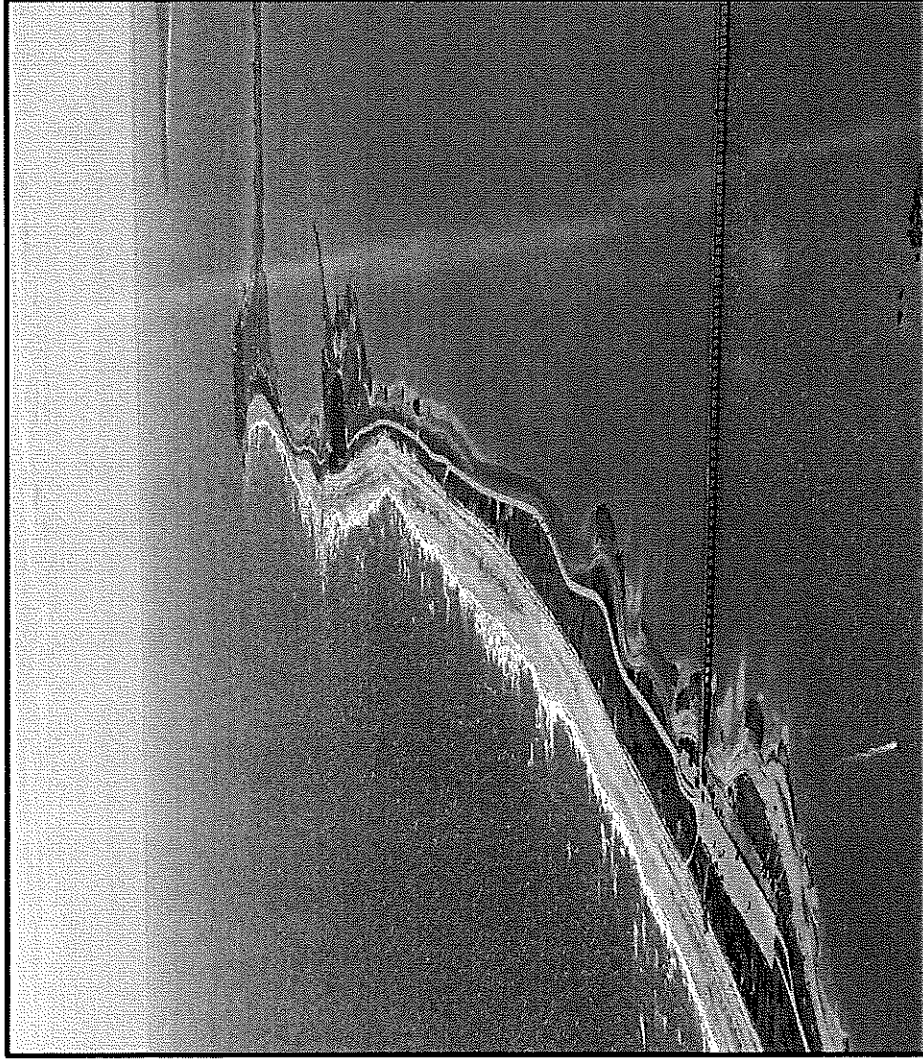


DUXBURY  
BEACH  
RESERVATION, INC.

# Beach Management

4/4/22

abbreviated from  
original 10/28/2021

# Meeting Goals

- Endangered species program
- COI permit under the HCP
- What is a Take exposure
- Discussion of mitigation credits associated with take exposures

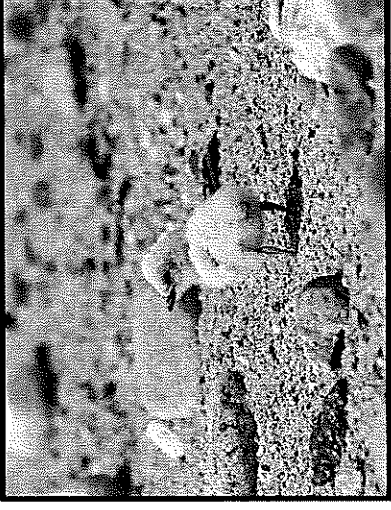
# Listed Species Regulations

# Species Protection and Permits



|                     | Piping Plover (PIPL)                                                                                                 | Least Tern (LETE)                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Legal Protection    | <ul style="list-style-type: none"><li>• Federal Endangered Species Act</li><li>• MA Endangered Species Act</li></ul> | <ul style="list-style-type: none"><li>• MA Endangered Species Act</li></ul>      |
| Listing Status      | Threatened (Federal & State)                                                                                         | Species of Special Concern (State)                                               |
| Permits held by DBR | <ul style="list-style-type: none"><li>• Certificate of Inclusion under Statewide Habitat Conservation Plan</li></ul> | <ul style="list-style-type: none"><li>• Conservation Management Permit</li></ul> |

