



# Panama City Crayfish: Proposed Listing and Proposed Critical Habitat - Public Informational Meeting and Public Hearing



## Welcome!

*The meeting will begin momentarily.  
Thank you for your patience as we wait for  
others to join.*

\*Please join using computer audio  
\*Closed captioning is available by selecting the  
Closed Caption icon at the bottom of your  
Zoom screen

U.S. Fish and Wildlife Service  
South Atlantic-Gulf and  
Mississippi Basin Regions  
May 4 , 2021

# Meeting Agenda

- Meeting Ground Rules
- USFWS Presentation (approximately 20 minutes)
- Question-and-Answer Session (approximately 30 – 45 minutes)
- Public Hearing (approximately 1 -1.5 hours)

# Meeting Ground Rules

1. The meeting is being recorded; and will be posted to: <https://www.fws.gov/panamacity/>
2. Microphones and videos of participants will be automatically muted for the duration of the meeting unless the moderator unmutes you during the Question-and-Answer session or verbal public hearing portion.
3. Questions will be addressed during the Question-and-Answer session at the end of the PowerPoint presentation.
4. Verbal public comments can be provided after the Question-and-Answer session. Written comments can also be submitted at [www.regulations.gov](http://www.regulations.gov).

## Participating USFWS employees:

- Gian Basilli, FL Deputy State Supervisor
- Kristi Young, Deputy Manager,  
Div. of Conservation and Classification
- Sarah McRae, Regional Classification  
Biologist
- Patty Kelly, FL Wildlife Biologist

This public meeting will offer information about the Panama City crayfish, the Service's proposal to list the species as threatened with a 4(d) rule and to proposed Critical Habitat under the Endangered Species Act, and explain how the public can comment on this proposal. After the presentation, the public will have an opportunity to ask questions.

# Panama City Crayfish: Proposed Listing and Proposed Critical Habitat and 4(d) Rule

Patty Kelly  
Wildlife Biologist,  
Panama City ES Field Office  
U.S. Fish and Wildlife Service  
South Atlantic-Gulf and  
Mississippi Basin Regions  
May 4, 2021

# Previous Federal Actions

2010: Petitioned for federal listing

2011: 90-day Substantial Finding (MegaPetition)

2016: 7-Year National Work Plan: 12-month decision by 9/30/2017

2017: July recommendation that species warrants threatened status

2018: January Proposed Rule; Threatened Species Status

2019: Submitted 6-mo extension to finalize rule that never published (based on need for scientific data collection plus impacts from Hurricane Michael)

2020: June Center for Biological Diversity (CBD) filed NOI for failure to finalize listing

2020: FWS responded to NOI with a schedule for listing, CH, and 4(d) rule

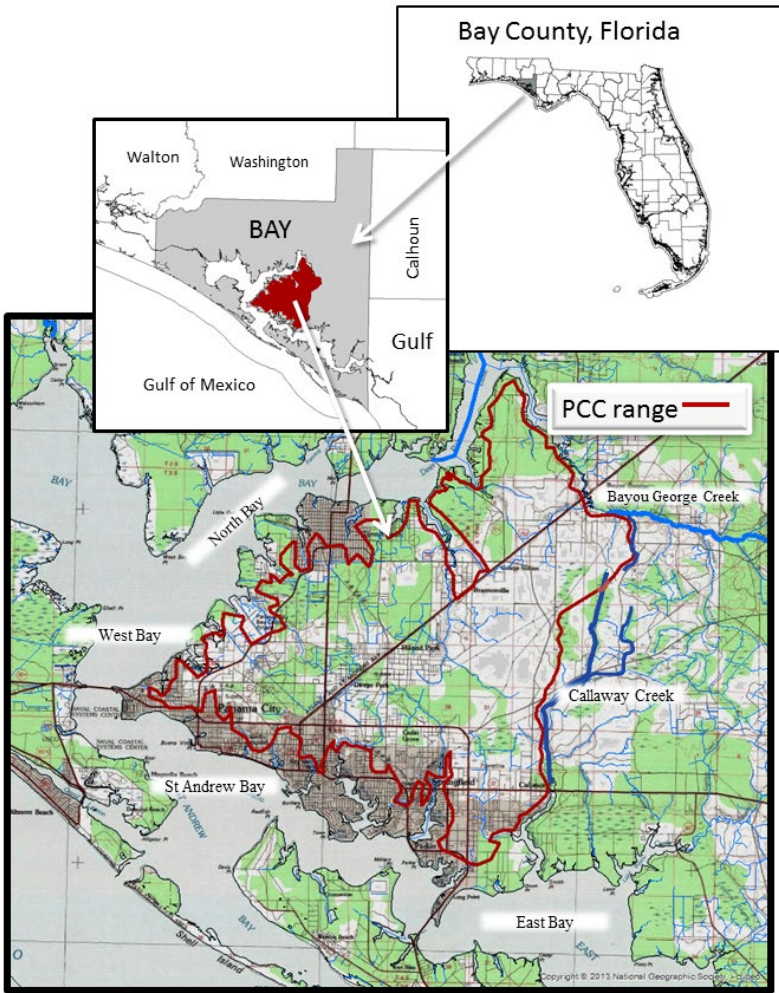
2020: October CBD file suit based on FWS lack of finalizing the listing

