

*A Landowners' Strategy for Protecting Florida Panther Habitat on Private Lands in South Florida*

*A Project Report*

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*Produced Through a Joint Project of Florida Game and Fresh Water Fish Commission and American Farmland Trust  
Selected for Funding by The Florida Advisory Council on Environmental Education*

June 1995

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## About This Report

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This report contains a plan that is being proposed to preserve the habitat of the endangered Florida panther and other wildlife on private lands.

The plan was developed by a group of private landowners in southwest Florida. It is not official or endorsed by any agency. It is a concept. It does not necessarily represent the views or official positions of the project facilitators — Florida Game and Fresh Water Fish Commission and American Farmland Trust — or the Florida Advisory Council on Environmental Education. It is a sincere effort on the part of a group of landowners to present their ideas for panther conservation on their lands.

Comments are included on the plan from a variety of other interest groups in a separate section entitled "Practical Considerations." As can be seen from these comments, there are differing opinions about what can and should be done to protect the Florida panther.

That's why this report has been produced: to stimulate further input and discussion ... and to work toward consensus.

The plan holds tremendous potential for improving cooperation between the diverse groups interested in — and affected by — the panther's survival.

The plan is a beginning ... a work in progress. We hope that you, in reading this report, will help refine this plan so it can be made to work for all concerned: landowners, government agencies, taxpayers and the panther, as well as other endangered species.

There are two companion pieces to this report:

- 1) An introductory video titled *Panthers and Private Lands: A Cooperative Approach*; and
- 2) *Incentive-based Programs and Techniques to Protect Natural Resources and Florida Panther Habitat on Private Lands: A Field Manual*, which was compiled by American Farmland Trust to describe incentive-based techniques available to land managing agencies and landowners to protect Florida panther habitat and other natural resources on private lands.

Both are available from:

Florida Game and Fresh Water Fish Commission  
Office of Informational Services  
620 South Meridian Street  
Tallahassee, Florida 32399-1600

The mission of the **Florida Game and Fresh Water Fish Commission** is to manage freshwater aquatic life and wild animal life and their habitats to perpetuate a diversity of species with densities and distributions that provide sustained ecological, recreational, scientific, educational, aesthetic and economic benefits.

In achieving its mission, the Florida Game and Fresh Water Fish Commission aims to mitigate human conflicts over wildlife with sound science, management and balanced education programs.

**American Farmland Trust (AFT)** is a private, non-profit membership organization founded in 1980 to protect the nation's agricultural resources. AFT works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. Its action-oriented programs include public education, technical assistance in policy development and direct farmland protection projects. AFT's National Office is at 1920 N Street, N.W., Suite 400, Washington, D.C. 20036. AFT's Florida Field Office is at One Park Place, 621 N.W. 53rd Street, Suite 240, Boca Raton, FL 33487.

The mission of the **Florida Advisory Council on Environmental Education** is to facilitate comprehensive, coordinated environmental education to all residents and visitors in the state; to increase the public's understanding of our natural systems and resources and how they relate to the economy, public health and quality of life; and to suggest and promote responsible actions by Florida's residents and visitors that will result in the proper management, protection and conservation of our natural resources.

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## Credits

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Cooperation. That's the key behind the project that produced this document. It's also the key behind the "conceptual plan" discussed on the following pages. The purpose of the conceptual plan is to instill cooperation between private landowners and government agencies in carrying out panther habitat protection efforts.

That may seem like a tall order. But it is possible. Florida Game and Fresh Water Fish Commission and American Farmland Trust wanted to know what approaches landowners thought would work best in protecting panther habitat on their lands. The conceptual plan explains that. The key is cooperation ... based on a recognition of each other's needs and each other's objectives ... and a commitment to fairness.

This report was produced through the cooperative efforts of many people from diverse organizations:

The Florida Game and Fresh Water Fish Commission recognized the growing need to work more cooperatively with private landowners and initiated a cooperative proposal with American Farmland Trust to seek funding through the Florida Advisory Council on Environmental Education for this project.

American Farmland Trust designed and managed this project so that: (1) landowners had an opportunity to completely speak their minds; (2) government agencies and other interests had an opportunity to provide input; and (3) emotional debates surrounding the panther issue were avoided.

The members of the landowner working group committed themselves to crafting a plan that would work for private landowners, the public, the environment and the panther.

The Florida Advisory Council on Environmental Education selected the project for funding — and provided the opportunity to pursue a project targeted to private landowners.

And along the way, many different interests contributed to the development and refinement of the conceptual plan.

To each one, we are indebted.

**This report is part of a joint project of**  
Florida Game and Fresh Water Fish Commission  
and  
American Farmland Trust

**Funded through a grant from**  
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Panther and Manatee auto license plates

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The 44 members of the Review Committee  
are listed on the next page.

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## *Review Committee*

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## *Project Summary & Findings*

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### **The Issue:**

Survival and recovery of the Florida panther

### **The Need:**

Preservation and management of panther habitat on private lands

### **Where:**

One million acres in southwest Florida

## **HOW THIS PROJECT STARTED**

The survival of the panther — and Florida's other diverse wildlife — is inextricably linked to the attitudes and actions of Floridians. Unfortunately, all Floridians do not value or perceive wildlife in the same way. Often, people who are equally concerned about wildlife but have different philosophical orientations, find themselves at odds. Unresolved, bitter human conflicts over wildlife rarely benefit wildlife.

The Florida panther is a prime example.

Issues concerning the Florida panther have easily ignited debate among animal rights activists, environmentalists, hunters, ranchers, property rights advocates and farmers.

At a town meeting in Fort Myers in February 1994, south Florida landowners told state and federal wildlife officials in no uncertain terms they were dissatisfied with current proposals to protect panthers on their lands. Different philosophical approaches led many key landowners to reject the *Florida Panther Habitat Preservation Plan*, which had been created through the earnest efforts of the Florida Panther Interagency Committee, as unrealistic and unworkable.

Prior to the Fort Myers meeting, the Florida Advisory Council for Environmental Education (FACEE) had issued a request for proposals to develop panther habitat education projects using funds accrued to the Save Our State Environmental Education Trust Fund from the sale of panther and manatee license plates. FACEE was specifically seeking projects that would open up a better dialog with landowners on issues concerning the panther.

Florida Game and Fresh Water Fish Commission (Commission) personnel decided to develop a proposal and began to discuss ways in which panther conservation work could be pursued on private lands. It was suggested that landowners be asked directly which incentives would work for them and which would make them want to participate in panther conservation on their lands. Commission staff decided that American Farmland Trust (AFT) afforded a unique combination of communications skills, ideas and expertise which would help bridge differences between farmer/landowners and state wildlife officials.

Further discussions were held between Commission and AFT staff, a joint proposal was developed and submitted to FACEE, and a grant was approved. The proposal's main objective was to form a working group of large landowners in southwest Florida and ask them to identify key conservation incentives that they felt would work on their lands.

This was a new approach: government was asking the landowners what would work instead of telling them what to do.

The project was designed to be landowner-driven. The working group was selected and the first meeting convened in February 1994 — two weeks after the Fort Myers town meeting — with full attendance.

The landowners seized the opportunity offered by the project and came to the second meeting with a proposal for a "conceptual plan," which formed the basis for the plan presented in this report.

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Other incentives that can be used to improve cooperation between private landowners and government agencies in protecting panther habitat, such as purchase of conservation easements, were not eliminated; however, the landowner working group wanted to focus its work on development of the conceptual plan.

For this reason, other incentives that can be used to carry out panther habitat protection on private lands were compiled by American Farmland Trust in a separate publication, *Incentive-based Programs and Techniques to Protect Natural Resources and Florida Panther Habitat on Private Lands: A Field Manual*.

A review committee representing many other diverse interests — from federal wildlife agencies to local property rights groups — was formed to provide direct feedback to the landowner working group.