# ORV Set-backs from Protected Species



| Protection                         | Piping Plover (PIPL)                                                                                                                                                     | Least Tern (LETE)                                                                      |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Nesting (eggs, scrapes, courtship) | <ul style="list-style-type: none"> <li>• 50m in every direction (where feasible)</li> </ul>                                                                              | <ul style="list-style-type: none"> <li>• Determined by disturbance (50 yds)</li> </ul> |
| Chicks                             | <ul style="list-style-type: none"> <li>• 200m N and S of brood range oceanside and bayside for week 1</li> <li>• May reduce to 100m if brood range is limited</li> </ul> | <ul style="list-style-type: none"> <li>• 100 yds N and S of nursery area</li> </ul>    |

# Closing Scenarios

Required setbacks for  
chicks impacts access  
point and/or ORV area

Required setbacks for  
nests impact access  
points (for ORV or  
pedestrians) or parking  
lots

Chicks have entered  
the road or parking  
lot(s)

# Massachusetts Habitat Conservation Plan (HCP)

# HCP Permitted Activities

## Use of Roads and Parking Lots in the Vicinity of Unfledged Chicks

- Barriers and herding
- Signage and traffic management
- Staff training

## Recreation and Beach Operations

- Reduced Symbolic Fencing Around Nests
- Reduced Proactive Symbolic Fencing of Piping Plover Habitat
- Recreation and Beach Operations at Piping Plover Nest Sites with Nest Moving

## OSV Use in the Vicinity of Unfledged Piping Plover Chicks

- Narrow vehicle corridor, no parking
- Restricted travel hours
- Vehicle escorting
- Staff training, enforcement, and communication

# Duxbury Beach COI Permit

**DBR holds a COI permit which allows us to:**

- Invite recreational vehicles onto property (parking lots & road leading to crossovers)
  - Recreational vehicles allowed to park in designated parking areas
  - Recreational activity on road, which allows access to OSV area
  - Employ barriers and herding
- Reduce fencing in certain areas (vs required setbacks)
- Move nests (special permission and circumstances, 10-20 ft per move – used as last resort)
- Deter nesting in limited areas

# Closing Scenarios

Required setbacks for  
chicks impacts access  
point and/or ORV area

Chicks have entered  
the road or parking  
lot(s)

Required setbacks for  
nests impact access  
points (for ORV or  
pedestrians) or parking  
lots

# Implementation and Alternatives Related to ORV Access

## Closing Scenarios

Required setbacks for  
chicks impacts access  
point and/or ORV area

Chicks have entered  
the road or parking  
lot(s)

Required setbacks for  
nests impact access  
points (for ORV or  
pedestrians) or parking  
lots

# How, When, Where...

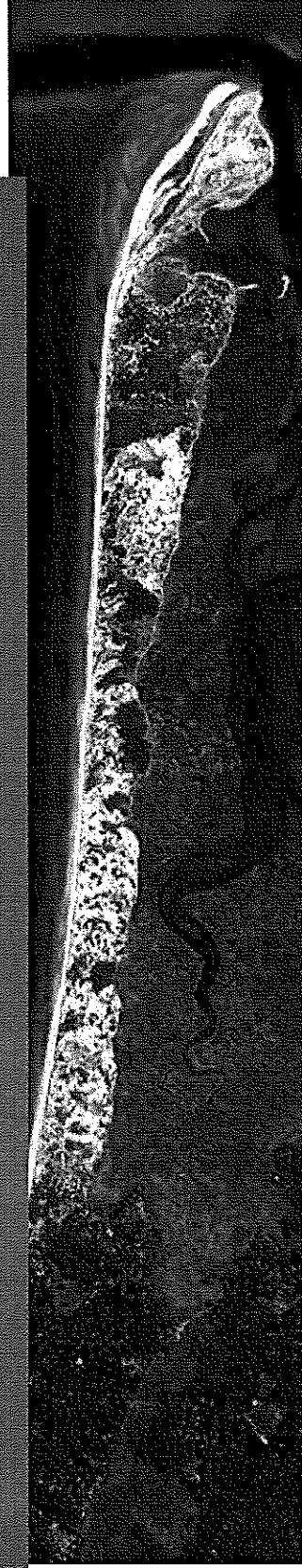
## Opportunities for implementation

- Crossover needs to be accessible
- Need somewhere to escort vehicles to that is 100-200m from chicks

