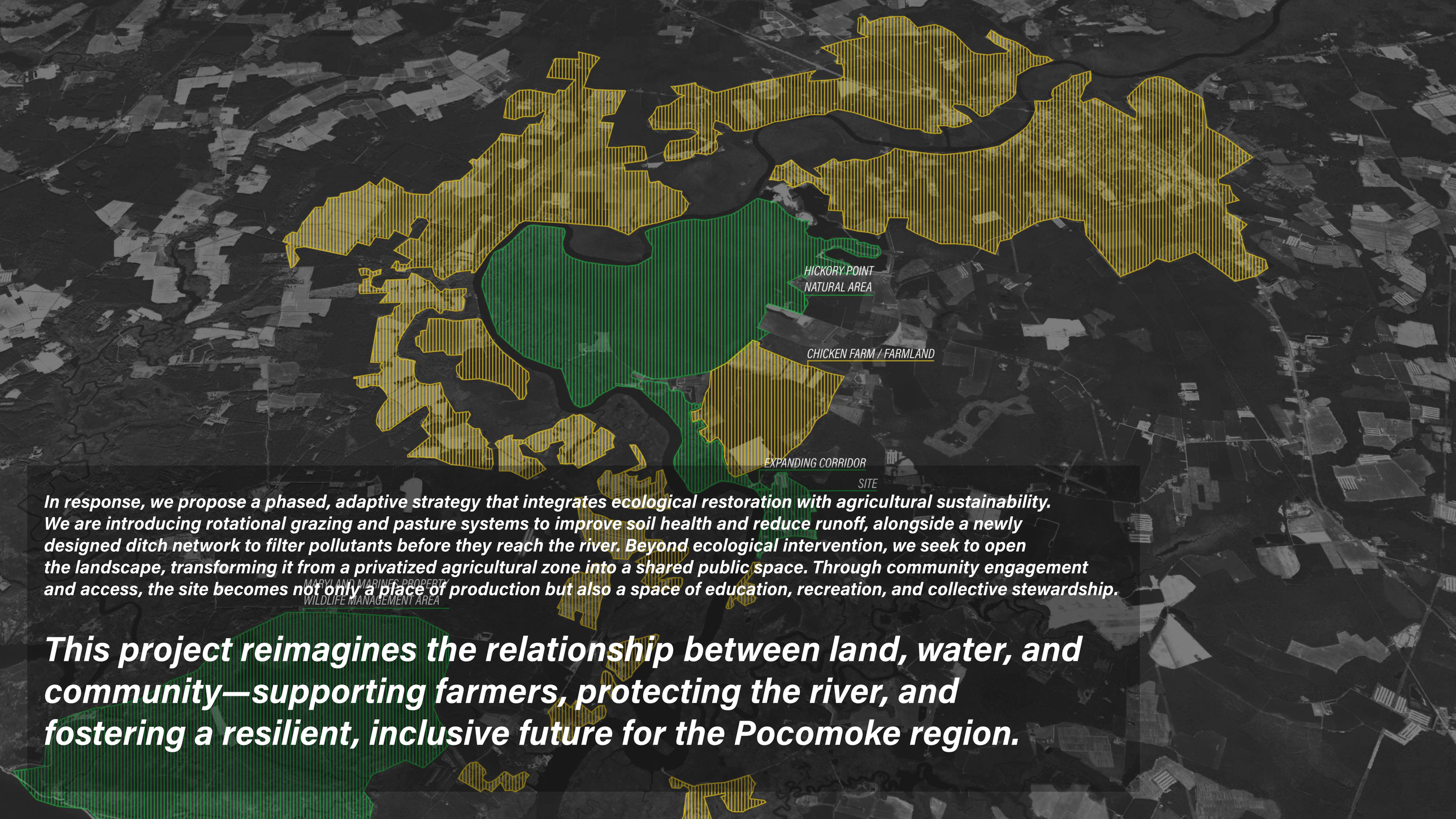


Shared Ground: Weaving Ecology, Community, and Industry for a Resilient Future

Hayoung Ju, Jack Shin, Yujie Liu



Our project is rooted in the belief that environmental resilience and agricultural livelihoods can coexist. Positioned along the Pocomoke River, where pollution from manure and agricultural runoff poses serious ecological threats, we aim to help local farmers adapt to rising environmental challenges—especially sea level rise—without abandoning their way of life. As saltwater encroaches on farmland and chicken operations, pollutants risk being left behind, further harming the river ecosystem.



In response, we propose a phased, adaptive strategy that integrates ecological restoration with agricultural sustainability. We are introducing rotational grazing and pasture systems to improve soil health and reduce runoff, alongside a newly designed ditch network to filter pollutants before they reach the river. Beyond ecological intervention, we seek to open the landscape, transforming it from a privatized agricultural zone into a shared public space. Through community engagement and access, the site becomes not only a place of production but also a space of education, recreation, and collective stewardship.

This project reimagines the relationship between land, water, and community—supporting farmers, protecting the river, and fostering a resilient, inclusive future for the Pocomoke region.

TIMELINE OF HUMAN INTERVENTION

ORIGINAL STATE AND INITIAL DISTURBANCE



Before 1600s

Indigenous Pocomoke people stewarded the land using seasonal settlements, canoe-based travel, fishing, hunting, and low-impact foraging. The landscape was a **pristine, biodiverse wetland forest**.

1700s

Small-scale **ditching** for agriculture began

1900s

Expansion of poultry farming in the region; early signs of industrial-scale practices.

1920s

Government-backed drainage projects convert wetlands into farmland, radically reshaping hydrology.

1940s

Major channelization of the Pocomoke River and ditching of tributaries to improve drainage efficiency.

1960s

Widespread use of fertilizers and pesticides impacts water quality and aquatic life.

1990s

Initial efforts to restore riparian buffers to reduce runoff and improve habitat conditions.

2017

Pocomoke river restoration project launched.

2025

PHASE1

Rotational pasture chicken farming, public trails, and cleansing buffer zones replace corn mono-culture. Land begins transition toward multi-functional use.

2075

PHASE2

Forest expansion supports new industries (mushroom farming or agroforestry); alternative crops tested in wetter soils. Continued pasture rotation and community engagement programs.

2100

PHASE3

Land becomes a publicly accessible forested wetland focused on tourism, education, and long-term climate resilience while farming industry migrates toward inland

2125

TIMELINE OF HUMAN INTERVENTION

SEVERE DISTURBANCE EXCEEDING THE RIVER'S CAPACITY









Before 1600s

Indigenous Pocomoke people stewarded the land using seasonal settlements, canoe-based travel, fishing, hunting, and low-impact foraging. The landscape was a pristine, biodiverse wetland forest.

1700s

Small-scale ditching for agriculture began

1900s

Expansion of **poultry farming** in the region; early signs of industrial-scale practices.

1920s

Government-backed **drainage projects** convert wetlands into farmland, radically reshaping hydrology.

1940s

Major channelization of the Pocomoke River and ditching of tributaries to improve drainage efficiency.

1960s

Widespread use of **fertilizers and pesticides** impacts water quality and aquatic life.

1990s

Initial efforts to restore riparian buffers to reduce runoff and improve habitat conditions.

2017

Pocomoke river restoration project launched.

2025

PHASE1

Rotational pasture chicken farming, public trails, and cleansing buffer zones replace corn mono-culture. Land begins transition toward multi-functional use.

2075

PHASE2

Forest expansion supports new industries (mushroom farming or agroforestry); alternative crops tested in wetter soils. Continued pasture rotation and community engagement programs.

2100

PHASE3

Land becomes a publicly accessible forested wetland focused on tourism, education, and long-term climate resilience while farming industry migrates toward inland

2125

TIMELINE OF HUMAN INTERVENTION

SEVERE DISTURBANCE EXCEEDING THE RIVER'S CAPACITY









Before 1600s

Indigenous Pocomoke people stewarded the land using seasonal settlements, canoe-based travel, fishing, hunting, and low-impact foraging. The landscape was a pristine, biodiverse wetland forest.

1700s

Small-scale ditching for agriculture began

1900s

Expansion of **poultry farming** in the region; early signs of industrial-scale practices.

1920s

Government-backed **drainage projects** convert wetlands into farmland, radically reshaping hydrology.

1940s

Major channelization of the Pocomoke River and ditching of tributaries to improve drainage efficiency.

1960s

Widespread use of **fertilizers and pesticides** impacts water quality and aquatic life.

1990s

Initial efforts to restore riparian buffers to reduce runoff and improve habitat conditions.

2017

Pocomoke river restoration project launched.

2025

PHASE1

Rotational pasture chicken farming, public trails, and cleansing buffer zones replace corn monoculture. Land begins transition toward multifunctional use.

2075

PHASE2

Forest expansion supports new industries (mushroom farming or agroforestry); alternative crops tested in wetter soils. Continued pasture rotation and community engagement programs.

2100

PHASE3

Land becomes a publicly accessible forested wetland focused on tourism, education, and long-term climate resilience while farming industry migrates toward inland

2125

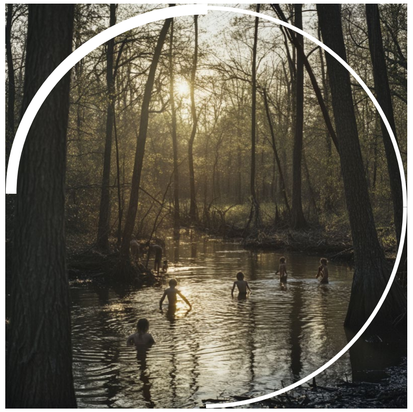
TIMELINE OF HUMAN INTERVENTION

THE PRESENT AND FUTURE OF POCOMOKE RIVER









Before 1600s

Indigenous Pocomoke people stewarded the land using seasonal settlements, canoe-based travel, fishing, hunting, and low-impact foraging. The landscape was a pristine, biodiverse wetland forest.

1700s

Small-scale ditching for agriculture began

1900s

Expansion of poultry farming in the region; early signs of industrial-scale practices.

1920s

Government-backed drainage projects convert wetlands into farmland, radically reshaping hydrology.

1940s

Major channelization of the Pocomoke River and ditching of tributaries to improve drainage efficiency.

1960s

Widespread use of fertilizers and pesticides impacts water quality and aquatic life.

1990s

Initial efforts to **restore riparian buffers** to reduce runoff and improve habitat conditions.

2017

Pocomoke river restoration project launched.

2025

PHASE1

Rotational pasture chicken farming, public trails, and cleansing buffer zones replace corn mono-culture. Land begins transition toward multi-functional use.

2075

PHASE2

Forest expansion supports new industries (mushroom farming or agroforestry); alternative crops tested in wetter soils. Continued pasture rotation and community engagement programs.

2100

PHASE3

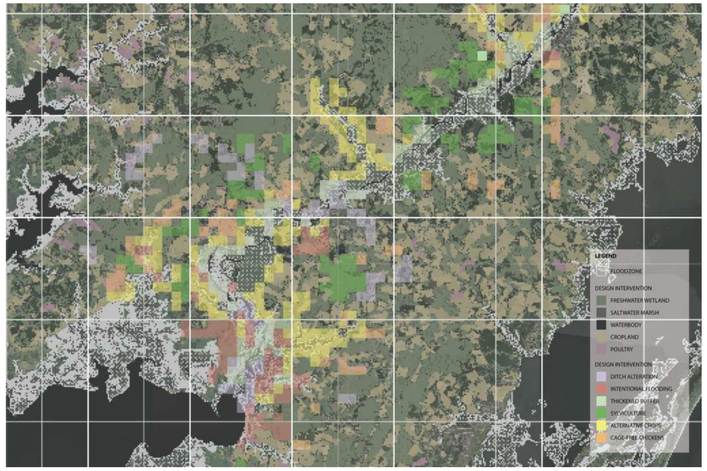
Land becomes a publicly accessible forested wetland focused on tourism, education, and long-term climate resilience while farming industry migrates toward inland

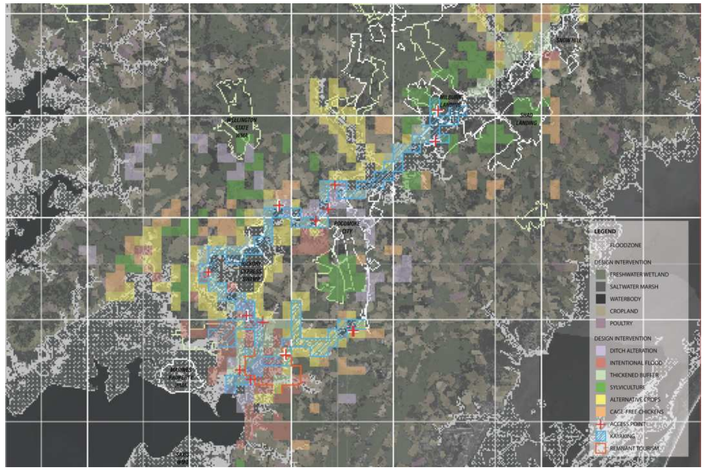
2125

TIMELINE OF HUMAN INTERVENTION

THE PRESENT AND FUTURE OF POCOMOKE RIVER







Before 1600s

Indigenous Pocomoke people stewarded the land using seasonal settlements, canoe-based travel, fishing, hunting, and low-impact foraging. The landscape was a pristine, biodiverse wetland forest.

1700s

Small-scale ditching for agriculture began

1900s

Expansion of poultry farming in the region; early signs of industrial-scale practices.

1920s

Government-backed drainage projects convert wetlands into farmland, radically reshaping hydrology.

1940s

Major channelization of the Pocomoke River and ditching of tributaries to improve drainage efficiency.

1960s

Widespread use of fertilizers and pesticides impacts water quality and aquatic life.

1990s

Initial efforts to restore riparian buffers to reduce runoff and improve habitat conditions.

2017

Pocomoke river restoration project launched.

2025 — PHASE1

Rotational pasture chicken farming, public trails, and **cleansing buffer zones** replace corn mono-culture. Land begins transition toward multi-functional use.

2075 — PHASE2

Forest expansion supports new industries (mushroom farming or agroforestry); **alternative crops** tested in wetter soils. Continued pasture rotation and community engagement programs.

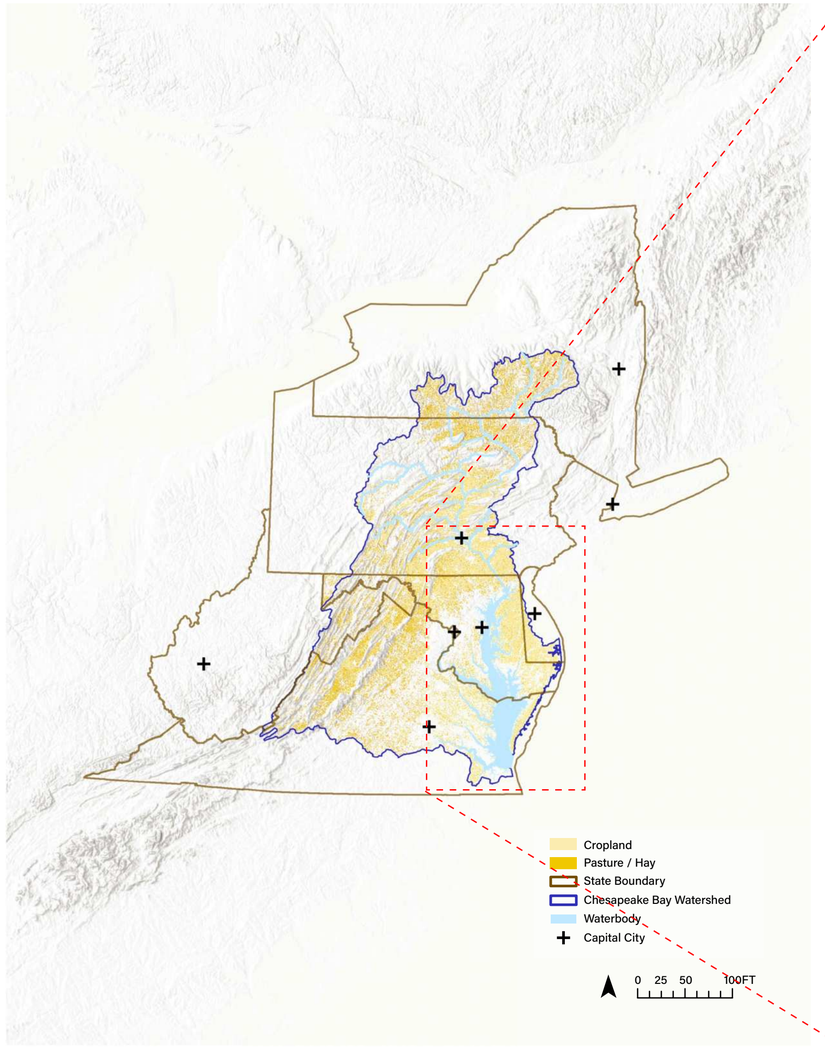
2100 — PHASE3

Land becomes a publicly accessible forested wetland focused on **tourism, education, and long-term climate resilience** while farming industry migrates toward inland

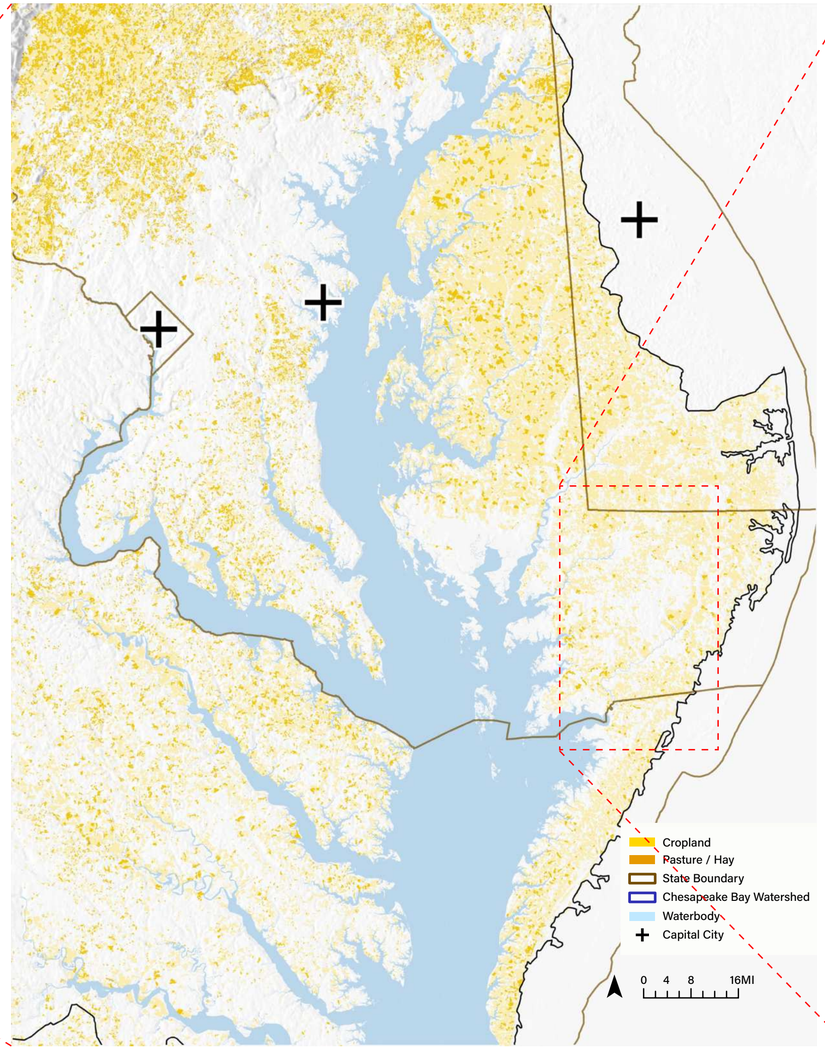
2125

LAND USE
ACCELERATING WATER POLLUTION

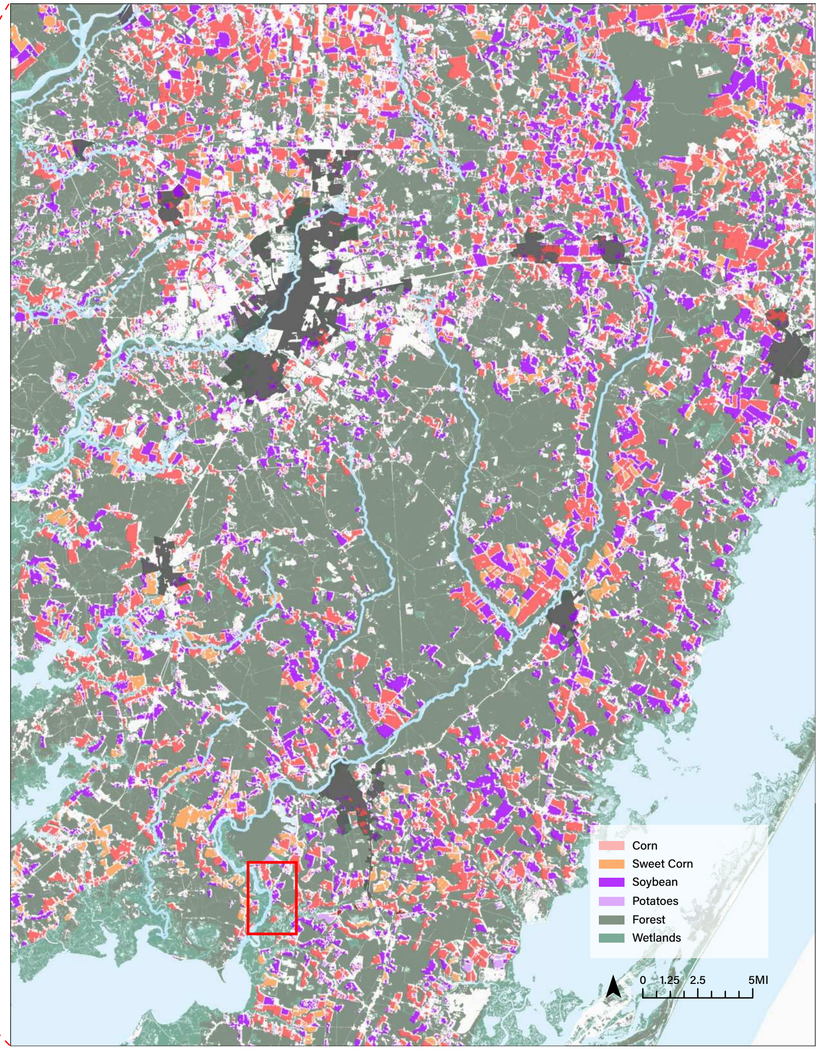
AGRICULTURE LAND - CHESAPEAKE BAY WATERSHED



