



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Jennifer Jones, CDM Smith
Andrew Poyant, CDM Smith*

Date: February 22, 2016

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 22, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 6:15 a.m. and ending at 3:30 p.m. Weather conditions were sunny, with temperatures ranging from 49°F in the morning to a high of 70°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with backfilling and planting the along the banks of the basin, building of forms, and trenching for electrical conduit near the outlook south of the Central Basin. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:15 am. Biological monitor arrives on site to conduct initial assessment. Several trucks and crew are in the staging area.

6:20 am. The initial biological survey begins. Several house finches are singing in the palm trees along Washington Boulevard. A pair of mallards swim in the East Basin. One double-crested cormorant is flying from the west and lands in the East Basin. One great egret wades along the southern shore of the East Basin. Five lesser scaups swim in the East Basin. Two American coots swim in the Southeast Channel. A pair of mallards are observed near the boat ramp. Several western gulls were observed flying overhead the site. One American crow is observed on the southern bank of the Southeast Channel.

7:00 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on protection caution while working near the Anna's hummingbird nest that was observed the previous week.

7:30 am. Six lesser scaups swim east of the Stormwater Inlet. Four mallards swim in the East Basin. Two American coots swim in the East Basin. One double-crested cormorant flies over the West and Central Basin.

7:45 am. One Anna's hummingbird hovers over the Southeast Channel near the Pump House.

8:00 am. Two Anna's hummingbirds hover around the Southeast Channel.

8:10 am. One Anna's hummingbird flies along the bike path and over the Pump House.

8:15 am. The biological monitor conducts a second biological survey. One Anna's hummingbird hovers over the Southeast Channel. A pair of mallards fly west out of the Southeast Channel. In the East Basin four mallards, five lesser scaups, and two American coots swim. One Anna's hummingbird flies above the West Basin then back to pine tree east of the Tide Gates. One American crow flies west to east over the West Basin. One great blue heron flies in from the west and lands in the East Basin. One black phoebe perches on the stake of the silt fence north of the East Basin. One Anna's hummingbird flies from the Southeast Channel and hovers over the eucalyptus trees along the bike path north of the East Basin.

9:15 am. One mourning dove is observed on the southern bank of the Southeast Channel. Two black phoebes perch on the silt fence stakes near the boat ramp.

9:30 am. One Anna's hummingbird hovers over the Southeast Channel and two black phoebes perch on silt fence stakes north of the Southeast Channel. One western gull flies over the site from south to north.

9:45 am. Two tree swallows fly overhead above the project site north of the East Basin and Southeast Channel.

10:00 am. One double-crested cormorant stands on the Eastern limit of the Gabion Peninsula. In the East Basin two American coots, and six lesser scaups swim and feed.

10:15 am. The biological monitor stops work near the Anna's hummingbird nest until the nest and hummingbird were in view. Once the biologist observed that the hummingbird was on the nest and not disturbed the work was allowed to resume. Work consists of digging a trench for the electrical conduit with a Ditch Witch.

The Anna's hummingbird nest is located on the fifth pine tree east of the Tide Gate. The nest is located on the fifth branch from the bottom up on the southeast side of the tree. The branch forks

from the main branch towards the west, almost parallel to Admiralty Way on the south side of the trunk. The nest is located at the furthest quarter of the branch from the trunk.

10:45 am. One great egret is observed on the western shore of the West Basin. One great blue heron is observed on the Gabion Peninsula. One rock pigeon flies over the southern limit of the West Basin from east to west. A small construction crew starts surveying and building forms along the southern path near the Anna's hummingbird nest. From 10:15 am until 11:10 am the hummingbird did not appear distressed (i.e., make calls, flap wings, or move frequently).

11:10 am. The Anna's hummingbird on the nest flies west and returns to the nest.

11:20 am. Two rock pigeons fly over the Central Basin from north to south.

11:30 am. One snowy egret is observed on top of the Stormwater Inlet. One belted kingfisher perches on the powerline in the Southeast Peninsula.

11:55 am. The belted kingfisher lands on the Gabion Peninsula. The Anna's hummingbird flies off the nest while only one worker works by hand near digging the trench for the electrical conduit.

12:00 pm. One Anna's hummingbird hovers around and lands on the pine with the nest.

12:05 pm. Construction crew and biological monitor break for lunch.

1:10 pm. One yellow-rumped warbler perches on power line west of West Basin.

1:20 pm. One killdeer lands and calls on Gabion Peninsula in West Basin. One Anna's hummingbird flies out of the three pine trees just east of the Tide Gates. One great blue heron is observed on the Gabion Peninsula in the Central Basin.

1:30 pm. One Anna's hummingbird is observed hovering around the pine tree with the Anna's hummingbird nest then sits in the nest.

1:40 pm. The Anna's hummingbird flies out of the nest while workers are approximately 100 feet east. The Anna's hummingbird flies back to nest. One snowy egret wades just west of the Stormwater Inlet.

1:45 pm. The Anna's hummingbird moves around in the nest, while work is greater than 100 feet away.

1:50 pm. The Anna's hummingbird flies near a yellow-rumped warbler that is near the nest then flies back to the nest.

2:00 pm. The biological monitor starts a biological survey. Prior to leaving the tree with the nest, the Anna's hummingbird is observed in the nest. One great blue heron is observed on the Gabion Peninsula in the Central Basin. Two killdeer are observed on top of the Gabion Peninsula in the

West Basin. One double-crested cormorant is observed in the Northwest Mudflat. One of the killdeer flies from the Gabion Peninsula to the Northwest Mudflat. The second killdeer follows the first to the Northwest Mudflat. One house finch and one yellow-rumped warbler perches on a sapling in staging area. One house finch perches on powerlines west of the West Basin. Two American coots swim near the Stormwater Inlet. Eight lesser scaups swim in the East and Central Basins. One snowy egret wades near the Stormwater Inlet. One great blue heron wades along the shore of the Central Basin. One black phoebe flies and perches along the northern shore of the Southeast Channel. One Anna's hummingbird flies and hovers from east to west along the southeast channel. Two American coots swim in the Southeast Channel.

3:20 pm. The Anna's hummingbird sits on the nest in the pine tree. One mourning dove perches on the powerline over the Northwest Mudflat.

3:30 pm. The biological monitor and the construction crew leave the site for the day.

Additional Observations

No Black Skimmers, Osprey, or California Least Terns were observed today.

There were several sightings of wading birds and waterfowl in and along the shore of the water. There were frequent sightings of Anna's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin. Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin. The biological monitor studied the observations of the nesting female while work occurred within the area of the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on.
2. In general, waterfowl, wading birds, and Anna's hummingbirds were the most frequent wildlife sightings in the work area. No construction activities occurred in the water and the biological monitor monitored construction activities near the Anna's hummingbird nest.
3. The large presence of piscivore birds indicate the presence of fish in the basin.
4. Wading birds and killdeer used the Gabion Peninsula as habitat.

Table 1 provides a list of bird species observed during biological monitoring on February 22, 2016.

