

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil); [Williams, David E - APHIS](#)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** 5/24 ESI Update  
**Date:** Sunday, May 24, 2015 3:19:41 PM

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Bob/Dave,

Today I got on the island late morning as we had a couple errands to run beforehand. I accessed blind 3 which is where we intend to shoot tonight. I did surveys of unit I, H and J. Once we were back on the boat we ran around to the south of the island and surveyed unit O.

I've got a good plan laid out for tonight when we plan to shoot birds in unit I. Target is 200 DCCOs with a 9:30PM start time.

-Matt

Sent from my iPhone

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Christensen, Kevin L - APHIS](#)  
**Subject:** FW: Map of Culling on 6/2  
**Date:** Wednesday, July 08, 2015 11:43:22 AM  
**Attachments:** [6-2 Culling Map Unit B.pdf](#)

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Ok here's the map of the second culling.

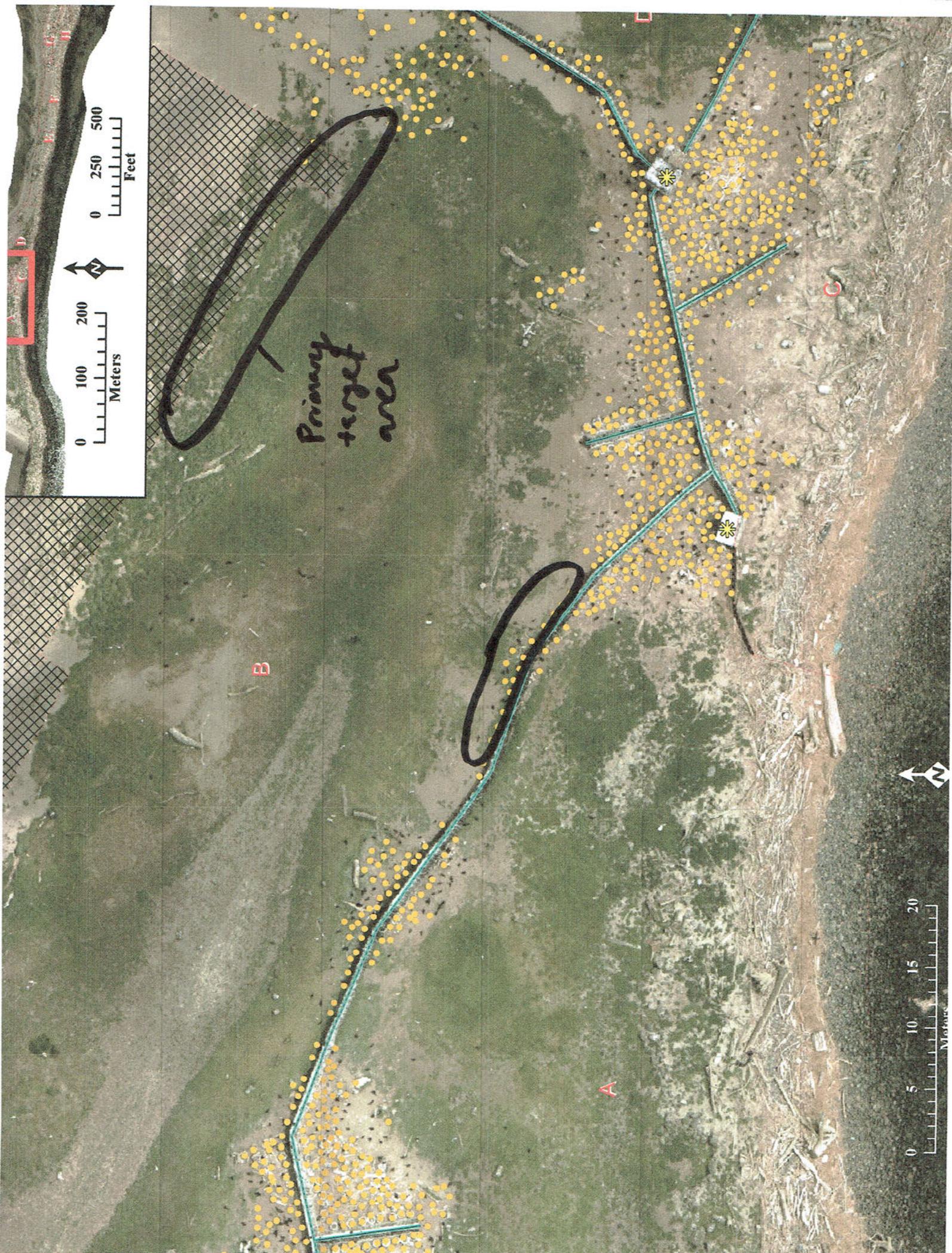
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**From:** Alex, Matthew J - APHIS  
**Sent:** Wednesday, June 03, 2015 10:27 AM  
**To:** Robert.Winters@usace.army.mil  
**Subject:** Map of Culling on 6/2

Here's the map to pass along to the surveyors.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445



**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Christensen, Kevin L - APHIS](#)  
**Subject:** FW: OSU Flights (UNCLASSIFIED)  
**Date:** Wednesday, July 08, 2015 11:45:23 AM  
**Attachments:** [CullingMapUnitI.pdf](#)  
[OilingMapUnitO.pdf](#)

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And here's the maps of the first oiling and culling events.

-Matt

-----Original Message-----

From: Alex, Matthew J - APHIS  
Sent: Thursday, May 28, 2015 4:53 PM  
To: 'Winters, Robert NWP'  
Subject: RE: OSU Flights (UNCLASSIFIED)

Bob,

I've attached my maps with a drawing of the locations where management actions took place. Hopefully these will be sufficient.

Also, I still haven't caught up with Kevin but he will be back in the office and I'll talk with him in the morning. We will let you know our game plan for next week.

Matt Alex  
Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445

-----Original Message-----

From: Winters, Robert NWP [<mailto:Robert.Winters@usace.army.mil>]  
Sent: Thursday, May 28, 2015 2:02 PM  
To: Alex, Matthew J - APHIS  
Subject: FW: OSU Flights (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi Matt,

Is there any way you guys could mark up maps for each management action so the monitoring/survey crew can track those areas? Let me know if you can't and I will just pass along the information to them as I get it.

Thanks,

Bob Winters, PMP  
503-808-4738  
Project Manager  
Portland District U.S. Army Corps of Engineers

-----Original Message-----

From: Macdonald, Jacob B NWP  
Sent: Thursday, May 28, 2015 1:38 PM

To: Winters, Robert NWP; Studebaker, Cynthia A NWP  
Subject: RE: OSU Flights (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Bob,

The information being shared between the crew monitoring the birds and USDA-WS has been more schedule related, not quantities and areas. Reporting data for USDA-WS is not in the scope of the monitoring. I'd prefer you get reports of their activity directly from USDA-WS then pass it on to us. If they just draw some shapes around the affected areas on the maps I made for them, I can work with a scan or even a photo of that map. If that's too much, the info you sent in the previous message is almost as useful.

Thanks,

Jake

-----Original Message-----

From: Winters, Robert NWP  
Sent: Thursday, May 28, 2015 11:13 AM  
To: Macdonald, Jacob B NWP  
Subject: RE: OSU Flights (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I'm not sure. I know 1769 eggs were oiled in unit 0 and 109 adults were culled in Unit I. I think USDA-WS and the monitors should be communicating with each other to provide pertinent information. I think that is already happening. Can you confirm with your guys?

Bob Winters, PMP  
503-808-4738  
Project Manager  
Portland District U.S. Army Corps of Engineers

-----Original Message-----

From: Macdonald, Jacob B NWP  
Sent: Thursday, May 28, 2015 10:08 AM  
To: Winters, Robert NWP; Studebaker, Cynthia A NWP  
Subject: RE: OSU Flights (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Will USDA-WS be marking up maps for us so we can track the areas they've applied the different actions?