2021: FWS to finalize listing decision by December 15, 2021

*State of Florida: 1989 FWC Species of Special Concern, approved for threatened status*

## Species Description

- ❖ Endemic to Bay County, Florida
- ❖ Historical range within a 56 sq. mile area
- ❖ Small crayfish – up to 2 inches in length
- ❖ Medium-dark brown with lighter stripe, lower surfaces have reddish-brown spots.



# Biology

- ❖ Secondary burrower—burrow when waters dry up
- ❖ Uses core soils—year-round; water table is closer to surface
- ❖ Secondary soils—used during heavy rain seasons and for dispersal
  
- ❖ Detritivores (dead plants) and herbivores (plants)
- ❖ Live 1.5 to 3.5 years
  
- ❖ Eggs found March-December; Juveniles found summer-December
- ❖ Young stay with females 21-60 days (3 molts)



# Habitat

- ❖ Prairie or Pine Flatwoods habitat
- ❖ Require shallow, ephemeral freshwater wetlands (not moving waters like creeks)
- ❖ Groundwater within 3 feet
- ❖ Require core and secondary soils to form burrows
- ❖ Require diverse herbaceous ground cover for protection and food [fire or mowing dependent]



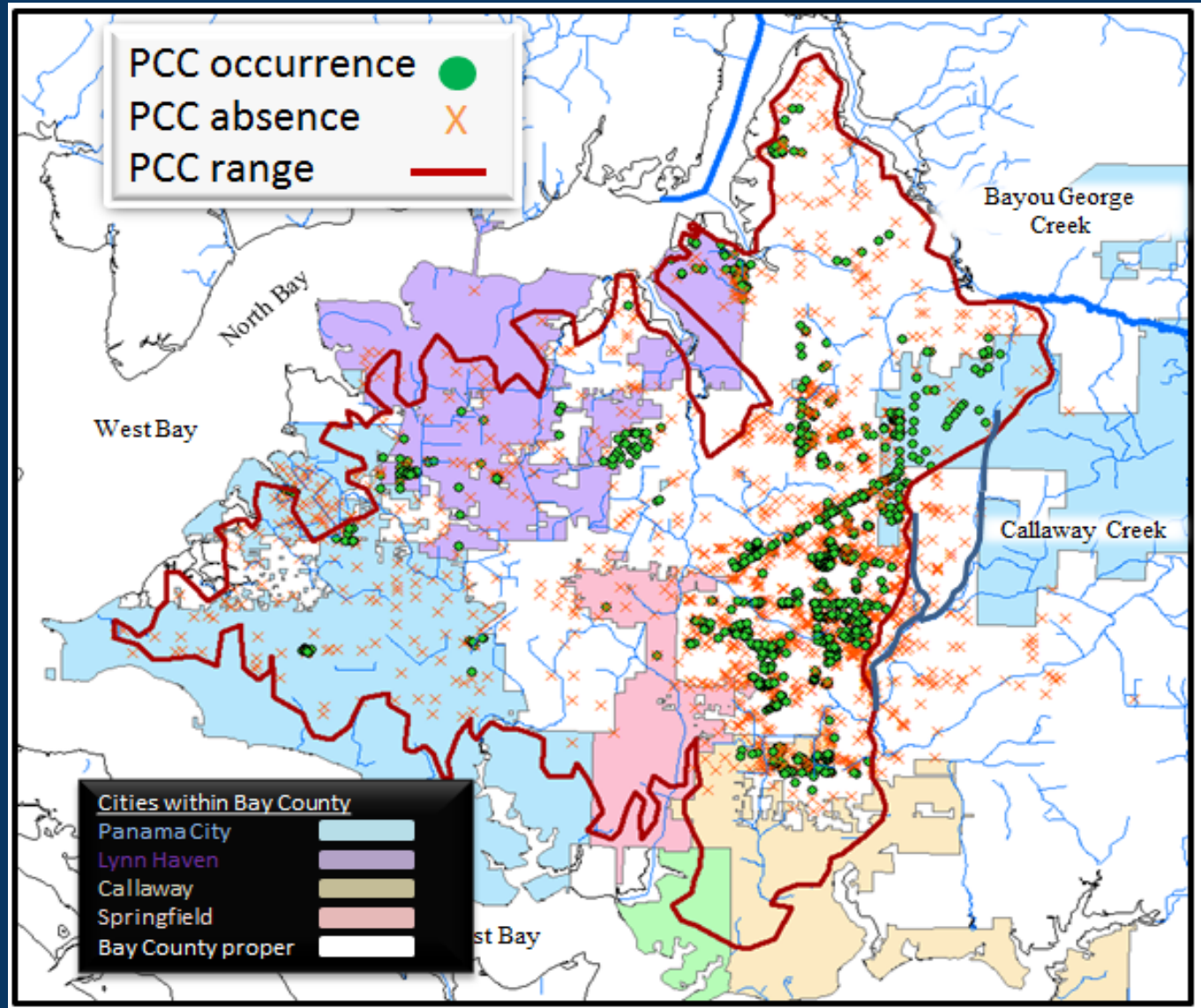
# Identified Risk factors

- Habitat loss and fragmentation
- Small, fragmented populations/  
inbreeding
- Forestry practices
- Conservation-reliant species
- Collections for bait
- Chemicals/insecticides
- Habitat conversions—grazing or farming
- Off road vehicles
- Predation/species competition



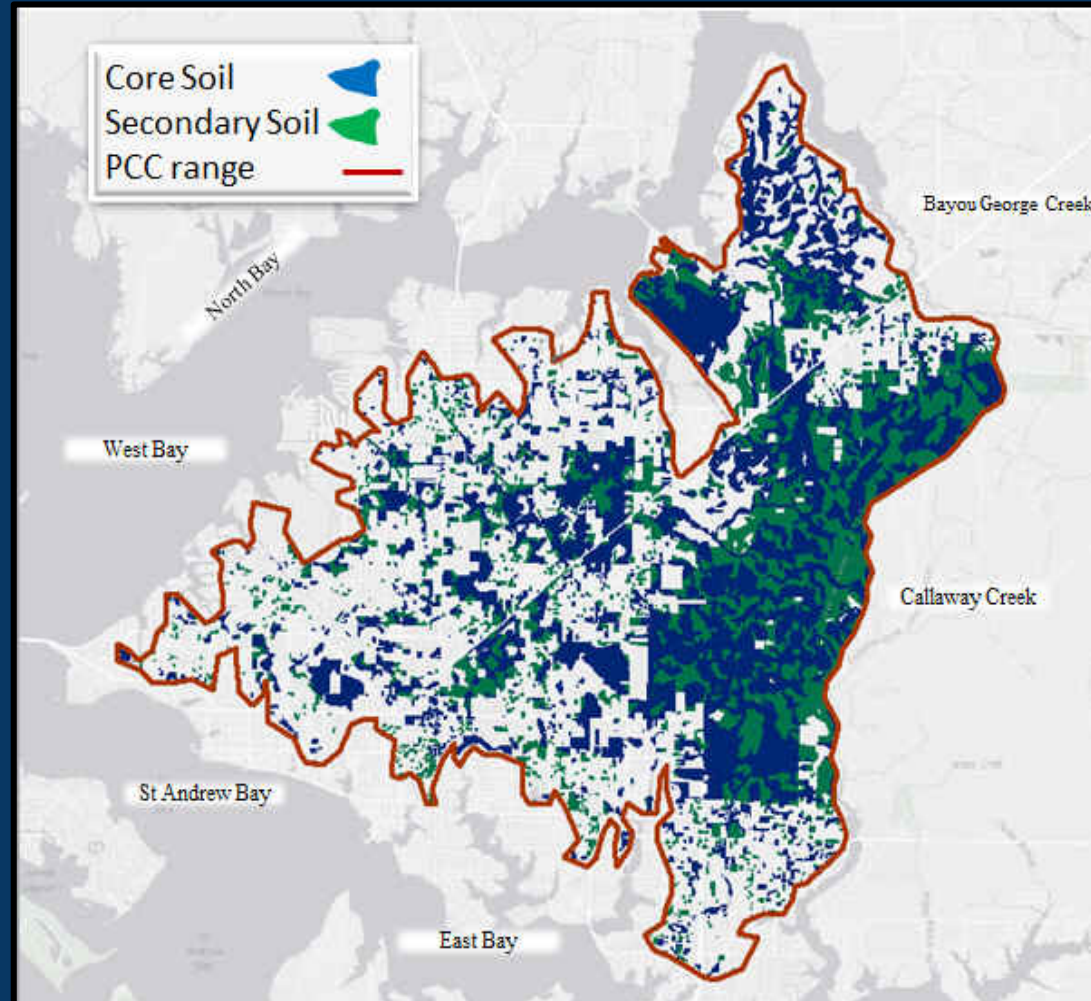
## Occurrences:

- ❖ 4 Cities:
  - Panama City
  - Callaway
  - Springfield
  - Lynn Haven
- ❖ Bay County lands



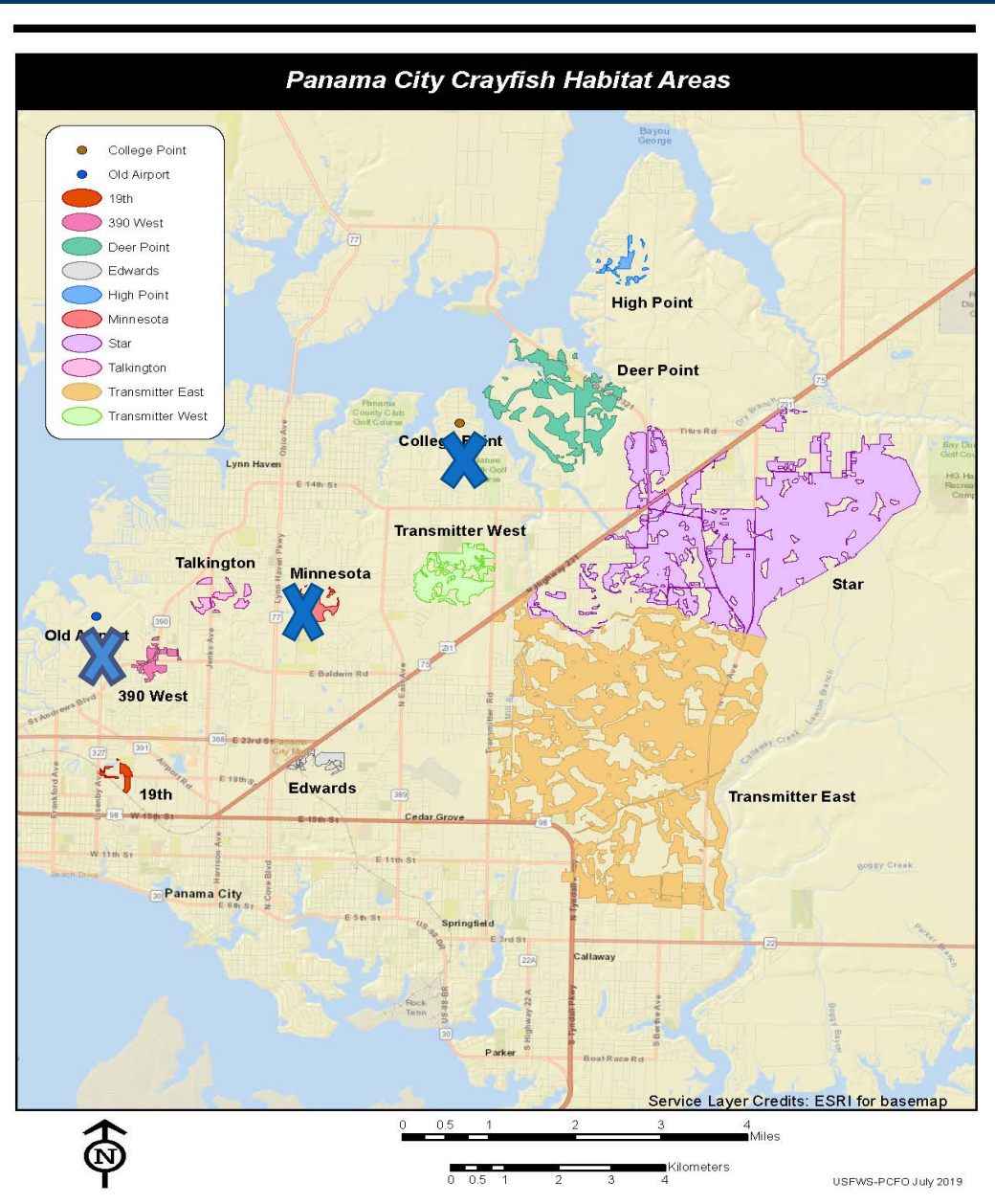
## Habitat Loss

- ❖ Historically 1 metapopulation
- ❖ Historically 27,000 acres of habitat
- ❖ Currently 14,800 acres of habitat
- ❖ 54% of core and secondary habitats remain undeveloped



# Population Status

- ❖ Polygons around known crayfish populations based on genetic analysis
- ❖ 12 habitat areas/ 9 remaining populations
- ❖ **X** indicate species largely extirpated or very low numbers