Table 1. Bird Species Observed during Biological Monitoring on February 22, 2016		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the basin banks
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
Black Phoebe	<i>Sayornis nigricans</i>	Several individuals observed perching along Southeast Channel
House Finch	<i>Carpodacus mexicanus</i>	Several individuals heard in palm trees along Washington Boulevard and in saplings in the staging area
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Two individuals observed; one on shore of Southeast Channel and one perched in powerlines over the Northwest Mudflat
Yellow-rumped Warbler	<i>Dendroica coronate</i>	Several individual; commonly observed throughout site
Anna's Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the eastern of the two pine trees south of the Central Basin
Tree swallow	<i>Tachycineta bicolor</i>	Two individuals observed flying overhead
Killdeer	<i>Charadrius vociferus</i>	Two individuals observed on Gabion Peninsul and in Northwest Peninsula
Snowy Egret	<i>Egretta thula</i>	One individual observed wading near the Stormwater Inlet
Great Egret	<i>Ardea alba</i>	Two observations were made; one wading in East Basin and one wading in West Basin
Great Blue Heron	<i>Ardea Herodias</i>	One individual observed in the Central and East Basin
Belted Kingfisher	<i>Megaceryle alcyon</i>	One individual observed on powerlines in the Southeast Peninsula and perching on Gabion Peninsula
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Several observations in East Basin, Central Basin, West Basin, and Northwest Mudflat
Mallard	<i>Anas platyrhoychos</i>	Several observed in East Basin and Southeast Channel with a maximum of four individuals during one observation
American Coot	<i>Fulica americana</i>	Two American coots observed swimming in the East Basin and Southeast Channel
Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Central and East Basin



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Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 23, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 6:10 a.m. and ending at 3:30 p.m. Weather conditions were sunny, with temperatures ranging from 54°F in the morning to a high of 83°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with backfilling and planting the along the banks of the basin, building of forms, and pouring concrete for the southern path. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:10 am. Biological monitor arrives on site to conduct initial assessment. Several trucks and crew are in the staging area.

6:15 am. The initial biological survey begins. One great blue heron is observed on top of the Gabion Peninsula in the West Basin. One double-crested cormorant flies over the West Basin. Two lesser scaups are swimming in the East and Central Basin. One Anna's hummingbird hovers around the Stormwater Inlet. One snowy egret catches fish in the Stormwater Inlet and in the East Basin and continues wading in the East Basin. One willet wades on the northern shore of the East Basin. Four lesser scaups swim in the Southeast Channel. One Anna's hummingbird hovers around the pine trees north of the East Basin. Two mallards swim in the Southeast Channel. Two American wigeons, two gadwalls, and two American coots swim and feed in the Southeast Channel. A female

Anna's hummingbird sits in the nest in the pine tree along the south shore of the Basin at 6:55 am. One ground squirrel walks towards the pine trees near east of the Tide Gates. One dark-eyed junco perches on the fence between the West Basin and the parking lot. Several American crows and western gulls are observed during the initial biological survey.

7:00 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on using caution while working near the Anna's hummingbird nest. Work is to be stopped if the female shows any sign of disturbance.

7:25 am. One black phoebe perches on the silt fence stake west of the West Basin. Two hooded mergansers swim in the West and Central Basin north of the Gabion Peninsula.

7:45 am. One snowy egret and one willet are wading along the north shore of the East Basin. Seven lesser scaups and two gadwalls swim and feed in the East Basin.

8:00 am. One Anna's hummingbird hovers around the Southeast Channel. One black phoebe perches on the silt fence stakes along the Southeast Channel. Two American coots swim and feed in the Southeast Channel. One Allen's hummingbird flies from the eucalyptus trees along the bike path north of the boat ramp to the stockpile south of the boat ramp and back to the eucalyptus trees.

8:15 am. Two gadwalls and eight lesser scaups swim and feed in the East Basin. The willet rests on the northern shore of the East Basin. The snowy egret wades south of the Northeast Peninsula. Two mallards swim from the Central to East Basin.

8:30 am. The construction crew builds the forms for the southern path. The female Anna's hummingbird sits on the nest in the pine tree. The two hooded mergansers swim in the West Basin north of the Gabion Peninsula. The Anna's hummingbird moves around in the nest.

8:45 am. One snowy egret stands on the Gabion Peninsula in the West Basin. One rock pigeon flies over the Central Basin from north to south.

9:00 am. The biological monitor starts a biological survey. Prior to leaving to conduct the survey, the Anna's hummingbird is observed sitting in the nest. Two American crows are observed on the southern bank of the West Basin. One Anna's hummingbird flies west out of the pine trees just east of the Tide Gates. Two mallards swim in the West and Central Basin south of the Gabion Peninsula. Three house sparrows perch on the potted plants between the staging area and the West Basin. Two killdeer are observed in the Northwest Mudflat. One Anna's hummingbird hovers over the Gabion Peninsula in the West Basin. The two hooded mergansers swim in the Central and West Basin north of the Gabion Peninsula. Two mallards swim in the Stormwater Inlet. One snowy egret perches on the wall of the Stormwater Inlet. The willet rests in the northern shore of the East Basin. One monarch butterfly flies and lands north of the East Basin. One Townsend's warbler perches in the pine tree north of the East Basin. Six lesser scaups, two American coots, and two gadwalls swim and feed in the East Basin. One sulfur butterfly flies west along the north of the East Basin. One Allen's hummingbird hovers above the Southeast Channel. Two black phoebes perch on the stakes in the Southeast Channel. One peregrine falcon soars over the East Basin diving down

Mr. Rick Sun
February 23, 2016
Page 3

and flies east. One willet wades in the southern shore of the East Basin then flies back to northern shore of the East Basin. One great egret is observed on top of the Gabion Peninsula in the West Basin.

10:15 am. The female Anna's hummingbird sits on the nest in the pine tree south of the Central Basin. One California gull flies over the site from west to east. One monarch butterfly flies east along the south of the basin. One osprey flies over the Central Basin from south to north. One snowy egret perches on the wall of the Stormwater Inlet.

10:35 am. One Anna's hummingbird flies over the pine trees east of the Tide Gates. One Townsend's warbler perches in the pine east of the Tide Gates.

10:50 am. An osprey perches in a palm tree along Washington Boulevard north of the Northeast Peninsula, dives into the Central Basin, catches a fish and flies east down the Southeast Channel. Two dragonflies fly over the East Basin.

11:05 am. One Anna's hummingbird perches in the pine tree north of the East Basin. One orange-crowned warbler perches in the pine tree north of the East Basin.

11:30 am. Construction crew and biological monitor break for lunch.

12:30 pm. Work continues. The osprey dives into the Central Basin, catches a fish and flies north. Two killdeer are in the Northwest Mudflat. One yellow-rumped warbler perches in plants west of the Western Basin. One Allen's hummingbird hovers around pine trees east of the Tide Gates. Eight lesser scaups swim in the West and Central Basin south of the Gabion Peninsula.

12:55 pm. The female Anna's hummingbird flies to the nest in the pine tree south of the Central Basin. One great egret stands on the shore of the Northeast Peninsula. One ring-billed gull circles around the Central Basin. The Anna's hummingbird flies around the pine tree while work on the side walk near the nest is occurring then returns to the nest. The osprey dives into the Central Basin and comes up without any fish, then flies southeast out of sight.

1:10 pm. The Anna's hummingbird calls from the nest while concrete is being poured approximately 100 feet east.

1:25 pm. One osprey flies over the Central Basin from south to north and perches in a palm tree along Washington Boulevard. The construction crew pours concrete in the northern of the two forms east of the Anna's hummingbird nest. The female Anna's hummingbird sits in the nest. She flies to a branch and perches in the pine tree then returns to the nest.

1:35 pm. The osprey flies east then returns to the palm tree to perch. The great egret moves to the Gabion Peninsula in the Central Basin. One mourning dove perches on the powerline pole north of the East Basin. One California gull flies over the Central Basin from north to south.

1:55 pm. The osprey dives three times into the basin without catching any fish then flies southwest towards the marina. One snowy egret wades in the Stormwater Inlet.

2:00 pm. The construction crew completed the pouring of concrete on the southern form. The crew starts to clean up the area. Prior to starting a biological survey of the site the Anna's hummingbird is observed in the nest. Eight lesser scaups swim in the West Basin south of the Gabion Peninsula. One great egret perches on the Tide Gates. One snowy egret is observed on the Gabion Peninsula near the Tide Gates. Two mallards swim in the West Basin south of the Gabion Peninsula. Two killdeer are in the Northwest Mudflat. Two mallards swim in the East Basin. Two American coots swim in the Southeast Channel. One Anna's hummingbird hovers over the Southeast Channel. One yellow-rumped warbler is observed on the southern bank of the Southeast Channel. One Allen's hummingbird hovers over the Southeast Channel.