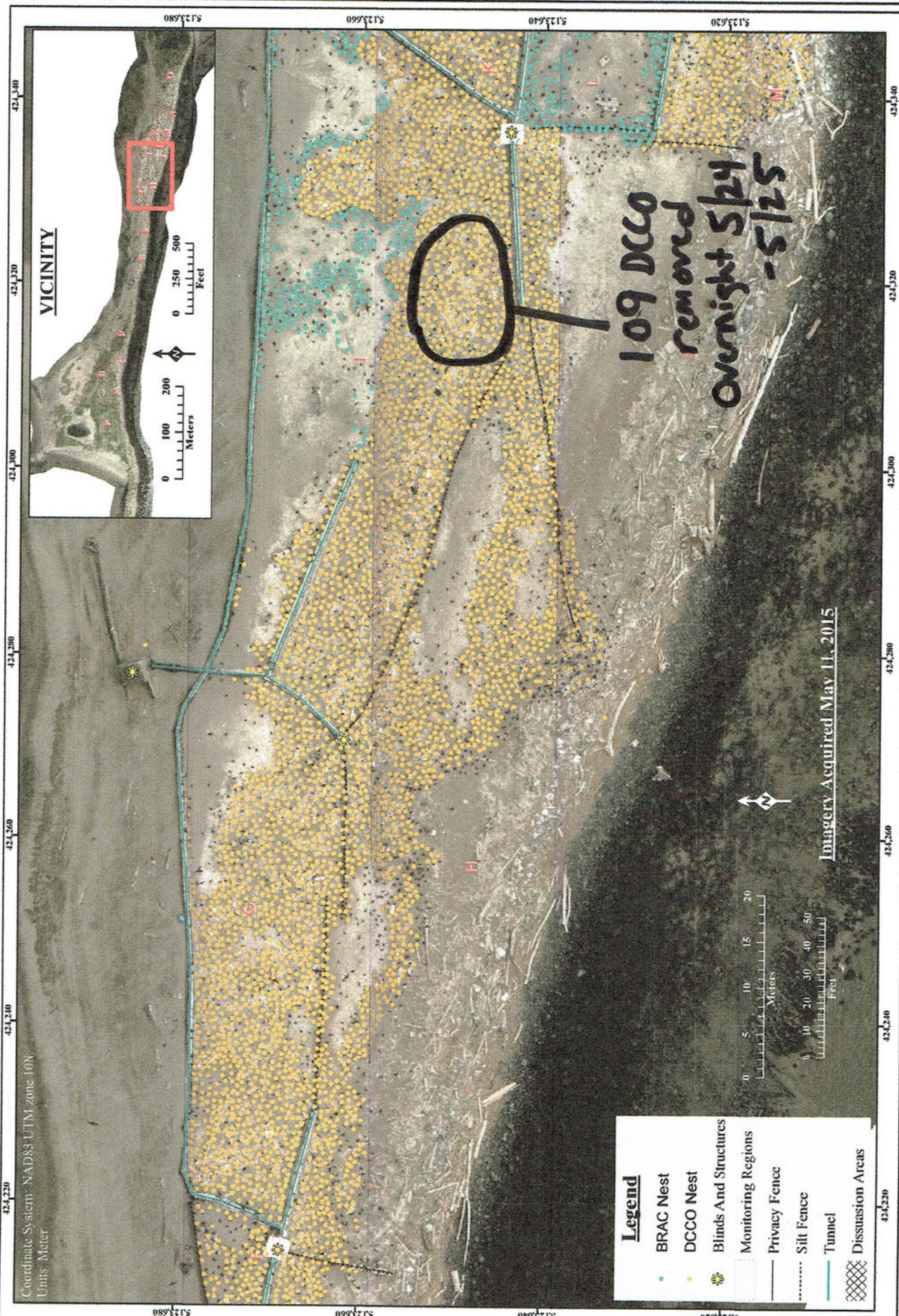
Classification: UNCLASSIFIED  
Caveats: NONE

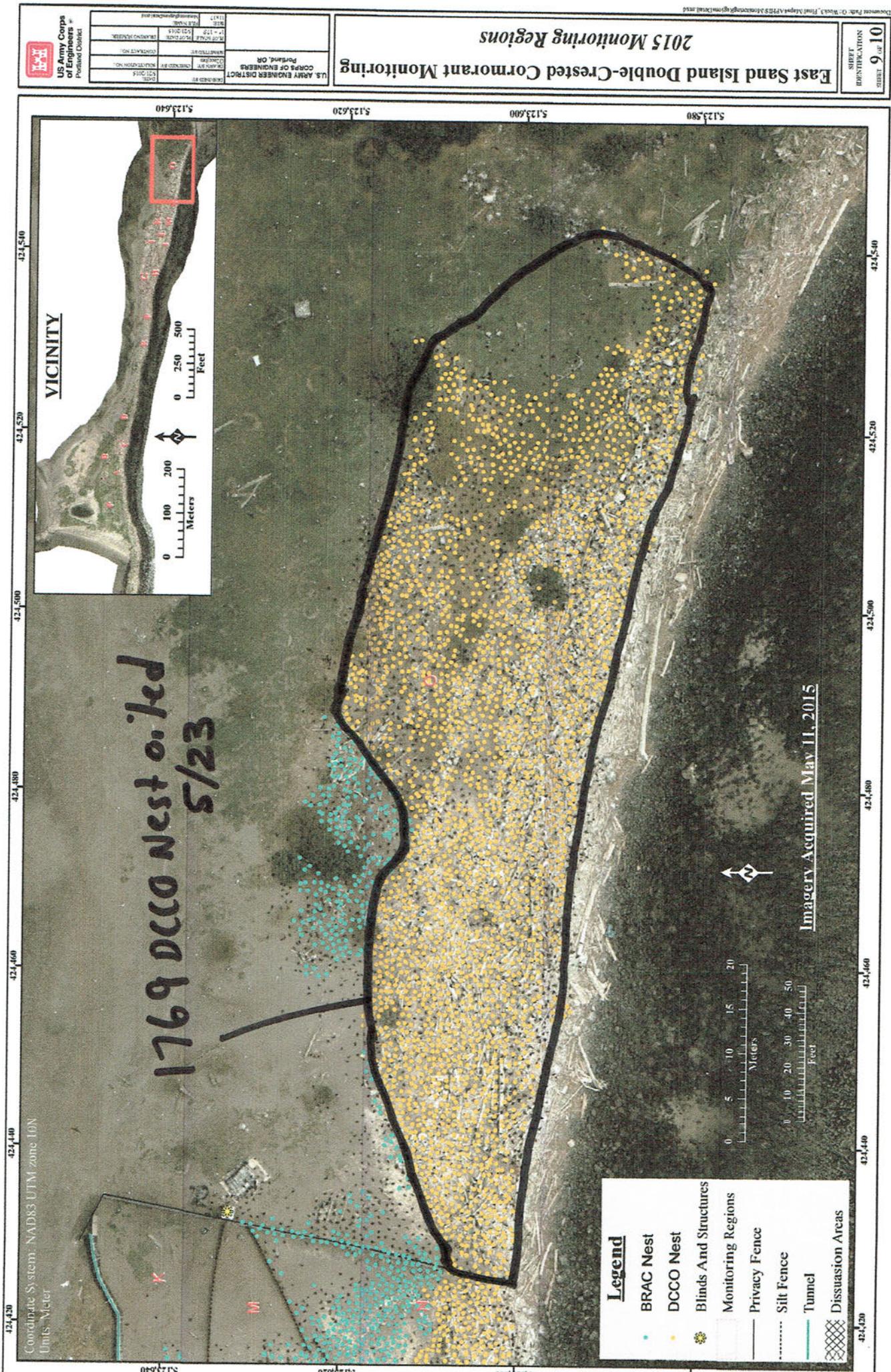
US Army Corps of Engineers = Portland District	US ARMY ENGINEER DISTRICT PORTLAND, OREGON	US CORPS OF ENGINEERS PORTLAND, OREGON
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2015 Monitoring Regions  
East Sand Island Double-Crested Cormorant Monitoring

Document Part: G:\\Vol13\\Portland\\105\\2015\\Monitoring\\SandIsland\\

SHEET  
IDENTIFICATION  
SHEET  
7 OF 10





**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Williams, David E - APHIS](#); [Christensen, Kevin L - APHIS](#); [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil)  
**Cc:** [Lytle, Mark L - APHIS](#)  
**Subject:** ESI 5/24-5/25 Night Shoot  
**Date:** Monday, May 25, 2015 6:46:30 PM  
**Attachments:** [Unit I before culling.JPG](#)  
  [Unit I after culling.JPG](#)

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On 5/24 we departed Port of Chinook around 9:30PM. I was in position in Blind 3 with another Specialist at 10:30PM. A third Specilaist and Bob Winters with USACE remained on the north side of the island, east of the colony to make sure no one tried to access the project site from that direction. In Blind 3 we inspected our surroundings with the thermal imaging unit and night vision and no human activity was detected.