Commission and AFT staff decided to serve as facilitators and provide members of the landowner working group complete latitude in expressing their ideas. The ideas discussed at each working group meeting were reported to the review committee for its feedback. Review committee comments were then shared with the working group at its next meeting, were evaluated and, if appropriate, included in the conceptual plan.

The conceptual plan contained in this report is the product of the landowner working group. It reflects the beliefs and strategies these landowners consider will be most successful in benefitting them, the public and the panther.

This report is an important first step in listening to and working with private landowners for wildlife conservation. If policy-makers decide to pursue the conceptual plan proposed by the landowners, more work and negotiations will be needed.

## PROJECT OBJECTIVES

It has been almost 30 years since the Florida panther was listed as a federally designated endangered species. Many studies, many meetings and much effort have been expended and much money spent to understand panther biology and design management actions to prevent its extinction. Nevertheless, it is still endangered with its habitat continuing to diminish.

During this 30-year period, however, not once did any government agency involved with panther protection formally bring together a group of private landowners to ask them what they thought could be done to better protect panthers on their land.

This changed early in 1994.

With a grant recommended by the Florida Advisory Council on Environmental Education, the Florida Game and Fresh Water Fish Commission and American Farmland Trust teamed up to work with a group of private landowners.

The objectives were to:

1. Ask landowners what they thought could be done to protect panthers on their land;
2. Look at natural resource issues from their viewpoint to better understand what might motivate them to protect these resources;
3. Recognize the important role private agricultural landowners and their land management practices play in the continuing existence and recovery of the Florida panther;
4. Identify incentives to encourage landowners to manage essential habitat for the panther's recovery; and
5. Attempt to instill better cooperation between private landowners and government agencies in carrying out panther habitat protection efforts.

In the end, the Florida panther will have a much better chance for survival if landowners and those concerned about wildlife can understand each others' needs and objectives ... and work together as allies. Adversarial relationships will not help anyone. And, ultimately, it is the panther that has the most to lose ...

## **THE AREA AFFECTED**

The Florida panther has been virtually eliminated from most of its range in the southeastern United States. A century of habitat destruction has reduced the subspecies to a single population of only 30 to 50 adults. They roam over 3.1 million acres of land in Collier, Dade, Hendry, Lee, Desoto, Glades, Sarasota and Highlands counties in south Florida.

Forty-seven percent of this land is publicly owned; the remaining 53 percent is privately held. Of the land in private ownership, biologists have designated 926,300 acres as essential, or priority habitat for preservation and recovery activities.

More than half of the panthers — and some of the healthiest <sup>1</sup> — live on these private, generally agricultural lands. Biologists believe preservation of panther habitat on these private lands is essential if the animal is to avoid extinction. Moreover, this habitat plays a vital role in the protection of many other imperiled wildlife populations in south Florida, including sandhill cranes, swallow-tailed kites, wood storks, Florida black bears and crested caracaras.

Research indicates panthers can tolerate a mosaic pattern of different types of agricultural land uses. A mosaic of natural areas and compatible land uses already exists and it is this mosaic that is supporting Florida panthers. Through stewardship planning and appropriate incentives this existing mosaic can be preserved. The key is in ensuring that other land uses alternate with or incorporate a connected mosaic of natural habitat which provides cover for the panther and other wildlife.

Unfortunately, important habitat on private lands is being converted to uses less compatible with panther survival as Florida's human population continues to grow.

For this reason, innovative panther conservation strategies are needed ... strategies that go beyond land acquisition by government ... and provide economic incentives to landowners to protect essential habitat on private lands.

### ***A Brief Description of Panther Habitat <sup>2</sup>***

Typical Florida panther habitat consists of vast areas of diverse native cover types, predominantly forest types such as oak hammocks, cypress stands and mixed wooded swamps. These habitats provide cover for hunting, resting, mating and rearing young. They also support an adequate prey base and are relatively unoccupied by humans and human structures, such as residential communities, urban industry and major highway systems. Panthers use certain cover types differently than others. Some cover types, such as native prairie and improved pasture, are less important than others, such as oak hammocks and cypress stands. Many agricultural land uses are compatible with maintenance of panther habitat. Some agricultural uses can even replace certain native cover types, depending on how and to what extent they are used by panthers.

The key is proper planning that will ensure most important native cover types are retained in a connected mosaic throughout the project area.

### ***The Importance of Private Lands to Panther Recovery***

Loss of private lands<sup>3</sup> as productive panther habitat would result in more than a 50 percent decline in the population that is already on the brink of extinction. Recovery would thus no longer be possible.

Habitat preservation on both public and private lands in the region is therefore essential to the panther's continuing existence.

1 According to research conducted and compiled by the Florida Game and Fresh Water Fish Commission.

2 This information was supplied by the Florida Game and Fresh Water Fish Commission.

3 The private lands designated in the *Florida Panther Habitat Preservation Plan*. Todd Logan (U.S. Fish and Wildlife Service), Andrew Eller (U.S. Fish and Wildlife Service), Ross Morrell (Florida Game and Fresh Water Fish Commission), Donna Ruffner (Florida Department of Environmental Protection), and Jim Sewell (National Park Service), *Florida Panther Habitat Preservation Plan*, (Florida Panther Interagency Committee, 1993), pp 44.

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## THE LIMITATIONS OF LAND ACQUISITION

Government agencies at the federal, state and county levels have acquired and protected thousands of acres of wild lands in Florida. However, no government agency or private organization can afford to fully preserve the habitat of the Florida panther through outright purchase. Too much land — nearly 1 million acres — is at stake.

Even if government agencies could buy this land, with recent land values ranging from \$600 to over \$10,000 per acre, the cost could top \$1 billion, assuming an average cost of \$1,000 per acre.<sup>4</sup> The cost of operations to manage the land — assuming \$30 per acre per year — would add up to another \$30 million per year.<sup>5</sup> This would be on top of the millions already spent each year on Florida's land acquisition and management programs.

Moreover, outright purchase would remove agricultural land from property tax rolls and economic production.<sup>6</sup>

Hence, not only is the survival of the panther at stake, so also are billions of dollars in tax expenditures and economic production.

Some of this loss could be mitigated through government payments in lieu of taxes — which would add to the cost of managing the land — and from leases for cattle grazing and other activities. But this income would pale in comparison to what is currently produced by private owners.<sup>7</sup>

There may be a better alternative ... for taxpayers ... for local government ... for private landowners ... and for the panther.

## THE LANDOWNERS' PERSPECTIVE

Landowners with large holdings in southwest Florida, for the most part, are not interested in selling their properties. Their relationships with natural resource agencies have been unpredictable and fraught with conflict. They also feel that existing regulations are often unreasonable and onerous. In effect, through the regulatory process, these large landowners feel they are being asked to protect a commodity valued by all citizens, but are receiving no compensation in return.

They also feel that the Florida panther is endangered, not because of what they have done, but because of the actions of many other landowners in northern and central Florida and five other states who have destroyed panther habitat over the course of the last century ... often encouraged by public-financed facilities such as roads ... until only a small remnant of the panther's habitat remains ... largely on their lands.

Even though some landowners go to extraordinary lengths to nurture the resources on their property and to conduct their activities in a manner that is sustainable and compatible with these resources, they must make a profit ... or go out of business.

No mechanism is now in place to help the vast majority of Florida farmers pass on the costs of environmental protection to the public. They produce 258 agricultural commodities, of which only five — tobacco, peanuts, cotton, milk and sugar — qualify for federal subsidies or price supports.<sup>8</sup> For the balance, the market sets their price, and that price

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4 From figures compiled by Hendry County Agricultural Extension Service on recent farmland sales.