3:00 pm. The biological monitor arrives at the Anna's hummingbird nest. The crew is cleaning up the area. The nest is empty when the biological monitor arrives however shortly after arrival the Anna's hummingbird returns to the nest.

3:15 pm. One snowy egret wades along the northern shore of the Central Basin. The great egret flies from the Tide Gates to the Gabion Peninsula near the Tide Gates.

3:30 pm. The biological monitor and the construction crew leave the site for the day. The Anna's hummingbird is observed in the nest prior to the biological monitor leaving the area.

Additional Observations

Osprey were observed feeding from the Basin. No Black Skimmers, or California Least Terns were observed today.

There were several sightings of wading birds and water fowl in and along the shore of the water. There were frequent sightings of Anna's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin. Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin.

The biological monitor closely observed the nesting Anna's hummingbird female while work occurred within the area of the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest. Based on the biological monitor's observations the nesting Anna's hummingbird was not disturbed by work activities nearby.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away

from an area when crews approach to conduct work activities. They return to the area once the crews move on.

2. In general, water fowl, wading birds, and Anna’s hummingbirds were the most frequent wildlife sightings on the site. No construction activities occurred in the water.
3. The biological monitor monitored construction activities near the Anna’s hummingbird nest and observed high tolerance of work conducted below. The female mostly remained on the nest, occasionally flying off to forage and then returning to sit on the nest. The biological monitor will continue monitoring the nest during work activities. Based on the biological monitor’s observations, the nesting Anna’s hummingbird was not disturbed by work activities nearby.
4. The large presence of piscivore birds indicate the presence of fish in the basin.
5. Insects were observed including monarch butterflies, sulfur butterflies, dragonflies, and honeybees. Monarch butterflies were not observed near active construction.

Table 1 provides a list of bird species observed during biological monitoring on February 23, 2016.

Table 1. Bird Species Observed during Biological Monitoring on February 23, 2016		
Common Name	Scientific Name	Comments
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the basin banks
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
California Gull	<i>Larus californicus</i>	Two individuals observed flying overhead
Ring-billed Gull	<i>Larus delawarensis</i>	One individual observed flying overhead
Peregrine Falcon	<i>Falco peregrinus</i>	One individual observed diving into Basin
Osprey	<i>Pandion haliaetus</i>	Observed perching in palm trees, soaring overhead and diving into Basin
Black Phoebe	<i>Sayornis nigricans</i>	Several individuals observed perching on silt fence and surveying stakes
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead
Mourning Dove	<i>Zenaida macroura</i>	One individual observed perching on powerline pole
Yellow-rumped Warbler	<i>Dendroica coronate</i>	Two individuals observed in herbaceous plants
Townsend’s Warbler	<i>Dendroica townsendi</i>	Observed perching in pine tree
Orange-crowned warbler	<i>Vermivora celata</i>	One individual perches in pine tree
Dark-eyed Junco	<i>Junco hyemalis</i>	One individual observed on fence
House Sparrow	<i>Passer domesticus</i>	Three individuals observed in plants west of the West Basin
Anna’s Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the

		eastern of the two pine trees south of the Central Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	Observed hovering around the Southeast Channel and pine trees near the Tide Gates
Killdeer	<i>Charadrius vociferus</i>	Two individuals observed in Northwest Mudflat
Willet	<i>Tringa semipalmata</i>	One individual wades in East Basin
Snowy Egret	<i>Egretta thula</i>	Observed wading near the Stormwater Inlet and East Basin
Great Egret	<i>Ardea alba</i>	Observed in Basin, on top of Tide Gates, and on top of Gabion Peninsula
Great Blue Heron	<i>Ardea Herodias</i>	One individual observed on top of Gabion Peninsula
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	One individual observed flying over West Basin
Mallard	<i>Anas platyrhynchos</i>	Observed swimming in Basin and Southeast Channel
American Wigeon	<i>Anas americana</i>	Two individuals observed in Basin and Southeast Channel
Gadwall	<i>Anas strepera</i>	Two individuals observed in Basin and Southeast Channel
Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Basin and Southeast Channel. A maximum of eight individuals observed at one time.
Hooded Merganser	<i>Lophodytes cucullatus</i>	Two individuals observed in Basin
American Coot	<i>Fulica americana</i>	Two American coots observed swimming in the East Basin and Southeast Channel



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Jennifer Jones, CDM Smith
Andrew Poyant, CDM Smith*

Date: February 24, 2016

Subject: Final Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 24, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 6:15 a.m. and ending at 3:30 p.m. Weather conditions were sunny, with temperatures ranging from 57°F in the morning to a high of 83°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with backfilling along the banks of the basin, work along the southern path and trench work north of the Southeast Channel. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:15 am. Biological monitor arrives on site to conduct initial assessment. Several trucks and crew are in the staging area.

6:20 am. The initial biological survey begins. Two peregrine falcons fly over the basin from west to east. One Anna's hummingbird hovers over the Northwest Peninsula then flies south. One osprey perches on the pine tree east of the Tide Gates, circles around the basin then perches back on the pine tree. Two hooded mergansers swim in the Central Basin north of the Gabion Peninsula. Four lesser scaups swim in the East Basin. Two American coots swim in the Southeast Channel. One Allen's hummingbird hovers over the Southeast Channel. One Anna's hummingbird hovers over the southeast channel. The Anna's hummingbird nest is empty at 6:55 am. Several American crows, rock pigeons and western gulls are observed during the biological survey.

Mr. Rick Sun
February 24, 2016
Page 2

7:00 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on protection caution while working near the Anna's hummingbird nest.

7:15 am. The osprey still perches in the pine tree east of the Tide Gates. One double-crested cormorant flies into the site from the west and swims in the West and Central Basin south of the Gabion Peninsula. One rock pigeon flies over the Central Basin from south to north.

7:25 am. One female Anna's hummingbird is in the nest in the pine tree south of the Central Basin. The double-crested cormorant flies from the East Basin west and continues flying offsite.

7:45 am. One small excavator works on the trench north of the boat ramp. One Anna's hummingbird perches on a eucalyptus tree east of the Pump House then hovers above the Southeast Channel. Two American coots swim in the Southeast Channel.

8:20 am. One osprey soars around the Basin.

8:35 am. One common yellowthroat perches in pine north of the East Basin. One Anna's hummingbird perches and hovers around the pine tree. One Townsend's warbler perches in pine tree.

8:45 am. One osprey dives into the Central Basin and does not catch a fish, then soars around basin. One yellow-rumped warbler is observed in the vegetation along the silt fence in the Northwest Peninsula then flies north. Two killdeer are in the Northwest Mudflat. Four lesser scaups swim in the West Basin north of the Gabion Peninsula.

9:15 am. Provided bio-awareness training to two surveyors. One osprey soars around Basin and dives into the East Basin. One ground squirrel sits on the trunk of the second pine tree east of the Tide Gates.

9:30 am. A female Anna's hummingbird sits on the nest south in the pine tree south of the Central Basin. Two black phoebes perch on the wall of the Stormwater Inlet.

9:50 am. One osprey flies over the Basin from east to west. One belted kingfisher flies from west over the West and Central Basin and perches on the powerline over the Stormwater Inlet. The belted kingfisher caught a fish in the Central Basin.

10:05 am. One belted kingfisher perches on the Gabion Peninsula in the Central Basin. One Anna's hummingbird hovers over the pine tree east of the Tide Gates and flies east, then returns to the pine tree.

