

**Addendum to the Port Everglades Navigation Improvements Project  
Endangered Species Act Listed Coral Species Survey and Results  
Final Report – July 2018**

During review of the 2017 Port Everglades ESA Survey Report, several questions arose regarding the calculation of data in certain tables and specific values throughout the text. These questions have been reviewed by Dial Cordy & Associates and explanations for how these data were calculated are provided below. For any calculations that were incorrect, the corrected value and an explanation for the error are provided below.

**1. Methods Explanation and Revision for Section 3.3, Table 3 (Page 36)**

Table 3 of the ESA report shows the estimated abundance of *Orbicella faveolata* (OFAV) throughout the direct and indirect impact areas (see below).

**Table 3. Estimates of *O. faveolata* within the Direct and Indirect Project Areas.**

Project Area	Habitat	Estimated <i>O. faveolata</i> colonies
Direct	Outer Reef	128
<b>Direct Project Area Total</b>		<b>128</b>
Indirect	Inner Reef	59
Indirect	Middle Reef	19
Indirect	Outer Reef	93
<b>Indirect Project Area Total</b>		<b>171</b>
<b>Estimated ESA corals in Direct or Indirect project areas</b>		<b>299</b>

The methods for calculating these values areas can be found in Section 2.2 Estimating ESA Coral Abundance within the Direct and Indirect Project Areas (Page 14), which states:

*“To determine the estimated number of ESA listed corals found in either the direct or indirect project areas, the number of corals estimated within each DCA (2017), NSU (2011), or supplemental site areas that were completely within the direct or indirect area boundary were added together. Estimated abundance from DCA (2017), NSU (2011) or supplemental sites that were only partially within either the direct or indirect areas were calculated as the percentage of the site that lies within that area boundary. For example, ESA-129 on the outer reef has an extrapolated value of 51 *O. faveolata* colonies with 27% and 73% within the direct and indirect footprints respectively. As a result, 14 (27%) coral colonies were estimated to lie within the direct impact area and 37 (73%) were estimated within the indirect impact area.”*

Although the methods state how the values in Table 3 were obtained and provides an example of the extrapolation process, Table 3 does not show the proportions of each site and supplemental area with regards to their overlap within or without the direct and/or indirect impact areas. Table 3 has been revised to show these proportion values so verification of calculations/estimates can be made.

Revised Table 3. Estimates of *O. faveolata* within the Direct and Indirect Project Areas.

Project Area	Site	Site OFAC Value	Site Proportion	Habitat	Estimated <i>O. faveolata</i> colonies
Direct	ESA128	10	0.30	Outer Reef	3
Direct	ESA129	51	0.27	Outer Reef	14
Direct	DIRECT-OUTER*	34	1.00	Outer Reef	34
Direct	DIRECT-OUTER*	77	1.00	Outer Reef	77
<b>Direct Project Area Total</b>					<b>128</b>
Indirect	NSU3	14	0.21	Inner Reef	3
Indirect	NSU5	13	0.22	Inner Reef	3
Indirect	NSU6	14	0.21	Inner Reef	3
Indirect	NSU7	14	0.21	Inner Reef	3
Indirect	NSU10	14	0.07	Inner Reef	1
Indirect	ESA140	13	1.00	Inner Reef	13
Indirect	ESA141	13	1.00	Inner Reef	13
Indirect	ESA142	11	1.00	Inner Reef	11
Indirect	ESA140-N*	1	1.00	Inner Reef	1
Indirect	ESA141-N*	1	1.00	Inner Reef	1
Indirect	ESA142-N*	1	1.00	Inner Reef	1
<b>Indirect Inner Reef Total</b>					<b>53</b>
Indirect	NSU14	11	0.64	Middle Reef	7
Indirect	ESA144	12	1.00	Middle Reef	12
<b>Indirect Middle Reef Total</b>					<b>19</b>
Indirect	NSU15	14	0.57	Outer Reef	8
Indirect	ESA114	25	0.85	Outer Reef	21
Indirect	ESA115	25	0.84	Outer Reef	21
Indirect	ESA128	10	0.70	Outer Reef	7
Indirect	ESA129	51	0.73	Outer Reef	37
Indirect	ESA114-W*	5	0.80	Outer Reef	4
<b>Indirect Outer Reef Total</b>					<b>98</b>
<b>Indirect Project Area Total</b>					<b>170</b>
<b>Direct and Indirect Project Area Total</b>					<b>298</b>

\*Denotes supplemental area

During the revisions to this table, it was noticed that some of the proportions of the supplemental areas had not been calculated correctly. These were re-calculated and the correct values are now shown in the revised table. When compared with the values in the original version of Table 3, the revised values show a decrease of estimated OFAV in the inner reef (6 fewer corals) and an increase of estimated OFAV in the outer reef (5 additional corals), which brings the total value of estimated OFAV in the direct and indirect project area to 298.

## 2. Data Correction for Section 2.1.3 (Page 12)

The first three sentences of this section state:

*“The 2017 survey site locations covered approximately 154 hectares (ha) (380 acres (ac)) of habitat and make up approximately 47% of the proposed project habitat area. The NSU (2011) surveys site locations covered approximately **39 hectares (339 ac)** of habitat and made up approximately 41% of the proposed project area. However, approximately 39 hectares (97 ac) of habitat (approximately 12% of the total project area) extended beyond the boundaries of the 2017 and NSU (2011) survey site locations.”*

The 39-hectare value (in bold above) is incorrect and should state 137 hectares, which equals 339 acres shown in parentheses (in bold above).

## 3. Data Correction for Section 3.2.2 (Page 26)

The last sentence of this section states:

*“When the supplemental areas beyond the DCA and NSU surveys are included in the calculation, the total estimated *O. faveolata* abundance is **2,743 colonies** (2,460 colonies are estimated within the habitat surveyed by DCA (2017) and NSU (2011) and 286 are estimated in supplemental survey areas).”*

The value in bold above is incorrect and should state 2,746 colonies. This value is the sum of the two values in parentheses following it ( $2,460 + 286 = 2,746$ ). This was due to a transcription error.