AGRICULTURE LAND - CHESAPEAKE BAY



CROP TYPE - POCOMOKE RIVER



United States Geological Survey / State of Maryland

LAND USE AND AGRICULTURE INDUSTRY

INTERRELATIONSHIP OF POULTRY AND CROP PRODUCTION INDUSTRIES

ASSOCIATION

1,400 members

DELMARVA CHICKEN ASSOCIATION EST. 1948

FARMER

1,300 family farmers

Provide
House& Labour

COMPANY

18,000 employees

Contract

PERDUE FARMS — A FAMILY OF FARMERS SINCE 1920

Tyson

Premium Mountaire Farms Fresh Young Chicken

POULTRY

CROP PRODUCTION

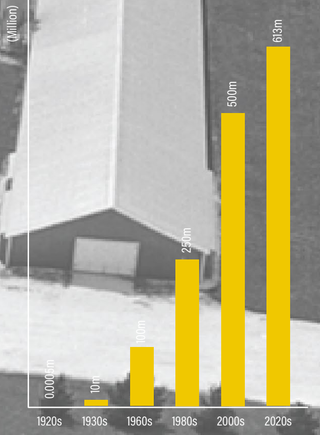
PRODUCT

Broiler

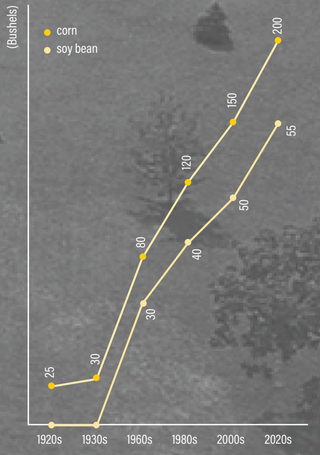
Meat

Corn / Soybean

Chicken Feed



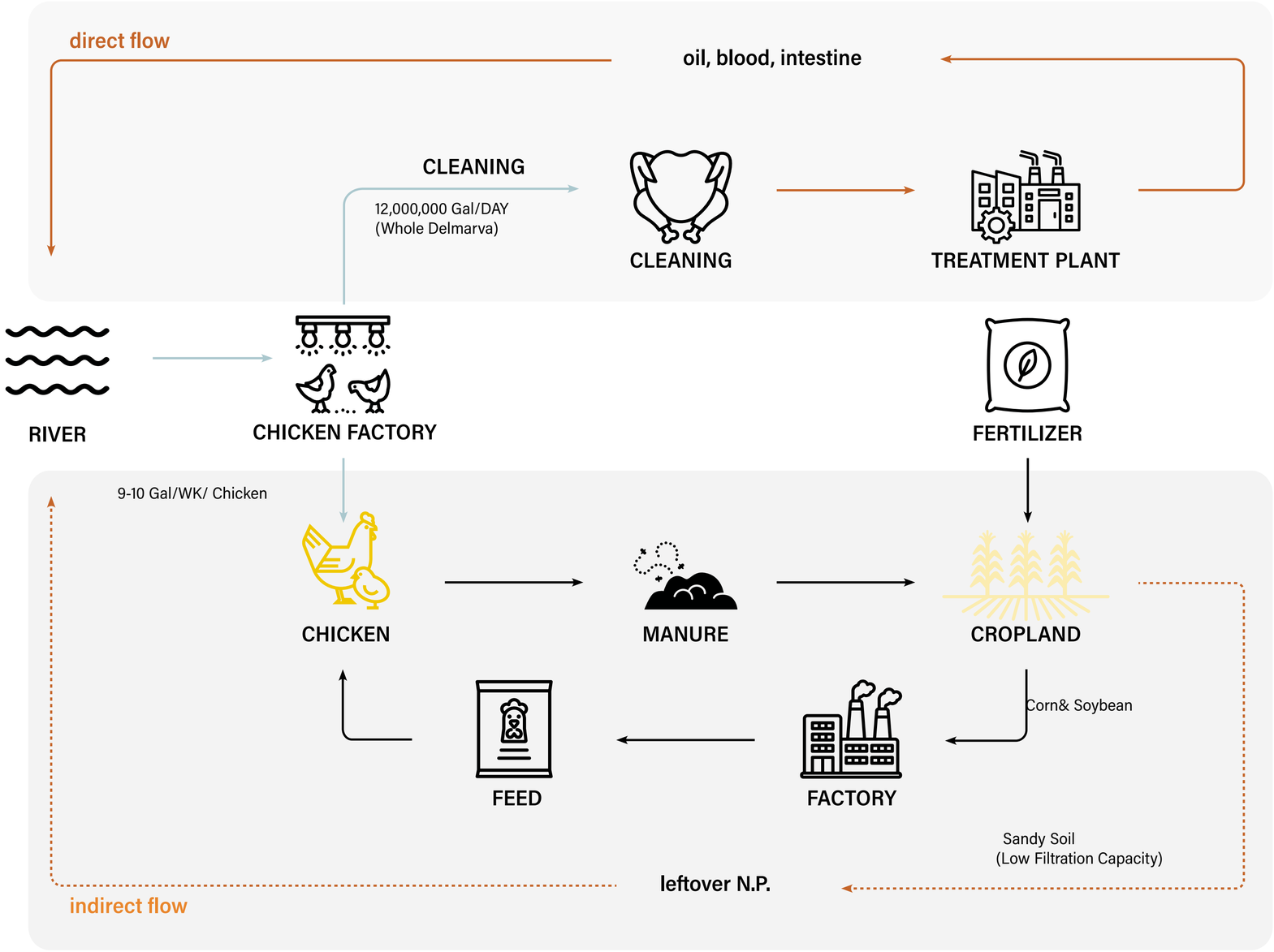
Number of Chickens Raised Annually



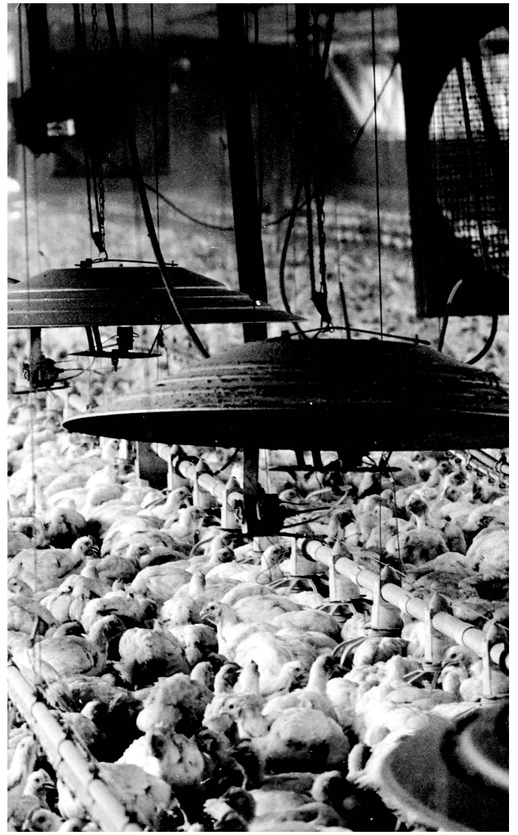
Average Yield of Crops Per Acre

LAND USE AND AGRICULTURE INDUSTRY

POLLUTION PROCESSES CAUSED BY THE POULTRY INDUSTRY

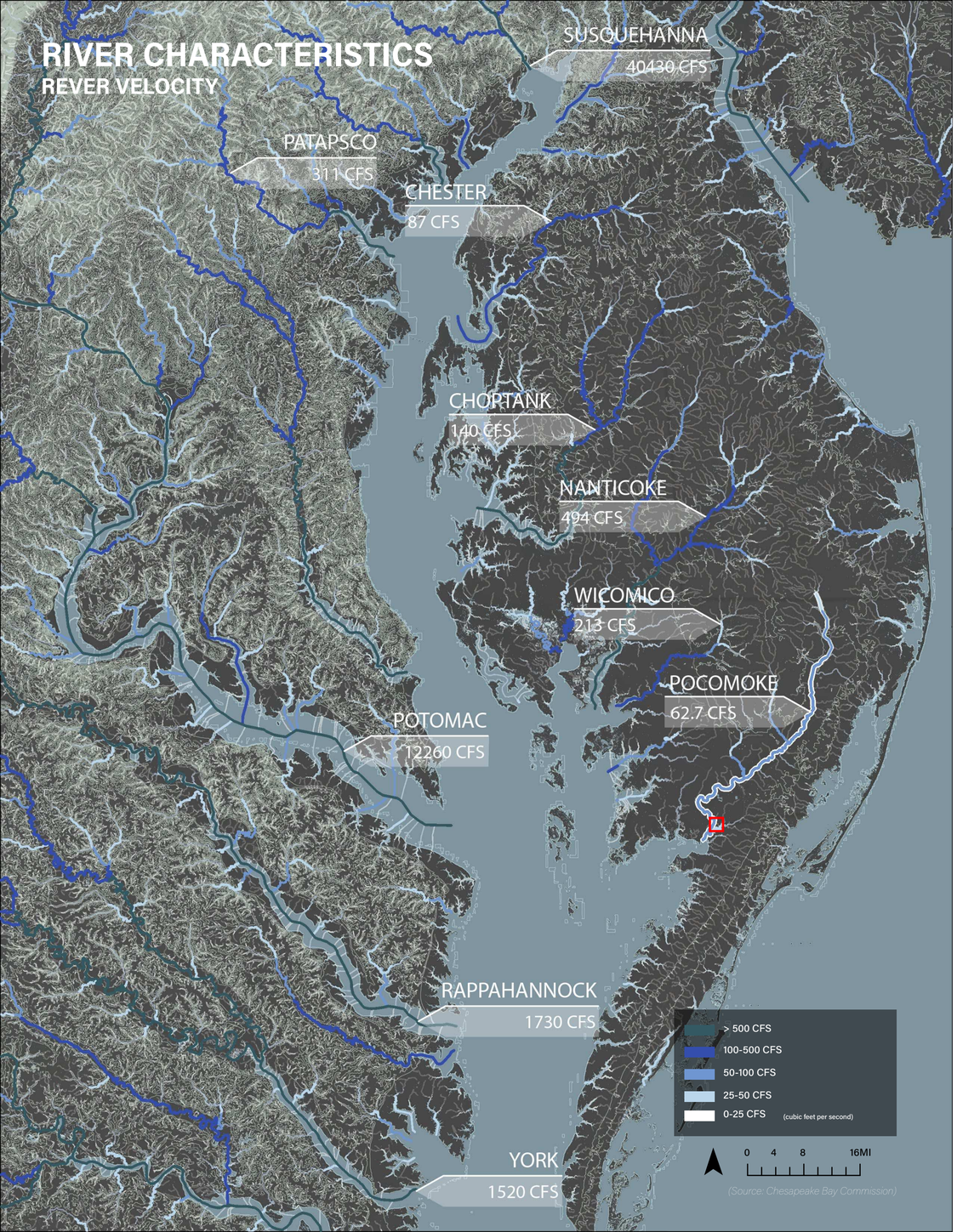


High Raising Density

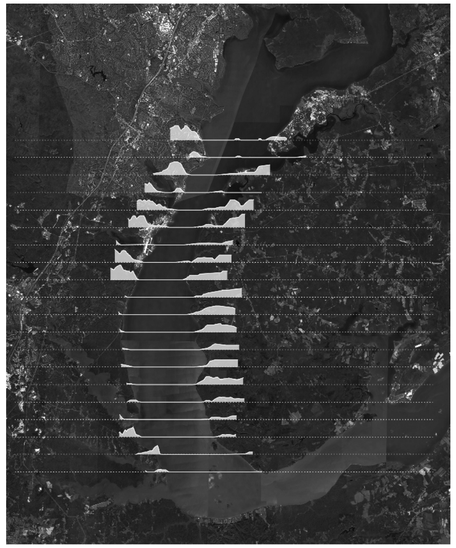


Manure Transport Program





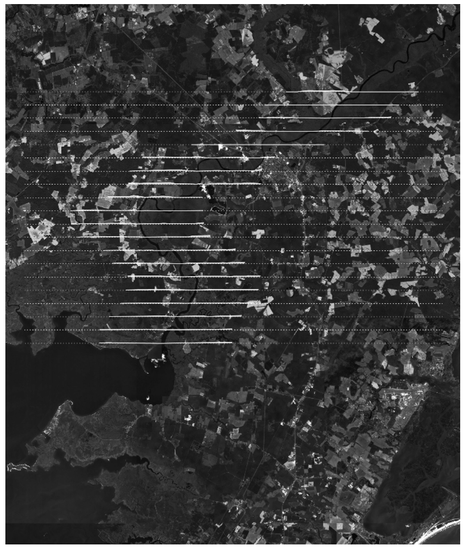
POTOMAK RIVER

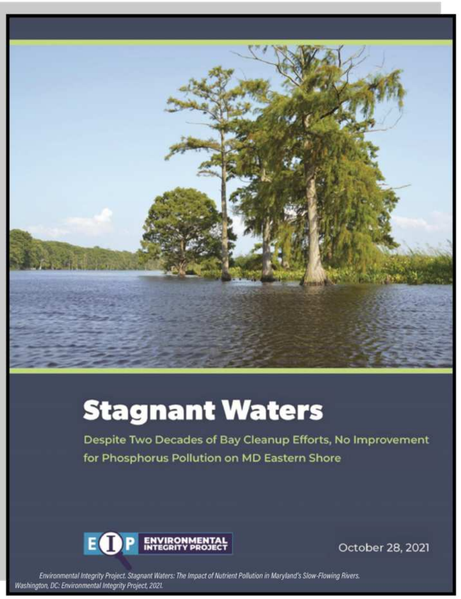


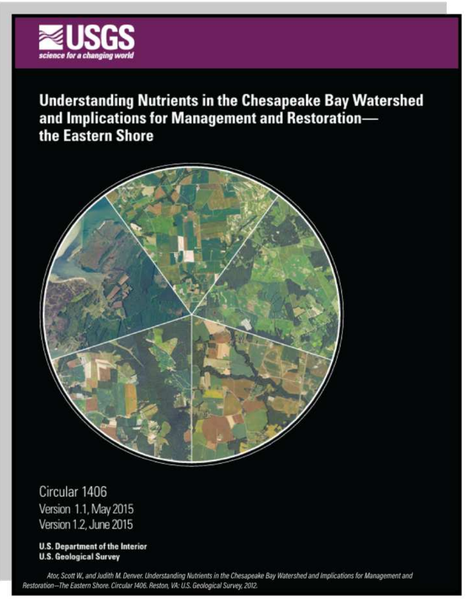
NANTIOKE RIVER

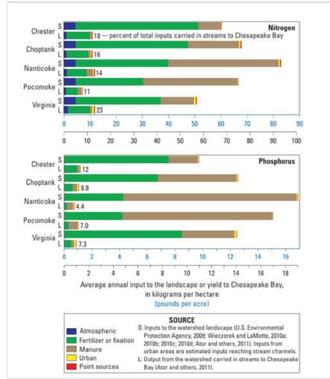


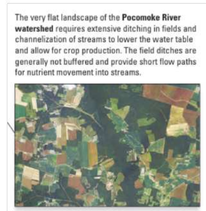
POCOMOKE RIVER







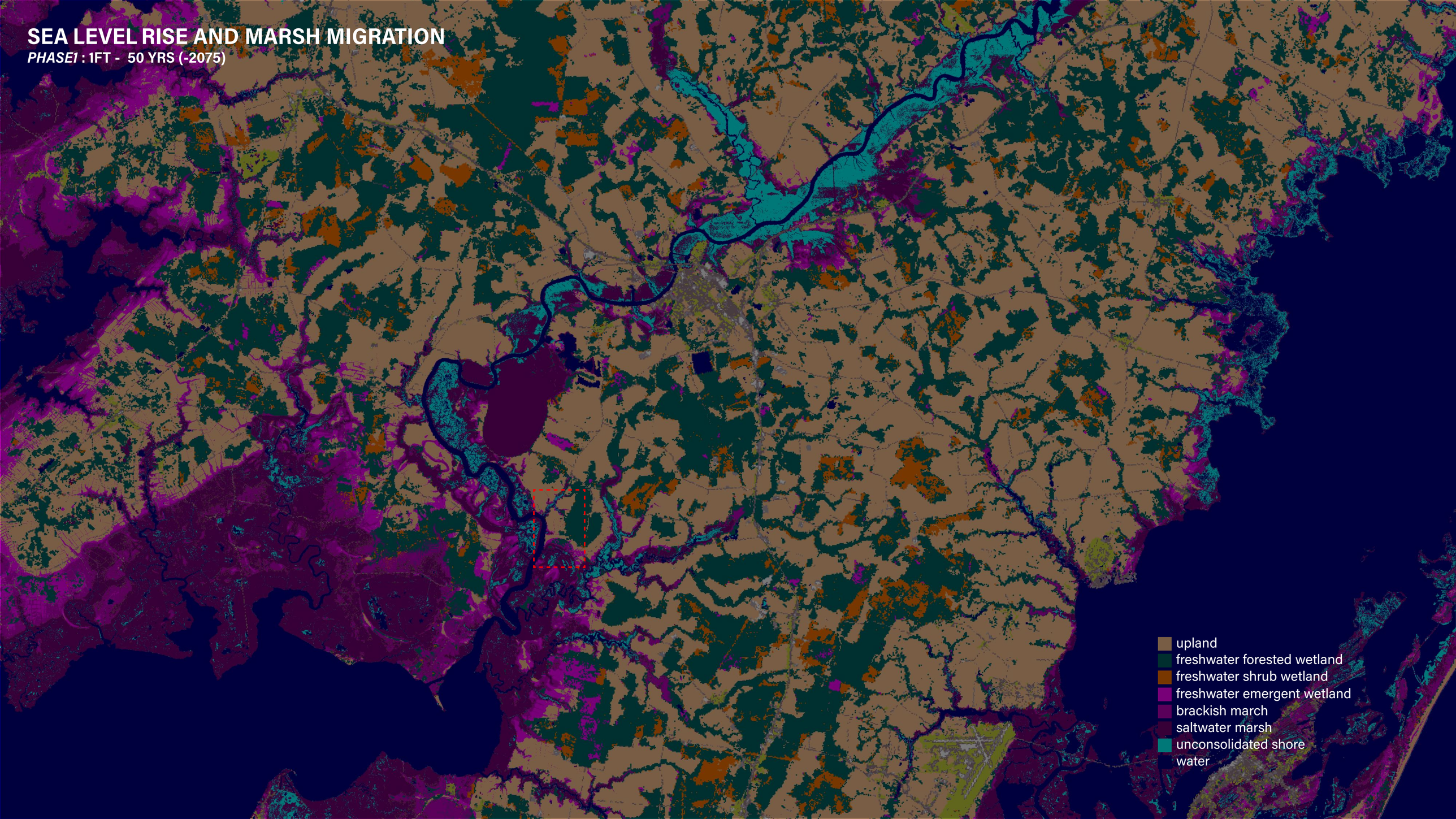




The low percentages (11% for N, 7% for P) imply that most of the pollution is being retained within the watershed. That retention is largely due to: Flat topography, Slow stream velocity, High interaction with soils and wetlands.

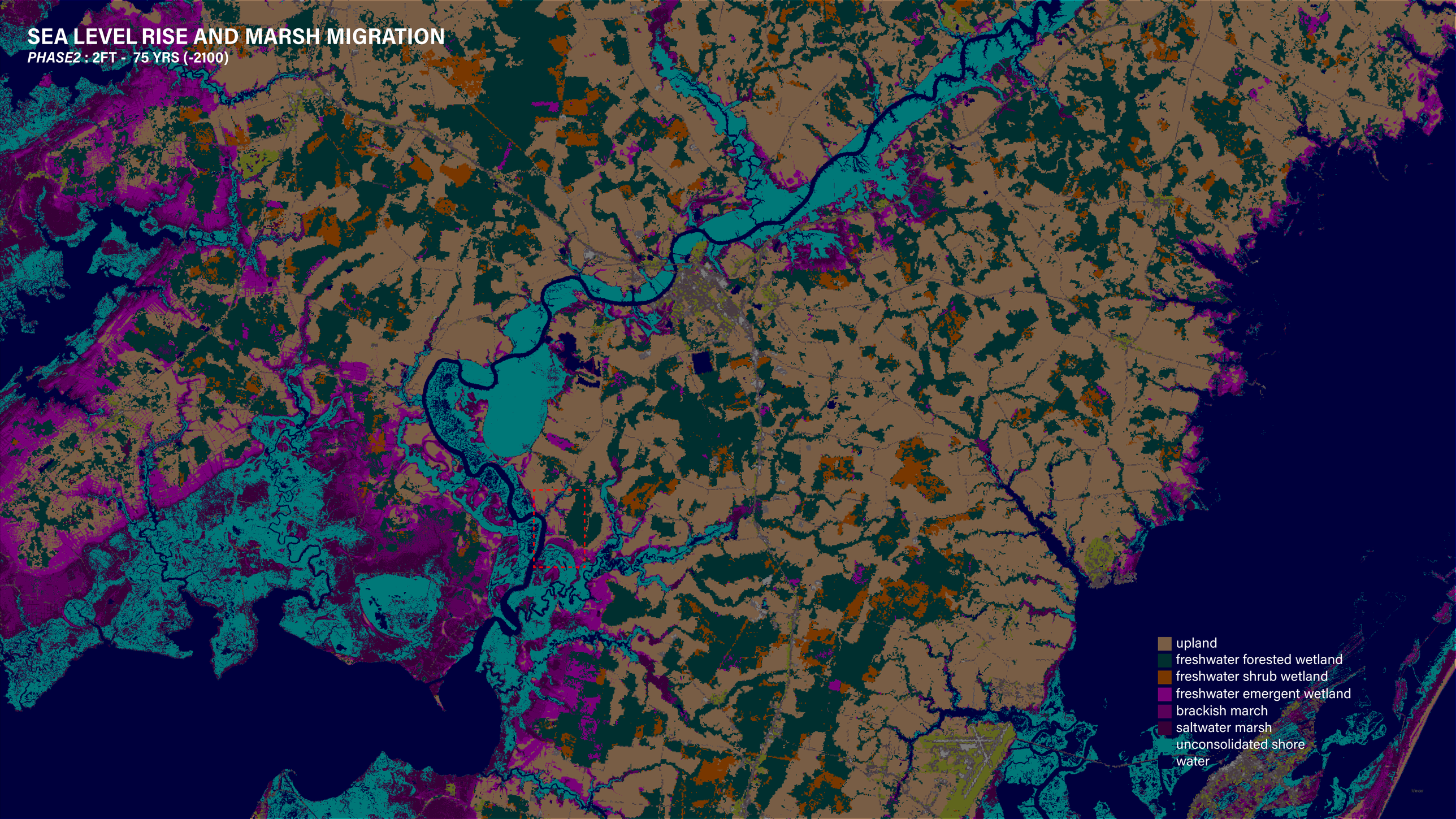
SEA LEVEL RISE AND MARSH MIGRATION

PHASE1 : 1FT - 50 YRS (-2075)



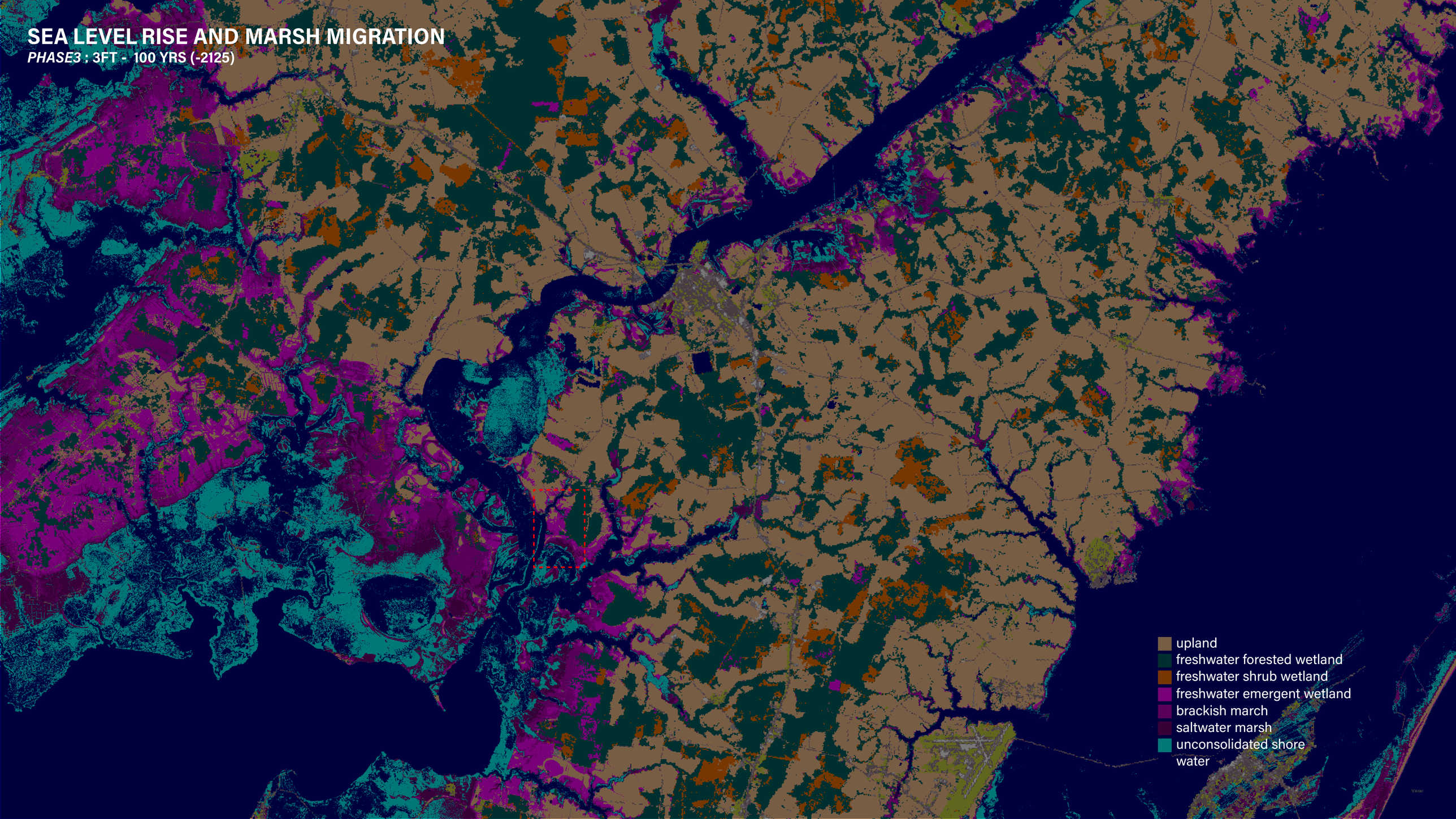
SEA LEVEL RISE AND MARSH MIGRATION

PHASE2 : 2FT - 75 YRS (-2100)