10:30 am. Two rock pigeons perch on the powerline west of the West Basin. One Anna's hummingbird flies over the Central Basin from south to north. One black phoebe perches on the wall of the Stormwater Inlet. One honeybee is in the Northeast Peninsula. One belted kingfisher perches on a survey stake in the East Basin. Two American coots swim in the East Basin. One osprey soars over the Southeast Channel and East Basin. One monarch butterfly lands on the

northern shore of the East Basin. One black phoebe is observed on the southern bank of the Southeast Channel. One Anna's hummingbird hovers over the Southeast Channel.

11:00 am. One monarch butterfly flies east along the eucalyptus trees north of the boat ramp. One sulfur butterfly flies west along the eucalyptus trees. Two Allen's hummingbirds hover above the boat ramp. Two black phoebes perch in the eucalyptus tree east of the Pump House. One monarch flies east out of the boat ramp.

11:15 am. One sulfur butterfly flies from west to east and continues flying off site. One Anna's hummingbird hovers over the Southeast Channel south of the Pump House.

11:30 am. Two mourning doves perch on the powerline in the Northeast Peninsula. One osprey dives into the East Basin and does not catch a fish. The female Anna's hummingbird is in the nest while a construction worker jack hammers near along the southern path. One belted kingfisher flies east along the Basin.

11:45 am. The construction crew and biological monitor break for lunch. The Anna's hummingbird is in the nest prior to the biological monitor breaking for lunch.

12:50 pm. Four lesser scaups swim in the West Basin south of the Gabion Peninsula.

1:05 pm. One female Anna's hummingbird is in the pine tree south of the Central Basin. Two American coots swim in the Central and East Basin. One snowy egret wades near the Stormwater Inlet.

1:20 pm. The female Anna's hummingbird is in the nest as jack hammering around the electrical conduit starts approximately 70 feet east of the nest. One ring-billed gull flies over the site from west to east.

1:35 pm. The Anna's hummingbird flies out of the nest, hovers around and perches on the pine and then returns to the nest. One California gull flies over the site from east to west.

1:40 pm. The biological monitor starts a biological survey. One Anna's hummingbird hovers over the West Basin. One Yellow-rumped warbler perches on a sapling west of the West Basin. Then flies east. Four lesser scaups are swimming in the West Basin. Two killdeer are in the Northwest Mudflat. The biological monitor surveys the Northwest Mudflat for a killdeer nest; no nest is observed. Two American coots swim in the Central Basin. One ring-billed gull sits on the wall of the Stormwater Inlet. One snowy egret wades near the Stormwater Inlet. One common yellowthroat perches in the pine north of the East Basin. Pollen is accumulating in the water near the boat ramp. One black phoebe flies out of the Southeast Channel. One osprey dives into the Central Basin.

2:40 pm. One female Anna's hummingbird is sitting in the nest; no work is currently occurring near the nest. One osprey dives into the Central Basin. Two killdeer are in the Northwest Mudflat. One monarch butterfly is observed in the Northwest Peninsula.

3:00 pm. One yellow-rumped warbler perches in a sapling north of the Central Basin. Two American crows fly east out of the eucalyptus trees east of the Pump House. One yellow-rumped warbler is observed on the southern bank of the Southeast Channel.

3:30 pm. One great blue heron perches on the wall of the Stormwater Inlet next to the snowy egret. The biological monitor and the construction crew leave the site for the day. The Anna's hummingbird is in the nest prior to the biological monitor leaving the area.

Additional Observations

An Osprey was observed perching, soaring and diving into the basin today. No Black Skimmers, or California Least Terns were observed today.

There were several sightings of wading birds and waterfowl in and along the shore of the water. There were frequent sightings of Anna's and Allen's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin.

Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin. The biological monitor closely observed the nesting Anna's hummingbird female while work occurred within the area of the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest. Based on the biological monitor's observations the nesting Anna's hummingbird was not disturbed by work activities nearby.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on. The crew was reminded to dispose of their trash properly.
2. In general, waterfowl, wading birds, and Anna's hummingbirds were the most frequent wildlife sightings on the site. No construction activities occurred in the water.
3. The biological monitor monitored construction activities near the Anna's hummingbird nest and observed high tolerance of work conducted below. The female mostly remained on the nest, occasionally flying off to forage and then returning to sit on the nest. The biological monitor will continue monitoring the nest during work activities. Based on the biological monitor's observations, the nesting Anna's hummingbird was not disturbed by work activities nearby.
4. The large presence of piscivorous birds indicate the presence of fish in the basin.

5. Two killdeer were observed in the Northwest Mudflat since Monday, February 22, 2016; the biological monitor searched the mudflat for a killdeer nest, but no nests were observed.
6. Insects were observed including monarch butterflies, sulfur butterflies, and honeybees. Monarch butterflies were not observed near active construction.

Table 1 provides a list of bird species observed during biological monitoring on February 24, 2016.

Table 1. Bird Species Observed during Biological Monitoring on February 24, 2016		
Common Name	Scientific Name	Comments
Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Basin and Southeast Channel. A maximum of four individuals observed at one time.
Hooded Merganser	<i>Lophodytes cucullatus</i>	Two individuals observed in Basin
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	One individual observed swimming in the Basin
Great Blue Heron	<i>Ardea Herodias</i>	One individual observed on top of Stormwater Inlet
Snowy Egret	<i>Egretta thula</i>	Observed wading near the Stormwater Inlet and East Basin
Osprey	<i>Pandion haliaetus</i>	Observed perching in palm and pine trees, soaring overhead and diving into Basin
Peregrine Falcon	<i>Falco peregrinus</i>	Two individual observed flying over the Basin
American Coot	<i>Fulica Americana</i>	Two American coots observed swimming in the Basin and Southeast Channel
Killdeer	<i>Charadrius vociferous</i>	Two individuals observed in Northwest Mudflat
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
California Gull	<i>Larus californicus</i>	One individuals observed flying overhead
Ring-billed Gull	<i>Larus delawarensis</i>	Two individuals observed
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Two individuals observed perching on powerline
Anna's Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the eastern of the two pine trees south of the Central Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	Observed hovering around the Southeast Channel and pine trees near the Tide Gates
Belted Kingfisher	<i>Megaceryle alcyon</i>	One individual observed on powerlines and feeding from the Basin
Black Phoebe	<i>Sayornis nigricans</i>	Several individuals observed perching on silt fence and surveying stakes
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the basin banks
Yellow-rumped	<i>Dendroica coronate</i>	Several individuals observed along the perimeter

Mr. Rick Sun
February 24, 2016
Page 6

Warbler		of the Basin
Townsend's Warbler	<i>Dendroica townsendi</i>	Observed perching in pine tree
Common Yellowthroat	<i>Geothlypis trichas</i>	Observed perching in pine tree north of the East Basin



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Jennifer Jones, CDM Smith
Andrew Poyant, CDM Smith*

Date: February 25, 2016

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 25, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 6:10 a.m. and ending at 3:30 p.m. Weather conditions were sunny, with temperatures ranging from 54°F in the morning to a high of 79°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trenching southwest of the Tide Gates and pouring concrete along the southern and northern portions of the path. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:10 am. Biological monitor arrives on site to conduct initial assessment. Several trucks and crew are in the staging area.