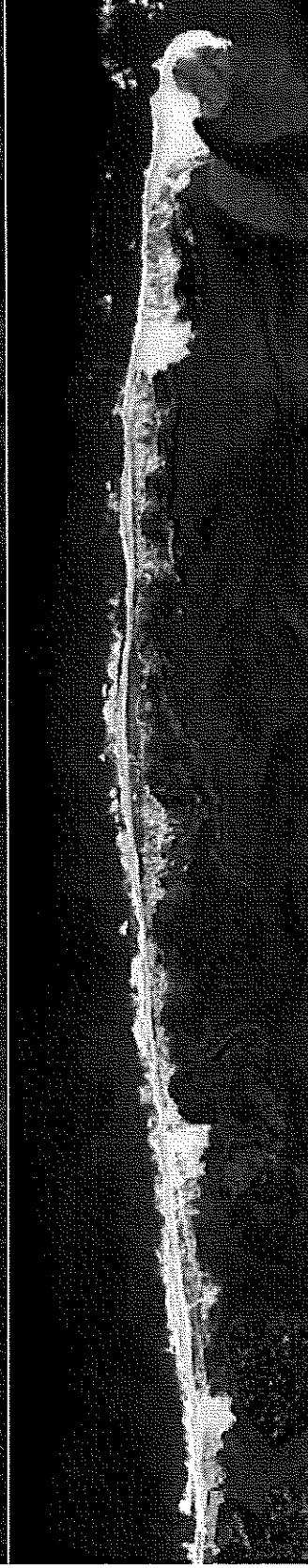
## Limitations

- Driving, not parking, is allowed under the HCP
- Greater setbacks for chicks vs. nests (securing access around nests does not equal access once nests hatch)
- Chicks move! Eggs do not
- Duxbury Beach is narrow leading to:
  - Nesting dispersal north to south rather than “clumps” seen at other sites
  - Limited options for driving paths
  - Greater likelihood of chicks near or in the vehicle corridor