# Panama City Crayfish listing Determination:

- ❖ **Endangered** – any species which is in danger of extinction throughout all or a significant portion of its range.
- ❖ **Threatened** – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
  - ❖ Loss of ~50% of the habitat
  - ❖ Predicted human growth & development, has accelerated since post hurricane Michael
  - ❖ Historically 1 metapopulation, 12 populations in 2015
  - ❖ In 2018, 9 populations remain: 5 low, 2 moderate, 2 high resiliency rankings\*

\*Resiliency Rankings based on: habitat available, population estimates, connectivity, genetics

# Panama City Crayfish Proposed 4(d) Rule

# What is a section 4(d) rule?

- ❖ Special rule to provide regulatory flexibility
- ❖ Applies to threatened species only
- ❖ Allows activities that cause minor adverse effects or beneficial effects to continue
- ❖ Focus efforts on the threats that make a difference to the species' conservation
- ❖ Streamlines compliance with the ESA



# Crayfish proposed 4(d) rule

## Prohibitions -

- ❖ Standard prohibitions unless otherwise authorized or permitted:
  - importing or exporting;
  - take;
  - possession;
  - interstate or foreign commerce;
  - propagation or survival of the species;
  - zoological exhibition;
  - educational purposes
  - incidental take.
  
- ❖ The Following are exceptions to prohibitions BUT follow language in the federal register for exact guidance...

# PCC proposed 4(d) rule

Exceptions – provide for conservation and restoration with some minimal level of disturbance or take:

- ❖ Take incidental to an otherwise lawful activity caused by the following:
  - Conservation efforts by the Service or State wildlife agencies
  - Standard Forestry activities in secondary soil types
  - Prescribed burning or wildfire control
  - Herbicide use for exotics or shrub plants
  - Boardwalks or paths impacting less than 5% of crayfish soils when constructed on conservation lands.
  - Maintenance of existing pastures (prior to Jan. 2018) that have no indirect impacts to other crayfish habitats

# PCC proposed 4(d) rule

Exceptions – provide for conservation and restoration with some minimal level of disturbance or take:

- ❖ Take incidental to an otherwise lawful activity caused by the following:
  - Reconstruction in same footprint, new construction under 1000 sq ft associated with existing home, or culvert installations associated with individual homeowner.
  - Culvert replacements or maintenance that do not adversely affect, but improve or restore, the natural hydrology are excepted.
  - In coordination with the FWS office, maintenance of rights-of-way, powerline and pole placements and replacements and directional boring by utility owners.
  - Utility actions such as ditch mowing and maintenance outside of critical habitat units OR within critical habitat units AFTER coordination with the local FWS office.

# Panama City Crayfish Proposed Critical Habitat

# Critical Habitat: Areas of habitat essential to the conservation of the Panama City crayfish

Primary and Biological Features [what is needed]--space, food, water, light, minerals, shelter, breeding):

- ❖ Undeveloped lands supporting wet pine and wet prairie habitats that provide:
  - native herbaceous groundcover/vegetation
  - surface waters less than a foot deep
  - sloped swales with 3:1 or shallower ratio within ecotone areas
- ❖ Soil types-core and secondary within 100 meters of core soils (96% occurrences)
  - sediment structure for burrows and hydrology
  - sediment that supports native grasses/vegetation
- ❖ Areas with surface and groundwater of sufficient quality to support all life stages
  - oxygen 2-9 milligrams/liter
  - pH levels (4.1-9.2)
  - optimum temperature ranges 68-79 degrees

# Minimum Viable Population-

[how much habitat is needed]

- ❖ Analysis of 30 years of published estimates for Taxa (Trail et. al. (2007)) state MVP for species <1 kg in body mass was 5,137 (no value for crayfish)
- ❖ Mark-Recaptured at 3 properties (3 acre to 232 acres)
- ❖ Population estimates ranged from 3-9 PCC per acre
- ❖ =6,600 to 19,800 PCC which =s 1- 4 MVPs