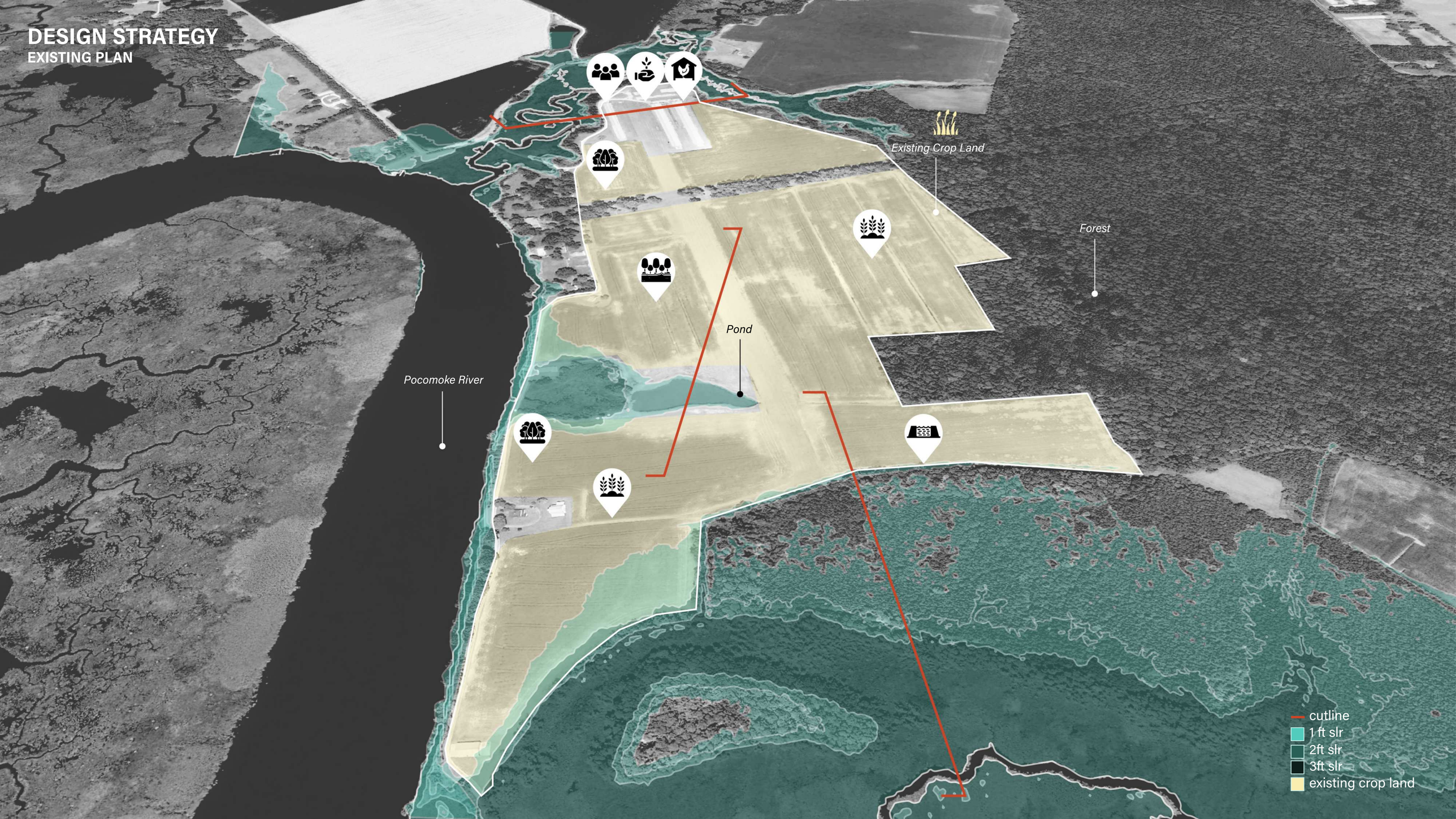


SEA LEVEL RISE AND MARSH MIGRATION

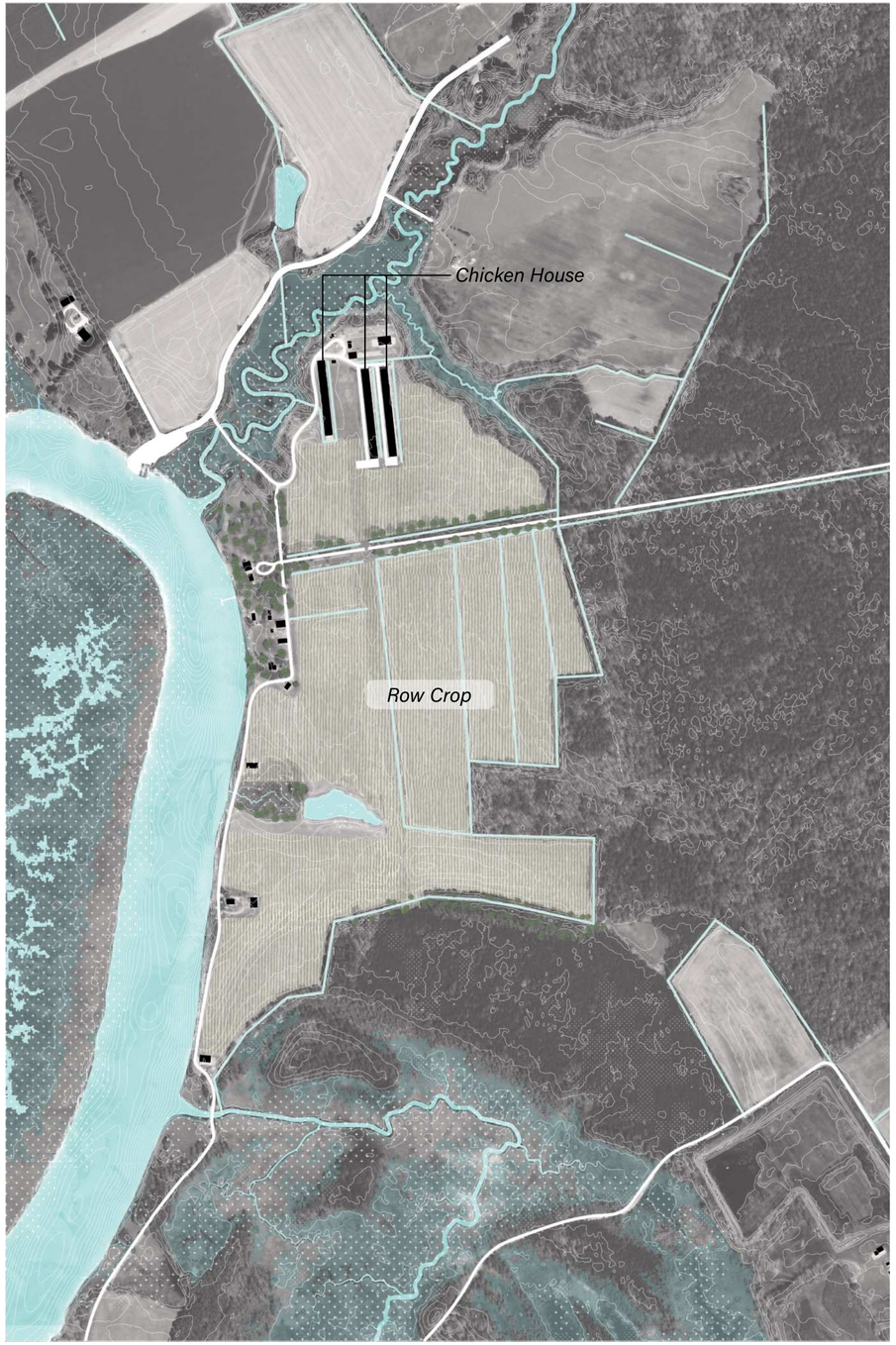
PHASE3 : 3FT - 100 YRS (-2125)



DESIGN STRATEGY
EXISTING PLAN



DESIGN STRATEGY
EXISTING PLAN



row crop field
saltwater marsh (with brackish)
unconsolidated shore
mhhw
ditch

DESIGN STRATEGY

***PHASE1* : 1FT - 50 YRS (-2075)**

Zone1

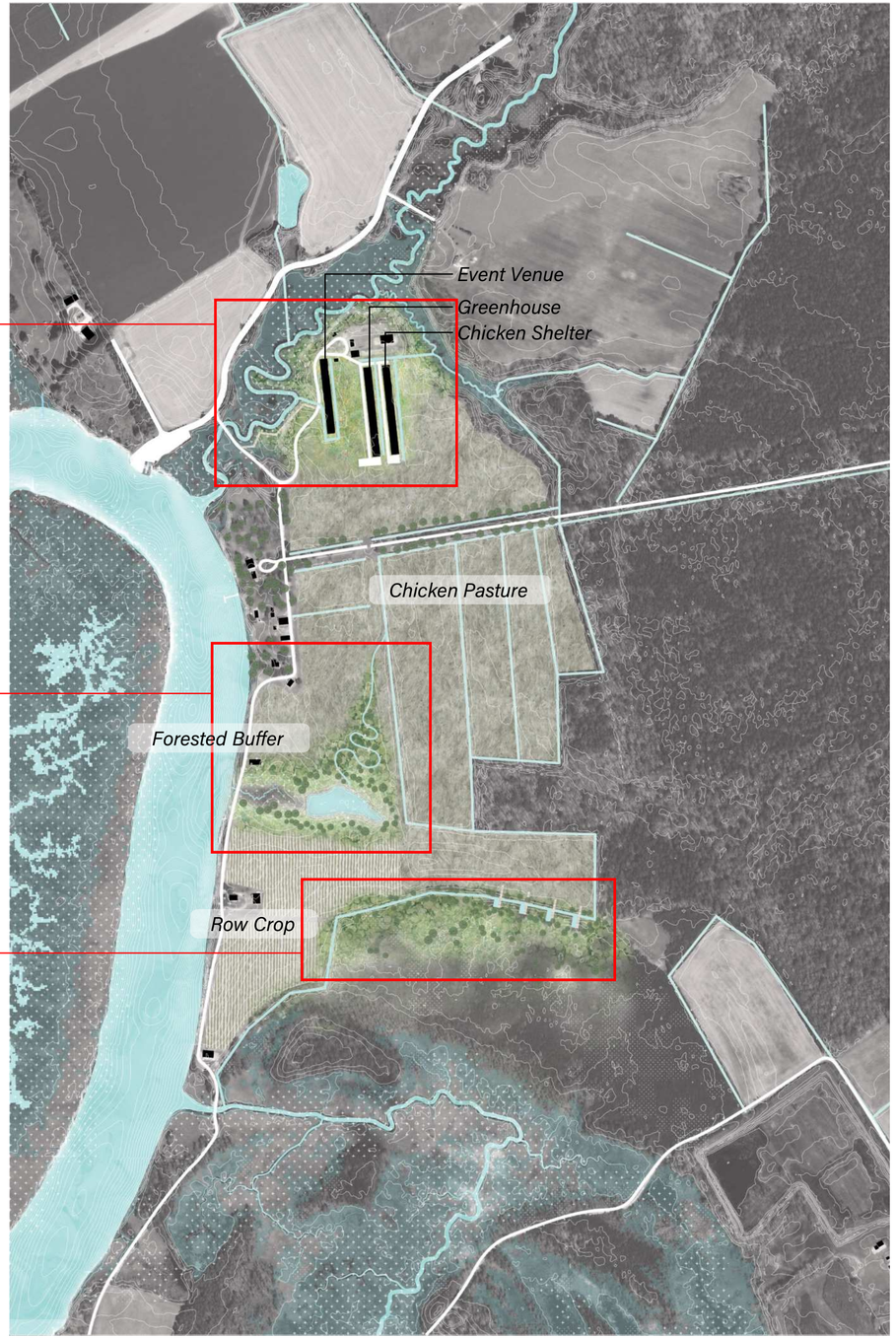
Planted ditches treats runoff from the chicken pasture and buildings, followed by an enhanced buffer that filters the water again before it reaches the stream.

Zone2

An alternative waterway slows and holds pasture runoff, while an expanded buffer filters it through plant roots before reaching the

Zone3

A notched levee diverts ditch water into a pond, allowing it to soak in and flow through the forest instead of entering the river directly.



DESIGN STRATEGY

***PHASE2* : 2FT - 75 YRS (-2100)**

Zone1

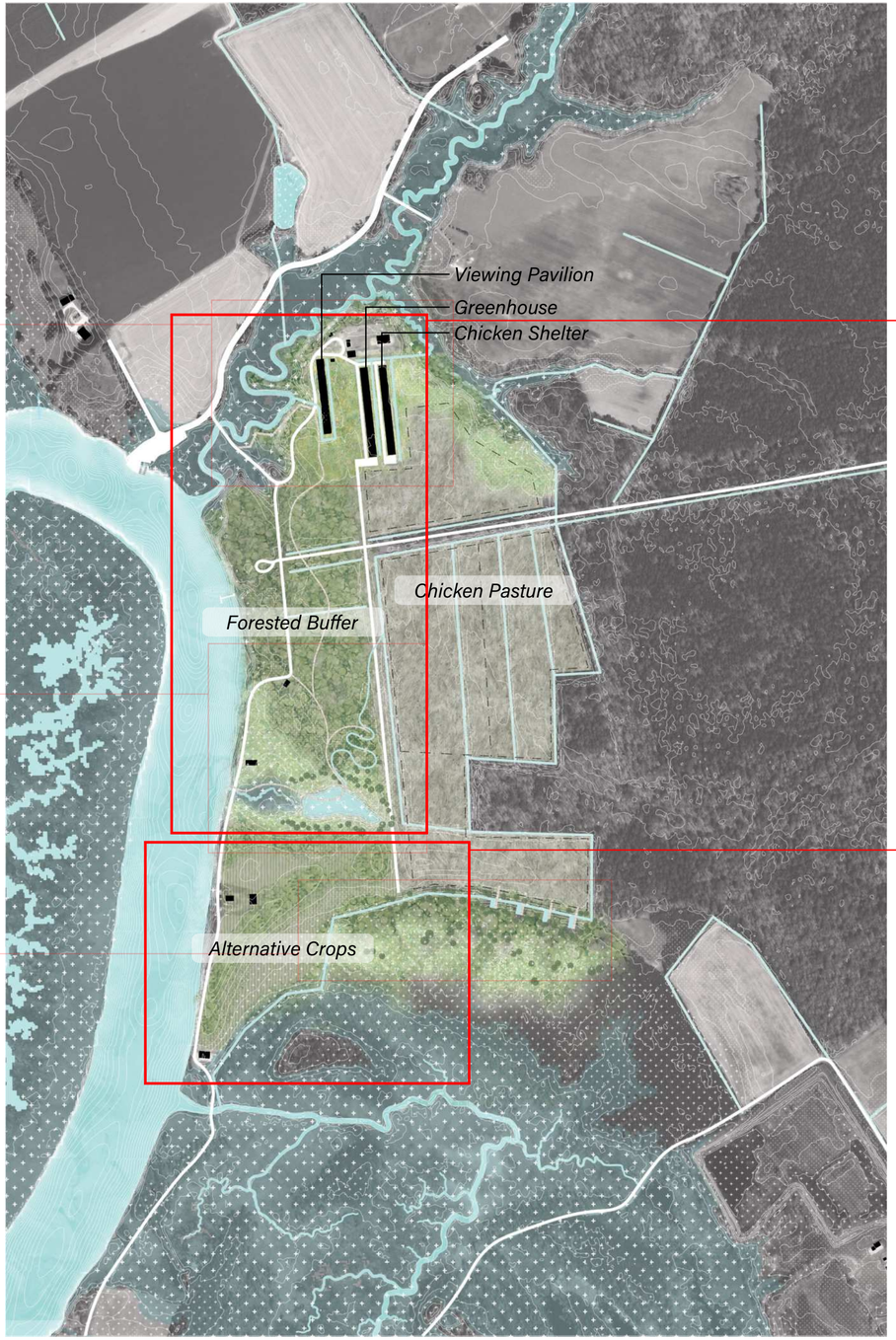
Planted ditches treats runoff from the chicken pasture and buildings, followed by an enhanced buffer that filters the water again before it reaches the stream.

Zone2

An alternative waterway slows and holds pasture runoff, while an expanded buffer filters it through plant roots before reaching the

Zone3

A notched levee diverts ditch water into a pond, allowing it to soak in and flow through the forest instead of entering the river directly.



Mixed-Use Forested

Planted ditches continue filtering runoff, while expanded forest buffers invite public access and create space for emerging industries like agro-forestry or mushrooms.

Trial Agriculture Zone

Former row crop fields become a testing ground for alternative crops, preparing the land and community for future environmental shifts.

- forest
- grassland
- chicken pasture
- alternative cropland
- ditch
- emergent freshwater wetland
- saltwater marsh (with brackish)
- unconsolidated shore
- mhhw
- fence
- boardwalk

DESIGN STRATEGY

***PHASE3* : 3FT - 100 YRS (-2125)**

Zone1

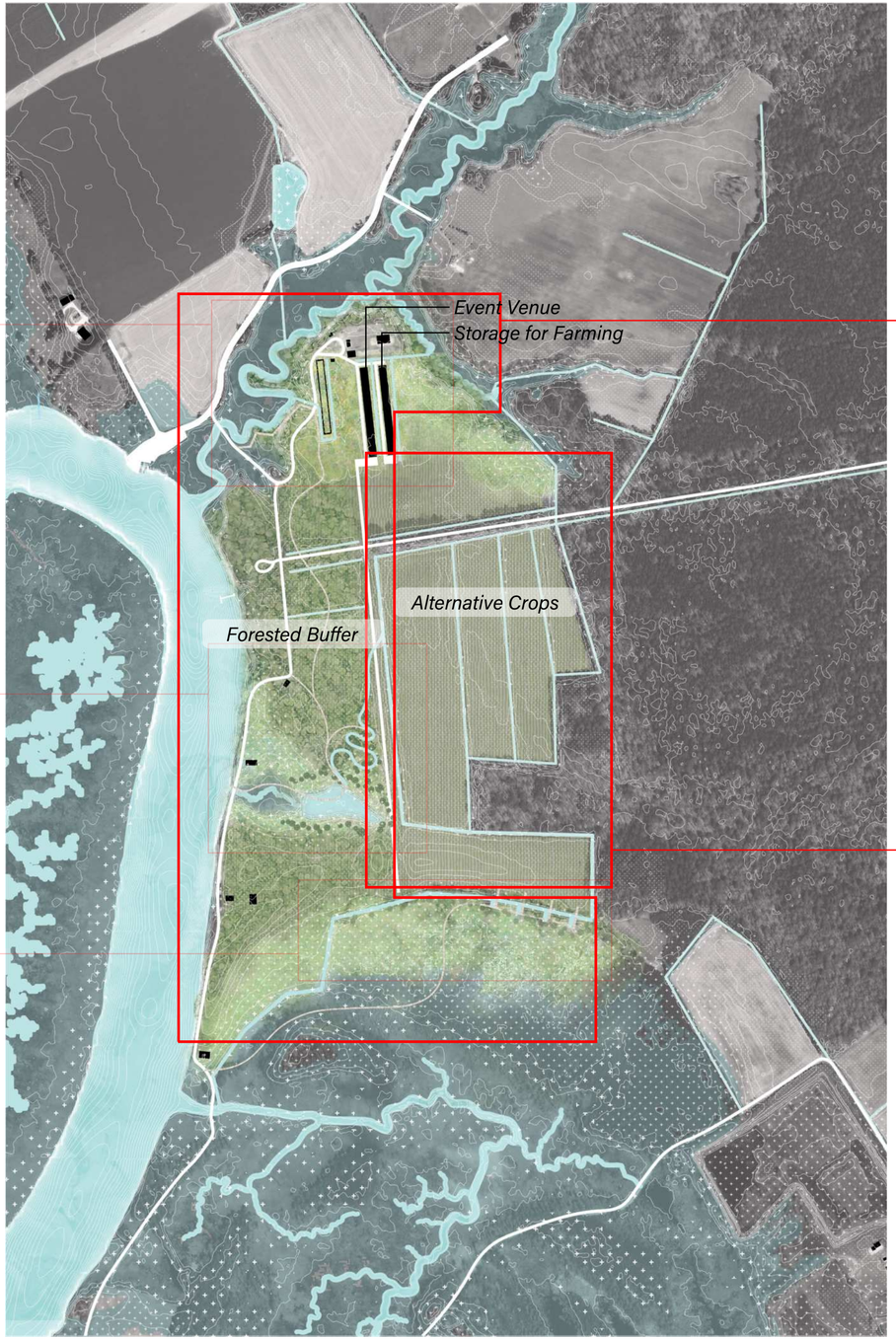
Planted ditches treats runoff from the chicken pasture and buildings, followed by an enhanced buffer that filters the water again before it reaches the stream.

Zone2

An alternative waterway slows and holds pasture runoff, while an expanded buffer filters it through plant roots before reaching the

Zone3

A notched levee diverts ditch water into a pond, allowing it to soak in and flow through the forest instead of entering the river directly.



Mixed-Use Forested

The forested buffer has expanded with marsh migration and now supports both ecological restoration and increased public access for recreation, education, and light-use industry.

Alternative Agriculture Zone

Informed by earlier crop trials, this zone now supports water-tolerant species, transitioning into a resilient, adaptive farming system suited to wetter conditions.