Around 11:30PM I established a target zone approximately 30 yards to the west of Blind 3 in the SE corner of Unit I to aid in the recovery of carcasses by concentrating them all in one spot. This location was on a slight downslope with a rise between it and nesting BRCO on the north side of the unit which provided a visual barrier in an effort to minimize disturbance to non-targets. DCCO identification was relatively easy with the nightvision unit and because I'd identified where the DCCO were nesting in the daylight, the chances for non-target take was minimal. DCCO were paired up on each nest and when I shot one of the pair the other would begin aggressively biting the dead bird which created a disturbance to nearby birds within a few yards. Because of this I shot both of the pair in most situations. Birds within 20-30 yards seemed to know something was going on but they rarely took flight or even moved off their nests. Mostly the birds just had their heads up, seemingly looking for the source of the commotion. Birds beyond 20-30 yards of the target zone or behind silt fence did not show any effect on account of the shooting. There were a few birds I shot that ended up running out of my core target before expiring.

From 11:30PM until about 2AM I culled 109 DCCO. I would usually fire a burst of shots over the course of a few minutes and the birds would start to get a little agitated so I would stop for a few minutes and then repeat. Overall, DCCO held tight to their nests as others around them were culled. Initially, as birds were shot the only nest contents I saw were eggs. However, as I worked closer to the south silt fence I ended up encountering numerous nests with multiple chicks. At 2AM the Specialist that was assisting me and Bob Winters switched positions. I conveyed to Bob that my decision was to halt shooting given the significant percentage of nests I had just encountered with chicks. I felt that being conservative was appropriate given that I could clearly see chicks with my nightvision, rather than continuing culling toward our 200 DCCO target and ignoring my observation of the chicks until carcass recovery took place.

At approximately 4:30AM two Specialists drove the ATV and trailer down the shoreline and met myself and Bob north of Unit I where three of us jumped over the tunnel and began picking up carcasses. One Specialist remained at the ATV and as other Specialists transferred carcasses over the tunnel he would put them in the trailer. Carcasses were concentrated in about a 20 yard circle which took us less than 10 minutes to pick up. Of note was the fact that the only chicks we saw happened to be concentrated in or nearby the target area. With DCCO having flushed from their nests we could see nest contents throughout the east portion of Unit I and most other nests contained eggs only. With just enough light to see, it appeared that the gulls were not attempting

to predate nests like they had during egg oiling. When we were inside Unit I all of the birds swarmed around us, running or flying low to the ground and continually attempting to get back on their nests. Many thousands of birds from adjacent units also flushed and most of them appeared to land in the water to the north although many birds in adjacent areas remained on their nests. Exact disturbance in adjacent areas was hard to estimate as the priority was on picking up carcasses as fast as possible. As we exited Unit I, birds began landing back on their nests. For about 20 minutes after we left, there was more swarming flight activity over unit I than was typical. After 20 minutes things appeared normal.

Carcasses were transported to a staging area east of the colony where they were bagged up. We had 5 DCCO with colored leg bands which we recorded. The ATV and trailer were covered with a tarp and we departed the island a little after 5AM. At about 11:30AM we returned when the tide had dropped which made transferring carcasses to the boat easier. I returned to Blind 3 about 12:45PM to do a survey of Unit I. Surprisingly it was nearly impossible to tell culling had taken place. Despite the fact that I had culled all birds in a 20+ yard circle including both of each pair on nests, other DCCO had moved into the newly vacated nests and were observed sitting on eggs and live chicks that by my estimation they did not produce. Although nearly all nests had DCCO sitting on them, there was a number of eggs scattered around from the disturbance of birds being culled as well as two or three chicks that had expired outside of their nests. I also noticed we had missed a handful of DCCO during carcass pickup that made it out of the target area. Overall DCCO numbers in Unit I after factoring in 109 birds removed was 108% of what was observed the previous morning on 5/24. BRCO numbers were the same. In addition, Units H, J, K, L, M and N all appeared to have similar numbers of cormorants compared to surveys the day before. Pictures are attached that show Unit I before and after culling.

Our plan now is to evaluate the surveyor's finding from this week and possibly target Unit F for a night shoot next week. With my apparent finding that because nesting sites are at such a premium, nests of culled DCCO will be immediately taken over by other birds, we would like to reevaluate the possibility of conducting some boat based shooting in the weeks to come.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445





**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Williams, David E - APHIS](#); [Robert.Winters@usace.army.mil](#)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** ESI 6/1 Update  
**Date:** Monday, June 01, 2015 7:56:35 PM

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Hi Bob and Dave,

Today we did an afternoon survey from blind 1 on the west end of the island. Quite a few thousand cormorants were present across units A, B, C and P. BRCO were observed mixed in with DCCO in portions of each unit. No eggs or chicks were observed and according to the surveyors this area has been abandoned multiple times this spring with few birds observed as recently as last week. Based on that fact and the courtship and nest building activity we observed, it can be assumed that few if any cormorants have eggs in this area.

Cormorant numbers appeared similar in the rest of the colony to the east.

Our plan tonight is to shoot unit B which contains quite a few hundred cormorants with only 10% being BRCO and those are all clustered in one spot.

I will provide another update tomorrow with our results.

Matt

Sent from my iPhone

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Williams, David E - APHIS](#); [Robert.Winters@usace.army.mil](#)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** ESI 6/12 Update  
**Date:** Friday, June 12, 2015 4:15:51 PM

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We performed a survey early this morning from Blind 1. Other than a handful of scattered cormorants, Units A, C and D were abandoned. Nests that had been occupied during our last inspection were vacated and most nests appeared to have been torn apart. Unit E had no cormorants present either. In Unit B there were ~850 DCCO with the closest birds about 70 yards from Blind 1. Nearly all birds were loafing/walking and few appeared to be nesting. Most of these birds were around and underneath the tern dissuasion fencing in the NW portion of Unit B. In addition, no cormorants were present along the south tunnel or near the blind where we observed them during our last survey. In Unit P there were 2500 DCCO with ~2000 west of the lagoon alongside the dissuasion fencing and ~500 along the north side. No BRCO were observed on the west end of the island. Many gulls were observed interspersed with cormorants and occupying areas that had been abandoned. From Blind 1, the east side of the colony appeared similar to our last survey, with more DCCO present in unit H along the south riprap. Unit F is still sparsely occupied.

Eagles were present and caused more intense disturbance than we've previously witnessed. Multiple eagles were perched on the south spit, near the north edge of Unit P and along the sandbar north of unit B. Cormorants were frequently flushed and would repositioning themselves within units P and B. Eagles were seen flying down the south edge of the island and causing flushing in the main colony to the east as well. Eagles also dispersed a large CAGO flock off the north sandbar. After our survey we took the boat around the west side of the island and observed an eagle perched on Blind 1 and large flushing event when it took flight.

Due to few birds appearing to nest and the increased distance of the DCCOs to Blind 1, we don't expect great results from a culling attempt. Additional oiling may not occur this year unless DCCO reestablish nests on the west end and display consistent use of this area for the next few weeks. Our plan is to be onsite early next week and do a survey and potentially try another on-island shoot in Unit B.