5 According to data provided verbally to American Farmland Trust in September and October, 1994 by staff at the National Park Service; U.S. Fish and Wildlife Service; Florida Division of Forestry; South Florida Water Management District; Dade County Parks and Recreation; Hendry County Extension Office; and Florida Game and Fresh Water Fish Commission, the cost to manage lands owned by these entities varies from a low of \$11 per acre for extensive wetland areas to a high of \$1,700 per acre for small urban parcels having extensive recreational use. According to this information, the full management cost of state parks averages about \$100 per acre, while full management cost of lands managed by Florida Game and Fresh Water Fish Commission and Florida Division of Forestry averages around \$30 per acre. The U.S. Fish and Wildlife Service reports an average cost of about \$28 per acre for the Florida Panther National Wildlife Refuge.

6 Studies by American Farmland Trust in 12 communities in the Northeast and Midwest show that farmland produces much more in tax revenues than it consumes in services, even at its low, use-valuation rates. Agricultural land uses require as little as 21 cents in services for every \$1 generated in tax revenues, thus creating as much as a 79-cent surplus. Residential land uses generate many more tax dollars. But they consistently require more in services than they generate in revenues — even as much as 67 cents more for every \$1 generated — thus creating a deficit.

7 Ibid.

8 According to statistics compiled by the Florida Department of Agriculture and Consumer Services, Bureau of Information Services.

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is constantly fluctuating. The costs of maintaining land that produces little or no economic return, of installing conservation systems, of hiring consultants and attorneys to comply with regulations whittle away at profit margins ... and make the Florida farmer less competitive with foreign producers.

The market currently pays Florida farmers to produce vegetables, citrus, timber and homesites. But it does not pay for the other “products” of their land for which they are the custodians — open space, wildlife habitat, water resources, wetlands and more.

And therein lies the dilemma: As much as these agricultural landowners may want to protect the panther and other native species, they have a powerful inducement not to do so.

The market economy offers landowners a strong incentive to manage their holdings for the highest and best economic return. And that can translate into intensive development that may be at odds with panther habitat protection.

Of course, landowners are not forced to seek the highest profit obtainable. That is their choice. But if one can profit by converting land from native habitat to agriculture and from agriculture to condominiums, chances are land will be converted.

Farmers (and other landowners) are often caught in the middle. They may enjoy the natural resources on their property, but the market economy does not reward them for giving up development of their land so the panther ... or other wildlife species ... can survive.

As one member of the review committee pointed out: “Ecological systems will exist in the absence of a human economy. But human economic systems cannot exist without a reasonably healthy environment.”

That may be true. But the question is: what is the best way to motivate a landowner to care for these resources? When economics and natural resource protection come into conflict — as in the case of the panther in southwest Florida — many landowners feel they have only two choices: sell their land to the government so its resources can be protected or live with more regulations that may ultimately drive them out of business.

So why not take a new approach to panther protection? First, think of the panther and its habitat as “environmental products.” Then compensate landowners for producing or caring for these products ... on our behalf. Won't that, in turn, reduce the chance that a landowner might want to replace critical panther habitat with a more traditional commodity that would earn a profit?

This may require a new way of looking at environmental protection and the market economy. But it is one many landowners can easily understand.

Asked what he would say if he was paid to grow panther habitat, one landowner responded immediately by saying “Here, kitty, kitty ...”

The conceptual plan offers a way to compete with the market economy ... so the wide-ranging panthers and their need for relatively undisturbed habitat are no longer an economic and regulatory liability to landowners.

The plan's intention is to turn panthers and natural resource protection into an asset for landowners ... to encourage them to grow and maintain panther habitat just like any other crop that they might produce on their land ... and to provide them with an economic incentive for doing so.

This is an approach that applauds and compensates landowners choosing to nurture a rare and precious commodity — the endangered Florida panther — that society wishes to preserve.

The landowners' plan offers ways to make more effective use of limited state and county funds and staff charged with natural resource and wildlife protection, thus protecting more habitat and wildlife in Florida at less cost.

It also keeps close to 750,000 acres of farmland in production, thereby maintaining economic use of the land and keeping it on local property tax rolls.

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## THE LANDOWNERS' PROPOSAL

The landowner working group proposed a conceptual plan that would establish a framework of standard procedures to guide preservation of essential habitat for the panther in south Florida. The goals of the landowners' plan are to:

1. Protect essential habitat of the Florida panther on privately owned lands;
2. Provide economic incentives to landowners for protecting essential panther habitat; and
3. Improve cooperation and consistency between private landowners and government agencies.

### *The Conceptual Plan: An Overview*

The conceptual plan seeks to compensate landowners for giving up non-agricultural development rights — those rights not related to or required for agricultural production — for a minimum of 25-years ... long enough to determine if the Florida panther can be saved and to work out long-term protection and management strategies.

During this period of habitat protection and management, scientific research would continue regarding the status of the remaining panther population and its specific management and habitat needs. The plan's primary objective is to protect panthers and enhance their opportunities for survival. However, it also would incorporate an ecosystem management approach that would retain the region's biodiversity, protect its water resources and promote aquifer recharge.

The conceptual plan would:

1. Build on existing panther preservation efforts by planning for the entire project area as described in the Florida Panther Habitat Preservation Plan;
2. Lease or purchase non-agricultural development rights (i.e., rights for any development that are not related to or required for agricultural production);
3. Allow agricultural development on leased land to occur in a mosaic pattern except where panthers would be threatened, in which case the plan would also lease agricultural development rights (i.e., the rights to establish improved pasture, row crops, citrus, or other agricultural operations);
4. Improve the permitting process for these lands and extend the duration of permits for the length of the lease;
5. Ensure the integrity of the region's hydrology;
6. Establish whole-farm plans that integrate non-agricultural, farm and conservation land uses into a mosaic pattern; and
7. Take a holistic approach to resource and natural systems management on a property.

Leasing or purchasing non-agricultural development rights would be the primary means to protect essential panther habitat on private lands. If landowners choose to lease these rights, they would enter a 25-year legal agreement not to develop their land for non-agricultural use.

There would be three ways to compensate for leased or purchased rights:

1. Pay property owners cash for the value of the rights;
2. Provide income tax and estate tax credits linked to the value of the development rights; or
3. Provide other methods of payment, including either cash or non-cash, agreeable to both parties.

The landowner working group recommends option 2 as the primary form of compensation because income and estate taxes are the two biggest economic impacts on landowners from the federal government.

The conceptual plan would offer three levels of possible compensation:

- First level:** Landowners would have the option to sell or lease all *non-agricultural development rights*;
- Second level:** After the first level, landowners submitting an application to expand use of their property for agricultural purposes would be compensated if they are *denied* that agricultural use for habitat preservation reasons; and
- Third level:** If the land must be returned to its natural state, landowners would be compensated for the *cost of restoration* and for the *economic impact* associated with the loss of that farming activity.

In addition to compensating the landowner for non-agricultural and agricultural development rights, all agencies would be required to coordinate all their permitting and regulatory requirements and to review and endorse a single permit encompassing these requirements for the full term of the agreement.

In other words, landowners would no longer have to deal with scores of different agencies at a variety of different times. They would do it once. This team-permitting process would result in a single, whole-farm management plan that would satisfy all permitting requirements for the entire 25-year period of the lease.

No agency would lose any of its regulatory authority. Instead, all parties would participate in a formal process through which the actions of agencies at all government levels can be coordinated. Each agency would only comment on those parts of the whole-farm management plan that pertain to its interests. It would have no say over any other agency's actions — unless there is an inherent conflict or a duplication of regulatory authority. In this case, the team permitting process would provide a means for resolving conflicts between agencies and avoiding duplication — without passing the problem on to the landowner.

Water allocation also is important. The ecological system supporting the panther and the region's agriculture both depend on a reliable source of water. Neither may survive if water is siphoned off to urban development and exported out of the watershed basin. The water management district would be requested to maintain this balance in two ways: (1) through a long-term water use permit that would remain in effect during the term of lease; and (2) by prohibiting transfers of water out of the basin.