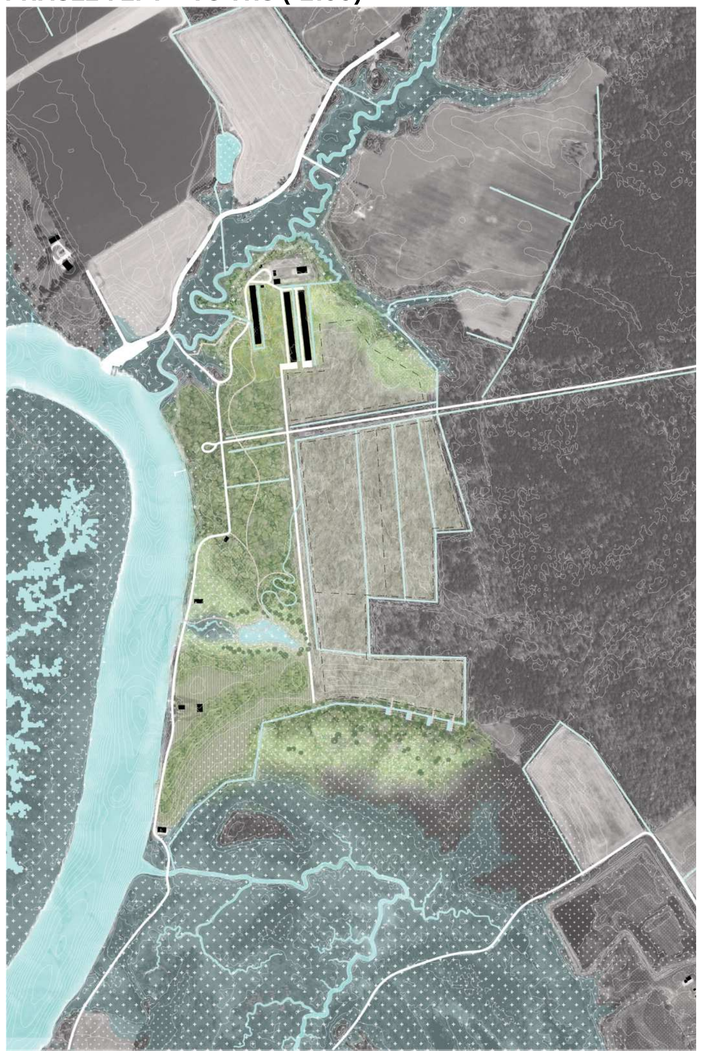
- forest
- grassland
- alternative cropland
- emergent freshwater wetland
- saltwater marsh (with brackish)
- unconsolidated shore
- ditch
- mhhw
- fence
- boardwalk

DESIGN STRATEGY
PHASING PLAN

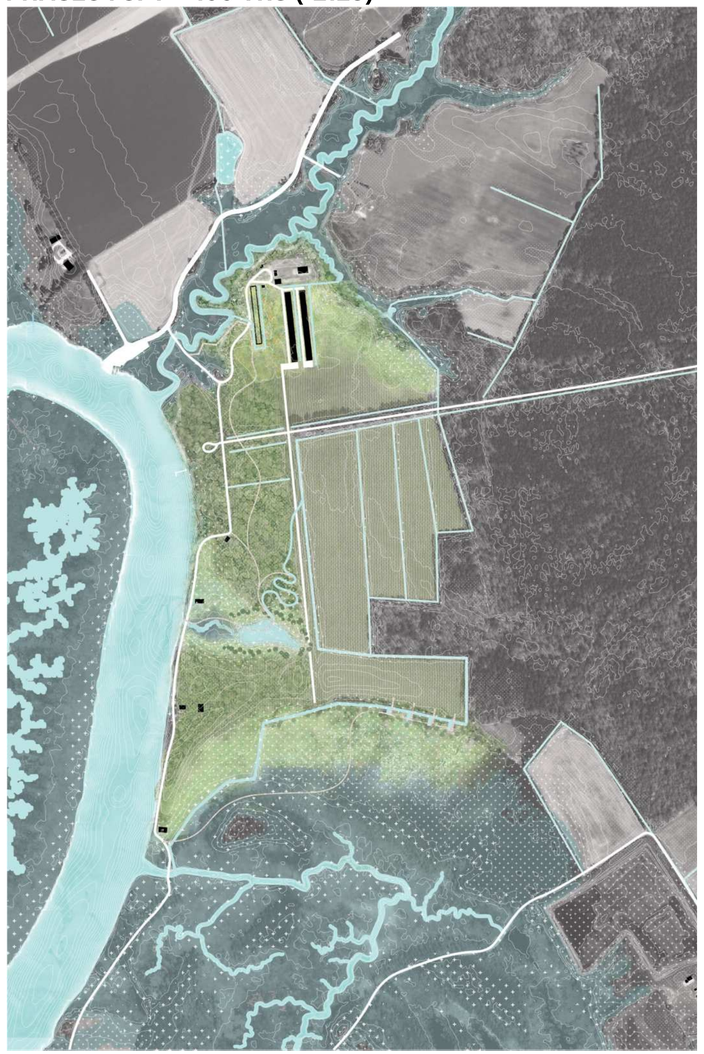
PHASE1 : 1FT - 50 YRS (-2075)



PHASE2 : 2FT - 75 YRS (-2100)



PHASE3 : 3FT - 100 YRS (-2125)



OPERATION DIAGRAM

EXISTING

INDUSTRY



WATER / POLLUTION



OWNERSHIP / STEWARDSHIP



ACCESS



CORN FIELD

Area: 101.86 acres
Estimated Yield: 16,806 bushels
Estimated Profit: $6,987.80

Needed Fertilizer:
N: 8.15 t / P_2O_5: 1.53 t / K_2O: 2.04 t
Applied Poultry Litter: 60-100 tons

Conservation Easement:
private landowners enrolled their land in easement program to ensure buffer zone to protect water quality and get financial benefits

CHICKEN

Area: 22,500 ft^2 (three of 150 * 50)
Number of Chicken: 9,000
Estimated Profit: $84,000 - 105,000

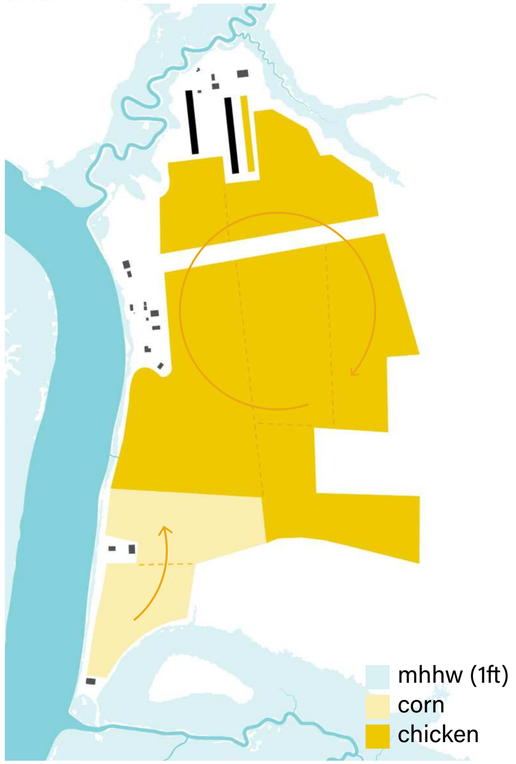
Total Manure Production: 106.65
N: 2.13 t / P_2O_5: 2.67 t / K_2O: 2.13 t
**concentrated waste flowing into the river*

University of Maryland Extension. "2025 Maryland Field Crop Budgets." University of Maryland, 2025. University of Georgia Extension. "Nutrient Content of Poultry Manure." Bulletin 1245. University of Georgia, 2019 University of Maryland Extension. "April 2025 Grain Market Report." Agronomy News Blog, April 16, 2025

OPERATION DIAGRAM

***PHASE1* : 1FT - 50 YRS (-2075)**

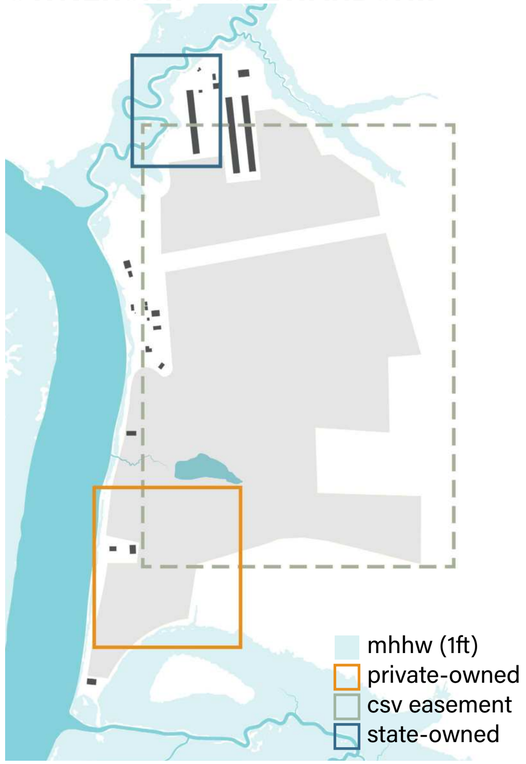
INDUSTRY



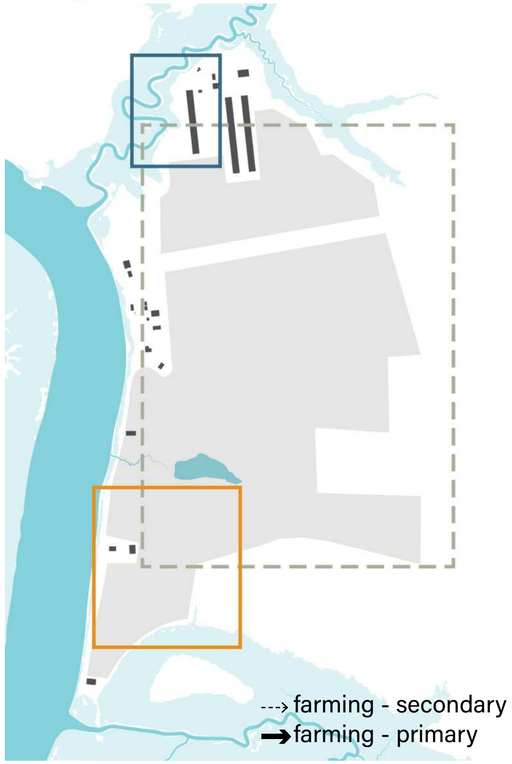
WATER / POLLUTION



OWNERSHIP / STEWARDSHIP



ACCESS



ROTATIONAL CROPLAND

Area: 19.89 acres
Estimated Yield: 1,640 + 497bushels
Estimated Profit: $621.00 + 1,240

Needed Fertilizer:
N: 1,591 lb / P_2O_5: 596 lb / K_2O: 796 lb
Applied Poultry Litter: 12 t

CHICKEN PASTURE

Area: 68.85 acres (6 paddocks 11 acres)
Number of Chicken: 4,400 (13,200/yr)
Rotation: 1 week rotation
Estimated Profit: $82,500

Total Manure Production: 62 t
N: 2,480 lb / P_2O_5: 3,100 lb / K_2O: 2,480 lb
** fewer chickens at a time result in less concentrated manure on the field*

Fee Simple Purchase:
State or county buy the land completely to conserve the riverfront and invite public

Conservation Easement:
private landowners enrolled their land in easement program to ensure buffer zone and healthier agricultural practices to protect water quality and get financial/technical support

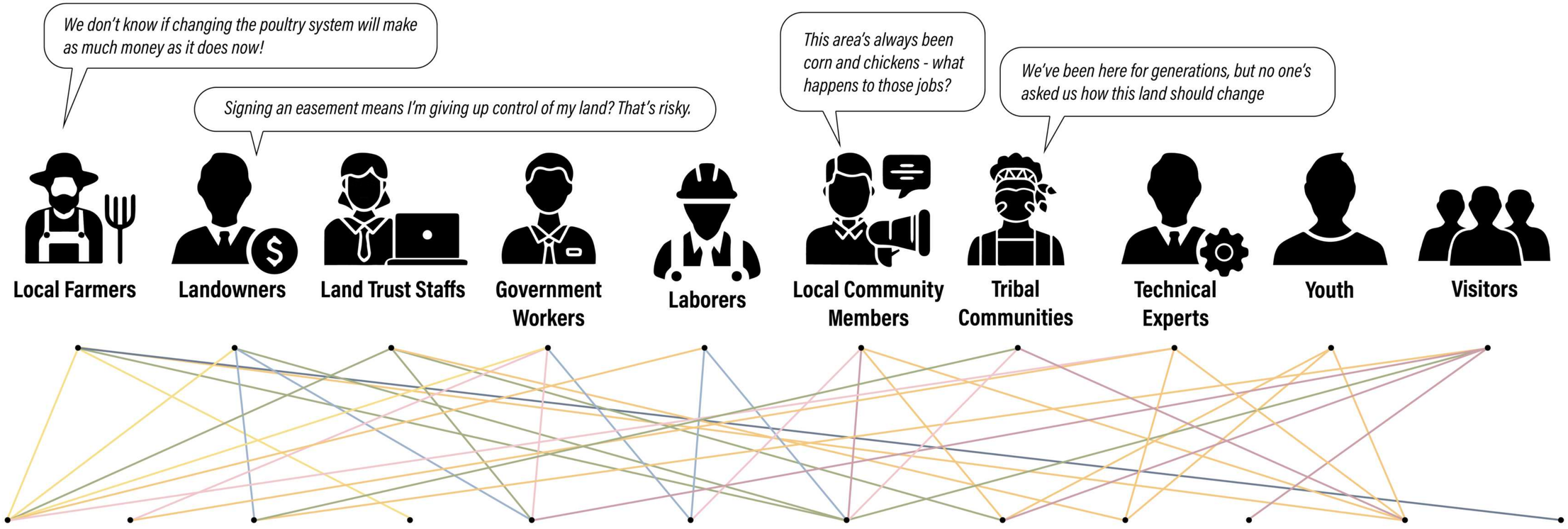
Government

Land Trust

National Center for Appropriate Technology (NCAT). "Pastured Poultry." ATTRA Sustainable Agriculture Program, 2010

CHALLENGE / INCENTIVE NETWORK

***PHASE1* : 1FT - 50 YRS (-2075)**



Federal | **State** | **County** | **Land Trusts** | **NGOs** | **Universities** | **Local Collectives**

Financial Support | Technical Support / Education | Land Control / Stewardship Agreements | Infrastructure / Landscape Intervention | Market Access / Collective Infrastructure | Engagement / Cultural Inclusion | Governance / Policy-Making

OPERATION DIAGRAM

***PHASE2* : 2FT - 75 YRS (-2100)**

INDUSTRY



CHICKEN PASTURE

Area: 45.90 acres (4 paddocks 11 acres)
Number of Chicken: 4,400 (8,800/yr)
Estimated Profit: $55,000

AGROFORESTRY / MUSHROOM

Area: 14.8 acres (30-50% for mushroom)
Estimated Yield: 2,960lb mushrooms
Estimated Profit: $20,720

ALTERNATIVE CROPLAND (BAR-

Area: 5 acres
Estimated Yield: 375 bushels
Estimated Profit: $812.50

University of Missouri Center for Agroforestry. "Growing Shiitake Mushrooms in an Agroforestry Practice." / National Agroforestry Center, USDA.

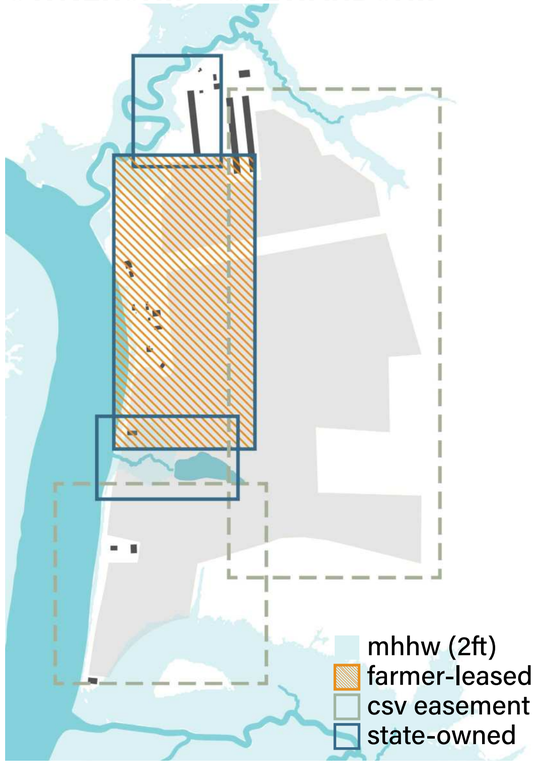
WATER / POLLUTION



Total Manure Production: 62 t
N: 2,480 lb / P_2O_5: 3,100 lb / K_2O: 2,480 lb
** fewer chickens at a time result in less concentrated manure on the field*

Needed Fertilizer:
N: 450 lb / P_2O_5: 200 lb / K_2O: 300 lb
Applied Poultry Litter: 4 t

OWNERSHIP / STEWARDSHIP

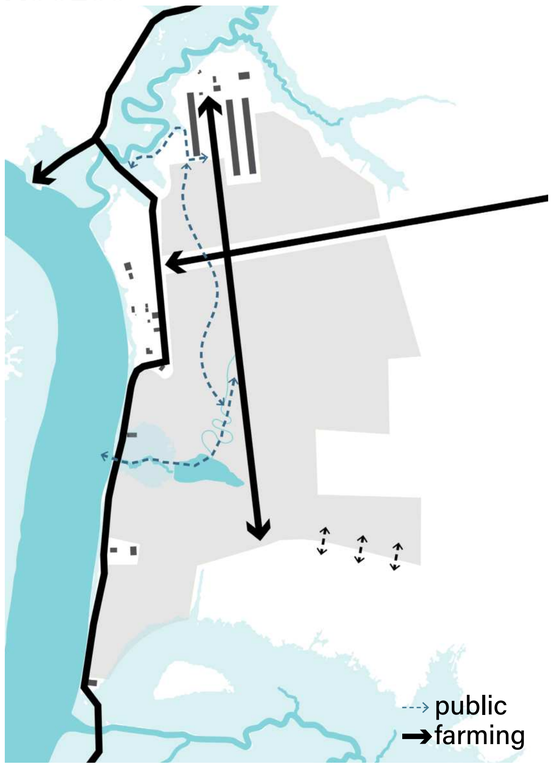


Fee Simple Purchase:
State or county buy the land completely to conserve the riverfront and invite public

Government Lease:
farmers lease land from the government for agricultural purposes to make profit and learn adaptive practices

Conservation Easement:
private landowners enrolled their land in easement program to ensure buffer zone and healthier agricultural practices, getting financial/technical support

ACCESS



Government

Land Trust

Farmers

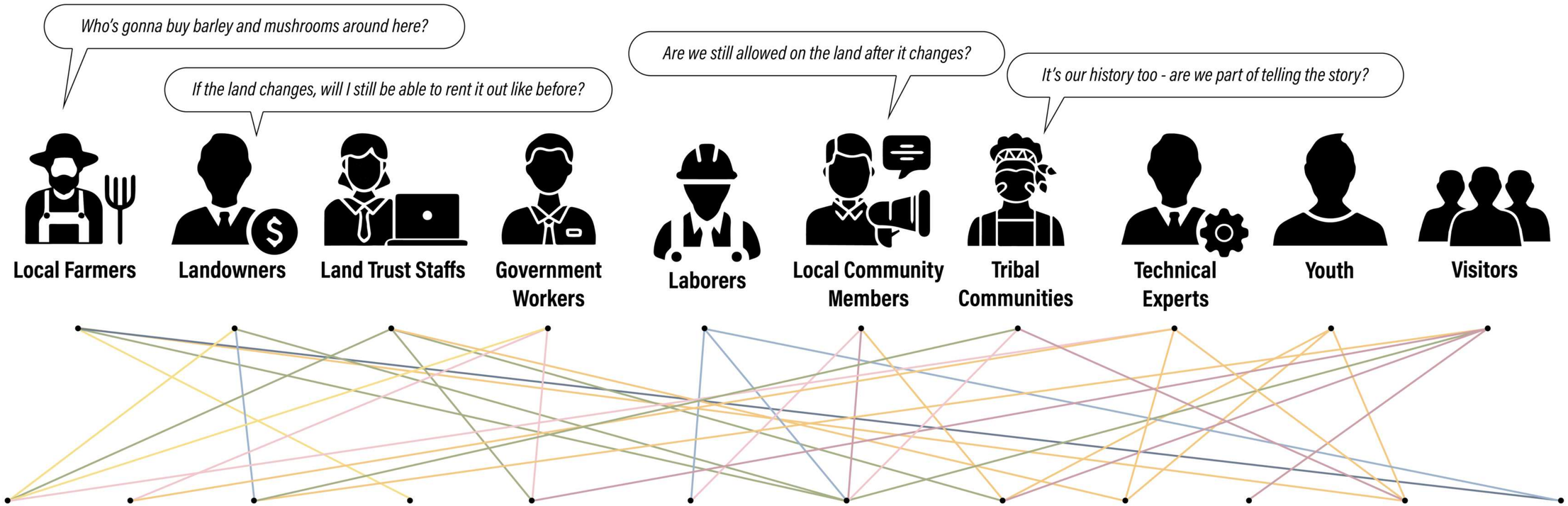
NGOs

University

Farmers

CHALLENGE / INCENTIVE NETWORK

***PHASE2* : 2FT - 75 YRS (-2100)**



Federal

State

County

Land Trusts

NGOs

Universities

Local Collectives

Financial Support | Technical Support / Education | Land Control / Stewardship Agreements | Infrastructure / Landscape Intervention | Market Access / Collective Infrastructure | Engagement / Cultural Inclusion | Governance / Policy-Making

OPERATION DIAGRAM

***PHASE3* : 3FT - 100 YRS (-2125)**

INDUSTRY



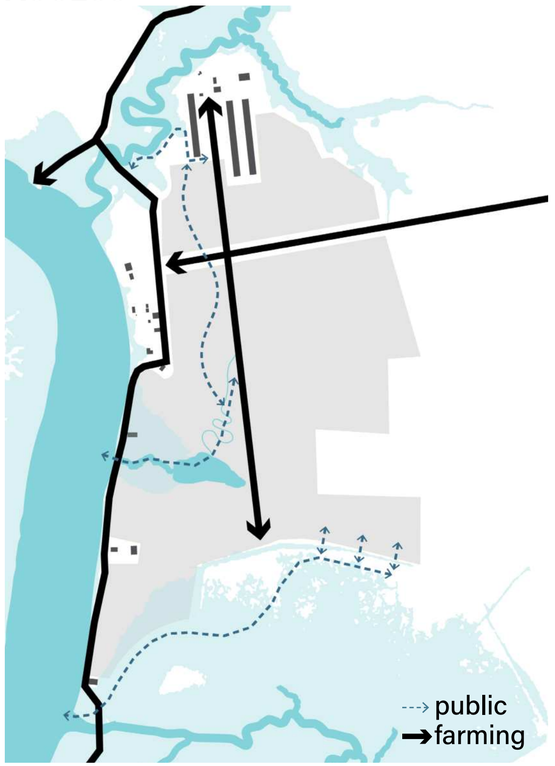
WATER / POLLUTION



OWNERSHIP / STEWARDSHIP



ACCESS



ALTERNATIVE CROPLAND

Area: 45.90 acres
Estimated Yield: 26-27 t
Estimated Profit: $154,000

ALTERNATIVE AGRICULTURE

Needed Fertilizer:
maybe add a light N fertilizer

Fee Simple Purchase:
State or county buy the land completely to conserve the riverfront and invite public

Government Lease:
farmers lease land from the government for agricultural purposes to make profit and learn adaptive practices

Conservation Easement:
private landowners enrolled their land in easement program to ensure buffer zone and healthier agricultural practices, getting financial/technical support

Government

Land Trust

Farmers

NGOs

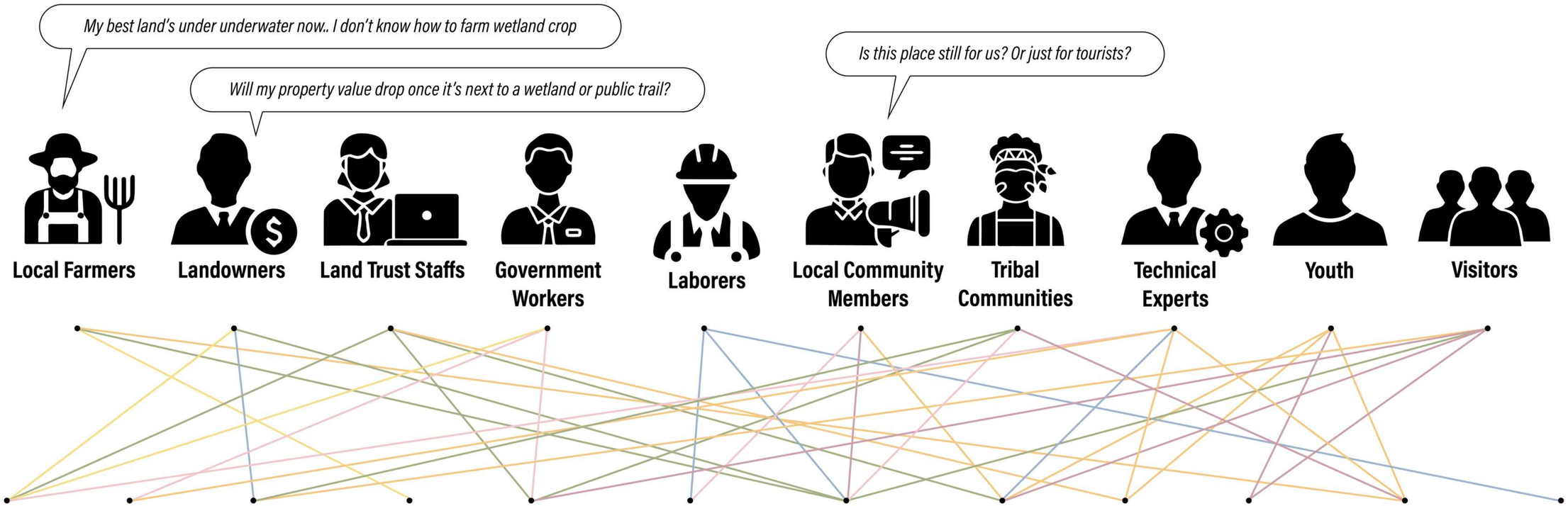
University

Farmers

University of Minnesota Extension. Wild Rice Production in Minnesota. St. Paul, MN: University of Minnesota, 2017
United States Department of Agriculture, Natural Resources Conservation Service. Wild Rice Production Handbook. USDA NRCS, 2014.
University of Wisconsin-Extension. Wild Rice Ecology and Management in Wisconsin. Madison, WI: University of Wisconsin, 2015.

