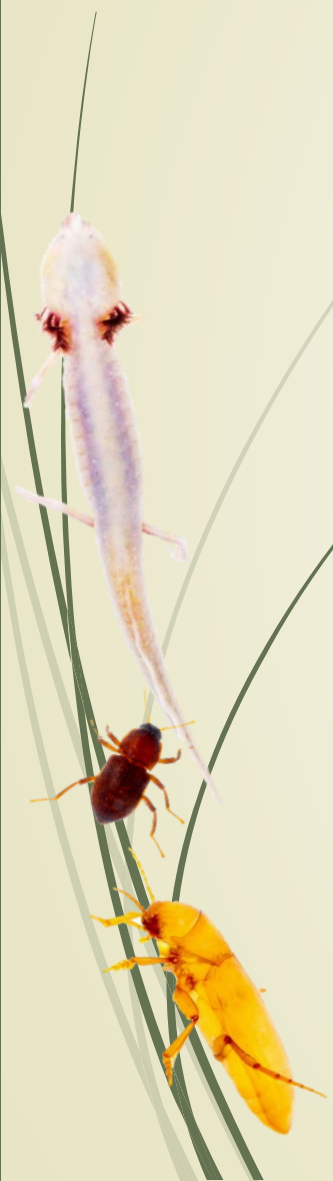




# NET DISTURBANCE AND INCIDENTAL TAKE OVERVIEW



Presentation to the Implementing Committee  
Bob Hall, Sr. Project Coordinator  
January 19, 2017



# INCIDENTAL TAKE PERMIT ASSESSMENTS FOR ANNUAL REPORT

- ▶ **Item M Assessment – Net Disturbance** from Mitigation and Restoration Measures
  - ▶ No more than 10% of the covered species occupied habitat can be affected by HCP mitigation and restoration activities.
- ▶ **Incidental Take Assessment**
  - ▶ Calculate incidental take of covered species
- ▶ **Review and Methods**
  - ▶ Same methodology used in 2016



# NET DISTURBANCE SUMMARY: NET DISTURBANCE ASSESSMENT

- ▶ Document baseline area of occupied habitat for the covered species.
- ▶ Determine how much occupied area was disturbed during 2016.
- ▶ Calculate Incidental Take for 2016 and remaining amount within the Incidental Take Permit.

# EAHCP Incidental Take - 2016

COVERED SPECIES PER SYSTEM	HCP Mitigation / Restoration		HCP Measures / Drought	Combined Impacted Habitat 2016 TOTAL (m <sup>2</sup> )	INCIDENTAL TAKE		2016 INCIDENTAL TAKE TOTAL	ITP Maximum Permit Amount	ITP Permit Maximum minus (combined first four years)
	IMPACTED HABITAT (m <sup>2</sup> )	NET Disturbance % OF TOTAL Occupied Habitat	IMPACTED HABITAT (m <sup>2</sup> )		HCP Mitigation / Restoration	HCP Measures / Drought			
COMAL SYSTEM									
Fountain Darter	3,002	3.3%	3,637	<b>6,639</b>	4,503	5,456	<b>9,959</b>	797,000	748,386
Comal Springs Riffle Beetle	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	11,179	8,933
Comal Springs Dryopid Beetle	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	1,543	1,528
Peck's Cave Amphipod	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	18,224	18,060
SAN MARCOS SYSTEM									
Fountain Darter	3,652	4.1%	3,697	<b>7,349</b>	5,478	5,545	<b>11,023</b>	549,129	496,190
San Marcos Salamander	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	263,857	261,264
Texas Blind Salamander	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	10	10
Comal Springs Riffle Beetle	0	0.0%	0	<b>0</b>	0	0	<b>0</b>	n/a	n/a

# INCIDENTAL TAKE 2013 – 2016

System	Species (common name)	ITP Take Limit	2013 Take	2014 Take	2015 Take	2016 Take	Total Take	Remaining ITP Take
<b>Comal</b>	fountain darter	797,000	10,482	23,060	5,115	9,959	48,616	748,384
	Comal Springs riffle beetle	11,179	681	1,564	0	0	2,245	8,934
	Comal Springs dryopid beetle	1,543	13	2	0	0	15	1,528
	Peck's cave amphipod	18,224	81	82	0	0	163	18,061
<b>San Marcos</b>	fountain darter	549,129	16,698	11,909	13,295	11,023	52,925	496,204
	San Marcos salamander	263,857	1,053	482	1,059	0	2,594	261,263
	Texas blind salamander	10	0	0	0	0	-	10
	Comal Springs riffle beetle	n/a	0	0	0	0	-	n/a

# CONCLUSION

- ▶ 2016 EAHCP mitigation and minimization activities did not exceed the 10% habitat disturbance rule on either system.
- ▶ In the Comal system, incidental take for fountain darters (9,959) was almost double that in 2015 (5,115) due to a pulse of flow from the Dry Comal that removed some of the SAV in the New Channel about a month before the system was mapped.
- ▶ In the San Marcos system, incidental take for fountain darters (11,023) was about 2,000 less than that in 2015 (13,295) due to a decrease in impacted habitat.
- ▶ There was no EAHCP incidental take of covered invertebrates or salamanders in 2016.
- ▶ Overall, the EAHCP is in good shape relative to the Incidental Take Permit.