

## II. RECOVERY

### A. Objective

The recovery objective for the Florida panther is to achieve three viable, self-sustaining populations within the historic range of the animal. First priority will be to secure a viable population in south Florida. A viable population level will be determined when enough data are available to develop a panther population model. The other two populations to be established will require separate population goals. These population objectives will be based upon the size of the respective areas, prey base, competing interests for the resource base, regulatory capability and location.

### B. Stepdown Outline

1. Identify, protect and enhance existing Florida panthers rangewide and protect and manage habitats.
  11. Identify existing Florida panther populations and occupied habitat.
    111. Determine population levels and habitat requirements for known inhabited areas.
      1111. National Park Service (NPS), in consultation with Florida Game and Fresh Water Fish Commission (FGC) and Fish and Wildlife Service (FWS), will conduct studies in Everglades National Park (EVER) using radio-telemetry and will consider the need for additional studies in south Florida units of the NPS.
      1112. FGC will conduct radio tracking studies in Fakahatchee Strand State Preserve (FSSP) and Big Cypress National Preserve (BCNP).
      1113. FGC will expand studies to private lands north of S.R. 84 (Alligator Alley) in cooperation with landowners.
      1114. FWS will conduct population surveys to monitor panther activity in Florida Panther National Wildlife Refuge (FPNWR).

12. Protect and manage existing panther populations.
  121. Protect panthers from vehicular traffic.
    1211. Florida Department of Transportation (FDOT) will post warning signs and reflectors, where practical, on Alligator Alley, S.R. 29, U.S. 41 (Tamiami Trail), and other roads as necessary.
    1212. FDOT will reduce nighttime speed limits where panthers may be vulnerable to vehicle collisions.
    1213. FGC will develop a plan to provide prompt emergency veterinary aid for injured panthers.
    1214. FGC will develop a protocol for handling dead panthers.
    1215. FDOT will physically alter segments of roadways determined to be hazardous to panthers.
  122. FGC will identify and evaluate significant Florida panther diseases and parasites and means of prevention or protection, as appropriate.
  123. FWS, with assistance from NPS and FGC, will develop a cumulative effects model for the south Florida ecosystem.
  124. FGC will develop a genetic profile for Florida panther.
    1241. FWS and FGC will identify biological and legal options if the genetic profile indicates low genetic diversity and subsequent detrimental effects on the population.
      12411. FPIC will develop and implement a management strategy to restore and maintain the historic genetic character of the Florida panther.
    1242. FGC will establish a Florida panther sperm bank.

125. FGC and FWS will develop a panther population model.
  126. Florida Department of Environmental Protection (DEP), FGC, FWS, and NPS will develop or revise existing comprehensive land management plans to address the needs of the panther on their respective lands within the current known range of the panther, in addition to other agency land management objectives.
  127. FGC will initiate a system for marking and maintaining records on captive cougars in the state.
13. Protect, manage and enhance habitat for prey species.
131. Expand deer studies and monitoring to improve management techniques in all areas known to be occupied by panthers.
    1311. NPS will conduct deer studies in EVER to determine optimum carrying capacity and to provide data for developing management guidance.
    1312. NPS, DEP, FGC, FWS, South Florida Water Management District (SFWMD), Collier and Dade Counties, and other local governments will evaluate habitat protection and management actions on their respective lands and initiate actions to enhance panther conditions as appropriate.
    1313. FGC will continue ongoing deer studies and initiate new studies in BCNP and FSSP similar to those studies identified in 1311.
    1314. FGC and FWS will conduct deer studies as identified in 1311 in north Fakahatchee Strand, FPNWR, and on private lands, with landowner approval.
    1315. FGC, in cooperation with NPS and DEP, will continue to evaluate the effect deer hunting has on deer herds in areas of importance to Florida panthers and recommend or implement any

needed regulatory changes.

1316. FGC will refine the Abomasal Parasite Count (APC) technique as an indicator of carrying capacity for deer in sub-tropical Florida.
  1317. FGC will offer to work with the Miccosukee and Seminole Indian Tribes (MSIT) to evaluate the deer status on Indian lands and cooperatively initiate and evaluate a variety of management techniques and strategies to enhance deer populations.
  1318. FGC and DEP will continue to test and evaluate on an interim basis the effectiveness of supplementing the prey base for panthers in the FSSP.
132. NPS, FWS, and FGC will establish a monitoring program for prey species at EVER, BCNP, FSSP, FPNWR, and selected private lands.
  133. FWS, FGC, NPS, MSIT, and DEP will evaluate the need for, and if necessary provide, increased law enforcement throughout the year.
14. Maintain and expand clearinghouse operations for obtaining and compiling panther records throughout the entire historical range of the subspecies.
  15. Monitor panther populations.
    151. NPS will monitor the population in EVER and assist FGC in BCNP.
    152. DEP will assist FGC in monitoring panthers at FSSP.
    153. FGC will offer to assist MSIT in monitoring panthers at the Reservations.
    154. FGC will offer to monitor panthers on selected private lands in cooperation with landowners.
    155. FWS will monitor panthers at FPNWR.