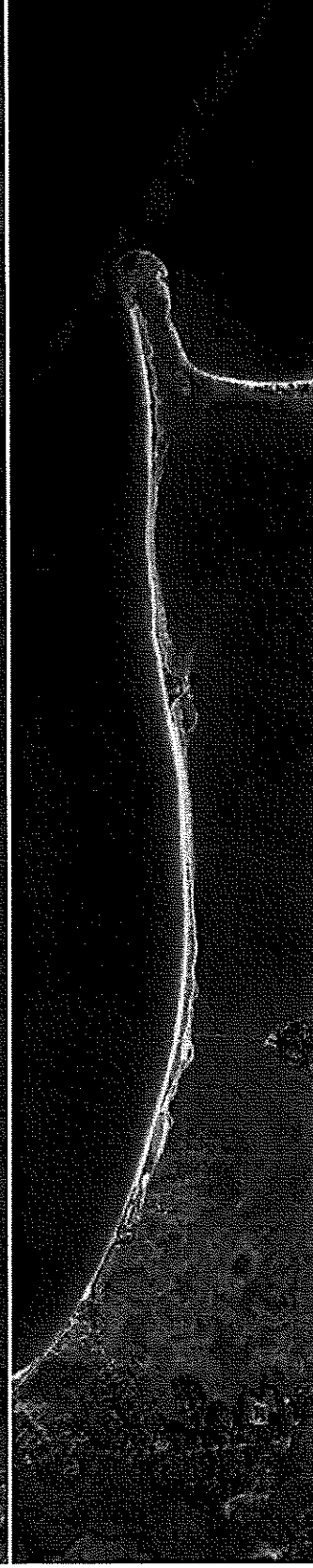
# Massachusetts ORV Beaches



Sandy Neck,  
Barnstable



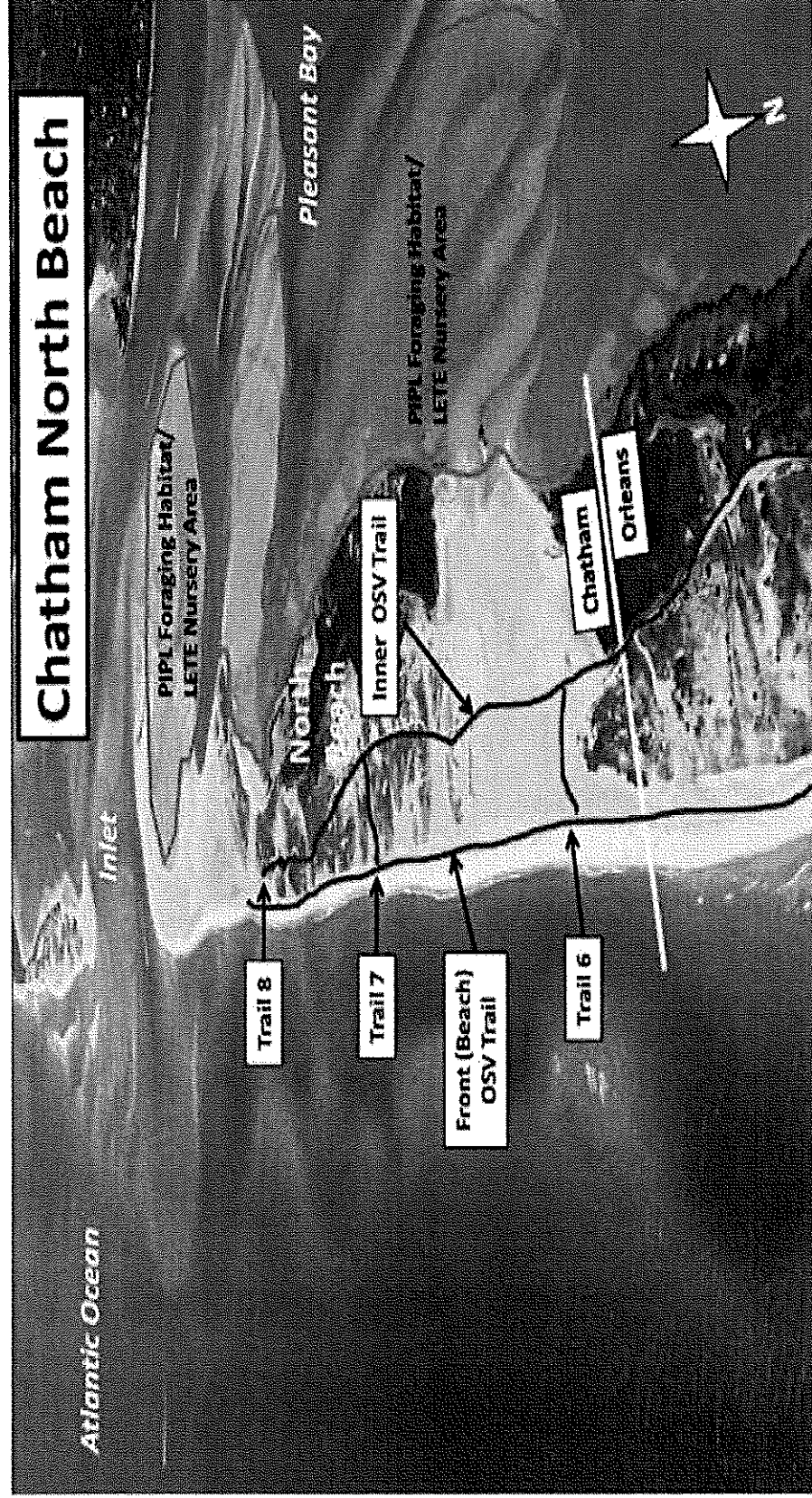
Nauset Beach,  
Orleans  
North Beach,  
Chatham