CHALLENGE / INCENTIVE NETWORK

PHASE3 **: 3FT - 100 YRS (-2125)**



Federal

State

County

Land Trusts

NGOs

Universities

Local Collectives

Financial Support | Technical Support / Education | Land Control / Stewardship Agreements | Infrastructure / Landscape Intervention | Market Access / Collective Infrastructure | Engagement / Cultural Inclusion | Governance / Policy-Making

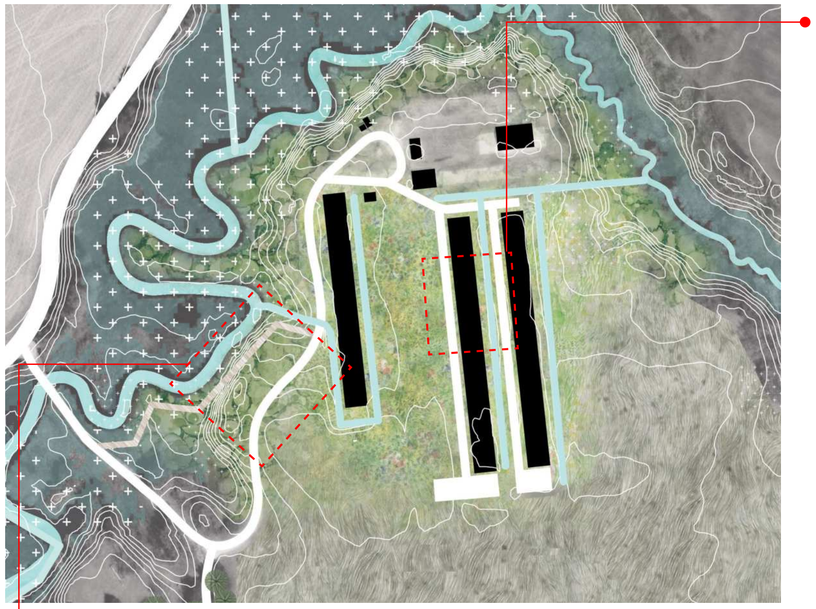
DESIGN INTERVENTION - ZONE1

PHASE1 **: 1FT - 50 YRS (-2075)**

Event Venue
Greenhouse
Chicken Shelter
Chicken Pasture
Forested Buffer
Row Crop

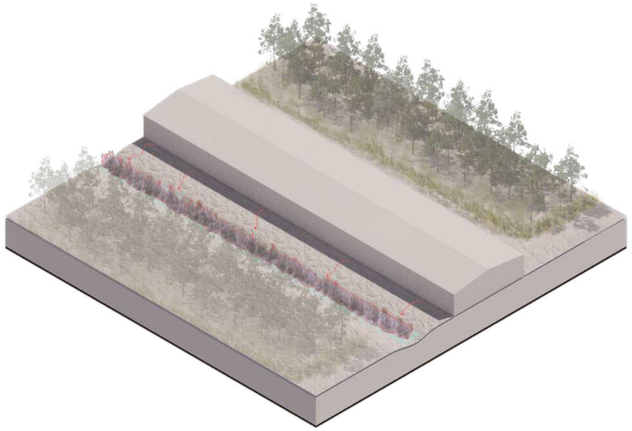
forest
grassland
chicken pasture
corn field
ditch
emergent freshwater wetland
saltwater marsh (with brackish)
unconsolidated shore
mhhw
fence
boardwalk

Zone1



PLANTING INTO DITCHES

Planted ditches treats runoff from the chicken pasture and buildings, followed by an enhanced buffer that filters the water again before it reaches the stream.



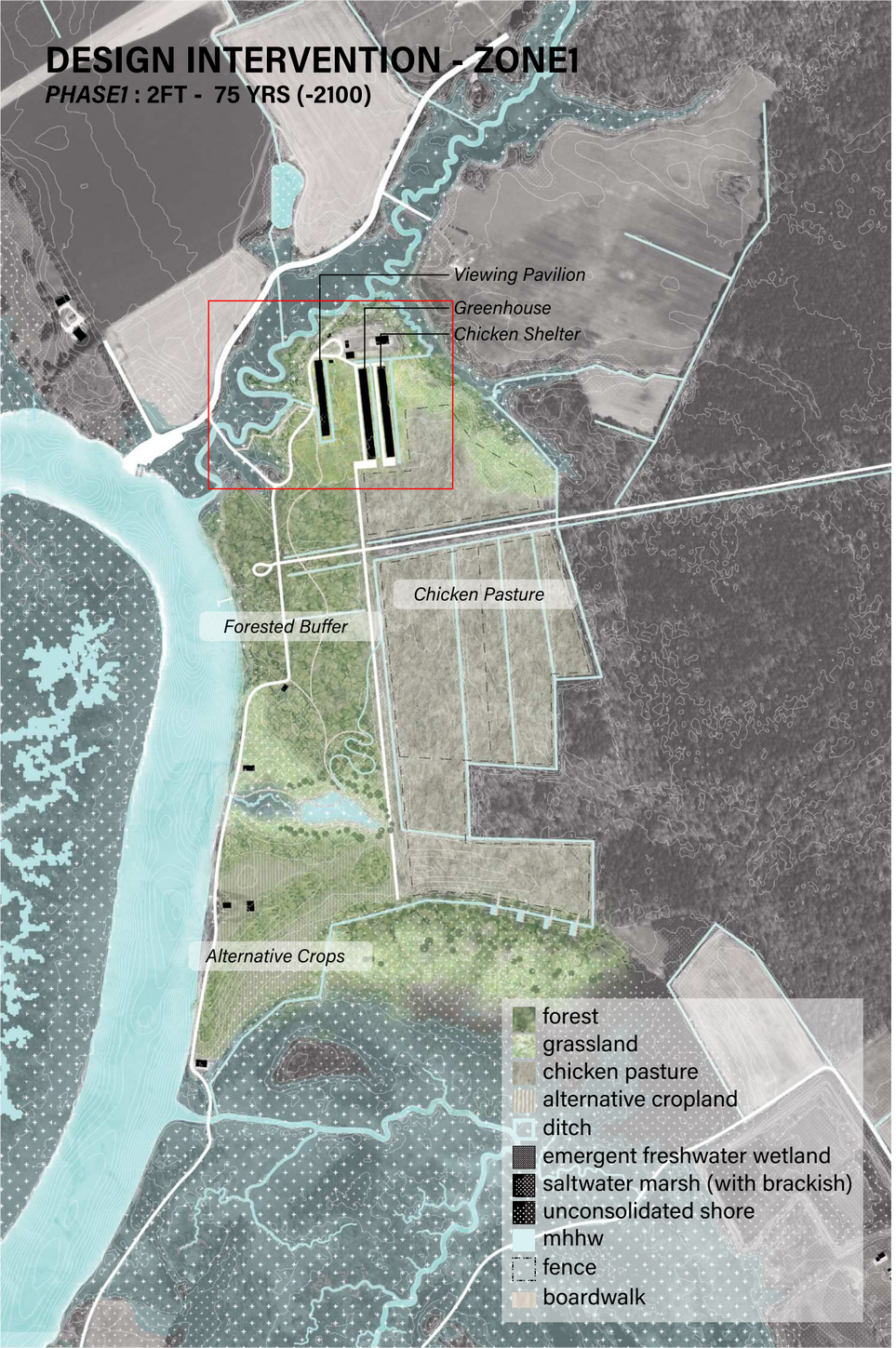
INSTALLING BOARDWALK

Boardwalk along ditch entrance shows visitors how farm runoff is filtered before reaching the stream.

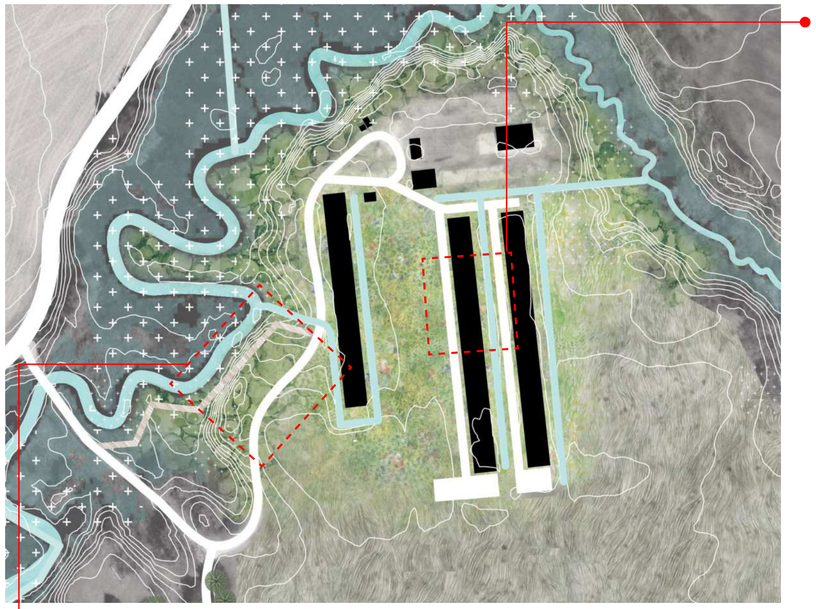


DESIGN INTERVENTION - ZONE1

***PHASE1* : 2FT - 75 YRS (-2100)**

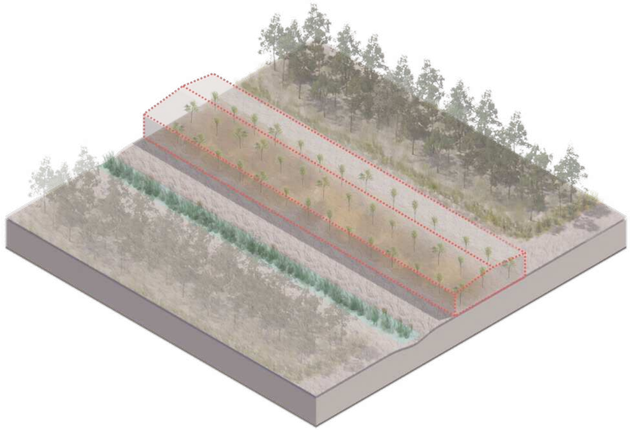


Zone1



REUSING THE CHICKEN HOUSE

Planted ditches still filter runoff from the chicken farm, while the former chicken house becomes a greenhouse nursery, supporting the growth of trees for expanding forest buffer.



EXTENDING BOARDWALK

An extended boardwalk guides visitors through the public area and leads to a viewing pavilion.



DESIGN INTERVENTION - ZONE1

PHASE3 **: 3FT - 100 YRS (-2125)**

Event Venue

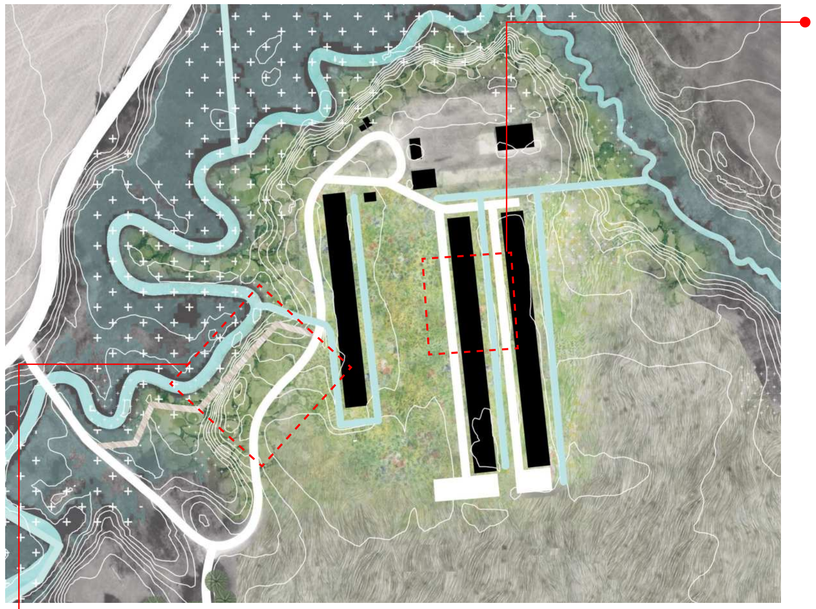
Storage for Farming

Alternative Crops

Forested Buffer

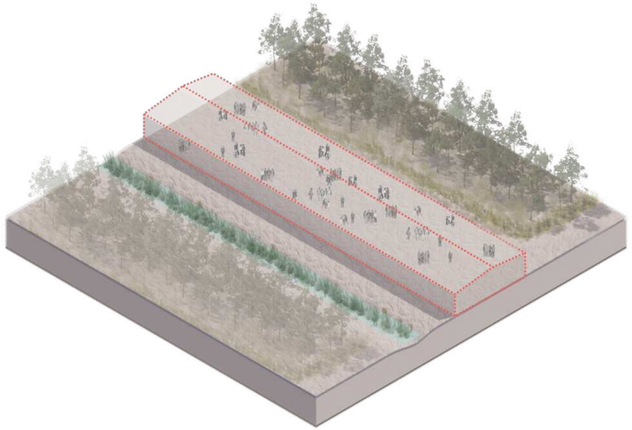
- forest
- grassland
- alternative cropland
- emergent freshwater wetland
- saltwater marsh (with brackish)
- unconsolidated shore
- ditch
- mhhw
- fence
- boardwalk

Zone1



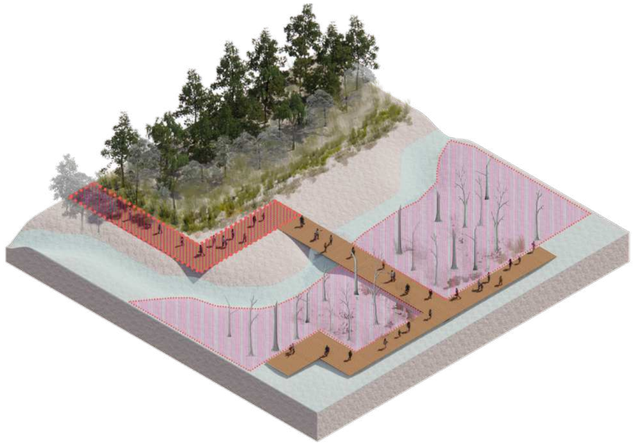
REUSING THE CHICKEN HOUSE

The former tree nursery becomes a gathering space, supporting various event for public.



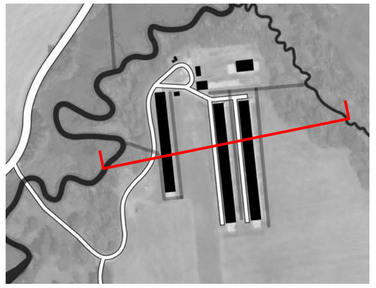
EXTENDING BOARDWALK

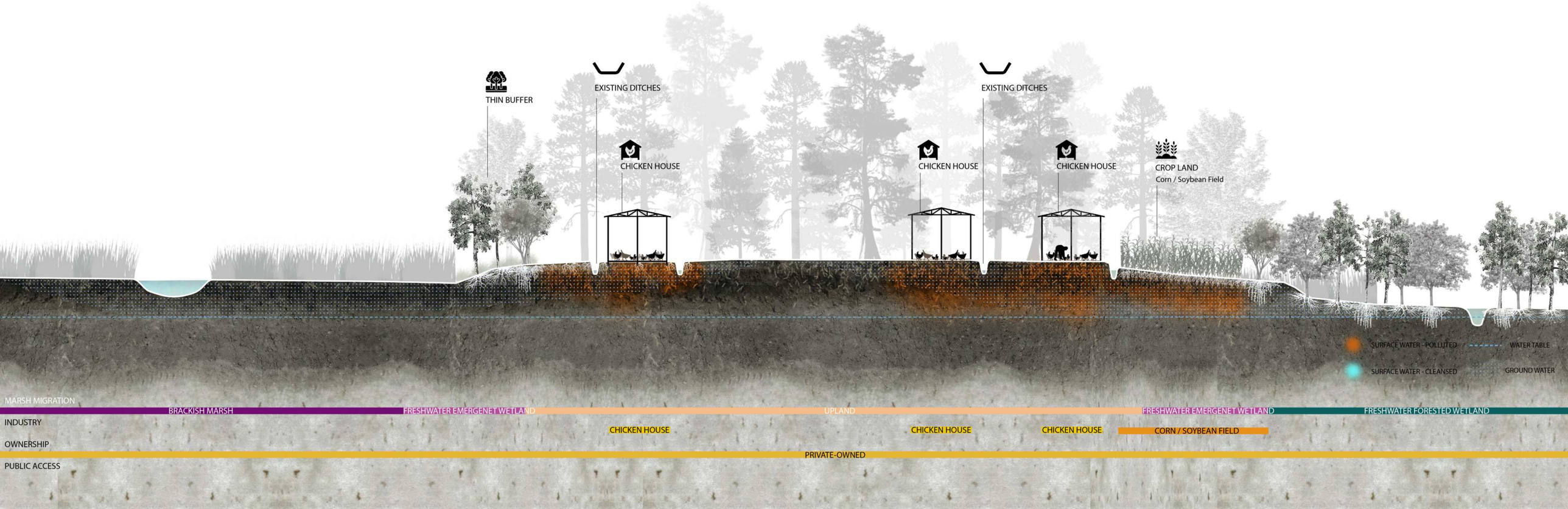
An extended boardwalk guides visitors through the public area it acts as a watching deck.



DESIGN INTERVENTION - ZONE1

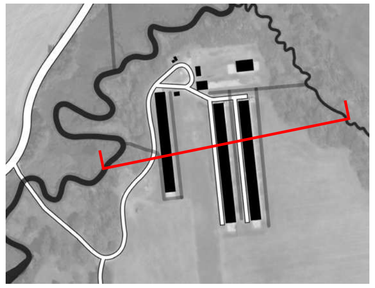
EXISTING





DESIGN INTERVENTION - ZONE1

***PHASE1* : 1FT - 50 YRS (-2075)**



FRESHWATER FORESTED WETLAND BUFFER

Bald Cypress
Groundsel Tree
Morthern Bayberry
Prairie Cordgrass

FRESHWATER EMERGEMENT WETLAND BUFFER

Northern Red Oak
Red Maple
Water Tupeloge
Fox Sedge
Black Willow
Water Hicokry

BOARDWALK

EVENT VENUE

MEADOW

NURSERY

CLEANSING BUFFER ZONE

Switch Grass
Soft Rush
Big Bluestem
Indian Grass

CHICKEN SHELTER

FRESHWATER FORESTED WETLAND BUFFER

Bald Cypress
Groundsel Tree
Morthern Bayberry
Prairie Cordgrass

SURFACE WATER - POLLUTED

WATER TABLE

SURFACE WATER - CLEANSED

GROUND WATER

MARSH MIGRATION

UNCONSOLIDATED SHORE | BRACKISH MARSH | FEW | FFW | UPLAND | FEW | BRACKISH MARSH | UNCONSOLIDATED SHORE

INDUSTRY

CHICKEN HOUSE

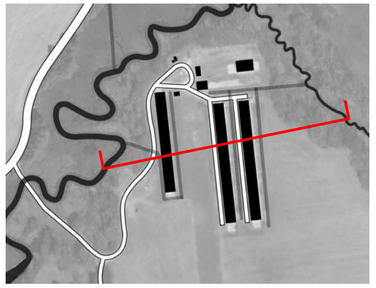
OWNERSHIP

STATE-OWNED | CSV EASEMENT

PUBLIC ACCESS

DESIGN INTERVENTION - ZONE1

***PHASE2* : 2FT - 75 YRS (-2100)**



FRESHWATER EMERGEMENT WETLAND

Northern Red Oak
Red Maple
Water Tupeloge
Fox Sedge
Black Willow
Water Hicokry

FRESHWATER FORESTED WETLAND

Bald Cypress
Groundsel Tree
Morthern Bayberry
Prairie Cordgrass

PAVILION

BOARDWALK

NURSERY

CLEANSING GRASS BUFFER ZONE

Switch Grass
Soft Rush
Big Bluestem
Indian Grass

CHICKEN SHELTER

SURFACE WATER - POLLUTED
WATER TABLE
SURFACE WATER - CLEANSED
GROUND WATER

MARSH MIGRATION

UNCONSOLIDATED SHORE | BRACKISH MARSH | FEW | FFW | UPLAND | FEW | BRACKISH MARSH | UNCONSOLIDATED SHORE

INDUSTRY

CHICKEN HOUSE

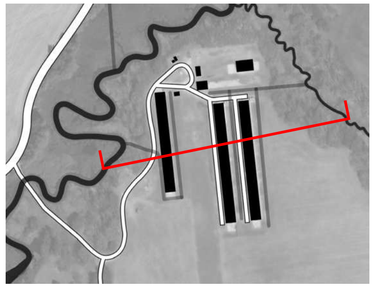
OWNERSHIP

STATE-OWNED | CSV EASEMENT

PUBLIC ACCESS

DESIGN INTERVENTION - ZONE1

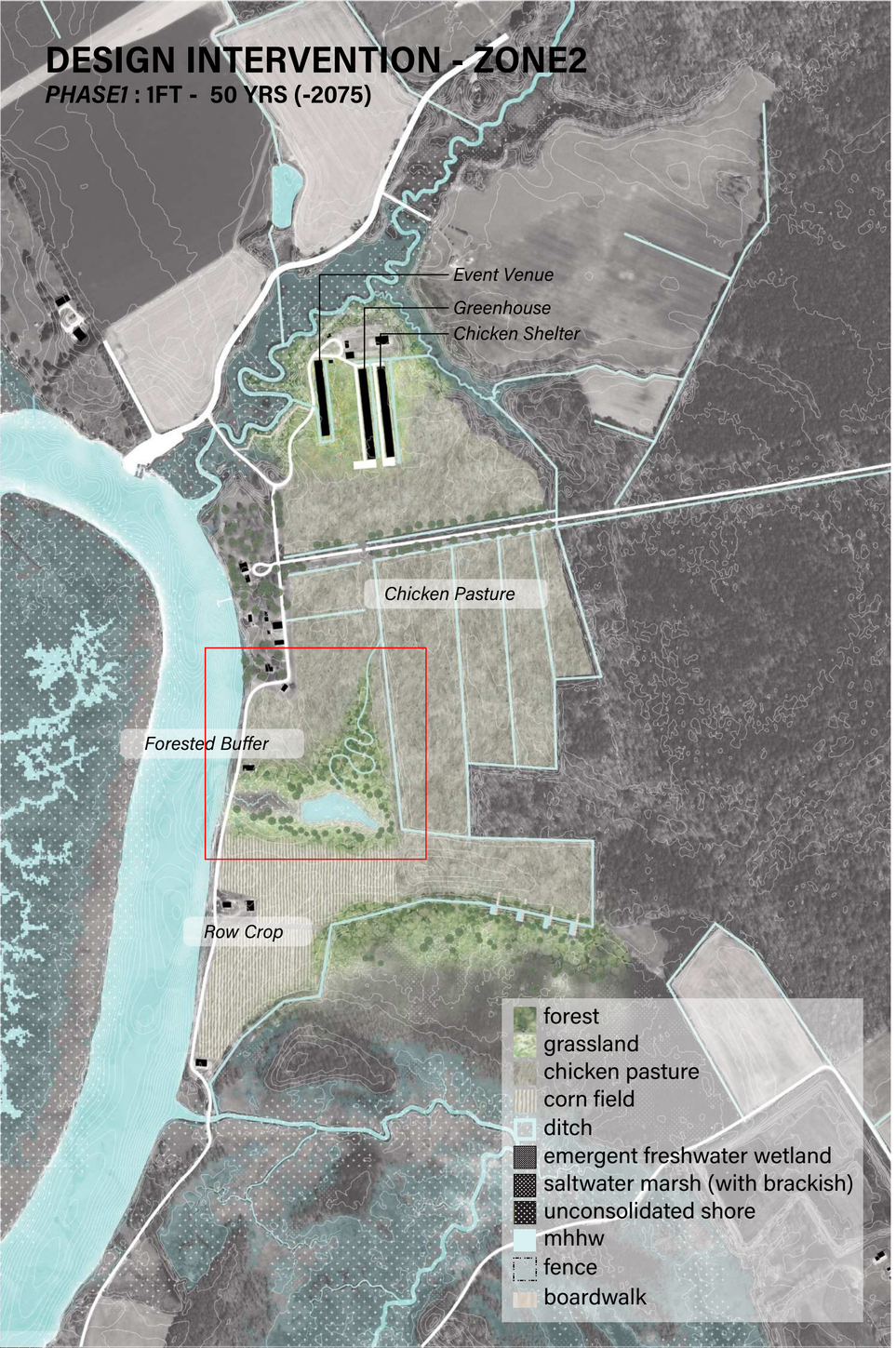
***PHASE3* : 3FT - 100 YRS (-2125)**



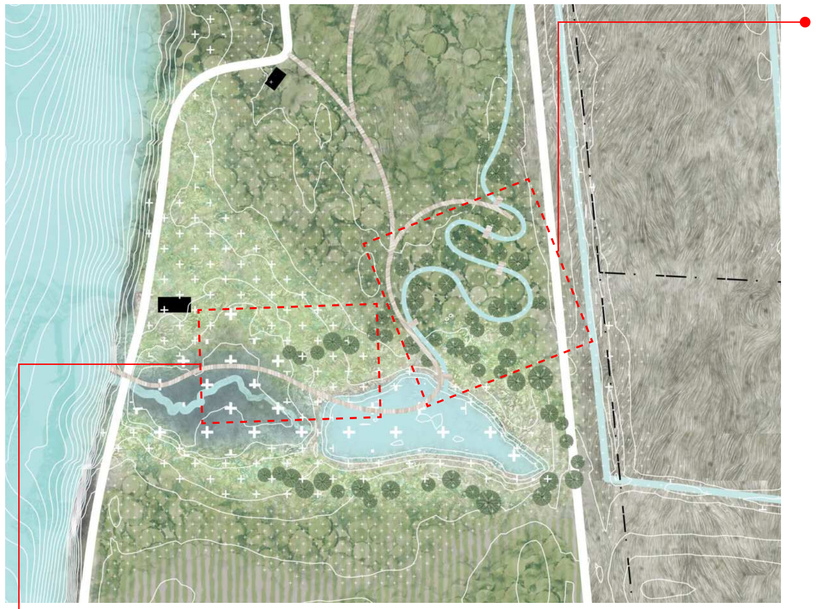


DESIGN INTERVENTION - ZONE2

PHASE1 **: 1FT - 50 YRS (-2075)**

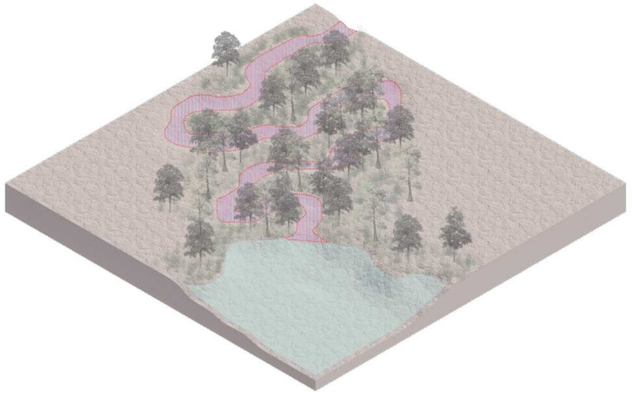


Zone2



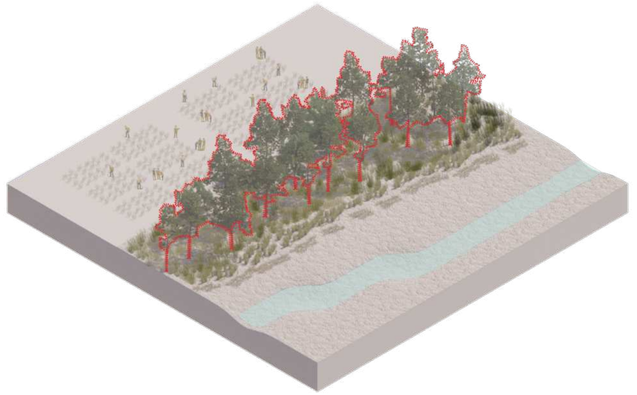
DIGGING NEW WATERWAYS

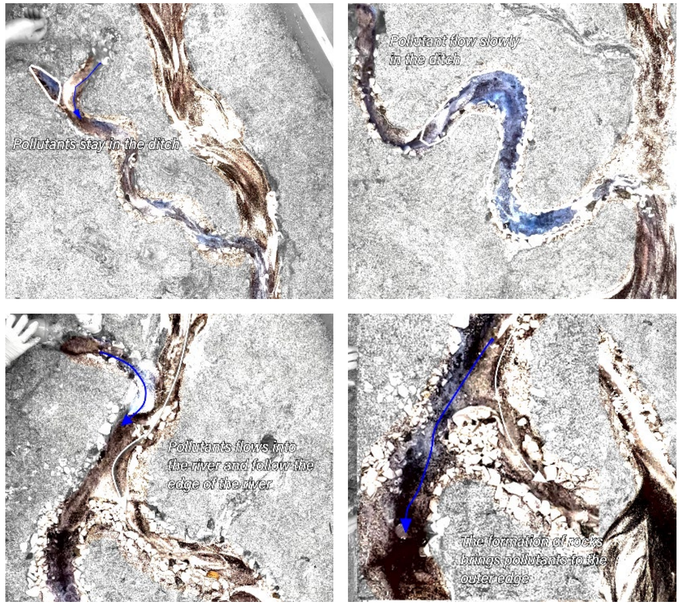
A new waterway diverts flow from existing ditches, allowing water to stay longer and be filtered before reaching the pond and river.