We need 2,200 acres of mixed quality habitats to conserve this species

# Criteria to Map Critical Habitat- [where?]

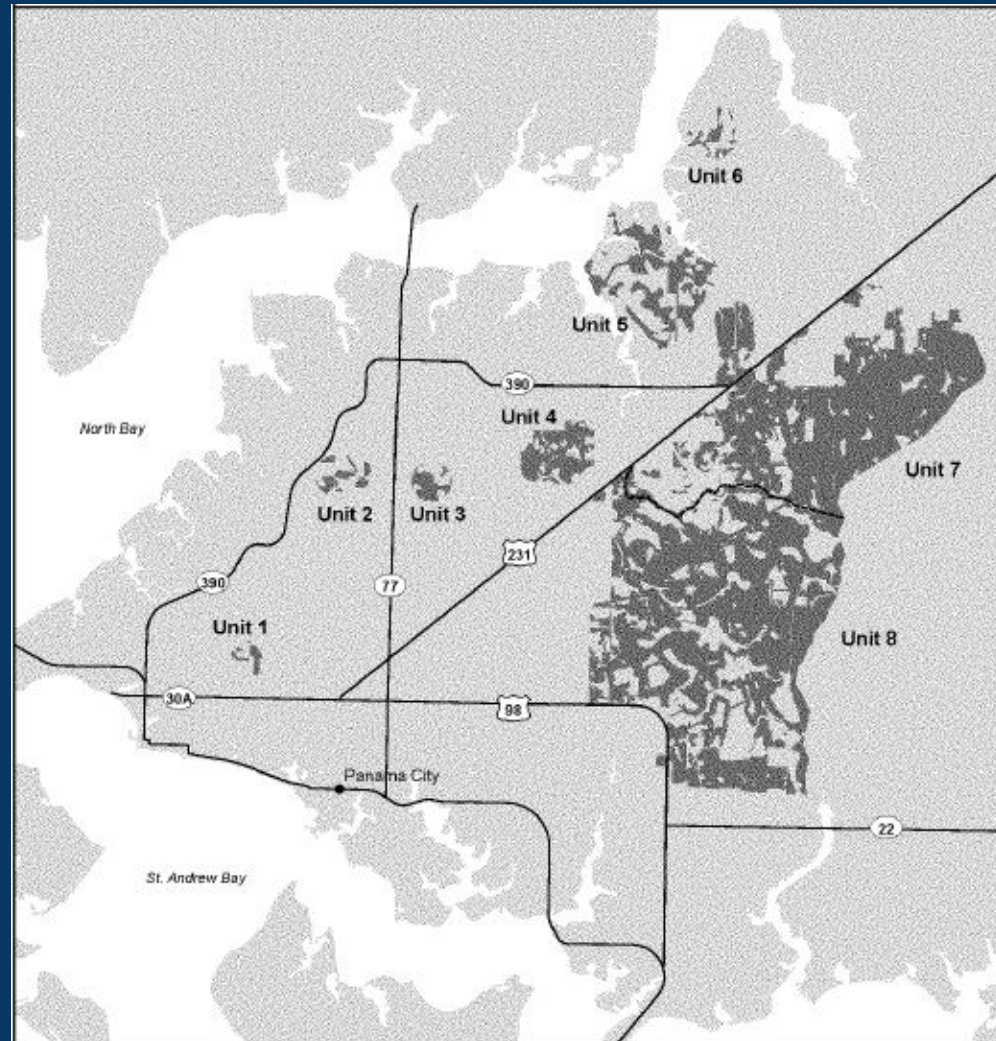
Based on known occurrences and habitat requirements, we mapped using a program called ArcMap:

## General Steps Applied

- ❖ ¼ mile polygon created around concentrated crayfish points of occurrence;
- ❖ Clipped Primary soil types used by crayfish were buffered by 100 meters to pull in secondary soils. Captures 96% of crayfish occurrences within the polygons.
- ❖ Developed areas (and ponds, water bodies) were removed to the extent possible
- ❖ Hardwood swamps found in primary soils were also removed to extent possible as these are not used by the crayfish.
- ❖ Units less than 0.1 acre were removed
- ❖ 8 of 12 units proposed based on occupancy, habitat availability, fragmentation, distribution/genetics

## Proposed Critical Habitat

- ❖ 2,200 acres needed for recovery
- ❖ 8 of 12 habitat units proposed
- ❖ All are occupied
- ❖ Propose 7,200 acres for flexibility