## **ECONOMIC ANALYSIS OF THE LANDOWNERS' PROPOSAL**

The conceptual plan proposed by the landowner working group would be much more economical than purchasing land, taking it out of economic production and off local property tax rolls, and maintaining it at government expense. An economic analysis of how the conceptual plan might affect a hypothetical farm is contained in the section on "Compensation" under the discussion of "The Landowners' Strategy." Additional data are provided in Appendix B.

## **COMMENTS ON THE LANDOWNERS' PROPOSAL FROM THE REVIEW COMMITTEE**

The conceptual plan was distributed to a diverse 44-member review committee for reaction and comment. Here is what some of the reviewers said:

Bernie Yokel of the Florida Audubon Society, as well as Hines Boyd of the Florida Department of Agriculture, call the strategy the best effort to date to address the panther's extinction issue.

"In terms of a solution to what has appeared to be an almost insolvable problem steadily grinding down to the extinction of the animal, it is the most compelling document that has been produced thus far," Boyd says.

Patricia Glick, a senior fellow with the Sierra Club, concurs: "There is significant potential for economic incentive

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mechanisms to achieve gains in endangered species preservation on private lands. If the proposed Florida panther plan is successful, it will serve as a useful model for similar programs nationwide.”

Many members of the review committee, such as Jim Murley of 1000 Friends of Florida, Bill Hammond of the South Florida Water Management District Governing Board, Dennis Jordan, Florida panther coordinator for the U.S. Fish and Wildlife Service and Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist, have called for workshops or “dialogues” that would bring together the landowner working group, the review committee and other interested parties to further explore the strategy.

Macdonald remarks: “The landowner working group has framed a program of economic incentives and longer term permit assurances that I believe can garner general support among various public and private interests. I think the concepts are fleshed out enough that the program now needs a more thorough public review or some sessions of speaking directly about the hurdles to overcome.”

Dennis B. Jordan, Florida panther coordinator for the U.S. Fish & Wildlife Service, also suggests, “The next logical step might be to gather all the key data for an existing tract of important panther habitat, then pull together (in a workshop format) key players and actually develop a trial preservation/lease program.”

Additional comments from the review committee — including a discussion of the hurdles the conceptual plan must overcome — are contained in the section, “Practical Considerations.”

## **NEXT STEPS: A Summary**

The landowner working group would like to implement the conceptual plan within the next two years. Some proposals to turn concept into reality include:

1. Asking landowners to appoint a new working group to represent their interests in refining and implementing the conceptual plan;
2. Expanding the review committee to represent a broader number of interests — conservation, scientific, agriculture, business, property rights and affected government agencies;
3. Bringing together the diverse groups interested in — and affected by — the panther’s survival in a series of workshops with the purpose of working out differences and refining elements of the conceptual plan.

These workshops would:

- Bring together the landowner working group and review committee, and

Be held for:

- Landowners with property containing Priority 1 and 2 panther habitat (as described in the Florida Panther Habitat Preservation Plan);
- Representatives of federal, state and local agencies who would coordinate permitting;
- County commissioners, planners and other key county staff in counties with Priority 1 and 2 panther habitat; and
- Other interested parties.

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It is also proposed that several community education conferences be conducted in counties with Priority 1 habitat.

4. Conducting another, more extensive economic analysis to:
  - Determine the estimated costs and benefits of the landowners' strategy to local, state and federal government entities;
  - Compare costs of the landowners' strategy with other protection options;
  - Determine where savings can be made by adopting the landowners' strategy; and
  - Evaluate the most cost-effective way of paying for wildlife protection programs at the state and federal level.
5. Conducting research on each aspect of the landowners' strategy that must be implemented at the federal, state and local levels — including tax code revisions, coordinated permitting and comprehensive plan amendments — to determine the most effective ways each can be carried out.
6. Using two or three farms in southwest Florida as test parcels for developing whole-farm plans; single, coordinated permits; and determining the "mosaic" of land uses that will form the basis for calculating landowner compensation and ensuring the panther's recovery.

Additional recommendations are contained in the section entitled "Next Steps."

## **DEFINITIONS**

Many of the terms used on the following pages to describe the conceptual plan require explanation. Please see the "Definitions" in Appendix C.

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# The Landowners' Strategy

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## THE CONCEPTUAL PLAN

Florida's rapid human population growth in the last few decades has greatly impacted wildlife habitat. In the 1980s, some 900 newcomers a day moved into Florida. As developers have risen to the challenge of housing and servicing these new residents, Florida's native species have been pushed onto smaller and smaller tracts of undeveloped land. Coupled with geographic separation and inbreeding, the Florida panther, with its range of 200 square miles for a male and 75 square miles for a female, is a dramatic example of a species pushed toward extinction because of habitat loss.

Some of the healthiest panthers, however, are found on or near agricultural lands. Agricultural landowners in southwest Florida have had numerous sightings of the big cats traversing their properties. The land is desirable to panthers, they say, because crops and other plantings provide food that attracts panther prey, but are not accessible to the crowds that visit national parks and nature sanctuaries.

Many agricultural property owners, however, have felt penalized by state and federal agencies rather than rewarded for providing panther habitat.

Members of the landowner working group, who met during 1994, identified excessive environmental regulations as the largest obstacle to attaining cooperation between landowners and federal and state agencies to protect the panther. And landowners who feel penalized, working group members said, are less apt to help.

Instead, landowners would likely welcome a plan that not only takes their individual efforts into account, but also compensates them for panther habitat conservation.

Protecting panther habitat in conjunction with agricultural land uses has another benefit: conserving agriculture itself. As Florida's number two industry with cash receipts of \$6.1 billion,<sup>9</sup> agriculture's impacts are felt far and wide, from the food it produces to the jobs it creates. Indeed, each winter, Florida-grown vegetables feed the eastern half of the nation and much of Canada.

Studies by American Farmland Trust have shown that agriculture more than pays its way. When compared to residential and commercial land uses, agriculture requires fewer costly community services.<sup>10</sup> Like the population of the Florida panther, Florida agriculture has been shrinking — by 150,000 acres a year — thanks to growth pressure.<sup>11</sup> By offering incentives for landowners to retain land in agricultural uses, such as leasing or purchasing<sup>12</sup> development rights, Floridians would be making a sound fiscal investment ... as well as protecting the imperiled Florida panther.

The conceptual plan that follows highlights the recommendations the working group has proposed for landowners of priority habitat, most of which is agricultural land.

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9 Total cash receipts for 1991 were \$6,142,141,000 and total cash receipts for 1992 were \$6,091,697,000, according to the Florida Department of Agriculture and Consumer Services.

10 See footnote 6.

11 This is the annual net loss of farmland due to conversion to other land uses. The total production acreage lost between 1980 and 1990 due to all causes, including the freezes that devastated central Florida's citrus industry, was 2.5 million acres, or an average of 250,000 acres per year, according to the Florida Department of Agriculture and Consumer Services. The effect of the freezes is also reflected in the 1987 Census of Agriculture, published by the U. S. Department of Commerce, Bureau of the Census, which indicates the amount of "land in farms" in the state declined by 1.6 million acres, or an average of 320,000 acres per year, between 1982 and 1987. Much of this land was still available for agriculture, but was not in production. On the other hand, the Mapping & Monitoring of Agricultural Lands Project, conducted by the Department of Community Affairs using satellite images and ground-based measurements, calculated that the net loss of farmland between 1974 to 1984 due to land use conversions was 1.6 million acres, or an average of 160,000 acres per year. This figure is confirmed by the U. S. Department of Agriculture, Economic Research Service, which reports in Major Land Uses that the net loss of farmland and pasture — again, due primarily to land use conversions — was 747,000 acres, or 149,400 acres per year for the five-year period 1982 to 1987.

12 Leasing development rights is the preferable choice among working group members. Purchasing the development rights also is an option for landowners. Either method is available, but in this report, leasing is the primary option discussed.

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## PLANNING AND IMPLEMENTATION

The purpose of the conceptual plan is to establish a framework of standard procedures to guide preservation and management of essential panther habitat on private lands in south Florida. It would be designed to: 1) encourage long term survival and recovery of the Florida panther; 2) provide economic incentives to landowners for restoring and maintaining essential panther habitat; and 3) improve cooperation between private landowners and government agencies in carrying out panther habitat protection.