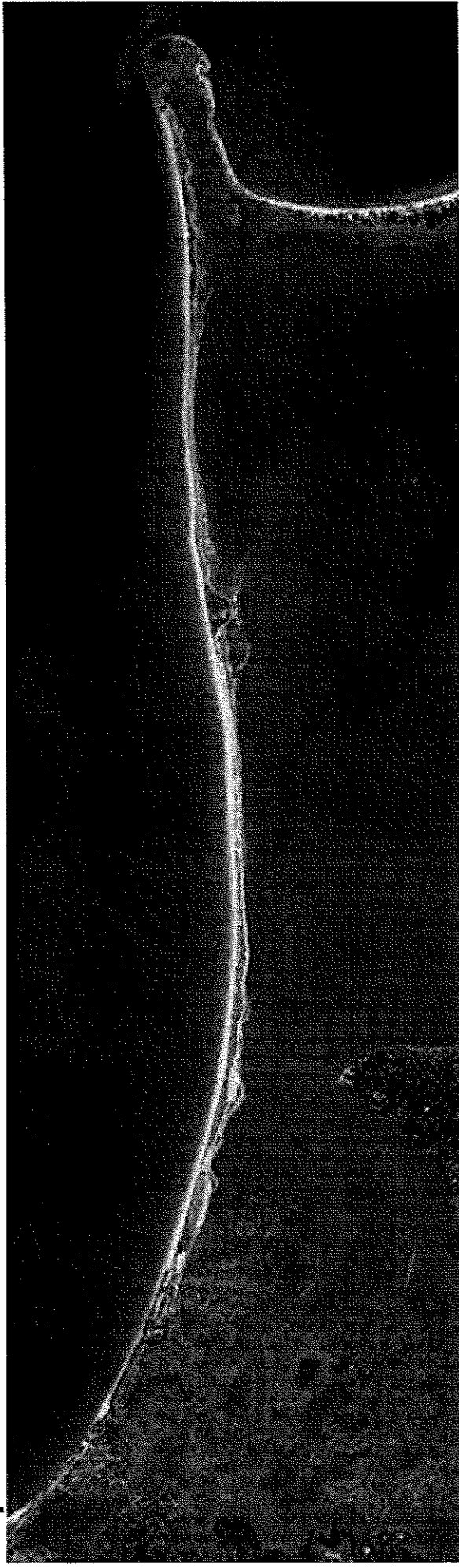
Duxbury Beach,  
Duxbury/Plymouth

Same scale for all

# Chatham ORV Beach



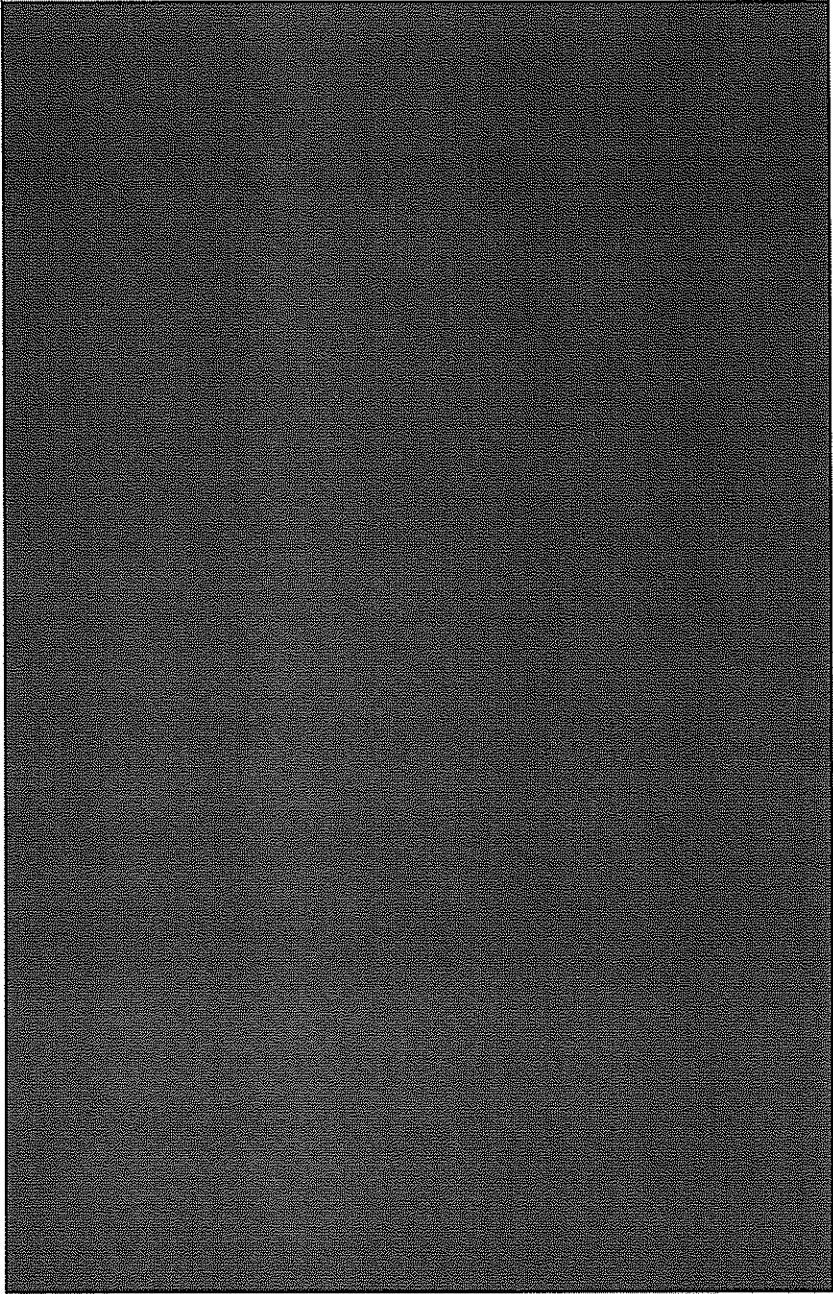
# Duxbury Beach Distribution



## **Nests are everywhere.....**

- Plovers – solitary = distributed throughout the beach
- Least terns – colonial = nest in groups

# Escorting Amendment Implementation

| Requirements                   | Details                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------|
| Schedule                       |  |
| Add'l Monitoring               |                                                                                     |
| Video/Training                 |                                                                                     |
| DFW Approved OSV Operator Quiz |                                                                                     |
| Escorting Type                 |                                                                                     |