6:15 am. The initial biological survey begins. One snowy egret flies into the site from the west and lands near the Stormwater Inlet. One Anna's hummingbird hovers over the Central Basin. One double-crested cormorant circles around the Basin and flies west. Two mallards are in the East Basin. One lesser scaup is in the Central Basin and three are in the East Basin and one is in the Southeast Channel. One great egret wades at the confluence of the Southeast Channel and East Basin. One snowy egret perches on the wall of the boat ramp. A second great egret flies into the Southeast Channel and the first great egret flies off the site towards the east. Two more mallards land in the East Basin. The male mallard scares off the two mallards that just landed. Four mallards

are observed in the Southeast Channel, different from the two in the East Basin. One Anna's hummingbird flies from the eucalyptus tree north of the Southeast Channel to the fence south of the Southeast Channel. Two American coots are in the Southeast Channel. One mourning dove flies over the site from south to north. Four lesser scaups are observed in the East Basin and an additional six are in the Central Basin. At 6:52 am the female Anna's hummingbird is in the nest south of the Central Basin. One snowy egret is on the southern side of the Gabion Peninsula. Several American crows, rock pigeons and western gulls were observed during the survey.

7:00 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on protection caution while working near the Anna's hummingbird nest. The biological monitor reminds the construction crew to pick up their trash.

7:15 am. One dead rock pigeon is observed in the Northwest Mudflat. The rock pigeon is 17 feet south of the nearest silt fence. No animal tracks are visible in the mudflat near the rock pigeon. There are marks on the neck and back that appear to be talons. The likely cause of death is by a raptor.

7:50 am. One Anna's hummingbird hovers over the West Basin. One mourning dove perches on the powerline above the Northwest Mudflat.

8:00 am. The biological monitor hangs caution and blue tape at 100 feet east and west of the Anna's hummingbird nest to remind crew of the presence of the nest and the need to be cautious during work activities nearby.

8:20 am. Two black phoebes perch on the stakes west of the West Basin. One killdeer flies into the Northwest Mudflat and calls; a second killdeer flies from the Gabion Peninsula to the Northwest Mudflat. One house sparrow perches on the powerline west of the West Basin. Two mallards fly over the western limit of the site from south to north.

8:50 am. The biological monitor starts a second biological survey. Four lesser scaups are in the Central Basin. One mourning dove flies to and perches on the powerline in the Northwest Peninsula. One osprey flies in from the east and perches on a palm tree north of the Northwest Peninsula along Washington Boulevard. One snowy egret perches on the Stormwater Inlet. Three lesser scaups swim in the East Basin. Three mallards swim in the Central Basin south of the Gabion Peninsula. Two Anna's hummingbirds hover around the pine tree north of the East Basin. One common yellowthroat perches in the pine tree north of the East Basin. Two American coots swim in the Stormwater Inlet. One black phoebe perches on the silt fence stakes along the Southeast Channel. A second black phoebe flies in from the east and perches on the silt fence stakes along the Southeast Channel. The two black phoebes fly above the Southeast Channel catching insects and perching on the stakes. One yellow-rumped warbler lands on the southern bank of the Southeast Channel. One Allen's hummingbird hovers over the Southeast Channel. One sulfur butterfly flies and lands on the eucalyptus tree east of the Pump house. Two additional Allen's hummingbirds hover over the Southeast Channel. One monarch butterfly flies north along the Southeast Channel. One osprey soars over the Southeast Channel and Basin. One Anna's hummingbird hovers over the Southeast Channel. The two American coots and two mallards swim into the Southeast Channel.

Mr. Rick Sun
February 25, 2016
Page 3

9:55 am. The female Anna's hummingbird sits in the nest south of the Central Basin. One great egret stands on the Gabion Peninsula. One osprey soars around the basin with an American crow following it.

10:10 am. The biological monitor spoke with Animal Control near the Southeast Channel. The Animal Control staff is on site due to a call about a dog caught in a fence at a different construction site. The Animal Control staff leaves to find the dog, but says he will return to take the rock pigeon. The biological monitor starts walking towards the staging area to meet the Animal Control staff there.

10:35 am. One tree swallow flies over the site from east to west.

10:40 am. The biological monitor meets with the Animal Control staff at the staging area and the Animal Control staff removes the rock pigeon from the site. Two killdeer are in the Northwest Mudflat. One great egret is on the Gabion Peninsula. One monarch butterfly flies along the bank of the West Basin.

10:45 am. The concrete truck arrives to deliver concrete for the electrical north of the southern path. Work is within 100 feet of the Anna's hummingbird nest and is overseen by the biological monitor. Work consists of jack hammering around the electrical conduit and pouring concrete in the holes around the electrical. The Anna's hummingbird is in the nest while jack hammering is occurring. The Anna's hummingbird moves around in the nest but does not fly away.

11:00 am. One snowy egret flies out of the Stormwater inlet and wades in the Central Basin near the Northeast Peninsula. The Anna's hummingbird stays in the nest for the duration of the jack hammering.

11:15 am. Two California gulls fly over the site from east to west. The Anna's hummingbird moves around in the nest after pouring of concrete and jack hammering is already complete. One great egret and one snowy egret perch on the Gabion Peninsula near the Tide Gates.

11:30 am. The fence along Admiralty Way is back up. The biological monitor re-ties the caution tape onto the fence. Work is complete within 100 feet of the Anna's hummingbird nest. The Anna's hummingbird flies to a branch in the pine tree then returns back to the nest. One yellow-rumped warbler perches in the pine tree east of the Tide Gates. One tree swallow flies over the western limit of the site.

11:40 am. One osprey soars over the Basin. The snowy egret catches a fish and returns to the Gabion Peninsula. Two mallards and one lesser scaup sit on the lower step on the northern side of the Gabion Peninsula in the West Basin. An additional four lesser scaups swim in the West Basin. One belted kingfisher perches on the Gabion Peninsula in the Central Basin.

11:55 am. One great egret catches a fish and returns to the Gabion Peninsula. One ground squirrel runs along the southwest bank of the West Basin toward the pine trees east of the Tide Gates.

12:00 pm. The biological monitor breaks for lunch.

1:00 pm. One great egret perches on the Gabion Peninsula by the Tide Gates. Two killdeer are in the Northwest Mudflat.

1:20 pm. One double-crested cormorant swims in the Central Basin north of the Gabion Peninsula. The two mallards and one lesser scaup are still sitting on the northern side of the Gabion Peninsula.

1:40 pm. One sulfur butterfly flies north along the western bank of the West Basin. One yellow-rumped warbler perches on the silt fence north of the Central Basin. The double-crested cormorant perches on the wall of the Stormwater Inlet. Two American coots are swimming in the East Basin.

2:00 pm. One American coot swims in the Southeast Channel.

2:10 pm. The Anna's hummingbird flies out of the nest and heads south then returns to the nest.

2:30 pm. One monarch butterfly flies east along the southern bank of the Basin.

2:50 pm. One ground squirrel is observed near the pine trees east of the Tide Gates. One ring-billed gull flies over the site from west to east. Two house sparrows perch on the powerline west of the West Basin. One yellow-rumped warbler flies out of the potted plants on the western bank of the Basin and perches in a sapling.

3:10 pm. The two killdeer are in the Northwest Mudflat.

3:30 pm. Prior to leaving the site for the day, the biological monitor confirms that the Anna's hummingbird is in the nest.

Additional Observations

Observations of an Osprey perching, soaring and diving into the basin occurred today. No Black Skimmers, or California Least Terns were observed today.

There were several sightings of wading birds and water fowl in and along the shore of the water. There were frequent sightings of Anna's and Allen's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin. Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin.

The biological monitor closely observed the nesting Anna's hummingbird female while work occurred within the area of the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest. Based on the biological monitor's observations the nesting Anna's hummingbird was not disturbed by work activities nearby.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on. The crew was reminded to dispose of their trash properly.
2. In general, water fowl, wading birds, and Anna's hummingbirds were the most frequent wildlife sightings on the site. No construction activities occurred in the water.
3. One rock pigeon was found dead in the Northwest Mudflat during the initial biological survey. The rock pigeon appears to have died from a raptor. Animal Control removed the rock pigeon from the site.
4. The biological monitor monitored construction activities near the Anna's hummingbird nest and observed high tolerance of work conducted below. The female mostly remained on the nest, occasionally flying off to forage and then returning to sit on the nest. The biological monitor will continue monitoring the nest during work activities. Based on the biological monitor's observations, the nesting Anna's hummingbird was not disturbed by work activities nearby.
5. The large presence of piscivorous birds indicate the presence of fish in the basin.
6. Insects were observed including monarch butterflies, sulfur butterflies, and honeybees. Monarch butterflies were not observed near active construction.