## Proposed Critical Habitat

7,200 acres

### West Division:

Unit 1: 19th street = 24 acres

Unit 2: Talkington = 53 acres

Unit 3: Minnesota= 65 acres

Unit 4: Transmitter West= 248 acres

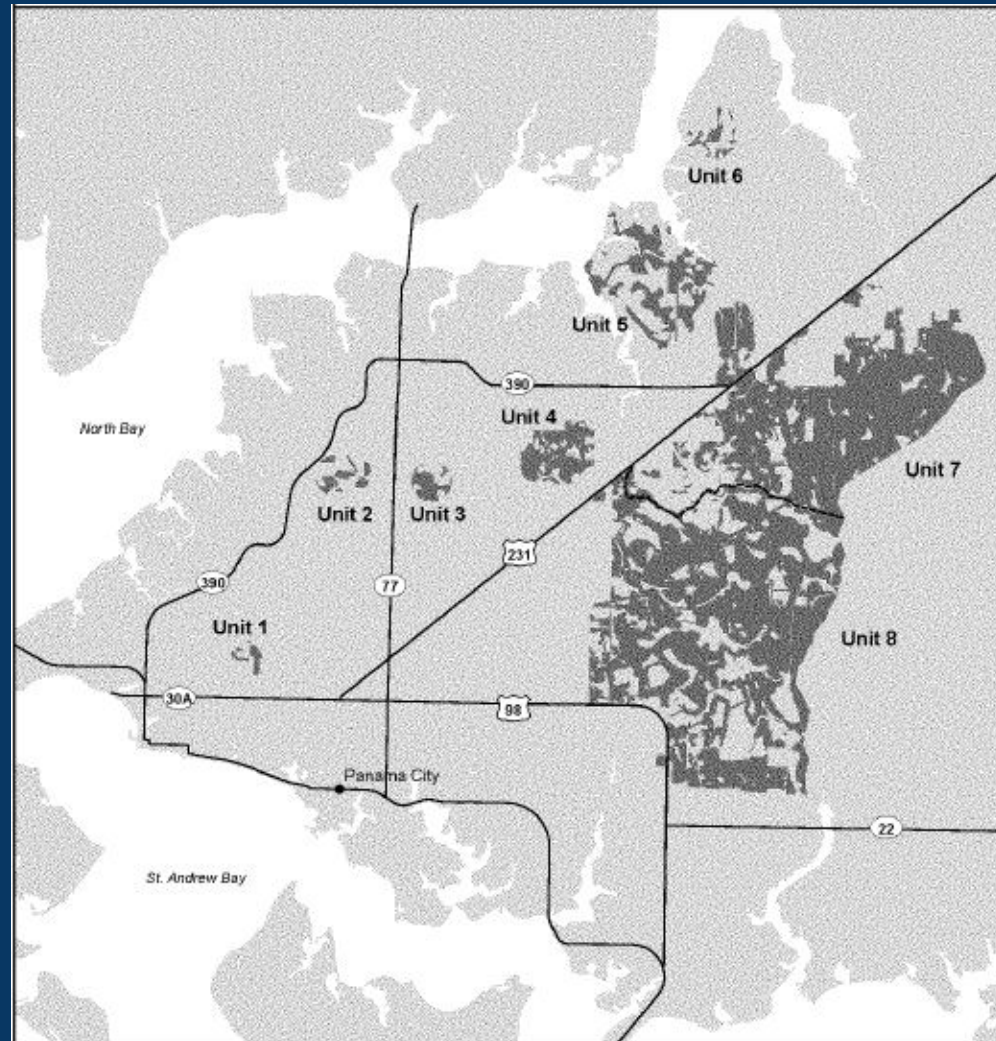
### East Division:

Unit 5: Deer Point= 414 acres

Unit 6: High Point =38 acres

Unit 7: Star Avenue= 2,761 acres

Unit 8: Transmitter East= 3,571 acres



# Public comment period

- ❖ Service seeks new scientific and commercial information about the Panama City crayfish
- ❖ Following this meeting, a virtual public hearing will allow participants to comment on the proposed rule.
- ❖ All documents relating to this proposed rule can be found at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2020-0137
- ❖ A copy of this presentation is also available at: <https://www.fws.gov/panamacity>

We will accept comments received or postmarked on or before June 14, 2021.

The public can submit comments at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2020-0137



# We will now take questions

Questions only; comments can be made during the public hearing that follows this informational meeting.


Comments made during this informational meeting will not be included in the record.

Comments must be made during the public hearing, or submitted to [www.regulations.gov](http://www.regulations.gov)

Species Status Assessment Report for the  
Panama City Crayfish (*Procambarus econfinae*)  
Version 2.0



Upper Photo: [Talkington Preserve](#) (credit FWS)  
Lower Photo: Panama City crayfish (credit Lisa [Keppner](#))



August 8, 2019  
U.S. Fish and Wildlife Service  
Region 4  
Atlanta, GA

# Question-and-Answer Session: Instructions



## Using the Zoom Web Platform or App

- Click on the “chat” icon at the bottom of your Zoom screen to write and send your question to the host of the meeting ([Amy Lewis](#)).
- The moderator will read questions aloud for all participants to hear and a USFWS staff member will respond to questions aloud.
- We will try to answer questions in the order they are received.



## Using Your Phone

- Press \*9 to “raise your hand” to let staff know you have a question. The moderator will then unmute you so that you can ask your question.
- You can unmute yourself by pressing \*6 on your phone keypad.
- You will be identified by the last four digits of your phone number.

