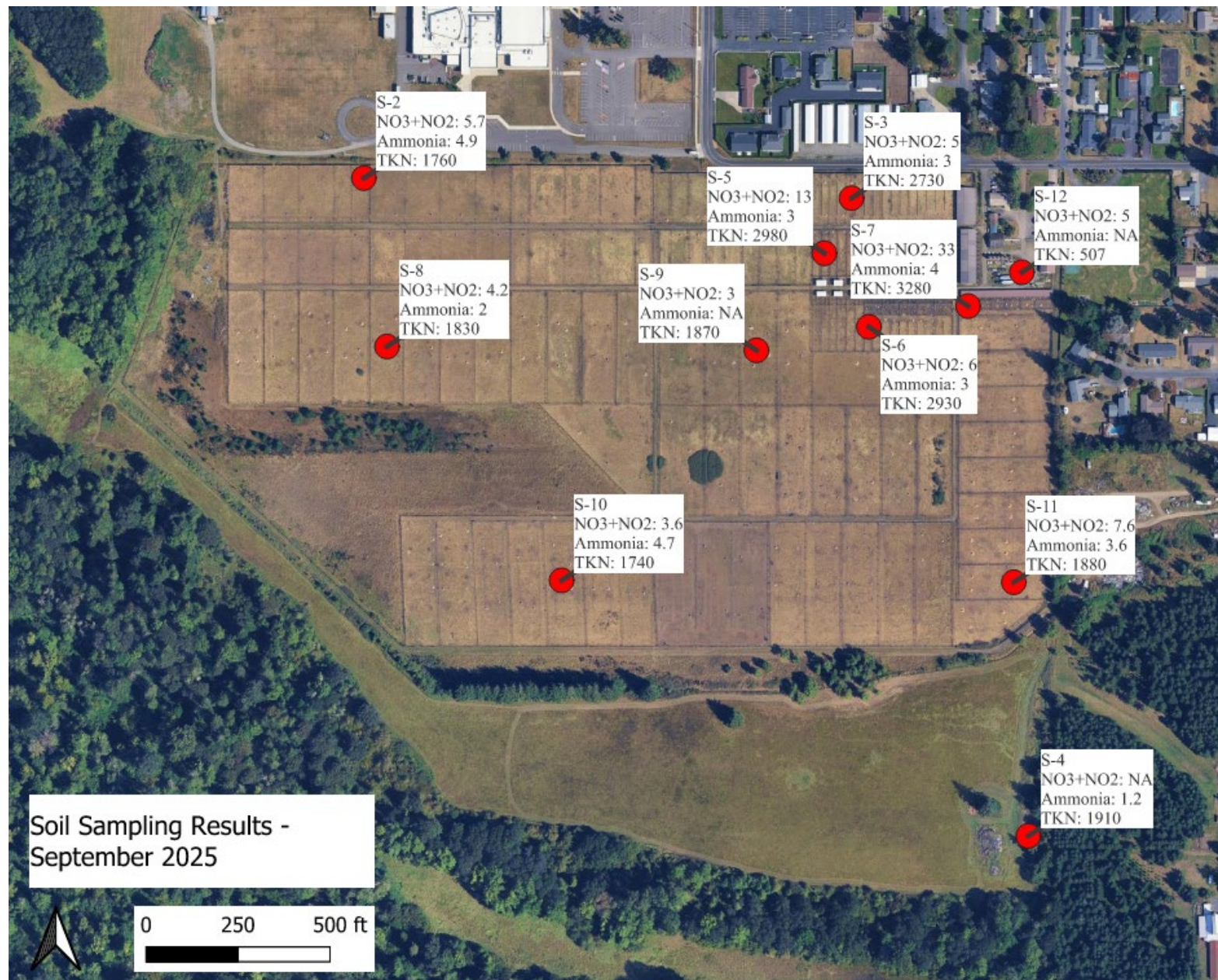
Groundwater Elevations

June 2025



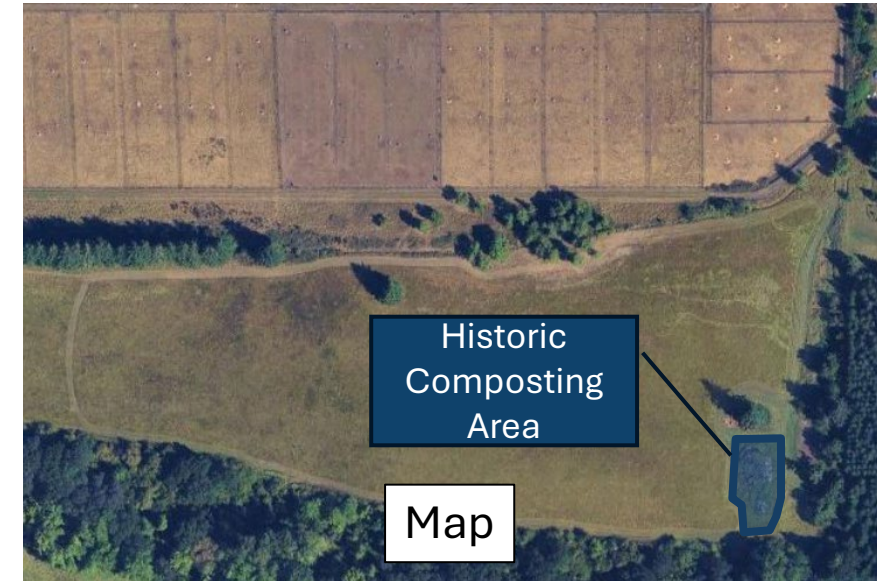
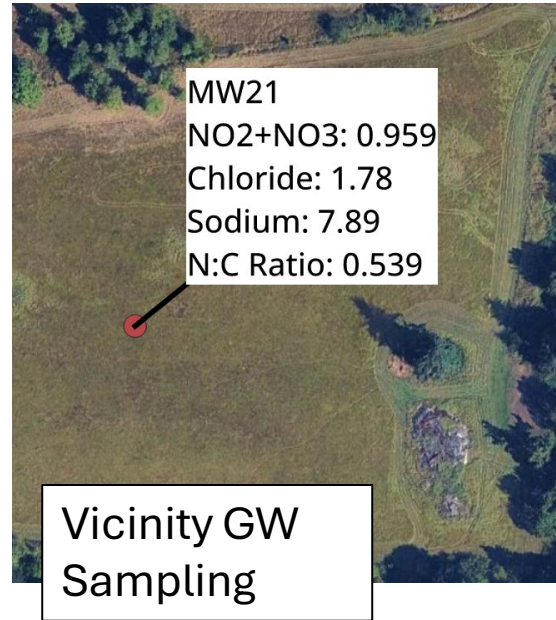
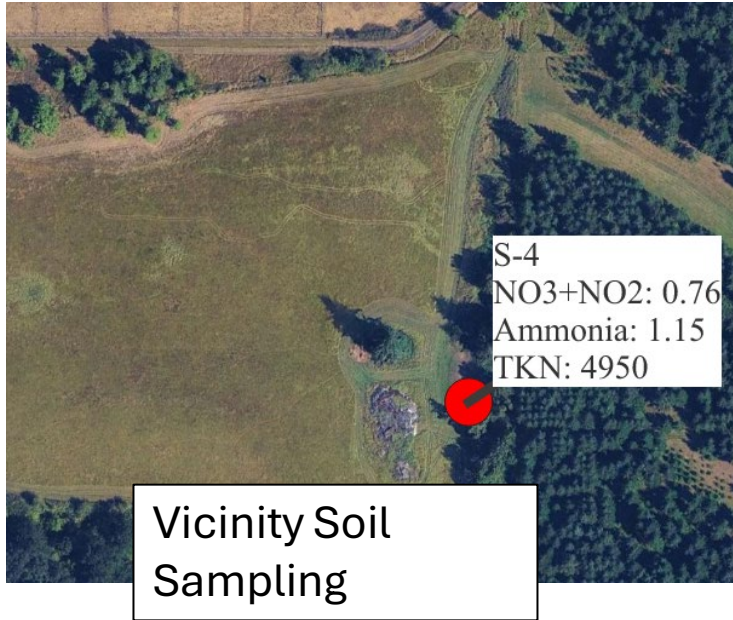
Soil sample results

- 2025 September soil sampling event based on Mott MacDonald recommendations
- Committed to on-going sampling



Action:

Evaluate historic composting area



June monitoring shows low nitrate levels in groundwater and soil samples taken in the vicinity.

Action:

Underground storage tank upgrade



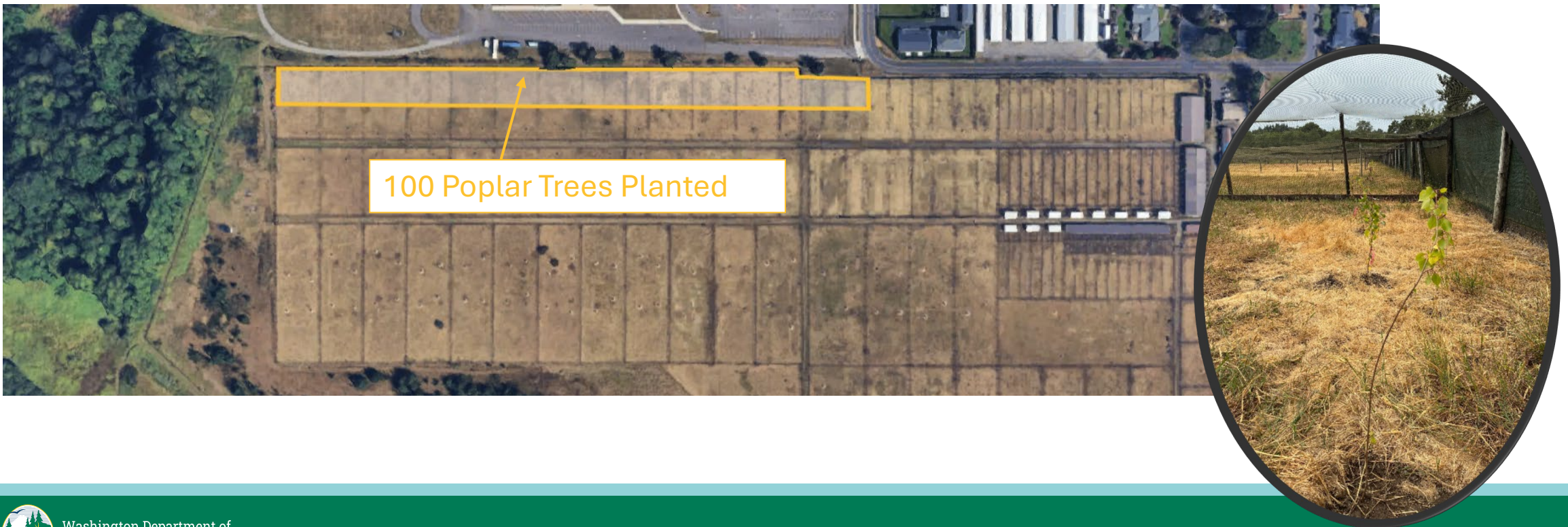
Holding tank collection isolated to brooder barn

- Soil samples indicated low nitrate levels in vicinity
- Future practice will include pumping and disposal off-site

Action:

Planted vegetation to uptake nitrogen

- Planted rye and wheat across the facility per the Lewis Co. Conservation District's recommendation
- Planted 100 poplar trees on the property boundary that will aid in nitrogen uptake



Action:

Removed and reduced waste products

- Removed all shavings and manure from the brooder houses from the facility annually
- Collected all excess mixed ration feed from brooding areas and shipped off site
- Replaced old feeders prone to spillage with more efficient feeders that have little to no spillage
- Increased feeding frequency (with less volume per feeding) to reduce feed spillage and waste
 - Site staff have observed a reduction in wasted feed



Action:

Reducing number and time of birds' presence

- Reduced the number of birds and their time over the aquifer (40% for 2025 season)
- No adult birds are held in areas above the most productive part of the aquifer



Action:

Manure Pollution Prevention Plan

The Bob Oke Game Farm voluntarily entered the Washington State Department of Ecology's Concentrated Animal Feeding Operation (CAFO) permit program.

- Submitted a Notice of Intent (NOI) and a draft Manure Pollution Prevention Plan (MPPP) which has been received by Ecology
- Will continue to update the MPPP based on Ecology's feedback
- Will continue on-site monitoring of groundwater and soil and submit to Ecology
- Ecology and LCCD has visited the farm multiple times and provided guidance on best management practices and permitting.

Action:

Coordination on best management practices and permitting



Working with the LCCD on best cover crops for nitrate uptake and initiated plantings. Initiated talks to enter an Individual Stewardship Plan.



Working with Department of Ecology to comply with the concentrated feeding permit that includes additional Best Management Practices (BMP).

Confined Animal Feeding Permit (CAFO) received in November 2025

Finalizing Manure Management Plan (currently drafted)

Additional WDFW actions in progress:



EVALUATE OTHER POSSIBLE
METHODS FOR DECREASING
NITRATE CONTRIBUTIONS



PURSUE FUNDING FOR
RECOMMENDED ACTIONS
BASED ON FINDINGS



CONTINUE COLLECTING
GROUND WATER AND SOIL
DATA TO TRACK PROGRESS



MODELING TO IDENTIFY
IDEAL BIRD DENSITY PER
PEN (PART OF MPPP)

Conclusion

- WDFW is committed to being a good community partner and to protecting groundwater as we manage our Game Farm facility.
- WDFW is partnering with Department of Ecology, Department of Agriculture, and Lewis County Conservation District to develop and implement best management practices under the CAFO permit and Manure Management Plan.