EXPANDING FORESTED BUFFER

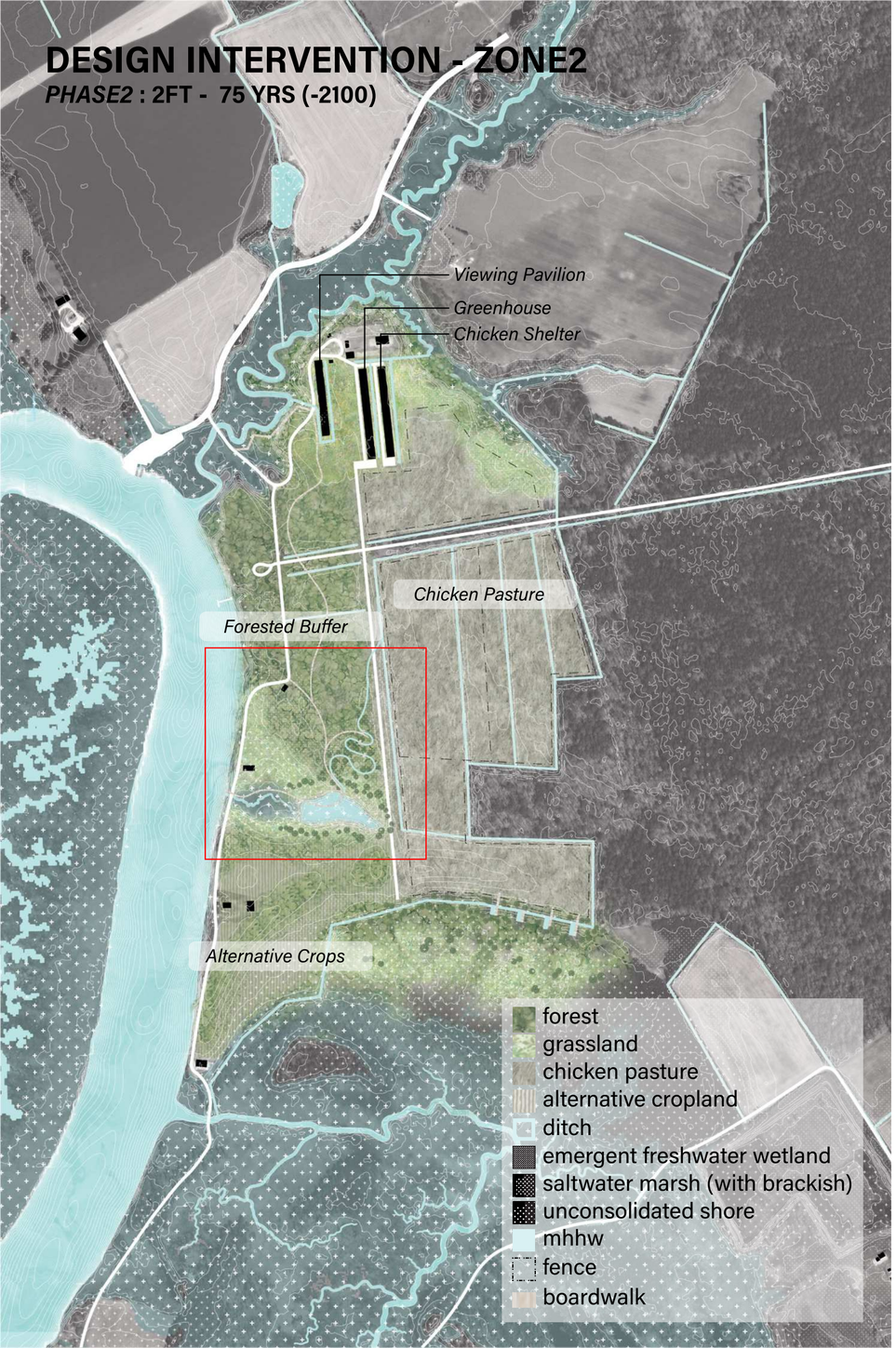
he expanded buffer cleanses agricultural runoff, slows water flow, and increase infiltration.



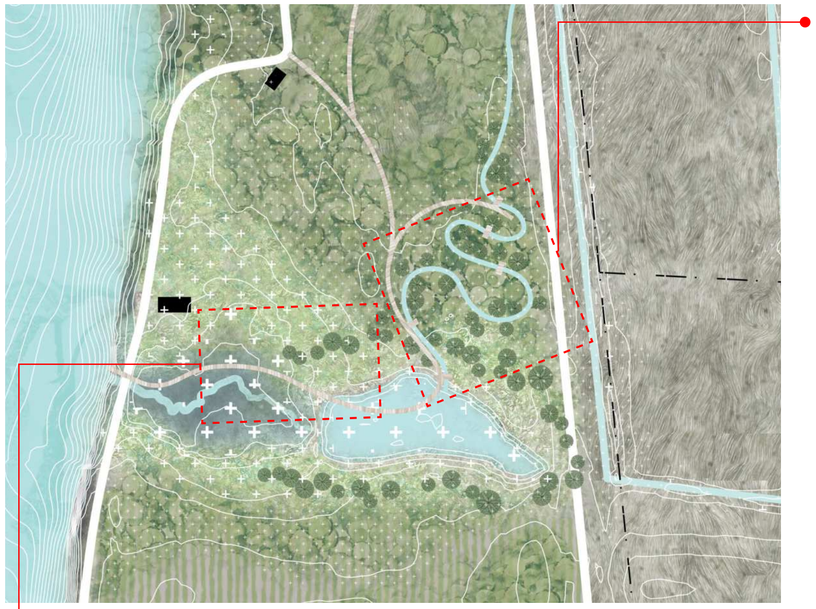


DESIGN INTERVENTION - ZONE2

***PHASE2* : 2FT - 75 YRS (-2100)**

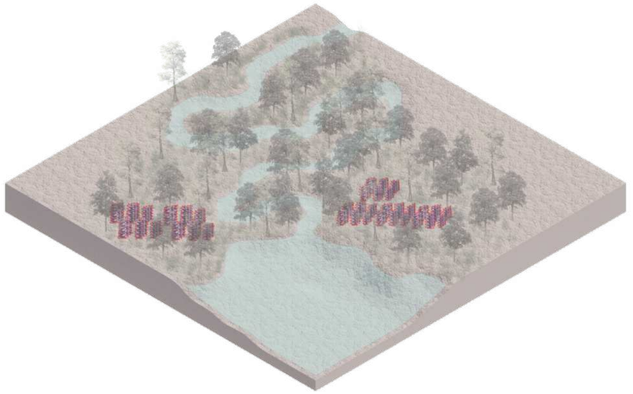


Zone2



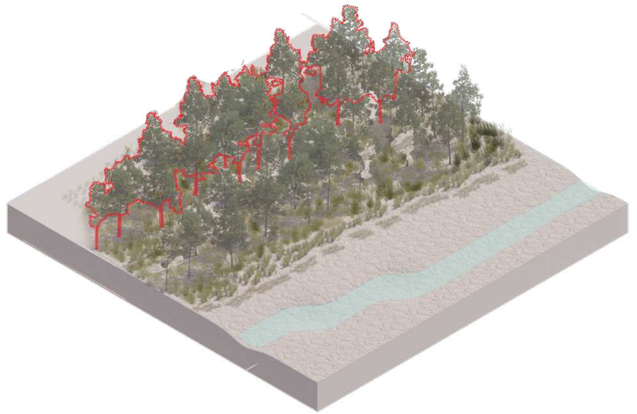
MULTI-USED CLEANSING ZONE

The cleansing zone becomes a multi-use area, integrating new industries such as mushroom farm and agroforestry, and public recreation.

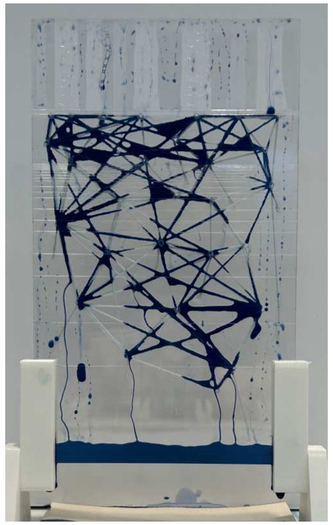


EXPANDING FORESTED BUFFER

The expanded buffer cleanses agricultural runoff, slows water flow, and creates space for new industry.

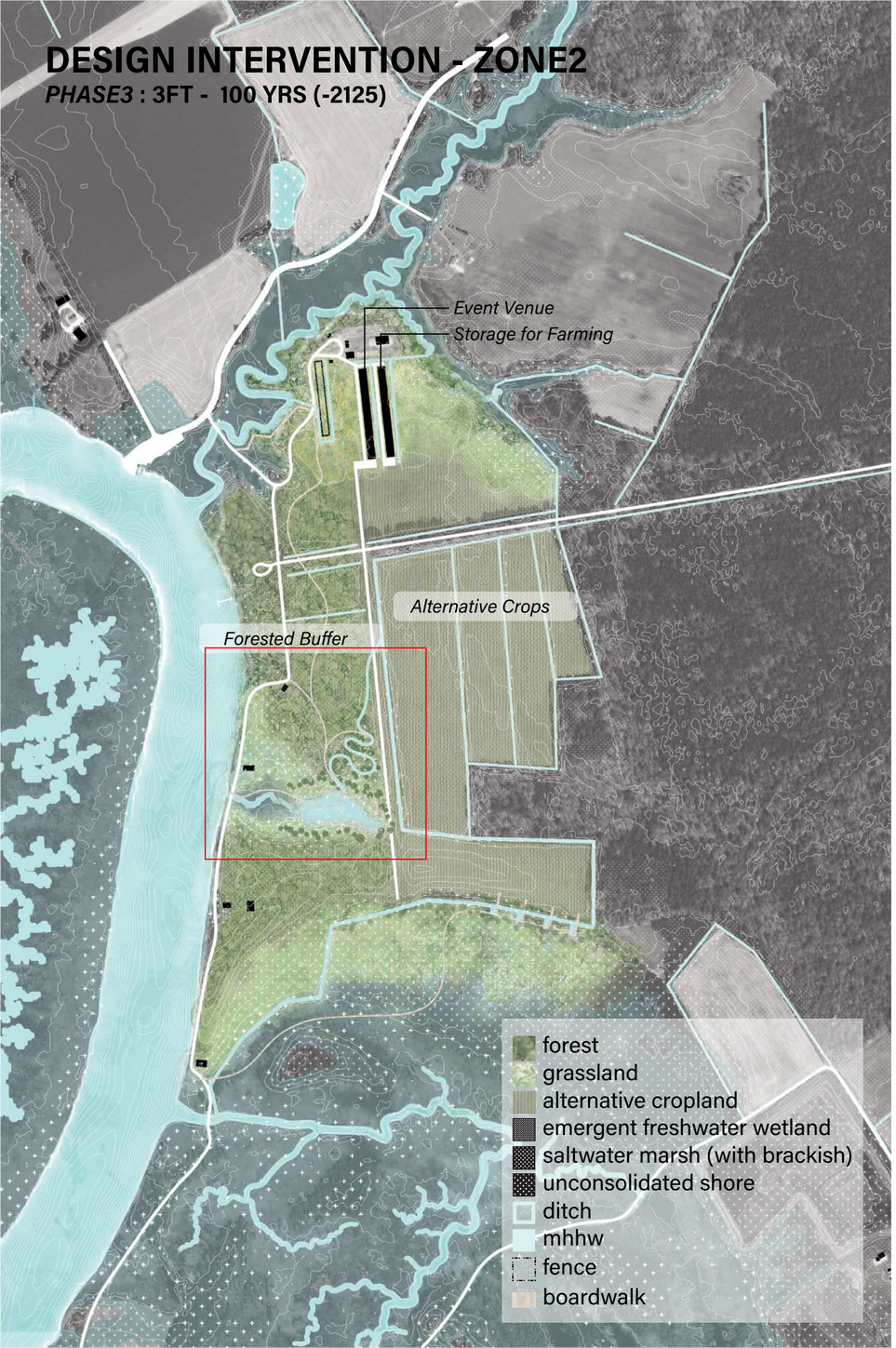




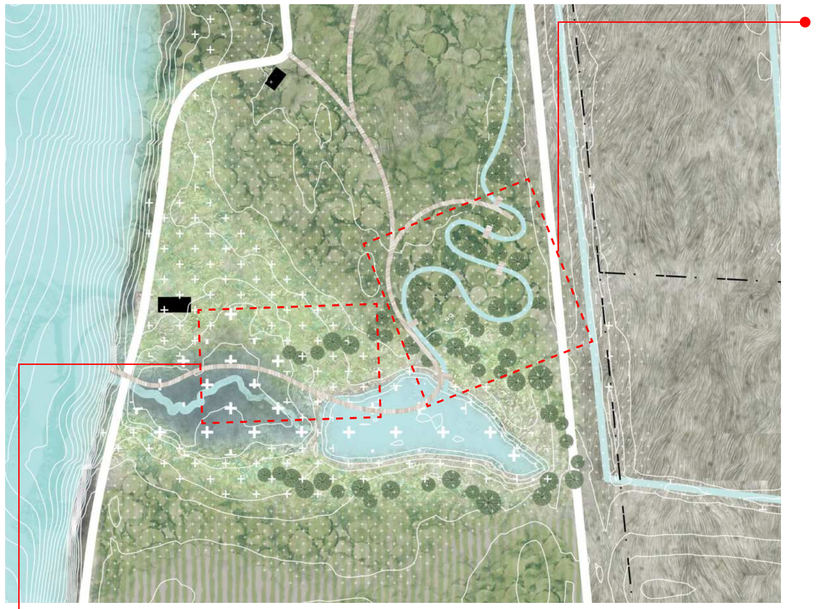


DESIGN INTERVENTION - ZONE2

PHASE3 **: 3FT - 100 YRS (-2125)**

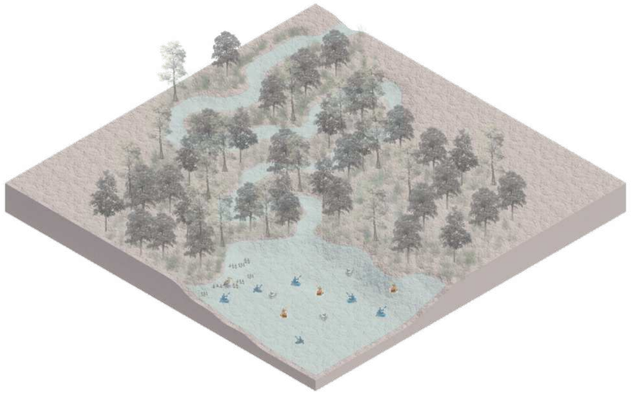


Zone2



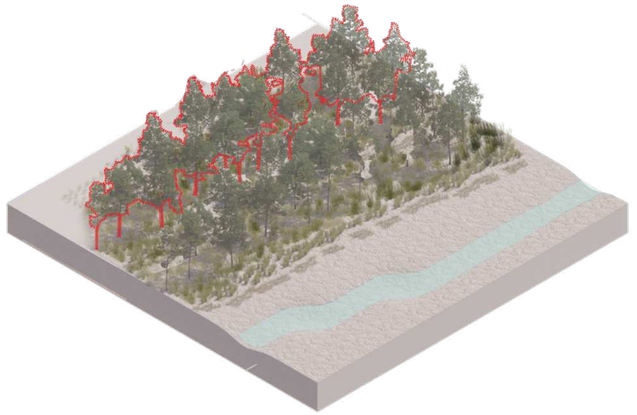
MULTI-USED CLEANSING ZONE

The cleansing zone becomes a public space where people can enjoy water activities and the forest.



EXPANDING FORESTED BUFFER

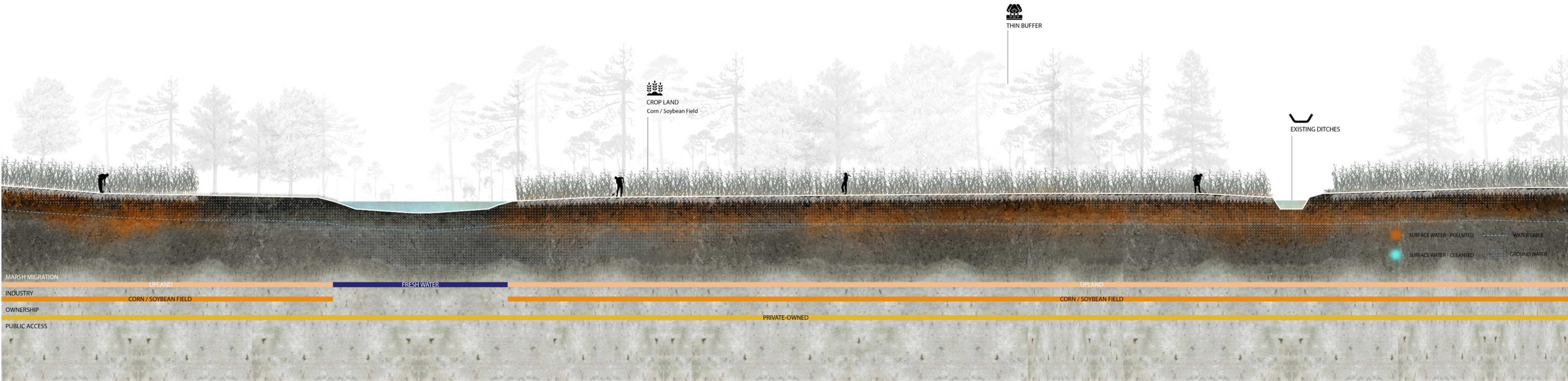
The expanded buffer becomes a corridor that connects people to the river, and surrounding public spaces.