The roles, responsibilities and contributions of landowners and of agencies at the federal, state and local levels are described below, along with the steps each would take to implement the conceptual plan.

### *Roles, Responsibilities and Contributions of the Landowners*

#### **1. Offer for lease (or purchase) the development rights of those landowners whose property falls within the 926,300 acres of priority panther habitat — for 25 years.**

Landowners may offer to lease or sell their development rights, and they would be compensated for keeping their land in agriculture or open space to protect essential panther habitat. The development rights on the land would be exchanged for a legal agreement not to develop the property for non-agricultural use.

In the case of leasing, funds could come in the form of federal estate or income tax credits. The landowner working group felt the federal government would be the appropriate source of the economic incentive package to compensate the landowner. The leasing system could then be run by a local land authority at the county level.

Landowners within the project area wishing to convert some or all their land to residential or commercial development would — in consultation with the appropriate water management district and Florida Game and Fresh Water Fish Commission — determine how much of their property, if any, would be suitable for non-farm development. Only those acres approved by this up-front assessment for non-farm development could be developed. The remaining land and its non-agricultural development rights would be leased.

Leasing is the option preferred by the landowner working group since the fate of the panther over the next 25 years is unknown. If the panther becomes extinct or is no longer endangered, today's protection plans may have to be modified. The leases, in this case, would provide more flexibility than purchase options.

Leasing the non-agricultural development rights would provide the *first level* of compensation to the landowner for protecting panther habitat.

Before going through the permitting process to intensify a farming operation or land use, landowners would be able to ask the water management district to assess their lands to determine if they would be denied a permit under current rules and regulations. This assessment would determine which lands would be available for agricultural development.

Landowners within the project area who wish to use their land for agriculture — or a more intensive use — but are denied necessary permits for panther preservation reasons would be compensated through the leasing of agricultural development rights. This would provide the *second level* of compensation to the landowners for protecting panther habitat.

All lease agreements would be for 25 years and would have renewal clauses.<sup>13</sup> They also would have exit clauses; if the panther becomes extinct or is no longer endangered, landowners would no longer be bound to the agreement, and taxpayers would no longer be obligated to pay for an additional 25 years of panther protection. In addition, purchase agreements would have exit, or termination clauses, in case the reasons for which the agreements are executed no longer need to be — or can be — fulfilled.

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<sup>13</sup> A rolling lease has been suggested. This type of lease would automatically renew unless the landowner notified the land authority at a specified time prior to the end of the lease.

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Purchase agreements — and other incentives which can be used to protect panther habitat - are described in detail in a companion publication entitled, *Protecting Florida Panther Habitat and Natural Resources in Southwest Florida: A Field Manual*, which is available from the Florida Game and Fresh Water Fish Commission.

## **2. Prepare individual whole-farm plans.**

Landowners would identify their existing land uses in a whole-farm plan. The whole-farm plan would incorporate best management practices. The landowner working group proposes using the best management practices for farming operations developed by the Institute of Food and Agricultural Sciences (IFAS).

If landowners' practices fit the mosaic of land uses which are allowed under the *Panther Habitat Preservation Plan*, they would receive multi-agency endorsement for implementation and application for permits which may be necessary from the permitting team.

## **3. Retain management of their land.**

Under the proposed lease agreements, private landowners would retain management of their land. Landowners would manage their land by following the whole-farm plan they develop. The plan would define what could be done, where it could be done, and how it could be done.

## **4. Restore to native vegetation any property deemed essential for panthers.**

Sometimes, planting native vegetation may be prescribed to enhance panther habitat. Determinations would be made by the Panther Interagency Committee or Florida Game and Fresh Water Fish Commission. The landowner would be compensated for restoring to native habitat any land deemed essential for panthers. This is where the third level of compensation would take effect.

## **5. Recognize the boundaries of the area proposed for preservation of Florida panther habitat delineated in the *Florida Panther Habitat Preservation Plan*.**

The landowner working group drafted the conceptual plan recognizing the boundaries delineated in the *Florida Panther Habitat Preservation Plan* produced by the Florida Panther Interagency Committee (Logan et al. 1993). If a boundary change is proposed, the land authority and landowner working group both should be consulted.

# ***Roles, Responsibilities and Contributions of Government Agencies***

## **All Agencies**

### **1. Work within the Florida Panther Habitat Preservation Plan's boundaries.**

The Panther Interagency Committee has established a map of priority 1 and 2 habitat for preservation of the panther. All agencies should work within its defined boundaries.

### **2. Coordinate Conceptual Plan Implementation.**

The conceptual plan would be approved by agencies having jurisdictional authority, such as U.S. Fish and Wildlife Service, Army Corps of Engineers, water management districts, Florida Game and Fresh Water Fish Commission, Department of Environmental Protection, natural resource conservation districts, and all appropriate local agencies.

Agency consensus would occur at two levels: (1) sign-off on the conceptual plan, and (2) sign-off for permits or whole-farm plans requested by the landowner (see page 16, State Government, #2, Issue coordinated, 25-year permits).

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### 3. Coordinate Whole-Farm Plans

Agencies should develop memoranda of understanding to coordinate their panther habitat management practices information. Agencies should also coordinate distribution of information to landowners requesting data for preparation of their whole farm plan.

To encourage accessibility of this information, agencies should submit their panther habitat management practices and data to each Institute of Food and Agricultural Sciences (IFAS) station for landowners to use when preparing their whole-farm plans (see page 15, State Government, #1, Assist with the preparation of whole-farm plans as requested by landowners).

#### Local Governments

##### 1. Make any necessary amendments to the local comprehensive plan.

Appropriate county comprehensive plans should be amended to reflect the Florida Panther Habitat Preservation Plan boundaries and areas designated suitable for development, such as existing planned unit developments.

##### 2. Prepare county comprehensive plan overlay.

Local governments should prepare an overlay for their local comprehensive plan that identifies the areas in which a property owner and/or owners and government regulatory agencies have entered into a purchase agreement or a lease of development rights for the preservation of panther habitat. The overlay would allow all government agencies involved in the comprehensive planning process to properly prepare for future growth-related issues. The property owners within or adjacent to the identified project area would benefit as well by knowing the long-term utilization of neighboring properties.

The comprehensive plan overlay would address zoning, density allocation, concurrency and water allocation as follows:

###### I. Zoning

- A. The zoning classification that exists on the property at the time a development rights lease is entered into should remain with the land during the term of the lease.
- B. In the event the lease agreement expires or is terminated by either party, the pre-lease zoning and its permitted uses and restrictions would apply and govern any alternative utilization of the property involved.
- C. The property owner involved in a lease agreement should not apply for rezoning nor a comprehensive plan amendment, unless and until, notice of intent to terminate is given by either party.
- D. If a lease agreement is terminated or not renewed, the property owner should not be required to apply for a comprehensive plan amendment in order to utilize his property in accordance with the existing zoning.
- E. All vested zoning rights prior to the lease agreement should remain with the property and not individual ownership.

###### II. Density Allocation

- A. The density and intensity allocated by virtue of the comprehensive plan at the time of the lease agreement should remain in effect until the agreement is either terminated or not renewed.
- B. Neither the county nor the property owner should apply for a comprehensive plan amendment addressing the property during the term of the lease agreement without written approval from the current property owner.

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- C. The property owner should not be required to file for a comprehensive plan amendment when the lease agreement expires and/or is terminated.