Table 1 provides a list of bird species observed during biological monitoring on February 25, 2016.

Table 1. Bird Species Observed during Biological Monitoring on February 25, 2016		
Common Name	Scientific Name	Comments
Mallard	<i>Anas platyrhynchos</i>	Observed swimming in Basin and Southeast Channel
Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Basin and Southeast Channel.
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	One individual observed in the Basin
Great Egret	<i>Ardea alba</i>	Observed in Southwest Channel, the Basin, on top of Tide Gates, and on top of Gabion Peninsula
Snowy Egret	<i>Egretta thula</i>	Observed wading near the Stormwater Inlet the Basin and on top of the Gabion Peninsula
Osprey	<i>Pandion haliaetus</i>	Observed perching in palm trees, soaring overhead and diving into Basin
American Coot	<i>Fulica Americana</i>	Two American coots observed swimming in the Basin and Southeast Channel
Killdeer	<i>Charadrius vociferous</i>	Two individuals observed in Northwest Mudflat

Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
California Gull	<i>Larus californicus</i>	Two individuals observed flying overhead
Ring-billed Gull	<i>Larus delawarensis</i>	One individual observed flying overhead
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead; one dead, likely killed by a raptor due to observed wounds
Mourning Dove	<i>Zenaida macroura</i>	Three individual observed perching and flying
Anna's Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the eastern of the two pine trees south of the Central Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	Observed hovering around the Southeast Channel and pine trees near the Tide Gates
Belted Kingfisher	<i>Megaceryle alcyon</i>	One individual observed perching on Gabion Peninsula
Black Phoebe	<i>Sayornis nigricans</i>	Several individuals observed perching on silt fence and surveying stakes
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the basin banks
Tree Swallow	<i>Tachycineta bicolor</i>	Two individuals observed flying overhead
Yellow-rumped Warbler	<i>Dendroica coronate</i>	Three individuals observed
Common Yellowthroat	<i>Geothlypis trichas</i>	One individual observed perching in the pine tree north of the East Basin
House Sparrow	<i>Passer domesticus</i>	Three individuals observed perching on powerlines



Photo 1 - Deceased rock pigeon in Northwest Mudflat

Mr. Rick Sun
February 25, 2016
Page 8



Photo 2 - Neck wound appears to be talons



Photo 3 - Back wound appears to be talons



Photo 4 - The rock pigeon is 17 feet south of silt fence; no work has occurred in the area of the deceased rock pigeon this week

Mr. Rick Sun
February 25, 2016
Page 11



Photo 5 – Facing west with rock pigeon in the foreground



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Jennifer Jones, CDM Smith
Andrew Poyant, CDM Smith*

Date: February 26, 2016

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 26, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 5:55 a.m. and ending at 3:30 p.m. Weather conditions were sunny, with temperatures ranging from 50°F in the morning to a high of 71°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with trenching southwest of the Tide Gates and pouring concrete along the northern portion of the path north of the East Basin. Three construction workers cleaned up the site in the morning by picking up trash and construction debris. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

5:55 am. Biological monitor arrives on site to conduct initial assessment. Several trucks and crew are in the staging area.

6:00 am. The initial biological survey begins. One Anna's hummingbird calls and perches on the pine tree west of the pine tree with the nest in it. Seven lesser scaups and four mallards swim in the East Basin. Two American coots swim from the East Basin to the Southeast Channel. The four mallards that were observed in the East Basin walk near the northern path north of the East Basin then fly into the East Basin. Two mallards fly west to east and land in the Southeast Channel. One ring-billed gull circles around the East Basin. One juvenile black-crowned night-heron lands on the

Stormwater Inlet. Several western gulls, California gulls, ring-billed gulls, and American crows were observed during the initial survey.

6:40 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on using cautions when working near the Anna's hummingbird nest. The biological monitor reminds the construction crew to pick up their trash.

6:55 am. One great egret flies over the West Basin from south to north. Two mallards fly off the site towards the west. One double-crested cormorant flies into the West Basin south of the Gabion Peninsula from southwest of the site. Three rock pigeons fly over the southwest corner of the site.

7:10 am. One great blue heron lands on the eastern end of the Gabion Peninsula. The double-crested cormorant flies from the West basin to the Stormwater Inlet and lands on the wall. Two mourning doves fly over the site from west to east. One snowy egret perches on the wall of the Stormwater Inlet. One Anna's hummingbird flies east out of the pine tree south of the Central Basin. A second Anna's hummingbird hovers over the pine tree, perches on a branch then returns to the nest. One great egret flies into the site from the south and perches on the Stormwater Inlet wall. The great blue heron flies from the Gabion Peninsula to the Stormwater Inlet wall.

7:25 am. The mini excavator moves from the eastern side of the site towards the Tide Gates along the southern bank. The Anna's hummingbird is in the nest and remains in the nest while the excavator passes under and then continues 100 feet west of the nest. One tree swallow flies over from west to east along the northern bank of the Basin.

7:40 am. Two American coots swim in the Central Basin. One snowy egret walks along the southern side of the Gabion Peninsula. One Anna's hummingbird flies west to east along the southern bank of the Basin. The snowy egret flies to the Northeast Peninsula and wades in the Basin. Two great egrets, one snowy egret, one great blue heron and one double-crested cormorant stand on the wall of the Stormwater Inlet while two mallards are swimming in the outlet.

7:55 am. The biological monitor surveys the Gabion Peninsula for nests so construction workers can water the plants on the Gabion Peninsula. No nests are found. One double-crested cormorant catches fish in the West Basin. Two killdeer are in the Northwest Mudflat.

8:20 am. The biological monitor completes the survey; no nests are observed on the Gabion Peninsula. One mourning dove perches on the powerline over the Northwest Mudflat.

8:40 am. One snowy egret and one great egret perch on the Tide Gates. One great blue heron perches on the north side of the Gabion Peninsula. Two mallards fly out of the Southeast Channel and continue west.

9:00 am. Two American wigeons and six lesser scaups swim in the East and Central Basin. One double-crested cormorant perches on the wall of the Stormwater Inlet.

9:20 am. One common yellowthroat perches in the pine tree north of the East Basin. One Anna's hummingbird hovers over the Southeast Channel. One concrete truck pours concrete for the path north of the Southeast Channel.

9:40 am. One monarch butterfly flies east along the northern bank of the Southeast Channel. Two American coots swim in the Southeast Channel. Two mallards sit on the southern bank of the Southeast Channel. One Allen's hummingbird hovers over the East Basin. One great egret lands in the Southeast Channel. One yellow-rumped warbler perches on the silt fence stake south of the Southeast Channel and is then observed in the vegetation along the Southeast Channel.

10:10 am. One dragonfly flies west along the Southeast Channel. One Anna's hummingbird hovers over the Southeast Channel and perches in the eucalyptus tree east of the Pump House. Two double-crested cormorants swim in the Central and East Basin. Six lesser scaups swim in the East Basin. One snowy egret lands on the wall of the Stormwater Inlet. Two mallards swim in the Central Basin south of the Gabion Peninsula. Three other mallards swim in the Stormwater Inlet. One great blue heron and one great egret perch on the Gabion Peninsula.

10:25 am. One Anna's hummingbird sits in the nest in the pine tree south of the Central Basin. Two mallards fly west and continue off site. A small crew compacts the trench south of the West Basin.