In my opinion, and based off the observations of the surveyors, there has been so much eagle disturbance on the west end that the cormorants are more skittish and easily flushed. Any eggs that have been laid in the past have likely been predated by gulls after a flushing event, causing DCCO to abandon nests and shift their locations. If this pattern continues it is possible DCCO will eventually give up trying to nest in this area. There is a chance of complete nesting failure on the west end regardless of management actions that may take place.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445



**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Williams, David E - APHIS](#); [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** ESI Update- Night of 6/1-6/2  
**Date:** Tuesday, June 02, 2015 4:45:17 PM  
**Attachments:** [North Side of Unit B before culling.JPG](#)  
[South side of Unit B before culling.JPG](#)  
[North side of Unit B after culling.JPG](#)  
[South side of Unit B after culling.JPG](#)

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Dave/Bob,

Last night we began shooting in Unit B from Blind 1 at around midnight. DCCO and BRCO distribution in Unit B was the same as we saw earlier in the day with BRCO in one cluster about 20 yards to the west of the blind. DCCO were present along various edges of the tunnels in Unit B with a large cluster of a few hundred DCCO along the north edge of Unit B near the tern dissuasion fencing which was the area we targeted for removal. Many of the cormorants appeared to be loafing and not necessarily tied to a nest. Upon shooting, surrounding DCCO were very alert and unsettled. Birds within about 10 yards of a culled DCCO would immediately run to the west and a few took flight. What occurred was that our target birds were continually pushed further to the west until they vacated the area completely with many appearing to head for the open water to the north. We shot a few birds along the south edge of Unit B but with BRCO nearby we wanted to avoid unnecessary disturbance. In total we culled 16 DCCO. The bird's response wasn't surprising given the early stage of nesting they were in and the many loafing birds that were without a nest. This was a sharp contrast from last week with DCCO holding tight while sitting on eggs when nearby birds were shot.

We began carcass recovery before 4AM without the aid of headlights. Remaining birds in Unit B dispersed from the area, however nearby cormorants in Units A, C and D did not appear to be affected by our activity. Due to the small number of carcasses it was feasible to operate without lights but it was difficult to locate some carcasses as much of the area is covered in short brush. This required being very careful to avoid gull nests in the underbrush that were difficult to detect. Carcass recovery took a few minutes and we drove the ATV and trailer back to the east without headlights. The remainder of the colony appeared unaffected by our activity. When I returned to conduct a survey at 11AM, cormorant numbers and distribution in A, B, C, D and P were very similar to the previous day's counts and pictures of Unit B are attached.

The relative lack of success with shooting birds that aren't tending to active nests will need to be considered for management actions going forward. In addition, performing carcass recovery at night led us to a couple conclusions relating to potential egg oiling in this area. Given the amount of grass and low brush in this area used as nest material, DCCO and BRCO nests appear more similar than in other parts of the colony which could lead to confusion during nighttime oiling. The gull nests in the vicinity are another consideration. On the other side, a daytime oiling event would likely have similar egg predation from gulls as we observed in Unit O and there are a significant number of BRCO intermixed with DCCO, especially in Units C and D.

Our plan is to look at the surveyors results from later this week and possibly conduct more shooting as DCCO become more invested in nesting in Units A-D in the next few weeks.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445









**From:** [Matt Alex](#)  
**To:** [Christensen, Kevin L - APHIS](#)  
**Subject:** Fwd: 5/23 ESI Update  
**Date:** Sunday, May 24, 2015 7:52:24 AM

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Had trouble with hotel wifi. Had to send update via hotmail.  
Matt

Sent from my iPhone

Begin forwarded message:

**From:** (b) (6) >  
**Date:** May 23, 2015 at 7:56:53 PM PDT  
**To:** [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil) <[robert.winters@usace.army.mil](mailto:robert.winters@usace.army.mil)>, Dave Williams <[david.e.williams@aphis.usda.gov](mailto:david.e.williams@aphis.usda.gov)>  
**Subject:** 5/23 ESI Update

Bob/Dave,

Today we started again at first light and began by surveying unit O from the boat which is where we intended to oil. I counted the cormorants I could see although I realized many more birds were obscured from view and I was unable to distinguish between DCCO and BRCO. Given that the privacy wall would block the majority of the colony from seeing us, I was confident starting oiling at unit O was the best choice for our first attempt.

After a short while we had transferred oiling supplies to shore and began prepping east of the colony. At 8AM, three Specialists entered the unit O with two wearing backpack sprayers. Another Specialist remained back at the ATV with the spare oil and awaited radio calls to refill sprayers. In 1.75 hrs we oiled 1769 DCCO nests. We observed nests that ranged from having one egg up to five eggs and some empty nests as well. No chicks were observed. Approximately 20% of unit O was comprised of nesting BRCO which we identified and avoided. Many cormorants held fairly tight to their nests as we worked from east to west and allowed us to get within 20 yards or so. Other cormorants took flight and circled us and many landed out in the water to the south within a couple hundred yards. The gulls filled in behind us and consumed or destroyed a significant number of eggs we had just oiled. Our activity during oiling had no perceived effect on the remainder of the colony west of the privacy fence.

As we finished oiling unit O and reached the privacy fence we had used over 50 gallons of the 60 gallons of oil we had brought. Based on my surveys from yesterday I knew a significant percentage of nests were BRCO in units N, M, K (55%, 21%, and 25%, respectively). As I peeked around the south side of the privacy fence the closest cormorants, many of which were BRCO, became alerted and moved off their nests a short ways. Almost immediately gulls attempted to filter into this area. At this point I decided to cease oiling operations as the benefit of oiling the few hundred more nests we had oil for did not

outweigh the disturbance and subsequent gull predation that likely would have occurred to BRCO nests in my opinion. We immediately returned to the ATV and I observed cormorant response as best I could from the north shoreline. Immediately cormorants returned to unit O, although I observed more swarming flight activity for about 10 minutes until they seemed to calm down and flight activity returned to normal levels.

Back at the boat, we returned to the south side of the island around 12PM and I did a survey of the cormorants I could see in unit O. I counted 600 compared to 700 I observed right at daylight before we oiled.

Tomorrow I will be back in the tunnels doing surveys in the morning. On island shooting is expected tomorrow night.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Christensen, Kevin L - APHIS](#)  
**Subject:** Fwd: ESI 5/22  
**Date:** Sunday, May 24, 2015 7:44:23 AM

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Sent from my iPhone

Begin forwarded message:

**From:** <[Matthew.J.Alex@aphis.usda.gov](mailto:Matthew.J.Alex@aphis.usda.gov)>  
**Date:** May 22, 2015 at 4:45:52 PM PDT  
**To:** <[Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil)>, David E Williams  
<[david.e.williams@aphis.usda.gov](mailto:david.e.williams@aphis.usda.gov)>  
**Subject:** ESI 5/22

Hi Bob and Dave,

Since you both requested email updates I thought I'd combine them to save me some time.

We started out today using the pontoon barge to tow the ATV and trailer out to the island. Although not an ideal set up, we got the equipment out there without incident.

I began my surveys around 9AM from blind 3 where I did point counts of units H-N. I counted total number and distribution of DCCO and BRCO although many birds were obscured by driftwood, rocks, etc. I then moved to blind 2 at around 12PM and surveyed units D-G. I finished at blind 1 at little after 1PM where I surveyed units A-C. No cormorants were present in units A-E. No chicks were observed on the colony. Nests varied from having no eggs to as many as four eggs. In certain units many birds were seen bringing nesting material to nests. Plan for tomorrow is to oil starting with unit O to take advantage of the privacy wall, and assuming nests are at similar stages of incubation as was observed on the rest of the colony (there is no way to survey unit O without disturbing birds.) From there we will oil units N, M, K depending on bird response.

I will let you know how it goes tomorrow.