### III. Concurrency

- A. For the purpose of planning for future infrastructure needs, county staff should consider the comprehensive plan status and zoning classification of property from the time the lease was entered into.
- B. If the terms of the lease agreement are not renewed, the property owner should be allowed the right to utilize his property in accordance with the comprehensive plan at the time the lease was entered into.
- C. After the lease expires or is terminated, the property owner would have a five-year period to utilize the pre-lease zoning classification. After five years, the county could then amend the property's zoning classification.
- D. In the event a lease agreement is terminated and the property owner desires to utilize the property for a more intensive use than is provided for in the comprehensive plan, the owner should comply with the concurrency requirements to meet the infrastructure needs of the proposed use.

### IV. Water Allocation

Native panther habitat and the preservation thereof are dependent upon the availability of good quality surface and ground water. When ground water and surface water conditions are severely altered, native habitat could be adversely affected. Therefore, the following policies should be considered by regional and local planning agencies.

- A. Current water needs should be analyzed on leased property in the following manner:
  - 1. Necessary for the preservation of native panther habitat
  - 2. Current land use
  - 3. Existing zoning and allowed uses under the regional and local comprehensive plan
- B. Projected water needs and sources should be analyzed on leased property in the following manner:
  - 1. Cumulative needs of surrounding land uses
    - a. existing
    - b. potential
  - 2. Potential land use of leased property if the lease is terminated

All potential land uses and projected water needs on leased property should be evaluated and updated once every five years, as required by Section 163.3191, Florida Statutes and chapter 9J-5.005, Florida Administrative Code.

### **3. Establish panther habitat preservation land authorities, county by county.**

Each county in which panther habitat has been delineated by the Panther Interagency Committee would create by ordinance a public body called the *Panther Habitat Preservation Land Authority*. The governing body of the land authority should be the governing board of the county.

The Board of County Commissioners would review and approve the annual proposed lease list submitted by the land authority and would not alter the priority established by the land authority, except by deletion of proposed leases if they determine the proposed lease would not further the mission of the land authority.

The land authority should:

- \* Establish development right lease procedures, including a process for determining the market value of development rights.
- \* Select private appraisers from the Division of State Lands approved list to appraise offered parcels of land. The property owner may select another appraiser at the expense of the property owner. The value of the development rights to a particular piece of property should combine the appraised values of the parcel prior to, and after, the adoption of the density requirements, minus the appraised agricultural value. The land authority should use this formula as the basis for negotiations to lease development rights to agricultural and other lands within the designated Florida Panther Habitat Preservation Areas. Such property should be encumbered from any use more intensive than agricultural use, although the property owner should be allowed to change from one agricultural activity to another, which may or may not require regulatory permitting.
- \* Implement a procedure for the leasing of development rights of agricultural lands within the panther habitat area. All leases should be voluntary and development right values may be site specific.

All leases recommended and within the jurisdiction of the land authority, should be signed by the property owner and the chairman of the Board of County Commissioners. Funding for the leases and for their administration, should be provided through written agreements between the Board of County Commissioners, appropriate state agencies and the United States Department of Interior.

#### **4. Lease non-agricultural development rights.**

A lease for non-agricultural development rights should be for a minimum of 25 years.

#### **5. Lease the agricultural development rights.**

If a landowner's permit to intensify agricultural operations is denied for habitat preservation reasons, then the appropriate land authority would determine the value by appraisal of the agricultural development rights to be leased.

### **State Government**

#### **1. Assist with the preparation of whole-farm plans as requested by landowners.**

The Florida Game and Fresh Water Fish Commission would collect all data on panther habitat management and submit to the Institute of Food and Agricultural Sciences. Landowners could consult the Florida Game and Fresh Water Fish Commission when developing their whole-farm plan.

Each whole-farm plan may be developed by using the commission's database and experience with panther distribution, home ranges, seasonal behavior, and habitat preference in southwest Florida. These data would be integrated, geographically referenced and mapped using a computerized geographical information system (GIS). Natural features, habitat types, land uses and management practices on the landowners' property (current and planned) would be described geographically (georeferenced) and entered into the GIS. An analysis of these data would then be conducted to identify portions of the property that provide panther habitat under various land uses. Management options also would be examined that continue to provide economic benefits to the landowner. The analysis would help in identifying compensation needs and in designing an economically feasible strategy that landowners could use to continue managing portions of their property as panther habitat.

Florida panther habitat data would be the primary habitat data used in the development of each whole-farm plan; however, other biological information would be used in the GIS analysis to ensure that habitat needs of other critical wildlife species are met as well.

If an agency's authority falls within or is affected by the conceptual plan, they should follow the Florida Game and Fresh Water Fish Commission's lead and supply all relevant technical assistance and data to IFAS stations and offer help to individual landowners.

The individual whole farm plans developed in cooperation with landowners would be consolidated into a *resource management plan*. The resource management plan would; 1) plan for the entire project area; 2) include management criteria for all resources — panther, panther habitat, other wildlife, water, etc.; and 3) guide criteria for developing whole farm plans.

## **2. Issue coordinated, 25-year permits.**

The primary agricultural permitting agencies in south Florida are the South Florida Water Management District (SFWMD) and other water management districts, depending on location. They are mandated to protect water resources and the environment by approving or denying water use and surface water management permits. To facilitate the implementation of the panther recovery plan, the SFWMD could be designated to work with the Panther Interagency Committee and continue as the primary permitting agency. Permits would be for the term of the lease.

The conceptual plan takes a holistic approach to natural resource management. If farmers do not have sufficient water, then associated natural resources would not function properly either. Therefore, water permitting is an integral part of the overall conceptual plan.

## **3. Obtain needed legislative authorization.**

The conceptual plan will require several changes in state law so the proposals for the 25-year lease agreements, land authorities and comprehensive plan overlays can be implemented. Chapter 163, Florida Statutes, regarding the Local Government Development Agreement Act, for example, could be amended to serve as a “vehicle” for implementing parts of the compensation plan.

### *Federal Government*

#### **1. Obtain needed legislative approval.**

The landowner working group recognizes the need for Congressional action and the need for developing techniques to grant tax incentives. At present, Internal Revenue Code 2032A regarding special uses allows tax relief for an heir who agrees to keep land in agriculture for 10 years with special restrictions. If the heir owns and operates the farm as a principal asset, estate taxes can be assessed on the property’s value for agriculture instead of for development. Thus, by qualifying for special use, the taxable value of the land can be reduced, reducing federal estate taxes as well.

Section 170 of the Internal Revenue Code authorizes, for income tax purposes, a deduction from taxable income of the value of a *permanent* easement or other qualified conservation contribution made prior to death. Under the present law, a qualified conservation contribution must be a permanent easement or comparable restriction. For endangered species conservation purposes, landowner commitments short of a permanent easement could contribute significantly to the goal of species recovery. Shorter term management actions may serve the vitally important goals of sustaining population levels, ensuring habitat contiguity, or maintaining genetic diversity while longer term recovery strategies are implemented. In any event, since the goal of the Endangered Species Act is to recover species to the point where they no longer need protection, permanent easements may restrict land uses longer than is necessary to achieve the goal of recovery.<sup>14</sup>

Sections 2032A and 170 of the Internal Revenue Code, could serve as “vehicles” in federal laws that can be amended or used as precedents to implement parts of the strategy’s compensation plan.

#### **2. Act in a timely fashion.**

There should be a time limit or incentive to ensure federal agencies act in a timely fashion to implement the conceptual plan. If no compensation package is approved, what will force the state or federal agencies to come to the table to deal with landowners on the panther issue?

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14 Michael J. Bean, “Opportunities to Further Conservation Through Estate Tax Reform,” (Unpublished Manuscript, 1994).

## COMPENSATION

### *A Summary: The Landowners' Compensation Plan*

Three levels of incentives are proposed for landowners to participate in protecting panther habitat. They are described below.

There should be equitable treatment of all landowners within the area proposed for preservation of Florida panther habitat as described in the *Florida Panther Habitat Preservation Plan* (Logan et al. 1993). One way to ensure equity is to be sure the conceptual plan provides fair compensation for any rights that are limited or given up.<sup>15</sup> Each landowner would be afforded different incentives and options to work within the overall conceptual plan.