# Great Questions!

Next:  
Verbal Public Hearing

# Verbal Public Hearing: Ground Rules

- The USFWS wants to hear from all members of the public. We will be using the following guidelines:
  - Be mindful of the length of your comment, so that everyone can speak
  - Please be respectful of others
  - Refrain from profanity
- If guidelines are not followed, your microphone will be muted, and we will move to the next person.

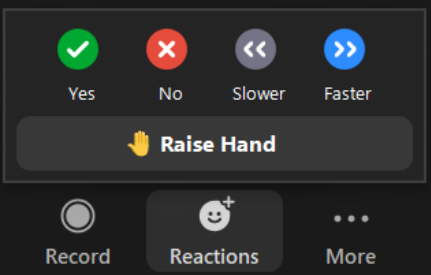
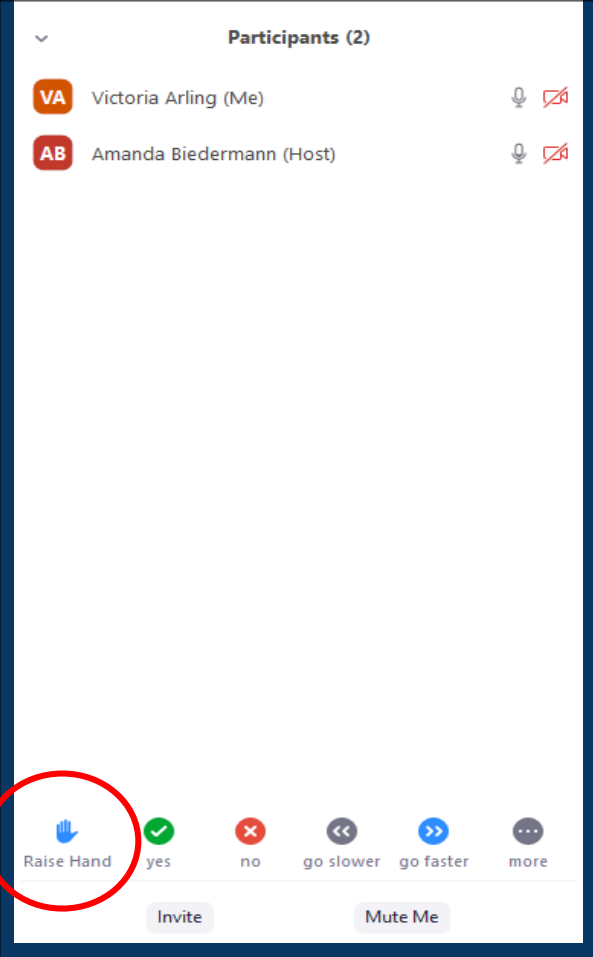
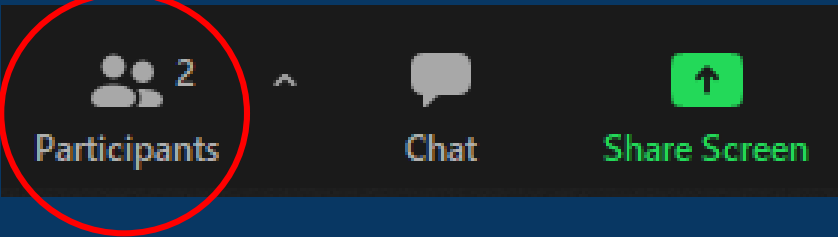
# Verbal Public Hearing: Instructions for Commenters

- Verbal public comments will be accepted in order of registration.
- When it is your turn, the moderator will call out your name and display your name on the screen.
- Use the “raise hand” feature at the bottom of your participants list or, if you are calling in through the phone, press \*9 to “raise your hand.”
- The moderator will then unmute you.
- Please spell out your full first and last name for the record before you provide your comment.
- Your comment will be included in the project record



# Step 1

# Step 2



To access the raise hand feature, click on the participants list icon at the bottom of your Zoom screen, then click on the raise hand button at the bottom of your participants list. If you are calling in using your phone, press \*9 on your keypad.

If you are having issues with your computer microphone, please dial in to the meeting: **Phone:** 346 248 7799 ; **Meeting ID:** 977 9946 2034

**Current Commenter:**

**Next Commenter:**

\*If you are unable to offer or complete your verbal public comment during the meeting today, the USFWS encourages you to submit your comment in writing at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2020-0137

# Thank you!

The USFWS is available to accept verbal public comments until 8:30pm Central Time.

*If you would like to offer a verbal public comment, please let us know by accessing the raise hand feature at the bottom of your participants list, in your Zoom reactions icon, or by pressing \*9 on your phone keypad. You can also chat directly to Amy Lewis.*

Written public comments can also be submitted at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2020-0137