-Matt

Sent from my iPhone

DATE: 5/24

Management Action	Weather Conditions	Blind/Subunit	Start/Stop Time	Bird Response in Control Area	Bird Response in Adjacent Areas	Total # Oiled or Killed	Other Notes
Oiling	overcast, becoming sunny SA High LZ Low	O	SA-914SA	Cormorants started flying as we approach to ~100 yds. Birds would circle. Many birds stayed on nests  and only flew when we got ~20 yds away. As we moved through unit O cormorants flew to the south east in the water a couple hundred yards. Cormorants landed on beach to east but remained over 100 yds away. No cormorants got back on nests while we were in unit. Gull predation was significant with gulls approaching from all directions and eating eggs. Few eggs remained when we were done.  Assess as we	No effect on birds W of privacy wall during oiling I looked around privacy fence and birds were alarmed and put heads up. A few flew off and gulls immediately <del>saw</del> tried to land so we decided not to oil as this area had large # of BRCO & only had 10 gal of oil left. Birds seem to quickly settle down after we got behind fence.	982+ <u>787</u> 1769	ATV parked out of view of cormorants NE of unit O. 2 dead cormorants on ground.
							No chicks observed. ~20% of nests were BRCO. ~10 gal of oil left

DATE: 5/24-5/25

Management Action	Weather Conditions	Blind/Subunit	Start/Stop Time	Bird Response in Control Area	Bird Response in Adjacent Areas	Total # Oiled or Killed	Other Notes
On Island Shooting	light rain, W Wind 12:30AM low 6:30AM High	3 I	Arrived at blind 10:30. Shooting from 11:30-145A. 4:30 AM across recovery	Birds within 20-30yds of kill zone were a little spooked but remained on nests. Birds further out + in other units showed no response to shooting. Crippled or dying birds caused the most alarm for other birds. RECO	No perceived effect during shooting.  During recovery picking many birds in adjacent areas spooked out + landed up in the water. Not the colony. Some remained in the units + perched on tunnels/fence + welding ms. A significant percentage of the colony was dispersed after ~15 mins. Because it was so early, gull predation on nests did not appear to occur. However in the marginal light we missed so carcasses.	109 on counter ~90 in bags.	Ended up encountering 6 <del>nest</del> <del>nest</del> nests containing chicks some spotted shot at over goal of 200 birds;  RH8 1128-01915 HJ4 1128-01926 CH4 1128-19420 HJ4 1128-00626  AU4 1128-19309
				in unit I were unaffected during culling.		Blackon Yellow	
				During pickup all birds left unit I and may swarm around us running flying low to the ground in circles. Within a few minutes of departing birds began moving back into unit I but for about 20 minutes there was a ton of birds in the air before they settled down. Picking lasted ~10 mins	up in the water. Not the colony. Some remained in the units + perched on tunnels/fence + welding ms. A significant percentage of the colony was dispersed after ~15 mins. Because it was so early, gull predation on nests did not appear to occur. However in the marginal light we missed so carcasses.		
							Upon doing recovery we noticed the great majority of the nests contained eggs only that we had to walk by the the kill zone. It was only in the last part of the kill zone I'd walk where <del>nests</del> nests were chicks & appeared to be the exception. I shot both birds off the nest in most cases

DATE: 6/2

Management Action	Weather Conditions	Blind/Subunit	Start/Stop Time	Bird Response in Control Area	Bird Response in Adjacent Areas	Total # Oiled or Killed	Other Notes
On Island Shooting	S wind, rain showers	7B	12 AM - 3AM	Very skittish since no eggs. Would run 10+ yds to the west or north with each shot. Eventually all boobies ran left N side of unit B. MOU + Deco + BRCC were left in SE corner of B before we picked up + some Deco on SW end as well.	Most Deco had moved off platform to unit D  After shooting began. However, picking up birds in dark seemed to have little to no effect on birds in units A,C,D, P.	16 Deco	Deco nests look like BRCC due to fine, green nesting material. Lots of gulls nesting as well. BRCC more intermixed in A-D in general
				Upon picking up carcasses with no light all birds left B.			

## Take Summary

### Target Intentional

	Killed Euthanized	Transfer Custody	Relocated	Removed Destroyed	Freed Released	Dispersed	Surveyed	Immobilized	Collared
<u>Cormorants, Double-Crested</u>									
firearms	125								
Total	125								
<u>Cormorants, Double-Crested NEST, ACTIVE</u>									
oil, corn				1,769					
Total				1,769					
<b>Bottom Line Total</b>	<b>125</b>			<b>1,769</b>					

### Target Un-Intentional

*no take data of this type.*

### Non-Target Un-Intentional

*no take data of this type.*

## PDR Damage Reported and Verified Summary

Resource	Species	Damage	WTs (Occurs)	Proj Starts
<b>NATURAL RESOURCE</b>				
Threatened/Endangered Wildlife (Fed)				
fish, salmon (all) (t/e)	cormorants, double-crested	damage threat	1	1
fish, steelhead (t/e)	cormorants, double-crested	damage threat	1	1
<b>Threatened/Endangered Wildlife (Fed) Sub Total</b>			2	2
<b>NATURAL RESOURCE Sub Total</b>			2	2
		<b>Total</b>	2	2

Total distinct TA Species/Resource conflicts: 0

Total distinct DC (all non TA) Species/Resource conflicts: 2

## PDR Samples Summary by Disease

*no sample data*

## TA/Outreach by Species Summary

*no TA data.*

## PDR Chemical Products Used Summary

Use Type	Component	Qty	Uom	WTs
applied/used	oil, corn	1	in	<u>1</u>

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** Culling Map  
**Date:** Wednesday, July 08, 2015 8:32:01 AM  
**Attachments:** [7-6 Culling Map.pdf](#)

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Here's the map of where we shot DCCO in units A,B,P during the night of 7/6.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445