The following is a brief outline of the landowner's compensation plan. The complete description of the plan is in Appendix A.

#### **I. Non-Agricultural Development Rights**

The cooperating landowners would agree to lease to the appropriate government entity all of the non-agricultural development rights on any real property they own within the area proposed for preservation of Florida panther habitat for 25 years. Terms of the lease agreements and landowner compensation are proposed as follows:

##### **A. Lease Agreement Obligations - Landowners**

1. The landowners would not request any permits for non-agricultural use.
2. The landowners would develop whole-farm plans.
3. The landowners reserve the right to develop their land for agricultural uses.

##### **B. Lease Compensation Obligation - State and Federal Government**

1. The government should compensate landowners for leasing non-agricultural development rights on their land as follows:
  - a. income tax credit.
  - b. estate tax credit.
  - c. other methods, cash or non-cash, that are agreeable to both parties.
  - d. surface and sub-surface water resources would be available for agricultural production.
  - e. Florida Agricultural Use Assessment Law (Green Belt Law) of the State of Florida would be used for assessing ad valorem taxes.
2. The government should help landowners develop and implement whole farm plans at no additional cost to the landowners. If landowners have additional costs, then they have the option to receive tax credits or cash.
3. The government should grant water and land use permits to reasonable requests to intensify agricultural operations. However, the government reserves the right to deny any and all permit requests if the proposed permit would be detrimental to essential panther habitat needs. If a permit request for agricultural use development is denied for habitat preservation reasons, the government should compensate landowners as outlined in the next section.

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<sup>15</sup> Another way to ensure equity is to allow landowners to trade values across property lines. At the landowner's option and with land authority approval, the incentive package could be transferred to another piece of property. This may be especially attractive to owners of smaller tracts who have no intention to develop. This gives these owners an opportunity to realize an economic benefit by keeping their property in a natural state if it is in the public interest to do so.

## II. Agricultural Development Rights

Agricultural development rights allow landowners to manage their land in a wide variety of ways, ranging from maintaining the native plant communities and using the land only minimally, to the most intensive agriculture permissible for that particular property. The landowners within the project area specifically reserve the right to apply for any and all water and land use permits necessary to develop their land for more intensified agricultural uses. However, the government may deny any or all permits for additional agricultural development if the proposed development is inconsistent with optimum panther management. In that event, the government should compensate landowners as follows:

- A. Agricultural development rights value determination - The difference between the value of land in its most restrictive agricultural use and the value of land sold on the open market, fully permitted for the most intensive agricultural use allowable.
- B. Agricultural development rights compensation - If landowners are denied the right to develop any part or all of their land from the raw state or any intermediate level of agricultural development to a higher or more intensive agricultural development for habitat preservation reasons, the landowners would be compensated for the lease of agricultural development rights in the form of income and estate tax credits, cash or other non-cash methods, agreeable to by both parties.

## III. Panther Habitat Restoration

In some cases, the government may request that land within the project area be restored to its native state or modified to a lesser agricultural use. Certain incentives would be in place to encourage cooperating landowners to do this. These incentives may include all or some of the following: reimbursement for design and conversion costs, tax incentives or other forms of payments for the difference in value between the pre- and post- conservation action.

## *A Summary: An Economic Analysis of the Conceptual Plan*

This economic analysis was prepared by Dallas Townsend, County Extension Director, Hendry County, Florida. The complete analysis can be found in Appendix B.

### Introduction

The *Florida Panther Habitat Preservation Plan* has identified 13 ecological units, some 1,253,102 acres, in south Florida as critical Florida Panther Habitat Preservation Areas. Seven of the units are wholly or partially owned by private landowners. About 926,300 acres of the private holdings would be preserved.

<u>Ecological Unit</u>	<u>County</u>	<u>Acreage</u>
Gum Swamp	Hendry	69,700
Devils Garden	Hendry	139,000
Okaloacoochee Slough	Hendry	87,600
Okaloacoochee Slough	Collier	50,500
CREW	Collier	45,000
CREW	Lee	76,800
Fisheating Creek	Glades	195,900
Fisheating Creek	Highlands	23,100
Telegraph Swamp	Charlotte	83,100
Telegraph Swamp	Lee	5,200
Myakka/Peace River	Sarasota	65,500
Myakka/Peace River	DeSoto	60,300
Myakka/Peace River	Manatee	<u>24,600</u>
Total Acreage		926,300

The vast majority of the land in the units is used for agriculture, principally cattle, citrus, vegetable and some sugarcane production.

At present, an inventory of the land uses has not been completed. However, within the ecological units in Hendry County, a preliminary survey reveals that of the 296,300 total acres, approximately 15,000 acres are in citrus, 11,000 acres in vegetables, 3,500 acres in sugarcane, and 1,000 acres in grass sod. The remaining land is used for cattle production. However, within the cattle production area, 57,000 acres have been permitted for citrus irrigation water withdrawal.<sup>16</sup>

The conceptual plan includes a proposed plan to compensate landowners for leasing their development rights (See page 17) to the government to preserve the designated panther habitat.

**This economic analysis is intended to compare the cost of leasing versus purchasing the land to preserve the panther habitat.**

### Hypothetical Farm in Hendry County

Numerous variables may be encountered during the implementation of the proposed conceptual plan. This analysis is intended only to show the relative economic impact of implementing the conceptual plan.

To demonstrate how the plan would work, it is necessary to use a hypothetical farm within the proposed Florida Panther Habitat Preservation Area. To show the most common variables, this farm will encompass a citrus grove, a vegetable operation and a beef cattle operation. The farm description is shown on the next page.

### Farm Description

Total size = 12 sections or 7,680 acres

Land Use:

A. Citrus (fully permitted and operated by landowner)

Net tree acres	530
Internal roads & ditches	71
Water retention area	<u>106</u>
Total acres	707

B. Vegetables (fully permitted but leased to others for vegetable farming)

Net planted vegetable acres	750
Ditches, dikes & roadway	500
Water retention area	<u>221</u>
Total acres	1,471

C. Beef Cattle (no permits, operated by landowner)

Improved pasture	1,650
Native pine/palmetto	1,101
Native oak/cabbage hammock	825
Cypress swamp	1,125
Marsh wetlands	<u>801</u>
Total acres	<u>5,502</u>

Total acres of farm 7,680

The development of the citrus and vegetable fields was done on the most suitable lands. The different sections are near each other, although some wetlands and pine/palmetto uplands lie between them. The balance of the land configuration shows wetlands interspersed throughout the improved pasture, pine/palmetto and hammock uplands. Some 800 acres of pine/palmetto and 500 acres of hammock uplands, in addition to 1,650 acres of improved pasture, could be developed for improved pasture, citrus or vegetable production. The remaining uplands are not economically suitable for intensive agricultural development due to their size, shape or soil type.

To permit the 2,950 acres for citrus or vegetables, about 521 acres of wetlands equally split between the cypress and marsh of wetlands would be used for water retention areas. The chart below shows the resulting land uses if the remaining suitable lands are developed.

Land Use:	Acres
Current Citrus	707
Current Vegetable	1,471
Future Citrus and/or Vegetable	<u>3,471</u>
Total Acres of Intensified Use	5,649
Cattle Grazing	
Pine/palmetto uplands	301
Hammocks	325
Cypress wetlands	865
Marsh wetlands	<u>540</u>
Total Land Used for Cattle	<u>2,031</u>
Total Acres of All Land	7,680

<sup>16</sup> The preceding data must be generated for all of the participating private landowners in order to determine the economic impact of the Florida Panther Habitat Preservation Plan.

This farm is owned by a married couple and organized as a Sub Chapter S Corporation.

The above description provides a starting point when the government wishes to lease the non-agricultural development rights from the landowner as part of the conceptual plan. As outlined in the proposed compensation plan, the landowner and/or his heirs would pay no income tax on earnings from the lands that were leased within the panther habitat preservation area. In addition, the landowner and/or his heirs would pay no inheritance taxes on the lands during the period their lands are leased.