DESIGN INTERVENTION - ZONE2

EXISTING

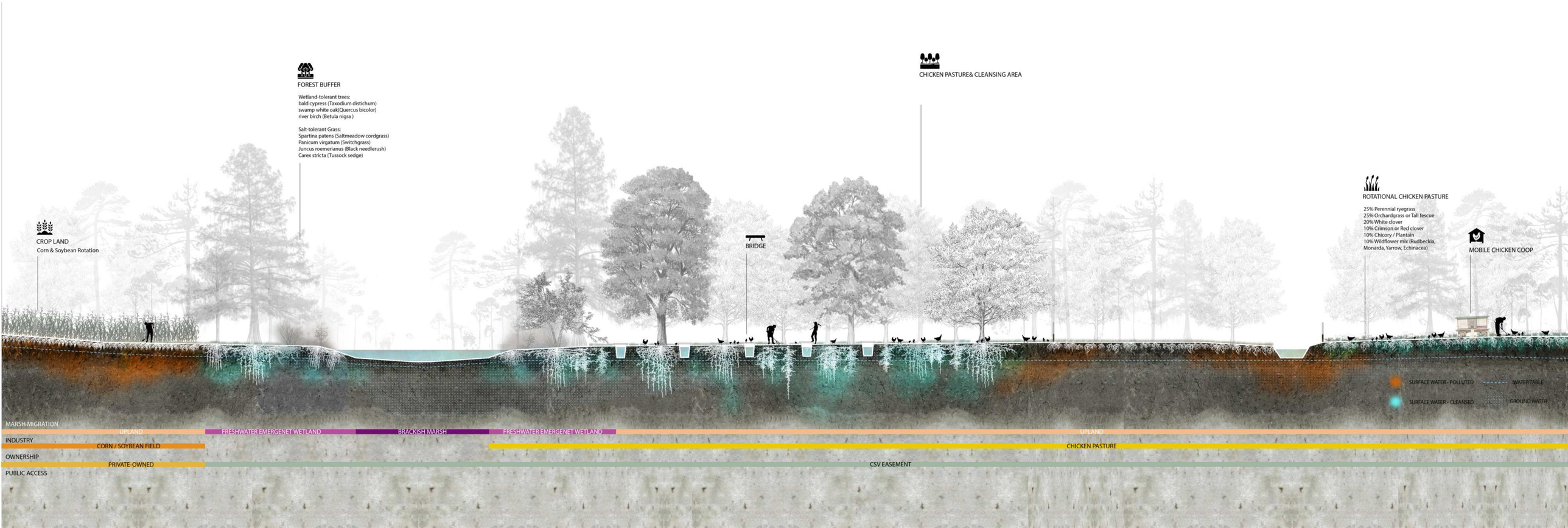




DESIGN INTERVENTION - ZONE2

***PHASE1* : 1FT - 50 YRS (-2075)**

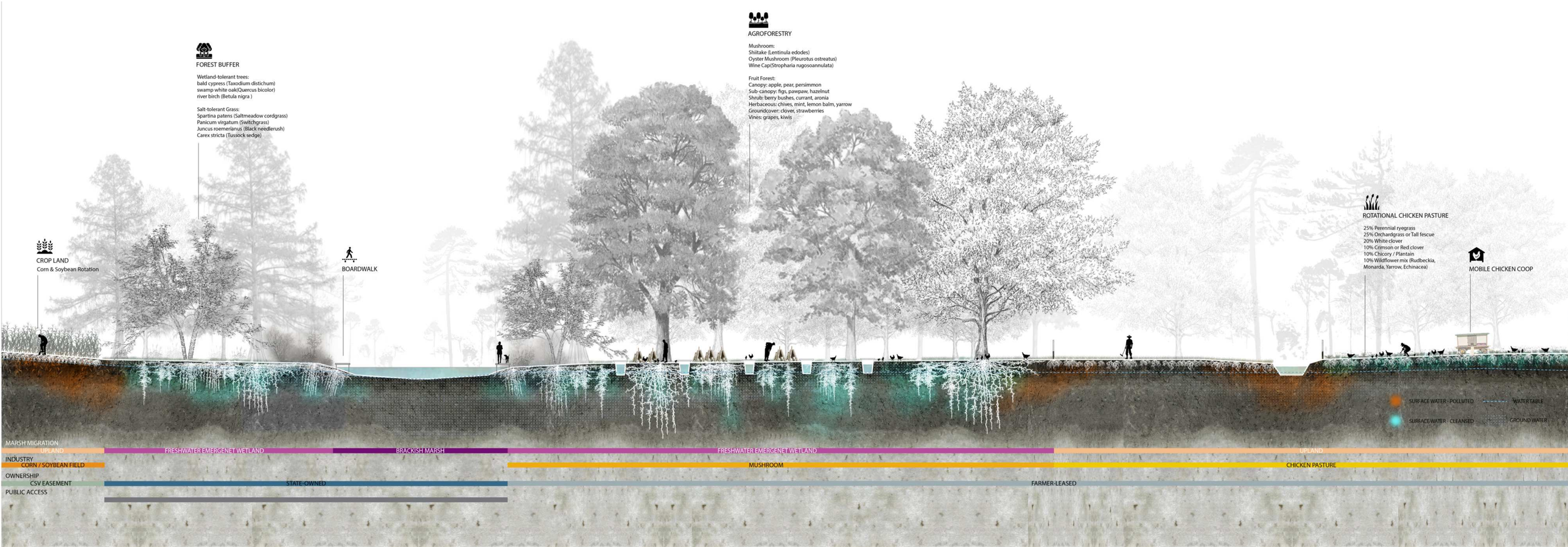




DESIGN INTERVENTION - ZONE2

***PHASE2* : 2FT - 75 YRS (-2100)**

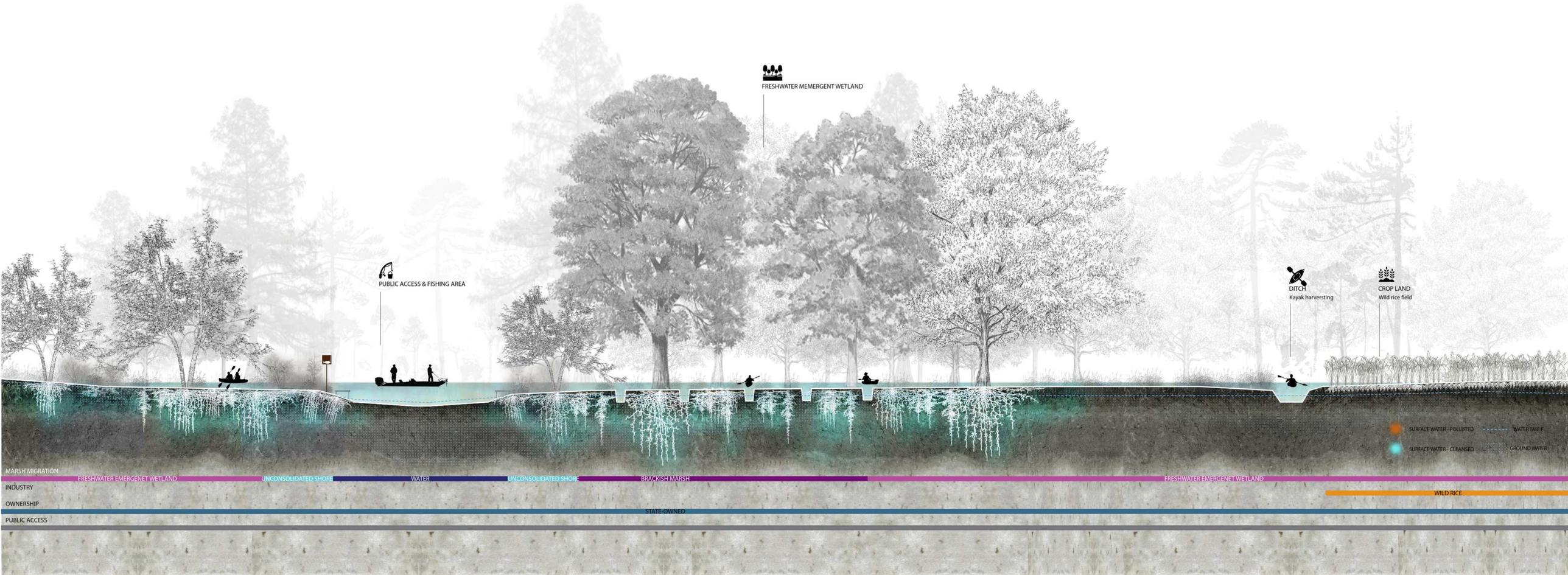




DESIGN INTERVENTION - ZONE2

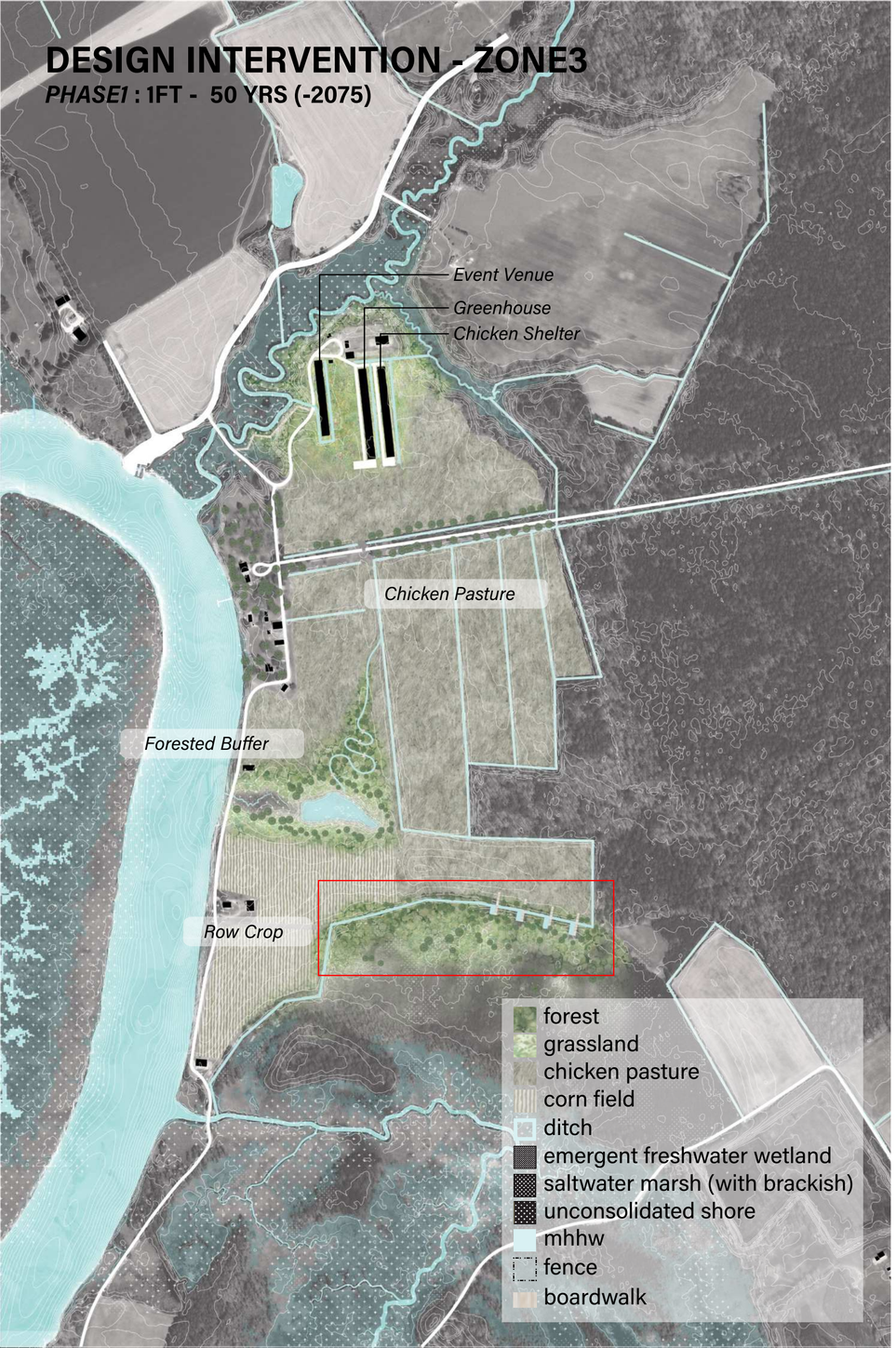
PHASE3 **: 3FT - 100 YRS (-2125)**



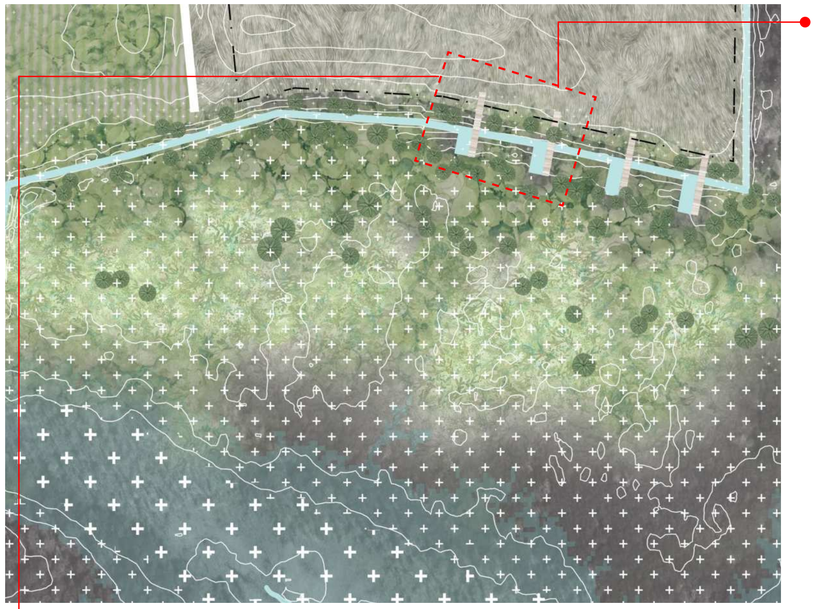


DESIGN INTERVENTION - ZONE3

***PHASE1* : 1FT - 50 YRS (-2075)**

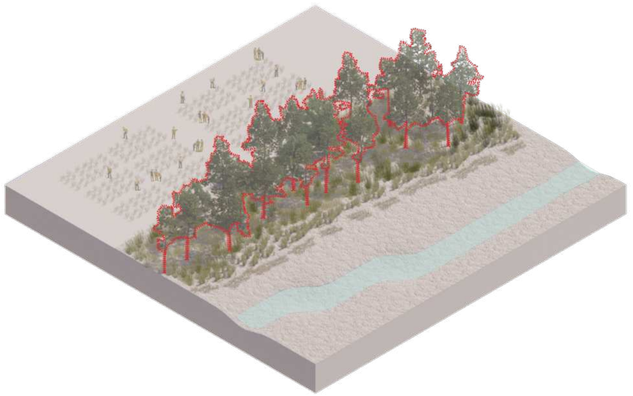


Zone3



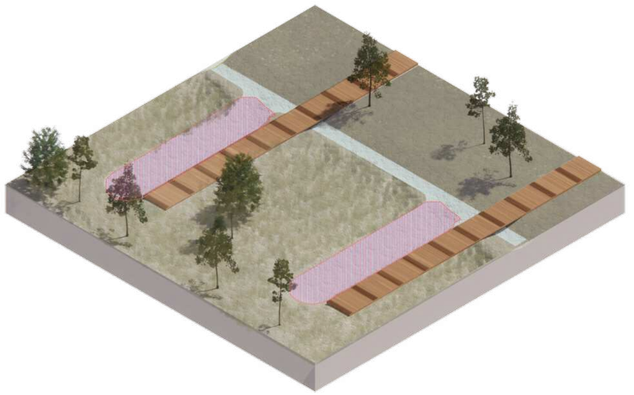
DESIGNING A MULTY-LAYERED BUFFER

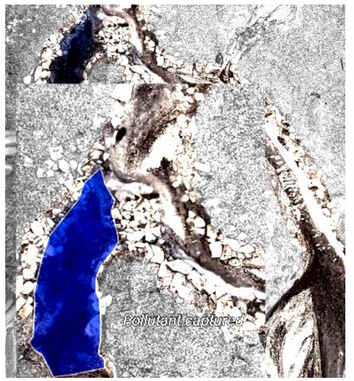
Manage trees to allow more light in, encouraging understory growth and diverse root systems that enhance water filtration.

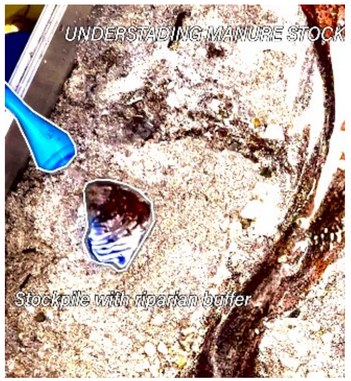


NOTCHING LEVEES / INFILTRATION POND

A notched levee diverts water into an infiltration pond, slowing its flow and allowing it to stay longer before reaching the stream.

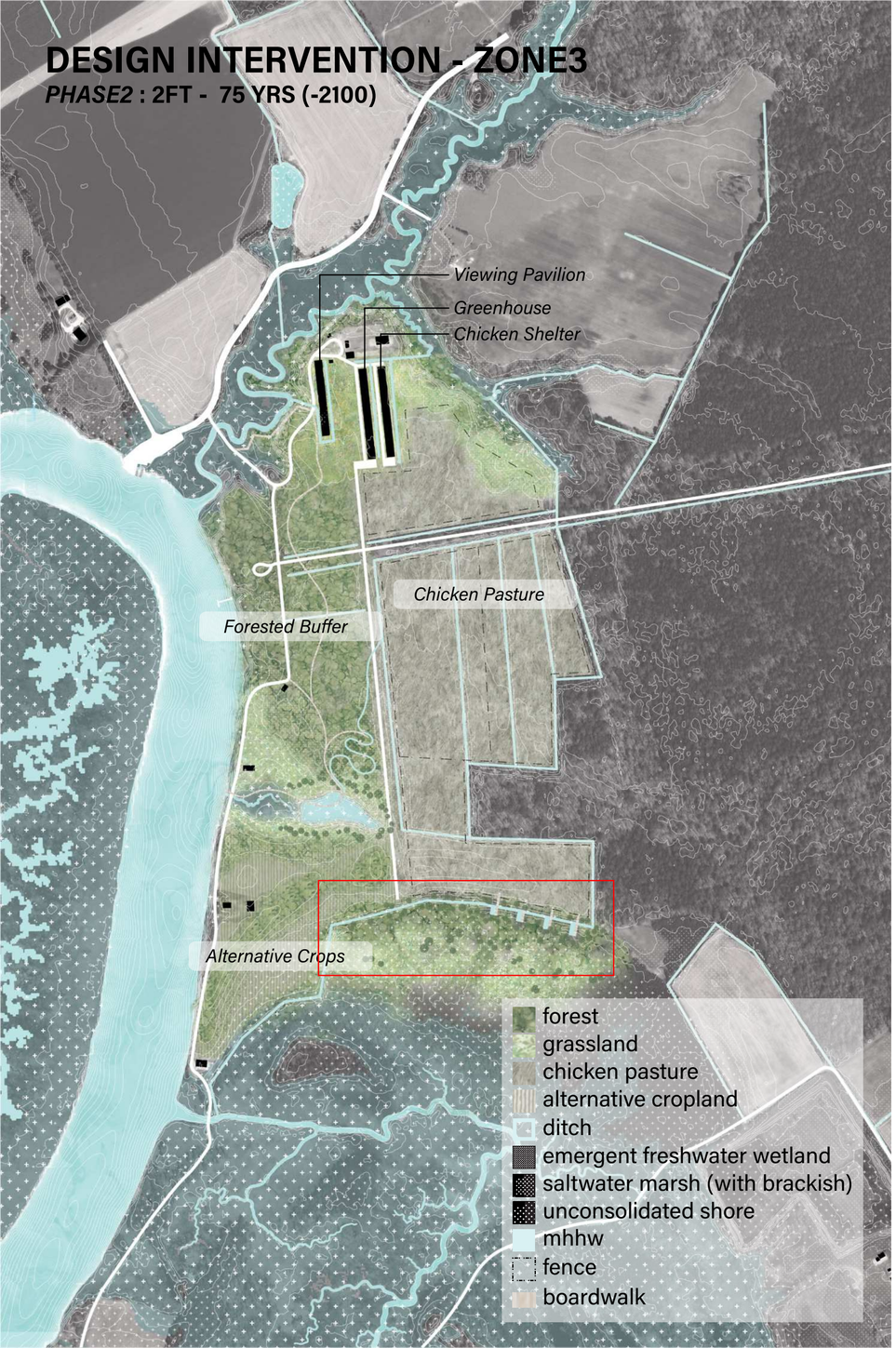




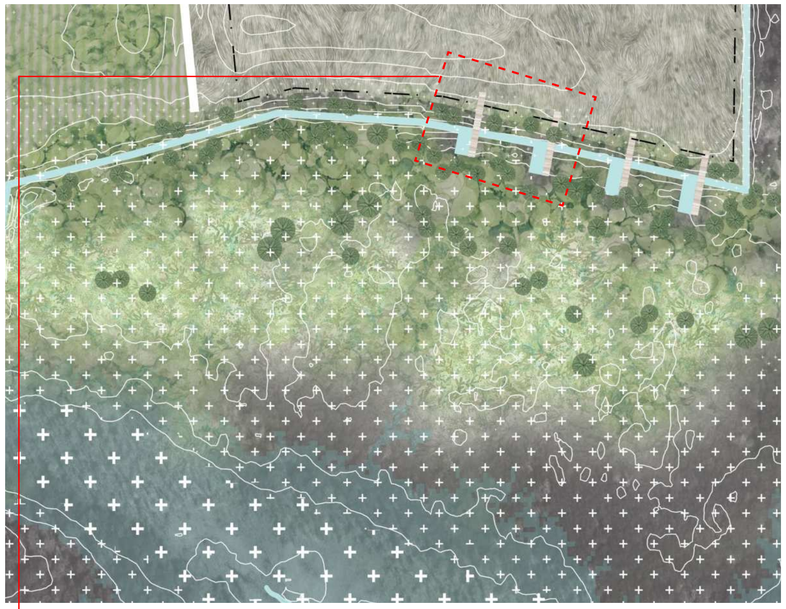


DESIGN INTERVENTION - ZONE3

***PHASE2* : 2FT - 75 YRS (-2100)**



Zone3



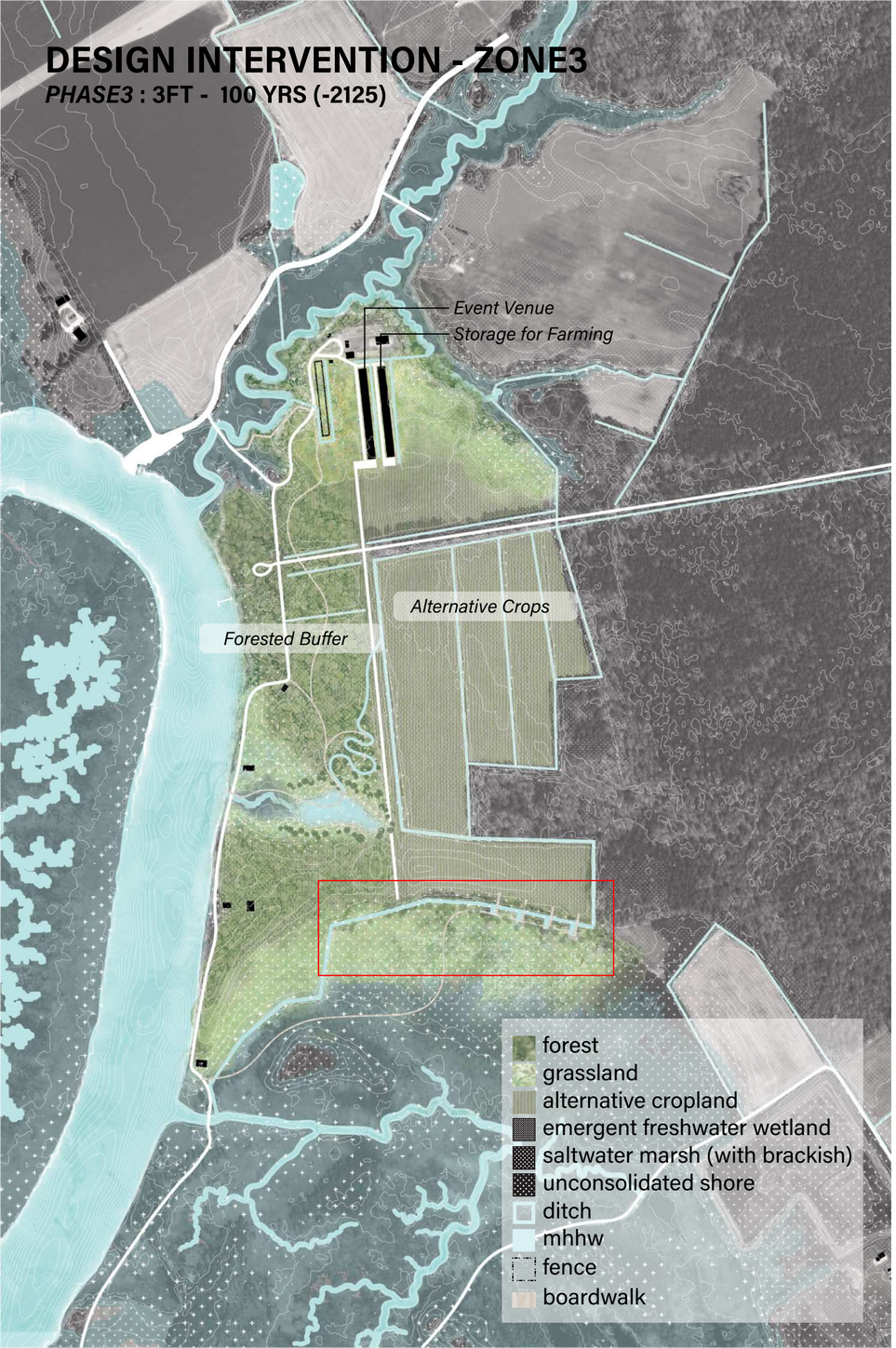
ADAPTING TO NEW ENVIRONMENT

Adapting to marsh migration, where it starts to form an unique transitioning landscape.