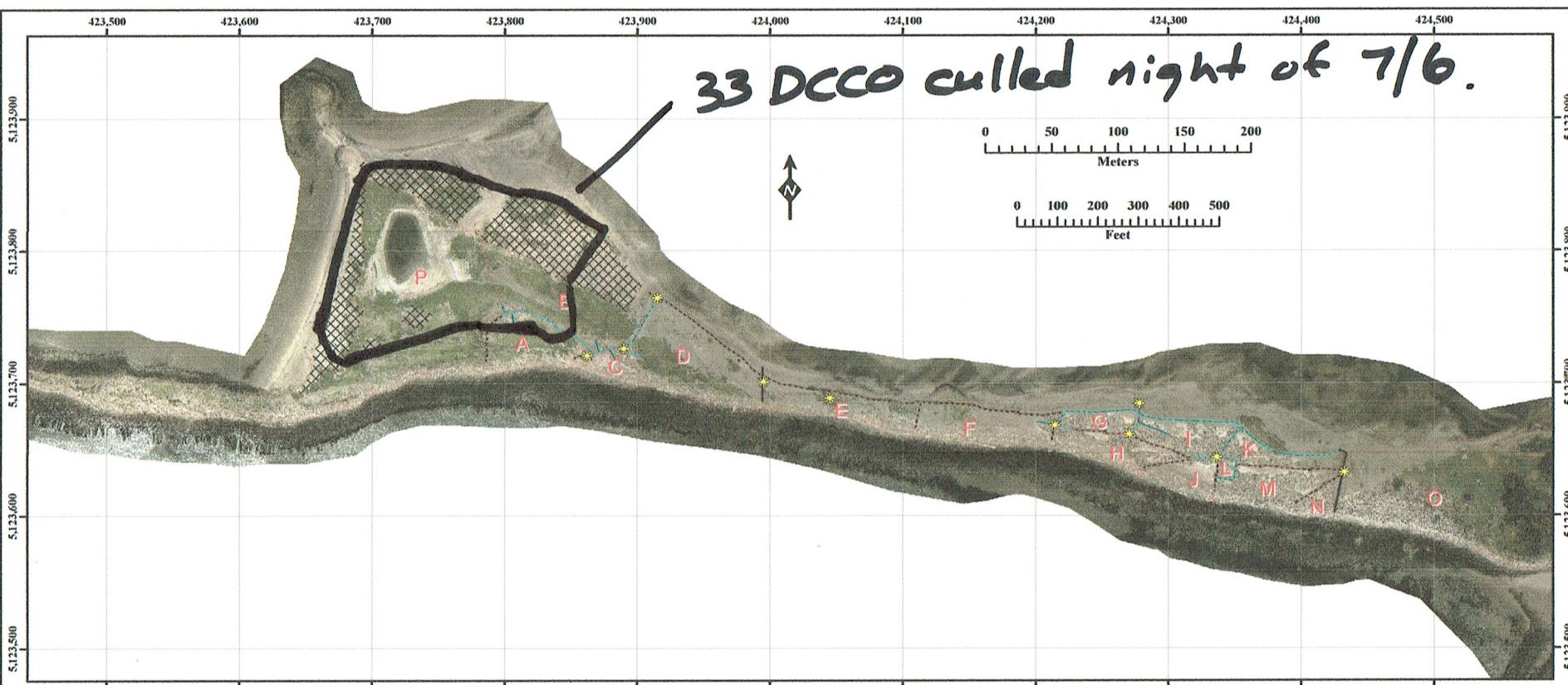


US Army Corps  
of Engineers +  
Portland District

DESIGNED BY:	C201-2014
STANDARD:	CHARTERED 1864
CONTRACT NO.:	CD-201-17-0001
SUPERVISORY:	CD-201-17-0001
DATE:	07-07-2015
SCALE:	1:24,000
SIZE:	10 ft x 10 ft
FORMAT:	Sheet 1 of 9

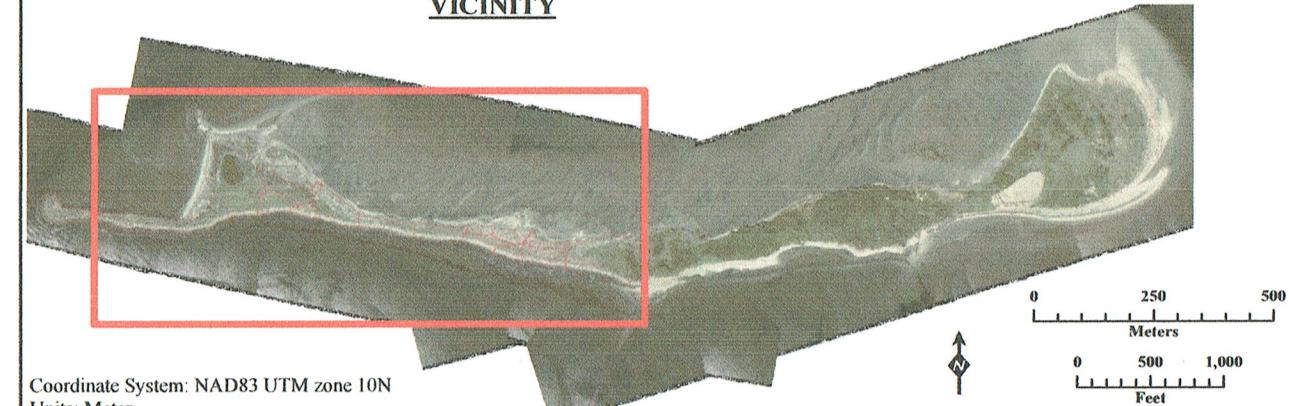
## East Sand Island Double-Crested Cormorant Monitoring 2015 Monitoring Regions

Document Path: C:\Users\jason\OneDrive\Documents\USACE\USACE\Projects\Double-Crested Cormorant Monitoring\2015 Monitoring Regions\Map 3\Map 3.dwg  
SHEET IDENTIFICATION  
SHEET 1 OF 9



Imagery Acquired May 11, 2015

### VICINITY



### Legend

- Blinds And Structures
- Monitoring Regions
- Privacy Fence
- - - Silt Fence
- Tunnel
- ▨ Dissuasion Areas

Coordinate System: NAD83 UTM zone 10N  
Units: Meter

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Christensen, Kevin L - APHIS](#); [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil); [Williams, David E - APHIS](#)  
**Subject:** ESI Update 6/29-6/30  
**Date:** Tuesday, June 30, 2015 4:28:10 PM

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Last night we oiled eggs on the west end of the island in units B and P. We used the boat to access the NW edge of the island at high tide. In 3 hours we oiled 3320 DCCO nests. We did not observe any predation of eggs by gulls. We did not observe any DCCO chicks.

DCCO adults mostly walked away from their nests as we approached and remained about 20-30 yards from us while we oiled. Some birds took flight as we continued through the colony and landed in the water nearby. We oiled at least 95% of the nests on the west end of the island (not including any potential nests on the west spit we are not aware of). We estimated ~100 nests weren't treated because we ran out of oil.

Adding 3320 nests to the previous 1769 gives us a total of 5089 nests oiled which is 790 short of the target. Given there's likely few viable nests remaining on the west end we may not have additional options for oiling this year.

After conducting a survey this afternoon, DCCO numbers in units B and P were 83% and 91% of the numbers we saw yesterday.

We will evaluate units B and P next week for a possible culling event.

Matt Alex  
Wildlife Specialist  
USDA-Wildlife Services  
Beaverton, OR

Sent from my mobile

**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Christensen, Kevin L - APHIS](#)  
**Subject:** FW: Oiling Map  
**Date:** Wednesday, July 08, 2015 8:15:48 AM  
**Attachments:** [Oiling Map B-P.pdf](#)

---

I also sent this oiling map to Bob and forgot to CC you.

-Matt

---

**From:** Alex, Matthew J - APHIS  
**Sent:** Monday, July 06, 2015 1:14 PM  
**To:** Robert.Winters@usace.army.mil  
**Subject:** Oiling Map

Hi Bob,

Attached is a map of the areas we oiled last week in Units B and P.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445



US Army Corps  
of Engineers  
Portland District

U.S. ARMY ENGINEER DISTRICT	DESIGNED BY
COAST OF PACIFIC	STRUCTURE NO.
PORTLAND, OR	CONTRACTOR
SHEET NO.	STRUCTURE NAME
1	DATE ISSUED
1-17-15	EXPIRATION DATE
1-17-17	TELEGRAM
1	NAME
1	GRADE

Sheet 1 of 9

Document Path: G:\Work\J\_Fish\Maps\APBIS\Monitoring\regions\DoubleCrestedCormorantMonitoring\2015MonitoringRegions\2015MonitoringRegions.dwg