| Add'l tokens/request           |                                                                                     |
| Site Management                |                                                                                     |
| Protocol Development           |                                                                                     |

## Escorting: Pros/Cons

### Pros

- MAY increase number of days ORV area can be open
- MAY increase number of vehicles allowed on beach

### Cons

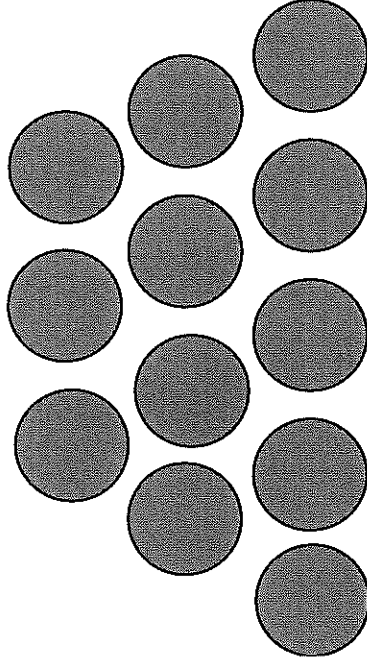
- Beach goers essentially “trapped on beach”
- Management and oversight prior to and during implementation
- Add'l staff, salaries coverage during the season
- Last minute closures or reductions of ORV area more likely

# Piping Plover Take Exposures & Mitigation

Determine how many take exposures should be requested in the COI to allow beach to remain open (per permit and mitigation requirements)

## Take Exposures aka "Tokens"

- Brood enters road/lot
- Deter nesting in parking lot
- Reduce nest fencing to keep access open
- Move nest
- Use barriers or herding