10:40 am. One ground squirrel runs along the western bank.

11:15 am. One black phoebe flies in the site from the east and perches on a silt fence stake along the Southeast Channel. One Anna's hummingbird hovers over the Southeast Channel.

11:35 am. The female Anna's hummingbird is in the nest. One dark-eyed junco is on the ground below the pine trees east of the Tide Gates.

11:45 am. The biological monitor breaks for lunch.

12:45 pm. One great egret and one snowy egret perch on the Gabion Peninsula near the Tide Gates. Three lesser scaups swim in the West Basin north of the Gabion Peninsula. One yellow-rumped warbler perches in the sapling on the western bank of the Basin. Two mallards sit on the north side of the Gabion Peninsula.

1:15 pm. One house finch perches on the powerline on the western bank of the Basin. Two killdeer are in the Northwest Mudflat. One double-crested cormorant flies from the East Basin to the West Basin. One house sparrow perches on the potted plants on the western bank of the Basin near the staging area.

1:30 pm. One sulfur butterfly flies over the East Basin.

1:50 pm. One Townsend's warbler perches in the eucalyptus tree east of the Pump House. Two American coots swim in the Southeast Channel.

2:05 pm. The female Anna's hummingbird hovers around the pine tree with the nest then returns to sit in the nest. One great blue heron is on the shore of the Northeast Peninsula.

2:25 pm. One snowy egret perches on the Gabion Peninsula. One yellow-rumped warbler perches on a sapling on the western bank of the Basin. Three lesser scaups swim in the West and Central Basin north of the Gabion Peninsula. Two mallards sit on the north side of the Gabion Peninsula. Two killdeer are in the Northwest Mudflat.

3:00 pm. One yellow-rumped warbler perches on a sapling west of the West Basin. Three lesser scaups swim in the Central Basin south of the Gabion Peninsula.

3:15 pm. The female Anna's hummingbird perches on a branch near the nest then returns to the nest. One snowy egret and one double-crested cormorant perch on the Stormwater Inlet wall. One great egret wades between the Northeast Peninsula and the Stormwater Inlet. One great blue heron perches on the north side of the Gabion Peninsula.

3:30 pm. Prior to leaving the site for the day, the biological monitor confirms that the Anna's hummingbird is in the nest. One Anna's hummingbird hovers over the pine trees east of the Tide Gates. One yellow-rumped warbler perches in the pine trees east of the Tide Gates.

Additional Observations

No Black Skimmers, Osprey or California Least Terns were observed today.

There were several sightings of wading birds and waterfowl in and along the shore of the water. There were frequent sightings of Anna's and Allen's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin. Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin.

The biological monitor closely observed the nesting Anna's hummingbird female while work occurred within the area of the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest. Based on the biological monitor's observations the nesting Anna's hummingbird was not disturbed by work activities nearby.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on. The crew was reminded to dispose of their trash properly.
2. In general, water fowl, wading birds, and Anna's hummingbirds were the most frequent wildlife sightings on the site. No construction activities occurred in the water.

3. The biological monitor monitored construction activities near the active Anna's hummingbird nest and observed high tolerance by the female hummingbird of work conducted below. The female mostly remained on the nest, occasionally flying off to forage and then returning to sit on the nest. The biological monitor will continue monitoring the nest during work activities within the 100-foot buffer around the nest. Based on the biological monitor's observations, the nesting Anna's hummingbird was not disturbed by work activities nearby.
4. The large presence of piscivorous birds indicate the presence of fish in the basin.
5. Insects were observed including monarch butterflies, sulfur butterflies, and dragonflies. Monarch butterflies were not observed near active construction.

Table 1 provides a list of bird species observed during biological monitoring on February 26, 2016.

Table 1. Bird Species Observed during Biological Monitoring on February 26, 2016		
Common Name	Scientific Name	Comments
Mallard	<i>Anas platyrhynchos</i>	Observed swimming in Basin and Southeast Channel
American Wigeon	<i>Anas Americana</i>	Two individuals observed in Basin
Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Basin and Southeast Channel.
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Two individual observed in the Basin
Great Egret	<i>Ardea alba</i>	Observed in Basin, on top of Tide Gates, and on top of Gabion Peninsula
Great Blue Heron	<i>Ardea Herodias</i>	One individual observed on top of Gabion Peninsula and by the Stormwater Inlet
Snowy Egret	<i>Egretta thula</i>	Observed wading near the Stormwater Inlet, East Basin and on top of the Gabion Peninsula
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	One individual observed at the Stormwater Inlet
American Coot	<i>Fulica Americana</i>	Two American coots observed swimming in the East Basin and Southeast Channel
Killdeer	<i>Charadrius vociferous</i>	Two individuals observed in Northwest Mudflat
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead
California Gull	<i>Larus californicus</i>	Several individuals observed flying overhead
Ring-billed Gull	<i>Larus delawarensis</i>	Several individuals observed flying overhead
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead
Mourning Dove	<i>Zenaida macroura</i>	Three individuals observed perching on powerline and flying overhead
Anna's Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the eastern of the two pine trees south of the Central Basin

Allen's Hummingbird	<i>Selasphorus sasin</i>	Observed hovering around the Southeast Channel and East Basin
Black Phoebe	<i>Sayornis nigricans</i>	One individual observed perching on silt fence and surveying stakes
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; very common flying overhead and exploring the basin banks
Tree Swallow	<i>Tachycineta bicolor</i>	One individuals observed flying overhead
Yellow-rumped Warbler	<i>Dendroica coronate</i>	Five individuals observed perching on silt fence stakes, saplings, and in a pine tree
Townsend's Warbler	<i>Dendroica townsendi</i>	One individual observed perching in the eucalyptus tree east of the Pump House
Common Yellowthroat	<i>Geothlypis trichas</i>	One individual observed in the pine tree north of the East Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	One individual observed on the ground below the pine trees east of the Tide Gates
House Finch	<i>Carpodacus mexicanus</i>	One individual observed perching on the powerlines
House Sparrow	<i>Passer domesticus</i>	One individual observed in plants west of the West Basin



Memorandum

To: Rick Sun, Los Angeles County Department of Public Works

*From: Jennifer Jones, CDM Smith
Andrew Poyant, CDM Smith*

Date: February 27, 2016

Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project

Introduction

This memorandum summarizes the findings of biological monitoring on February 27, 2016, for the Oxford Retention Basin Multiuse Enhancement project. Information regarding the regulatory drivers and methodology of daily biological monitoring can be found in the Biological Monitoring – Introduction and Methods for Phase 2 Construction Memo, dated June 23, 2015.

Biological monitoring was conducted by Andrew Poyant, CDM Smith biologist, beginning at 6:05 a.m. and ending at 1:45 p.m. Weather conditions were sunny to partly cloudy, with temperatures ranging from 54°F in the morning to a high of 70°F in the afternoon. No measureable rain was recorded.

During the daily monitoring, the biologist observed activities associated with filling and compacting at the outlook east of the Tide Gates, filling along the south of the Southeast Channel, trenching south of the curb for the path near the pine tree north of the East Basin, and backfilling on the Northeast Peninsula. All crews were overseen by the Contractor Superintendent and the Inspector of Record.

The following sections provide the biologist's field-log notes, with observations of the day's activities and wildlife presence and behavior.

Biologist's Field Log

6:05 am. Biological monitor arrives on site to conduct initial assessment. The biological monitor opens the gate to the staging area.