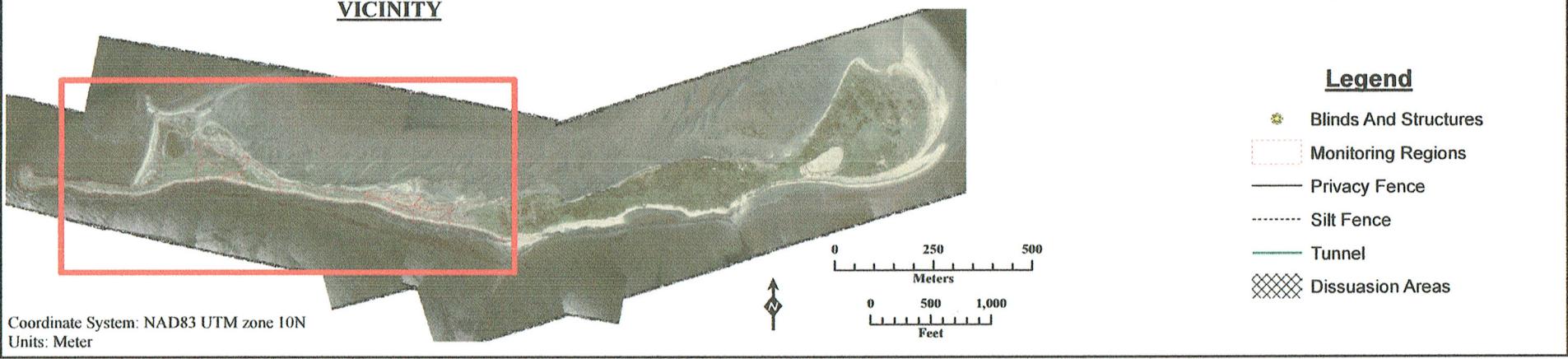
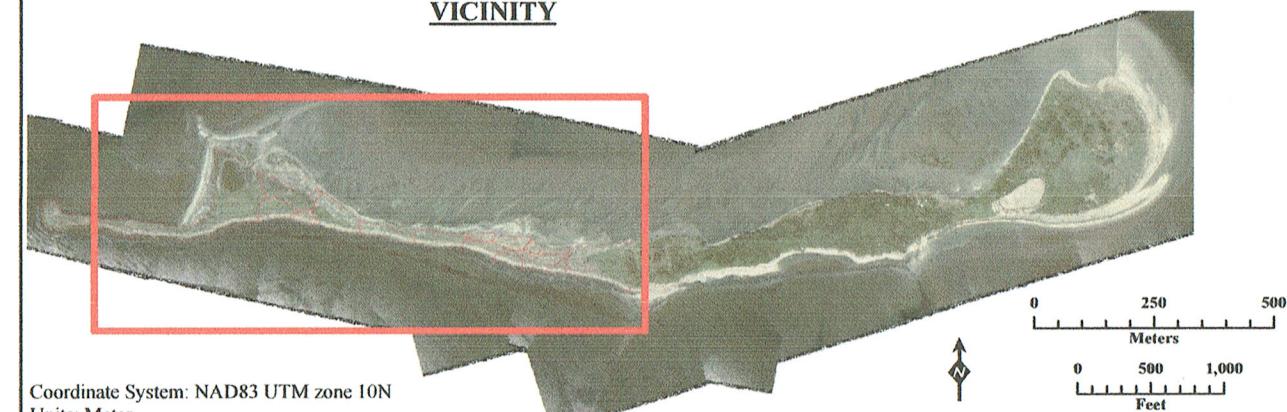
2015 Monitoring Regions

East Sand Island Double-Crested Cormorant Monitoring

Imagery Acquired May 11, 2015

### Legend

- Blinds And Structures
- Monitoring Regions
- Privacy Fence
- Silt Fence
- Tunnel
- ▨ Dissuasion Areas



**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Williams, David E - APHIS](#); [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil)  
**Cc:** [Christensen, Kevin L - APHIS](#)  
**Subject:** RE: ESI Update 7/6-7/7  
**Date:** Wednesday, July 08, 2015 8:10:56 AM  
**Attachments:** [Preshoot1.JPG](#)  
[Preshoot2.JPG](#)  
[Postshoot2.JPG](#)  
[Postshoot4.JPG](#)

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I did another survey last night at 9PM. In unit B, DCCO counts were 110% of pre shooting counts. In the lowland area of unit P, DCCO counts were 104% of pre shoot counts. Including the west spit as part of unit P, overall counts were 128% of pre shooting counts. In unit A the count was again 58% of pre shoot numbers but the sample size is very small (<50 birds). The largest increase was along the west spit and rip rap on the south side of unit P where both DCCO and BRICO were present in greater numbers than previously observed this year. Once again units C,D and E were vacant.

In addition to the surprising increase in cormorants, there were large numbers of pelicans and gulls in the vicinity and lots of flight activity of all bird species in the last hour of daylight yesterday. From Blind 1 I observed continual gull disturbance in the eastern portion of the colony and many of the flushed DCCO moved to the west end. No eagles were present so I'm unsure why the gulls were swarming the cormorants more than usual.

I've attached a couple pre and post culling pictures but they aren't the greatest.

Matt Alex  
Wildlife Specialist  
USDA/APHIS/Wildlife Services  
Beaverton, OR  
(503)-530-6445

-----Original Message-----

From: Alex, Matthew J - APHIS  
Sent: Tuesday, July 07, 2015 4:14 PM  
To: Williams, David E - APHIS; Robert.Winters@usace.army.mil  
Cc: Christensen, Kevin L - APHIS  
Subject: ESI Update 7/6-7/7

We conducted a culling operation last night after a survey was done at dusk. I removed a total of 33 DCCO from units A, B and P. No BRCO were observed in the areas where birds were culled. DCCO were initially targeted in areas that had not been oiled but I also shot birds from the oiled zones.

Overall DCCO were quick to flush upon being shot at. I tried to move around units A, B and P and push the birds back and forth to get multiple opportunities but eventually DCCO completely vacated the area. Many birds ended up down towards the spit and lots of birds landed in the water off the west edge of the island. The cormorants along the west spit did not appear to be affected by the culling. In the culling zone DCCO were continually flying above me seemingly trying to return to nests.

The culling event lasted less than 2 hrs and carcass recovery took about 20 minutes. During the survey today at 11AM post-culling counts in unit A and B were 58% and 88% of pre shooting counts. In the low land areas of unit P where shooting was conducted, post shooting counts were 40% of pre shooting counts. If cormorant numbers on the western spit were included as part of unit P, pre and post comparison was 75%. We will be conducting another survey this evening so we have a more accurate comparison to pre shoot counts as it was possible that many birds were out foraging at 11AM this morning. I will provide an update tomorrow.

Given the relatively large disturbance and minimal number of culled birds we are likely done with on island culling

for now and will be ready for September 1st to resume lethal control.

Matt Alex  
Wildlife Specialist  
USDA-Wildlife Services  
Beaverton, OR

Sent from my mobile









**From:** [Christensen, Kevin L - APHIS](#)  
**To:** [Michelle McDowell](#)  
**Subject:** FW: ESI Update 8/19  
**Date:** Monday, August 31, 2015 11:11:36 AM  
**Attachments:** [IMG\\_0238.JPG](#)  
                  [IMG\\_0240.JPG](#)

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Michelle,  
Updates for today's call.

Kevin Christensen  
Assistant State Director  
6135 NE 80<sup>th</sup> Ave., Suite A8  
Portland, OR 97218  
Office: 503-326-2346  
Fax: 503-326-2367