16. FWS will assess the potential benefits of designating critical habitat.
17. Establish Florida Panther Interagency Committee (FPIC).
  171. Establish technical subcommittee.
  172. FWS will designate a Florida Panther Coordinator.
  173. Develop Participation Schedules.
18. FWS, NPS, FGC, DEP, FDOT, and MSIT will continue to evaluate present laws and regulations regarding hunting, off-road vehicle (ORV) use, and public use in general, and to make changes necessary to insure the panther and its prey are protected.
19. Federal, State, and local agencies will implement habitat protection measures.
  191. All Federal, State, and local agencies will review their respective policies regarding land management and regulatory functions to insure actions are consistent with panther conservation.
- A. FWS, FGC, NPS, and DEP will develop a contingency plan, including implementing criteria, for the removal of all free-ranging panthers from the wild.
- B. Federal and State agencies should acquire land essential for the survival of the panther.
  - B1. FWS will establish FPNWR.
  - B2. FWS will staff and fund FPNWR.
  - B3. DEP will acquire "In-holdings" in FSSP.
  - B4. FDOT, NPS, FWS, DEP, and FGC will acquire additional lands as a result of the construction of I-75.
  - B5. Conservation and Recreational Lands (CARL) program should aggressively pursue the purchase of lands within Golden Gates Estates, south of Alligator Alley.

- B6. Secure Jet Port property.
- 2. Establish positive public opinion support for the management of Florida panther.
  - 21. Establish Public Affairs Subcommittee to inform the public about the panther and its habitat requirements.
    - 211. FGC, FWS, DEP and NPS will work with sportsmen and other recreational users to encourage cooperation to provide maximum protection for the panther.
    - 212. FGC, FWS, DEP and NPS will work with conservation groups to encourage support for the recovery efforts for the panther.
    - 213. FDOT, DEP, and NPS will post interpretive road signs on Alligator Alley, SR 29, Tamiami Trail, and other roads as necessary.
    - 214. Federal and State holdings, such as EVER, BCNP, FSSP, and FPNWR will distribute literature about the panther, its habits, and ways the public can assist in recovery.
    - 215. All agencies will participate in the production and distribution of audio-visual aids.
    - 216. FDOT will develop a "Traveler Information Service" for radios on Alligator Alley, SR 29, Tamiami Trail, and other roads as necessary.
    - 217. FWS will develop a "popularized" recovery plan for distribution to the general public.
  - 22. Involve private landowners in recovery of the panther.
    - 221. FWS, and FGC will develop a Comprehensive Habitat Management Plan for the panther on private lands, in cooperation with the landowners within the known distribution of the panther.
- 3. FGC will reintroduce Florida panthers into areas of suitable habitat.
  - 31. Determine where areas of suitable habitat exist.

311. Develop priority list of potential reintroduction sites.
  312. Coordinate panther reintroductions with private, State, and Federal landowners.
  313. Public attitudes toward panther re-establishment will be determined in the vicinity of potential reintroduction sites.
  314. Potential reintroduction sites will be surveyed for the presence or absence of parasites and infectious diseases potentially harmful to panthers.
  315. The presence or absence of existing panthers in potential reintroduction areas will be determined by conducting field searches.
32. Determine the feasibility of using captive-bred offspring in the re-establishment or supplementation of Florida panther populations.
321. An evaluation will be made to determine if wild-caught adult panthers can successfully produce offspring in captivity.
    3211. The primary captive-breeding facilities will be built at White Oak Plantation.
  322. Offspring obtained from the Florida panther and non-endangered panther matings will be conditioned for release into the wild.
  323. The feasibility of re-establishing panther populations with captive-raised animals will be determined.
  324. Captive-raised panthers will be used to supplement existing populations where necessary.
33. Determine the feasibility of using translocated wild panthers in the re-establishment of Florida panther populations.
331. Three wild-caught adult females and two wild-caught adult males from a non-endangered subspecies will be obtained and transferred to Florida.

332. These animals will be surgically sterilized, fitted with radio-transmitter collars, and released into suitable wild areas.
  333. These animals will be monitored daily for at least one year.
  334. At the end of the evaluation period, the translocated non-endangered subspecies will be recaptured and removed from the wild.
34. Properly conditioned Florida panthers will be introduced into the wild if determined feasible.