6:10 am. The initial biological survey begins. Two killdeer are in the Northwest Mudflat. Two American wigeons and five lesser scaups swim in the East Basin. Two American coots and two mallards swim in the Southeast Channel. A cat without a collar is on the southern bank of the Southeast Channel; the cat leaves the site to the east as the biological monitor approaches the Boat Ramp. The female mallard quacks at the cat prior to the cat leaving the site. One yellow-rumped

warbler perches in the eucalyptus tree east of the Pump House. One Allen's hummingbird perches in the eucalyptus tree east of the Pump House. One Allen's hummingbird hovers over the Southeast Channel. One Anna's hummingbird hovers around the pine trees south of the Central Basin and another Anna's hummingbird sits in the nest. Two Anna's hummingbirds hover around the pine tree and perch on the pine tree east of the Tide Gates.

6:40 am. The biological monitor gives the bio-awareness training to the construction crew. Emphasis was placed on using caution while working near the Anna's hummingbird nest. The biological monitor reminds the construction crew to pick up their trash.

7:00 am. One double-crested cormorant flies into the West Basin from the northeast. One snowy egret flies onto the Gabion Peninsula.

7:05 am. The biological monitor surveys the Northwest Mudflat for killdeer nests until 7:15 am; no nest are observed.

7:15 am. One rock pigeon flies over the southwest corner of the site. One morning dove flies over the West Basin from the south to the north. One Allen's hummingbird hovers around the pine tree east of the Tide Gates. One tree swallow flies over the staging area from north to south.

7:30 am. Five construction workers shovel under the outlook east of the Tide Gates. One snowy egret and one double-crested cormorant perch on the wall of the Stormwater Inlet. Two American wigeons and lesser scaups are in the East Basin. One great egret perches on the Stormwater Inlet.

8:00 am. Two mini excavators start up and move from east to west along the southern bank of the Basin. One black phoebe perches on the silt fence stake on the northern bank of the East Basin. One Anna's hummingbird perches on a sapling north of the Northeast Mudflat. Two American coots swim in the Central Basin.

8:30 am. Three snowy egrets wade along the Northwest Mudflat. One great egret perches on the Gabion Peninsula and one snowy egret moves from the Northwest Mudflat to the Gabion Peninsula. One double-crested cormorant flies over the West Basin from south to north. One dark-eyed junco perches on a shrub on the west bank.

8:45 am. Three snowy egrets move from the Northeast Mudflat to the west bank of the West Basin. Two of the snowy egrets fly south and continue off site.

9:10 am. Two mallards fly into the East Basin from the west. A crew fills and compacts below the outlook platform east of the Tide Gates. One Anna's hummingbird hovers around the pine trees east of the Tide Gates.

9:40 am. One Anna's hummingbird is in the nest south of the Central Basin.

10:05 am. One Anna's hummingbird flies south from the Southeast Channel.

Mr. Rick Sun
February 27, 2016
Page 3

10:30 am. Two yellow-rumped warblers fly from the Southeast Channel to the eucalyptus tree along the bike path. Two black phoebes perch and feed along the Southeast Channel. Two American coots swim in the Southeast Channel. One yellow-rumped warbler is in the vegetation along the northern bank of the Southeast Channel.

10:45 am. One mini excavator digs a trench south of the curb of the north path near the pine tree north of the East Basin. No birds are observed in the pine tree. One osprey soars over the basin then perches on the powerline pole in the Northwest peninsula.

11:00 am. Five lesser scaups swim in the East and Central Basin. One tree Swallow flies over the Basin from east to west.

11:20 am. One great egret perches on the Gabion Peninsula. One willet is in the Northeast Mudflat.

11:40 am. One dragonfly flies above the Northeast Peninsula. Two construction workers backfill on top of the Northwest Peninsula.

11:45 am. The biological monitor breaks for lunch.

12:45 pm. One great egret perches on the Gabion Peninsula. Two killdeer are in the Northwest Mudflat. One willet wades south of the Northwest Mudflat. One snowy egret perches on the wall of the Stormwater Inlet. Two American coots and four lesser scaups swim in the East Basin.

1:30 pm. One house sparrow perches in a shrub on the west bank of the Basin.

1:45 pm. Prior to leaving the site for the day, the biological monitor confirms that the Anna's hummingbird is in the nest.

Additional Observations

One osprey was observed soaring over the Basin. No Black Skimmers, or California Least Terns were observed today.

There were several sightings of wading birds and waterfowl in and along the shore of the water. There were frequent sightings of Anna's and Allen's hummingbirds along the Southeast Channel and near the pine trees south of the West and Central Basin. Construction crews were instructed to be cautious around the Anna's hummingbird nest on the east pine tree south of the Central Basin.

The biological monitor closely observed the nesting Anna's hummingbird female while work occurred near the nest. Prior to leaving the site the biological monitor confirmed the nesting Anna's hummingbird was in the nest. Based on the biological monitor's observations the nesting Anna's hummingbird was not disturbed by work activities nearby.

Conclusions

Based on observations made during monitoring, the following conclusions were made:

1. Biological awareness training emphasizes caution to avoid harm to birds and wildlife in and around the Basin during construction activities. In general, wildlife tends to slowly move away from an area when crews approach to conduct work activities. They return to the area once the crews move on. The crew was reminded to dispose of their trash properly. No construction activities occurred in the water.
2. In general, waterfowl, wading birds, and Anna's hummingbirds were the most frequent wildlife sightings on the site.
3. The biological monitor monitored construction activities near the Anna's hummingbird nest and observed high tolerance of work conducted within the 100-foot buffer around the nest. The female mostly remained on the nest, occasionally flying off to forage and then returning to sit on the nest. The biological monitor will continue monitoring the nest during work activities. Based on the biological monitor's observations, the nesting Anna's hummingbird was not disturbed by work activities nearby.
4. The large presence of piscivorous birds indicate the presence of fish in the basin.

Table 1 provides a list of bird species observed during biological monitoring on February 27, 2016.

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Lesser Scaup	<i>Aythya affinis</i>	Several individuals observed in Basin.
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	One individual observed swimming in the Basin
Great Egret	<i>Ardea alba</i>	Observed in Basin, on top of Stormwater Inlet, and on top of Gabion Peninsula
Snowy Egret	<i>Egretta thula</i>	Observed wading near the Stormwater Inlet and Basin; maximum of three individuals observed at once
Osprey	<i>Pandion haliaetus</i>	Observed perching powerline pole, soaring overhead and diving into Basin
American Coot	<i>Fulica Americana</i>	Two American coots observed swimming in the East Basin and Southeast Channel
Killdeer	<i>Charadrius vociferous</i>	Two individuals observed in Northwest Peninsula
Willet	<i>Tringa semipalmata</i>	One individual wades in the mudflats
Western Gull	<i>Larus occidentalis</i>	Several individuals; Very common flying overhead

California Gull	<i>Larus californicus</i>	Several individuals observed flying overhead
Ring-billed Gull	<i>Larus delawarensis</i>	Several individual observed flying overhead
Rock Pigeon	<i>Columba livia</i>	Several observed flying overhead
Mourning Dove	<i>Zenaida macroura</i>	One individual observed perching on powerline pole
Anna's Hummingbird	<i>Calypte anna</i>	Several individuals observed flying and hovering around Southeast Channel and pine trees south of West and Central Basin. One nest observed in the eastern of the two pine trees south of the Central Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	Observed hovering around the Southeast Channel and pine trees near the Tide Gates
Black Phoebe	<i>Sayornis nigricans</i>	Several individuals observed perching on silt fence and surveying stakes
American Crow	<i>Corvus brachyrhynchos</i>	Several individuals; Very common flying overhead and exploring the basin banks
Tree Swallow	<i>Tachycineta bicolor</i>	Two individuals observed flying overhead
Yellow-rumped Warbler	<i>Dendroica coronate</i>	Four individuals observed near the Southeast Channel
Dark-eyed Junco	<i>Junco hyemalis</i>	One individual observed perching on a shrub
House Sparrow	<i>Passer domesticus</i>	One individual observed perching on a shrub