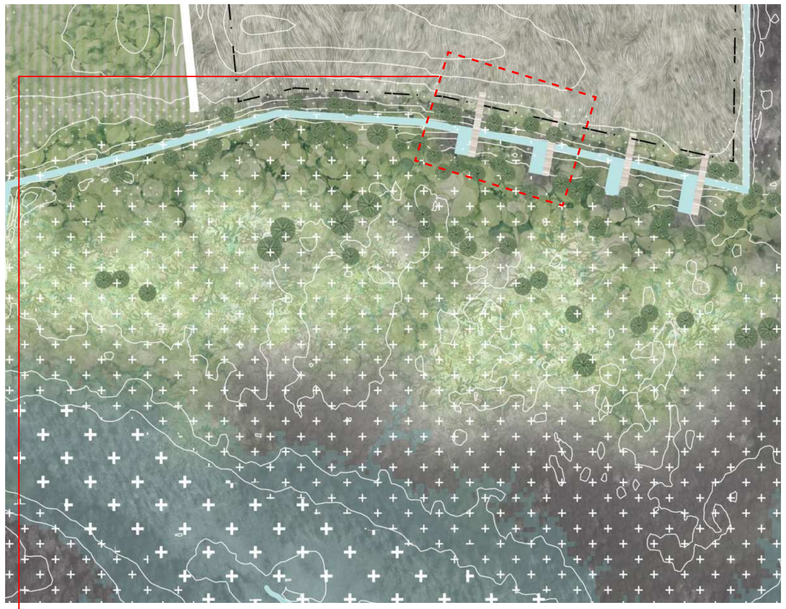


DESIGN INTERVENTION - ZONE3

PHASE3 **: 3FT - 100 YRS (-2125)**

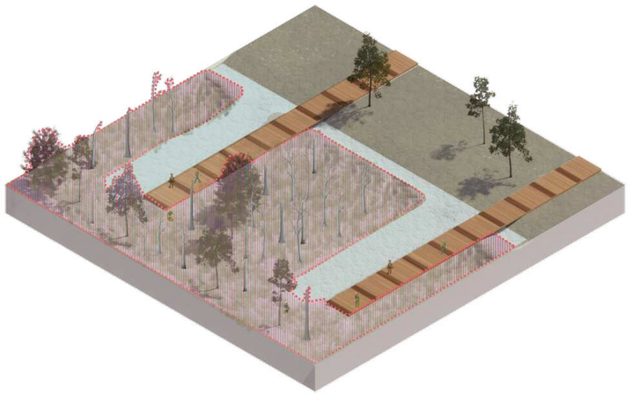


Zone3



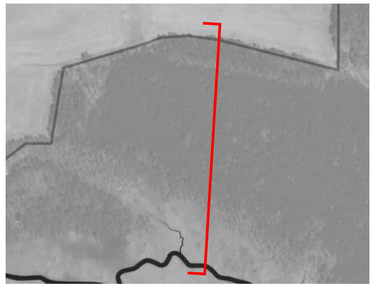
UNIQUE LANDSCAPE

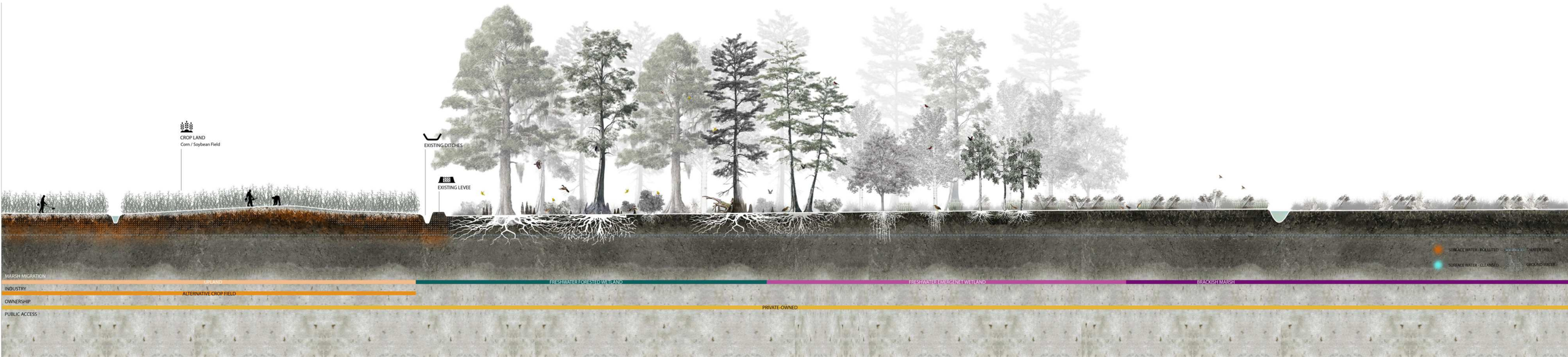
As marshes migrate and soil salinity rises, ghost forests emerge—creating a unique landscape and an opportunity to extend the boardwalk and invite people in.



DESIGN INTERVENTION - ZONE3

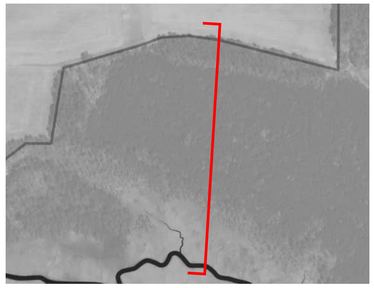
EXISTING

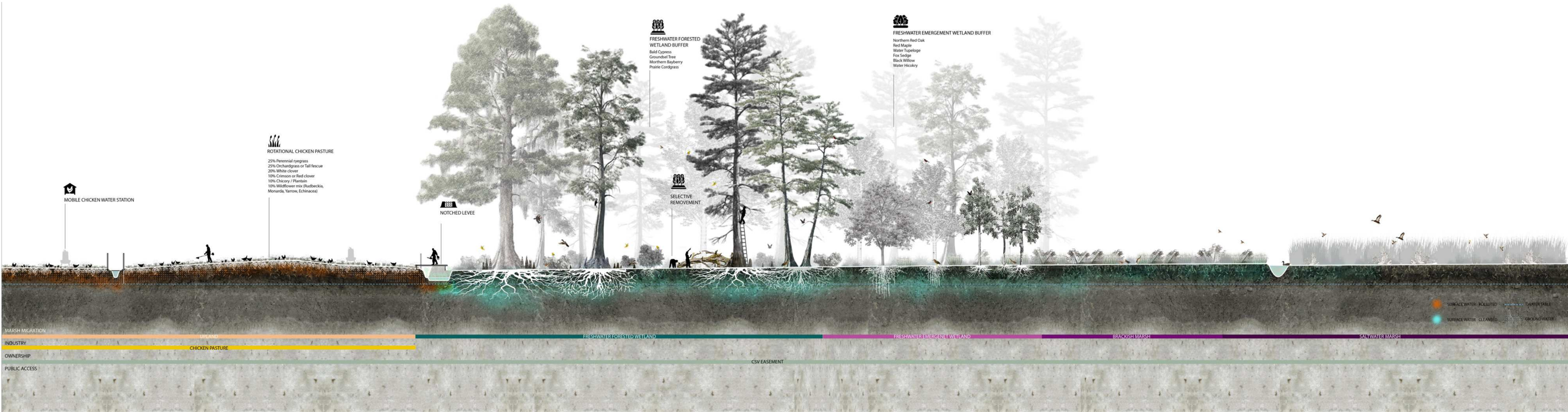




DESIGN INTERVENTION - ZONE3

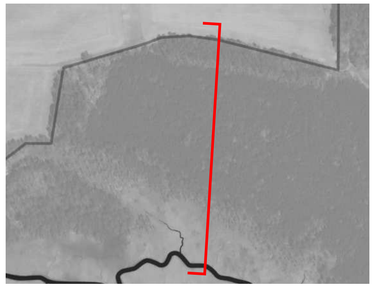
***PHASE1* : 1FT - 50 YRS (-2075)**

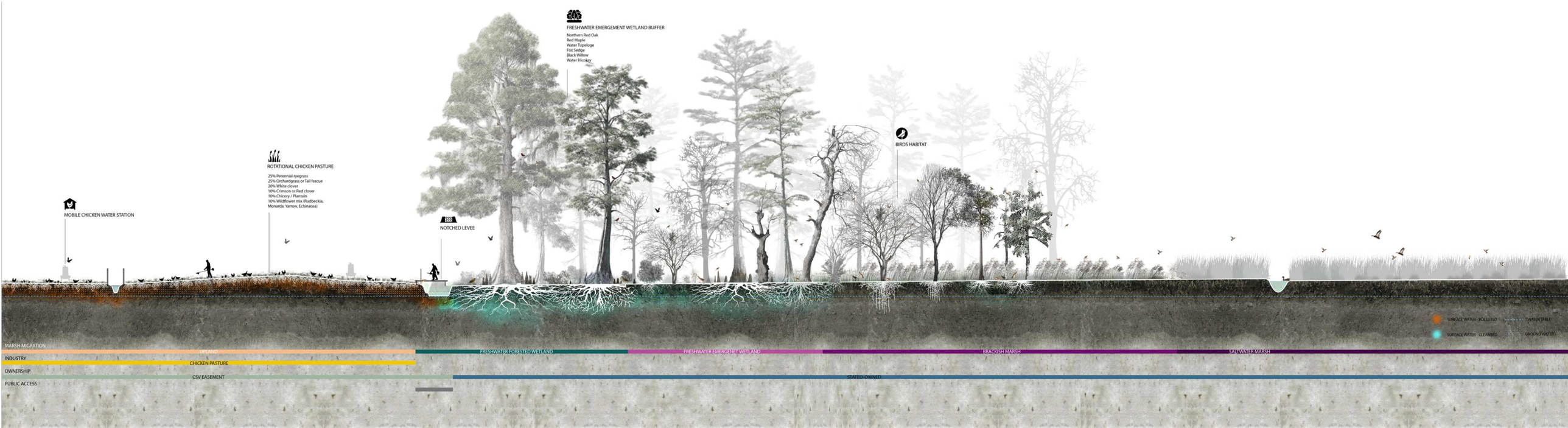




DESIGN INTERVENTION - ZONE3

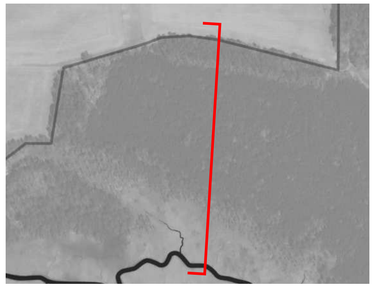
***PHASE2* : 2FT - 75 YRS (-2100)**

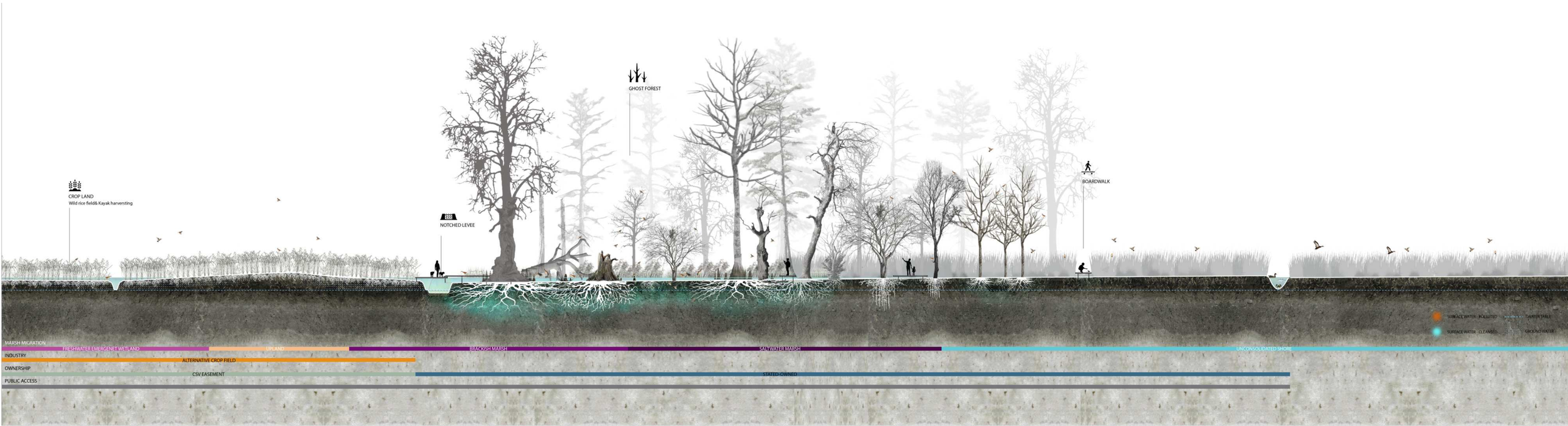




DESIGN INTERVENTION - ZONE3

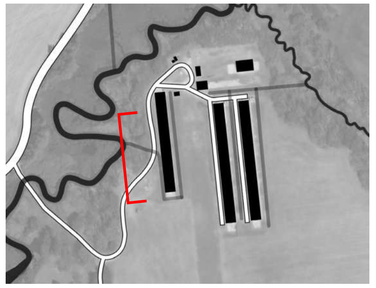
***PHASE3* : 3FT - 100 YRS (-2125)**

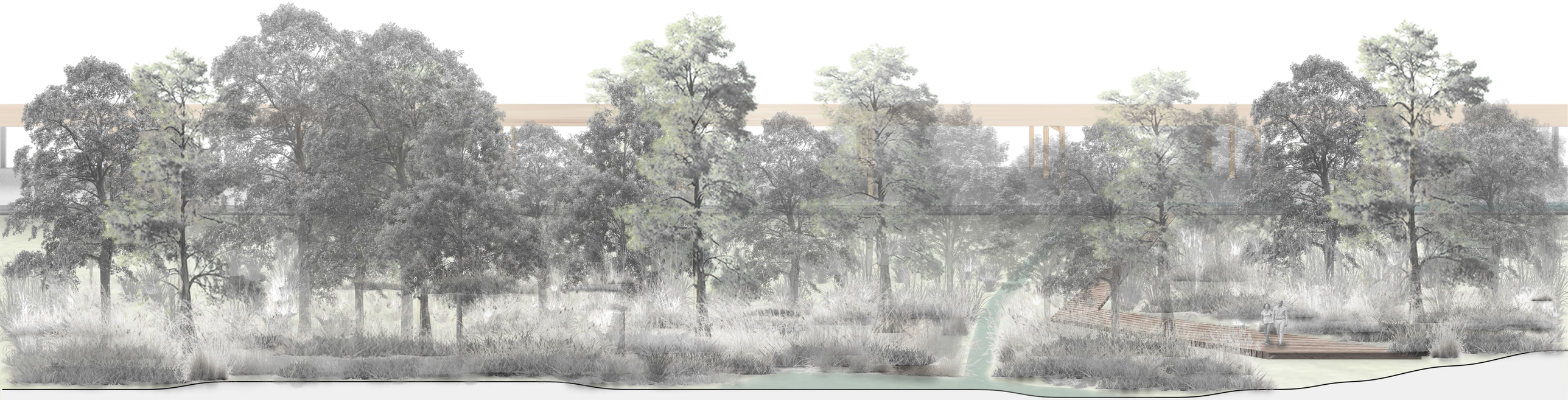




DESIGN INTERVENTION - ZONE1

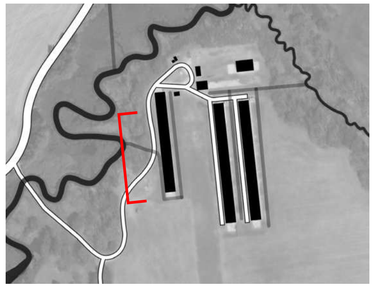
PHASE1 **: 1FT - 50 YRS (-2075)**

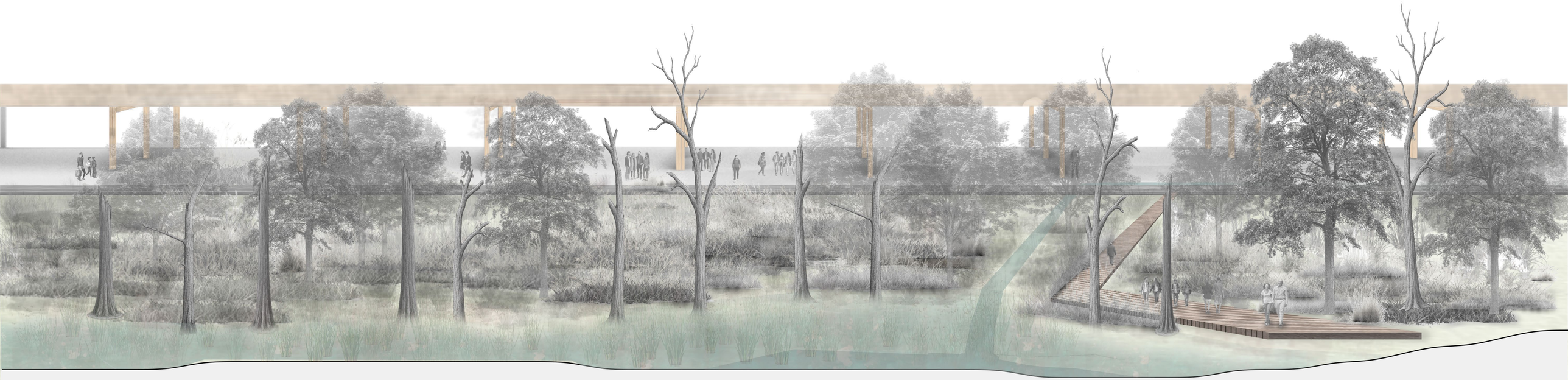




DESIGN INTERVENTION - ZONE1

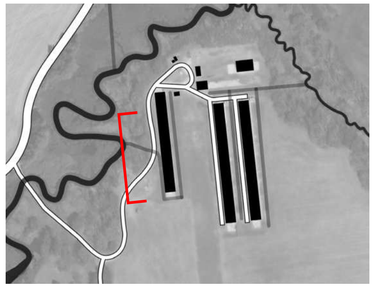
***PHASE2* : 2FT - 75 YRS (-2100)**

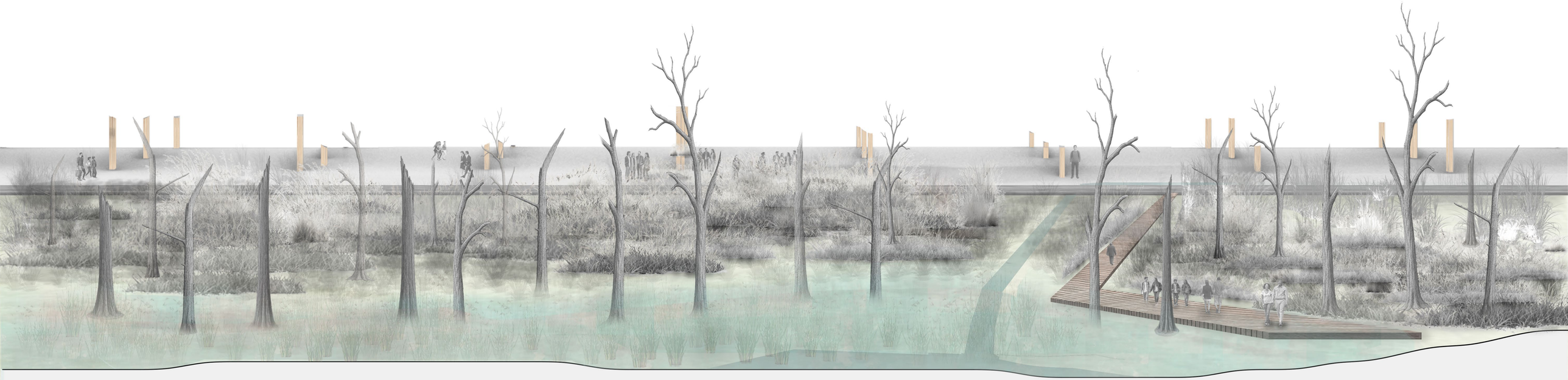




DESIGN INTERVENTION - ZONE1

PHASE3 **: 3FT - 100 YRS (-2125)**





DESIGN INTERVENTION - ZONE1

PHASE3 **: 3FT - 100 YRS (-2125)**



DESIGN INTERVENTION - ZONE2

PHASE1 **: 1FT - 50 YRS (-2075)**





DESIGN INTERVENTION - ZONE2

***PHASE2* : 2FT - 75 YRS (-2100)**





DESIGN INTERVENTION - ZONE2

PHASE3 **: 3FT - 100 YRS (-2125)**





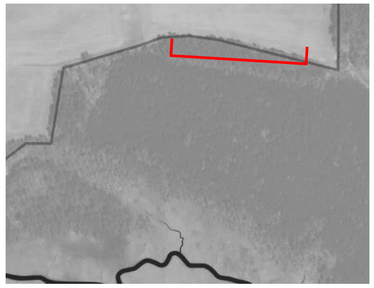
DESIGN INTERVENTION - ZONE2

PHASE3 **: 3FT - 100 YRS (-2125)**



DESIGN INTERVENTION - ZONE3

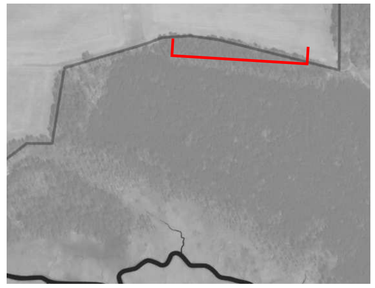
PHASE1 **: 1FT - 50 YRS (-2075)**





DESIGN INTERVENTION - ZONE3

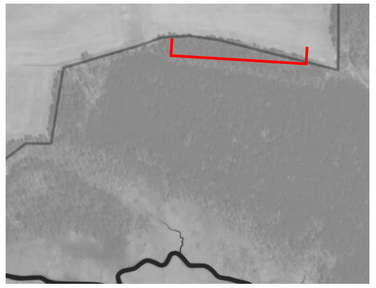
***PHASE2* : 2FT - 75 YRS (-2100)**

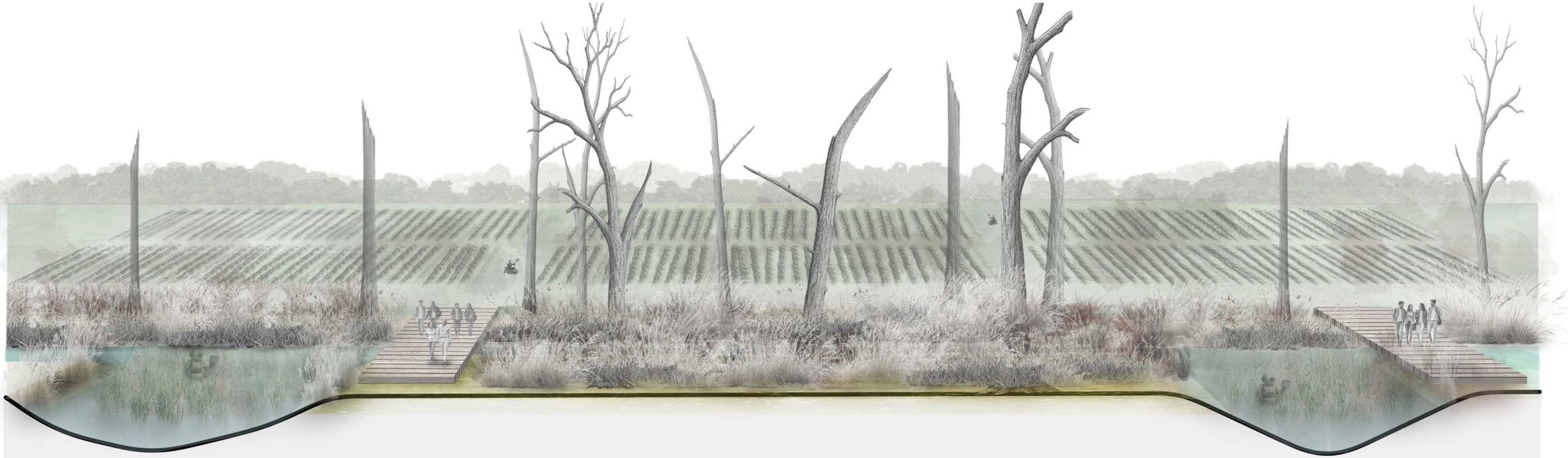




DESIGN INTERVENTION - ZONE3

PHASE3 **: 3FT - 100 YRS (-2125)**





DESIGN INTERVENTION - ZONE3

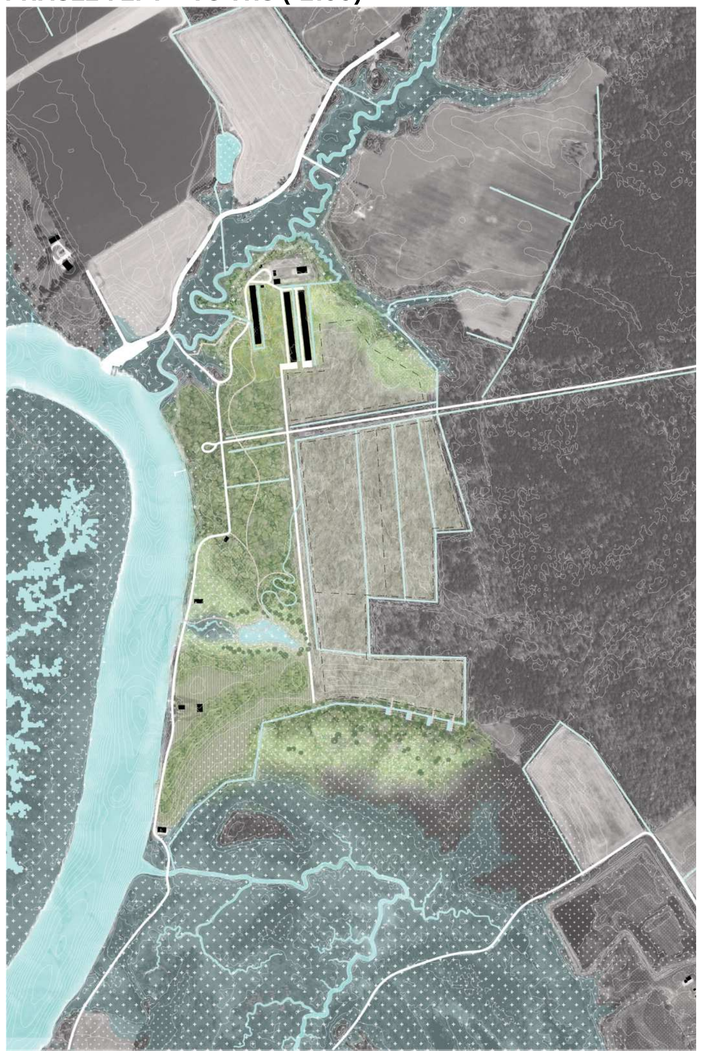
PHASE3 **: 3FT - 100 YRS (-2125)**



PHASE1 **: 1FT - 50 YRS (-2075)**



PHASE2 **: 2FT - 75 YRS (-2100)**



PHASE3 **: 3FT - 100 YRS (-2125)**