PROTECTING PEOPLE / PROTECTING AGRICULTURE / PROTECTING WILDLIFE

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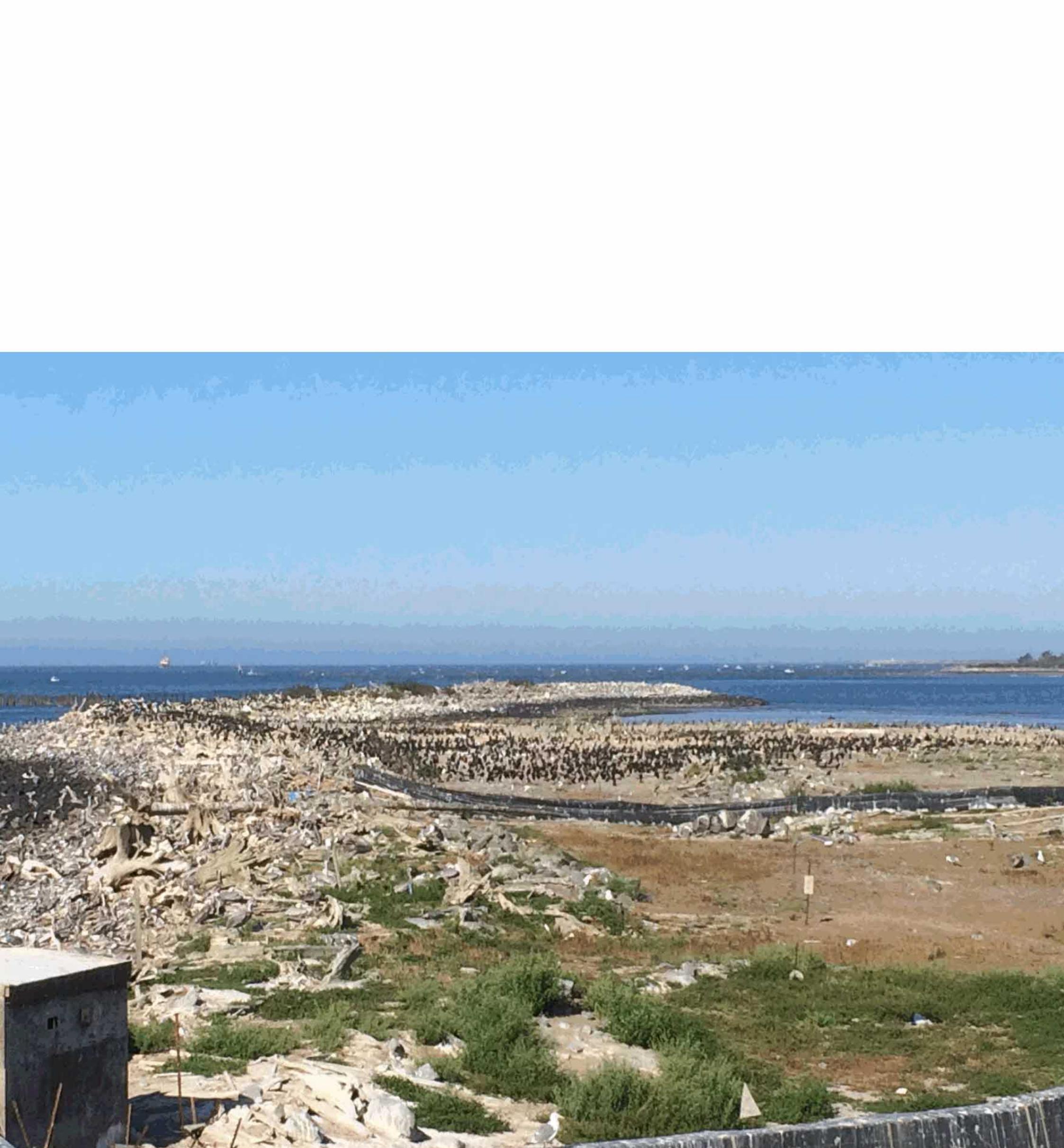
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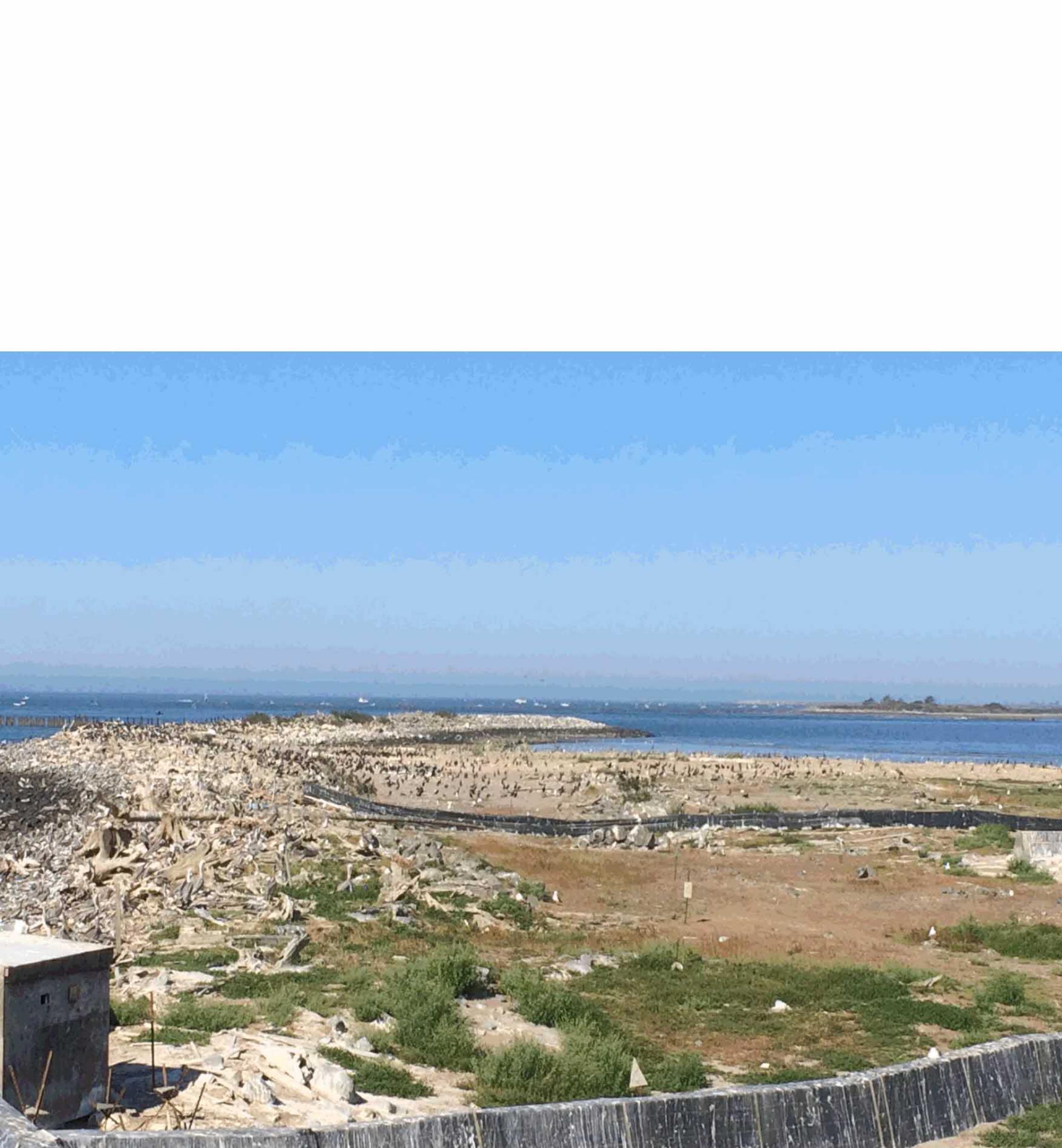
**From:** Alex, Matthew J - APHIS  
**Sent:** Thursday, August 20, 2015 5:15 PM  
**To:** Christensen, Kevin L - APHIS; Robert.Winters@usace.army.mil  
**Cc:** Williams, David E - APHIS  
**Subject:** ESI Update 8/19

We conducted another survey on 8/19 during the morning low tide. DCCO distribution was the same as last week in Unit B with the 20 active nests with chicks and a few isolated birds in the unit. There was a very large group of quite a few thousand DCCO on the beach north of unit B. In unit P, two active nests with chicks were documented. Other than a couple loafing DCCO and the two nests, the north end of Unit P has been vacated. In addition, the southern end of unit P that had previously held large numbers of DCCO had fewer birds present and most of those moved to the beach north of unit B or to open water during the course of my survey. Picture 1 and 2 shows the movement of DCCO out of unit P over a 15 minute period. In addition to the DCCO activity, about 300+ BRCO remained on the south rip rap and west spit.

In units F-N, DCCO density continues to decrease in many locations as most chicks are mobile and out foraging with adults. Large numbers of DCCO were observed on the beach and in water near the island. No eggs have been observed the last couple weeks and nearly all chicks are large and likely able to leave the nest any day if they haven't already.

Next week we will not be conducting a survey but will return on 8/31 for a final survey before lethal control resumes on 9/1. We plan on lethal control occurring nearly every Monday-Thursday in September and into early October. I will be in the field on 8/26 but will try to make the weekly call.





**From:** [Alex, Matthew J - APHIS](#)  
**To:** [Robert.Winters@usace.army.mil](mailto:Robert.Winters@usace.army.mil); [michelle\\_mcdowell@fws.gov](mailto:michelle_mcdowell@fws.gov)  
**Subject:** ESI Pictures  
**Date:** Wednesday, July 22, 2015 11:04:40 AM  
**Attachments:** [IMG\\_0134.JPG](#)  
                  [IMG\\_0137.JPG](#)

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The first picture is unit L/K/M and the second is unit I. I'll take a closer look next week to confirm some of the dead birds are adults and not chicks that have grown to nearly adult sized.

*Matt Alex*

Wildlife Specialist  
USDA/APHIS/Wildlife Services  
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(503)-530-6445

*Matt Alex*

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