DBR's Allotted Tokens

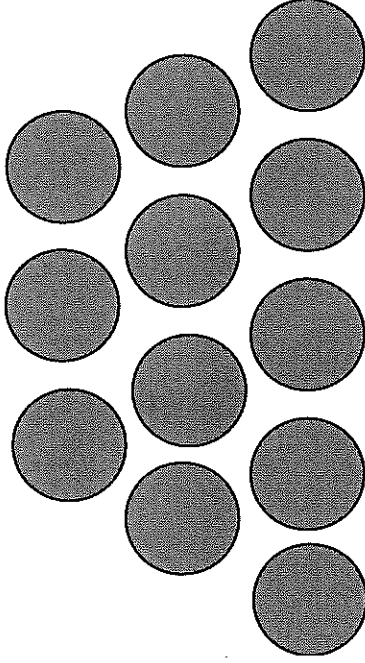
Spent Tokens

# Management Implications: Road Closure



# Take Exposures aka "Tokens"

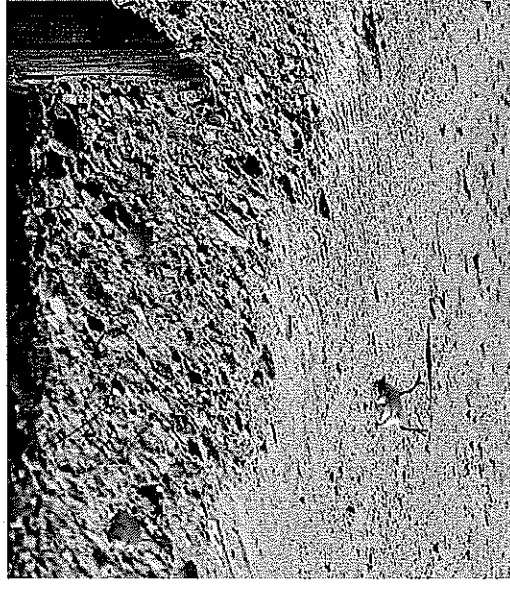
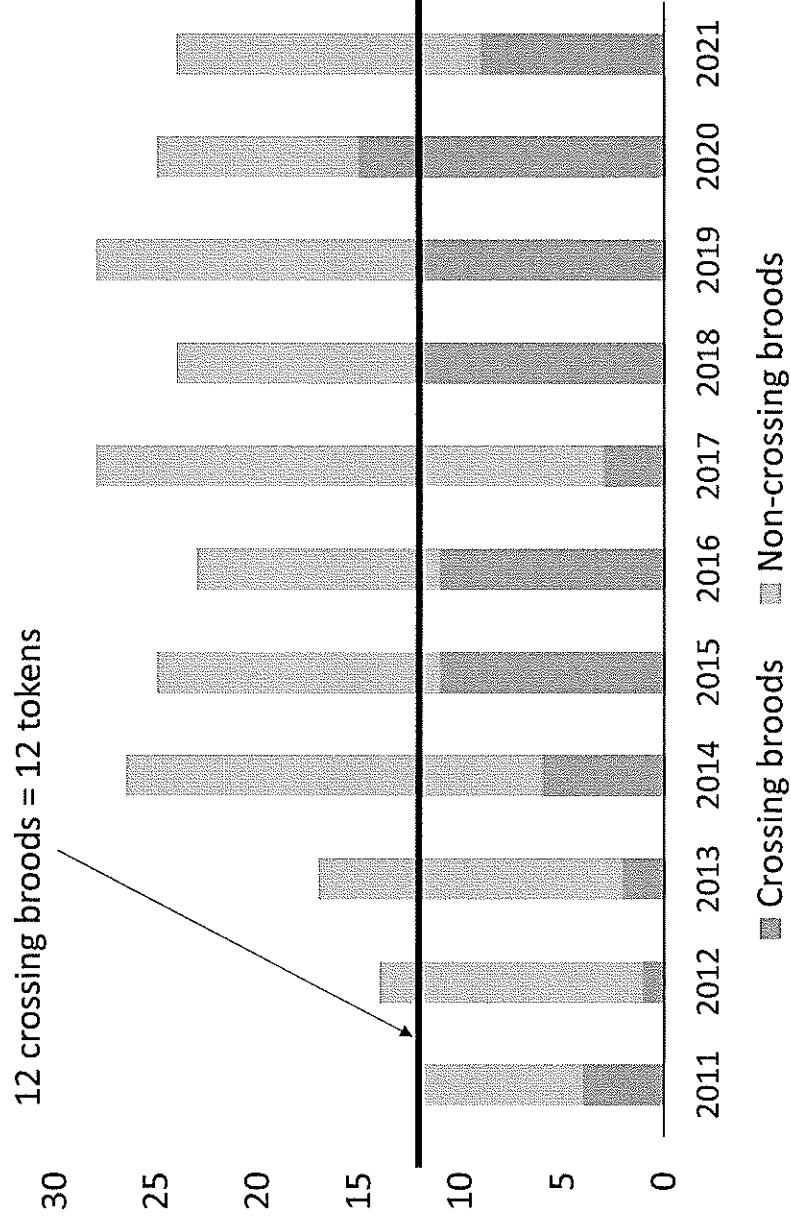
- Brood enters road/lot
- Deter nesting in parking lot
- Reduce nest fencing to keep access open
- Move nest
- Use barriers or herding



DBR's Allotted Tokens

Spent Tokens

# Piping Plover Crossing Activity



# Mitigation Requirements

DB Requested Bird Allowance

=

Mitigation Requirements

12

36

## Acceptable Mitigation (3:1) Categories