The following situations show the potential estimated cost to the government.

**I. Situation 1 - Variation A.**

The government wishes to lease the non-agricultural development rights on the entire property, including the existing citrus and vegetable lands. The landowner is agreeable and does not wish to develop any additional land. The government's cost to lease the land, according to the proposed compensation plan, is calculated below.

**A. Estimated cost for the government to lease the non-agricultural development rights for 25 years**

A detailed costs and returns analysis of the cattle, citrus and vegetable enterprises of the hypothetical farm has been done to determine the farm's projected income. The data and calculations are shown in the Appendix B.

**1. Income tax analysis**

The calculation of the income tax due on the total farm income is shown as follows:

*Total Farm Income Tax Calculations*

**Annual Income Tax Calculations Years 1 - 3**

a. Annual taxable income - years 1 - 3

Citrus	=	\$45,050
Vegetable	=	312,500
Cattle	=	<u>50,661</u>
Total taxable income	=	\$408,211

b. Annual income tax - years 1 - 3

\$250,000 income at 36.0%	=	\$90,000
\$158,211 income at 39.6%	=	<u>62,652</u>
Total annual income tax	=	\$152,652

**Annual Income Tax Calculations Years 4 - 25**

a. Annual taxable income

Citrus	=	\$349,800
Vegetable	=	312,500
Cattle	=	<u>50,661</u>
Total Taxable Income	=	\$712,961

b. Annual income tax

\$250,000 income at 36.0%	=	\$90,000
\$462,961 income at 39.6%	=	<u>183,333</u>
Total annual income tax	=	\$273,333

The annual income tax exemption would not be received except on a year to year basis. In other words, the tax exemption would represent a future stream of income. Since this tax exemption is not received by the landowner when the lease is executed, it should be discounted to account for the value of time. The discount rate of 9.5 percent has been selected. It is the current lending rate by the Southwest Florida Farm Credit Service for customers with a very good credit rating.

Using the financial formula for determining the present value of a future stream of income, the present value of the income tax exemption is as follows:

**Present Value of Tax Exemption - Years 1 - 3**

Annual income tax of \$152,652		
multiplied by the present value		
factor of 2.5089084	=	\$382,990

**Present Value of Tax Exemption - Years 4 - 25**

This present value has to be calculated in two steps since the first "payment" is three years in the future. The first step is to calculate the present value of the tax exemption at year four. Then that value must be discounted back to the present.

Annual income tax of \$273,333  
 multiplied by the present value  
 factor of 9.0968821 = \$2,486,478,  
 which is the value at the start of year 4.

The \$2,486,478 value at the start of  
 year 4 multiplied by the present value  
 factor of .7616537 = \$1,893,835

### *Present Value of Farm Income Tax Exemption*

Present Value of Income Tax Exemption -  
 Years 1 - 3 = \$382,990

Present Value of Income Tax Exemption -  
 Years 4 - 25 = 1,893,835

**Total Present Value of Income Tax  
 Exemption = \$ 2,276,825**

## **2. Estate Tax Analysis**

Since the non-agricultural development rights  
 in the property would be leased to the government  
 as a Florida Panther Habitat Preservation Area, the  
 value of the land is based solely on the current  
 agricultural use value and is calculated by capital-  
 izing the income stream with the current capital-  
 ization rate under IRS rules. The following  
 assumptions are made:

1. The landowner is married, and he and his wife  
 each hold an undivided 50 percent interest.
2. Both the landowner and his wife die in a car  
 crash in year 10 of the lease agreement.
3. The current capitalization rate of 11.18 percent  
 will be used to determine the income value of  
 the land.

### *Value of the Estate Calculation*

<u>Enterprises</u>	<u>Net Income</u>	<u>Cap Rate</u>	<u>Use Value</u>
Citrus land	349,800	.1118	\$3,128,801
Vegetables land	312,500	.1118	2,795,170
Cattle land	50,661	.1118	453,140
Total taxable estate		=	\$ 6,377,111
Less spouse exemption		=	- <u>600,000</u>
Net taxable estate		=	\$ 5,777,111

### *Estate Tax Calculation*

Tax on first \$3,000,000 = \$ 1,290,800  
 Tax on remaining 2,813,094  
 at 55% = 1,527,411

Total estate tax = \$ 2,818,211  
 Less husband unified credit = - 192,800

Net estate tax owed = \$ 2,625,411

The estate taxes shown are probably a "Worst  
 Case" situation. With good tax management and  
 estate planning, the estate tax would be consider-  
 ably less. In fact, the actual tax could be as low as  
 \$750,000.

Obviously there could be tremendous varia-  
 tions between estates. In this analysis, the estate  
 tax is assumed to be \$1,687,706, midway between  
 the maximum and minimum amounts shown  
 above.

### *Present Value of Estate Tax Exemption*

Since the estate tax exemption in this example  
 is not realized until the tenth year, it must be dis-  
 counted at the present rate of 9.5 percent to deter-  
 mine the present value of the estate tax exemption.  
 The calculation follows:

Estate tax of \$1,687,706  
 multiplied by the present  
 value factor of .4035137 = \$ 681,012

## **3. Present Value of the Total Tax Exemptions**

Income taxes = \$ 2,276,825  
 Estate taxes = 681,012  
 Present Value of Total  
 Taxes Exempted = \$ 2,957,837

## **B. Estimated cost for the Government to Purchase and Manage the Land Under the Current Market Conditions**

The value of the land shown in the Estate Tax  
 Analysis above was established by using the  
 income approach. That is done by capitalizing the  
 expected net income for the specific land use with  
 the current capitalization rate of 11.18 percent  
 under IRS rules. The resulting value is the value  
 of the investment in land justified by the expected  
 income.

However, that value is rarely used in the market-place. Generally, land values reflected by the sales data are higher than those in the income approach. Shown in Appendix B is a list of several Hendry County land and citrus grove sales during the past three years.

### 1. Cost to Purchase the Land

Based on analysis of the sales data presented in Appendix B, the anticipated purchase price of the hypothetical farm discussed in this analysis is shown below.

Current Citrus -  
530 tree acres at \$10,000/acre = \$5,300,000

Current Vegetable -  
1,250 usable acres at \$3,000/acre = 3,750,000

Future Citrus/Vegetables -  
2,950 usable acres at \$2,200/acre = 6,490,000

Cattle Project Lands -  
2,031 gross acres at \$1,000/acre = 2,031,000

Total purchase cost = \$17,571,000

### 2. Cost to Manage the Land for 25 Years

According to data provided verbally to American Farmland Trust, the annual cost to manage public lands varies from a low of \$11 per acre for extensive wetland areas to a high of \$1,700 per acre for small urban parcels that have extensive recreational use.<sup>17</sup> According to the data, the full management costs of state parks averages about \$100 per acre, while full management cost of lands managed by the Florida Game and Fresh Water Fish Commission and the Florida Division of Forestry average around \$30 per acre.

For this analysis, a management cost of \$30 per acre will be used, and total cost is shown below.

Annual Cost:  
7,680 acres at \$30/acre/year = \$230,400

Since the government will not have to pay the entire management cost when executing the land purchase, it will be treated as a future expense and discounted by the rate of 9.5 per-

cent to arrive at the present value. The calculation follows:  
Annual Management Cost of \$230,400  
multiplied by the  
present factor of 9.4375842 = \$ 2,174,419

### 3. Total Cost to Purchase and Manage the Land

Cost To Purchase the Land = \$17,571,000

Cost to Manage the Land = 2,174,419

Total Cost to Purchase and  
Manage the Land = \$19,745,419

### C. Comparison of the Cost to Purchase the Land Versus Leasing the Non-Agricultural Development Rights for 25 Years

The projected cost to purchase the land versus leasing the rights is shown below:

Present Value of the Projected  
Purchase = \$19,745,819

Present Value of the Projected Lease = - 2,957,837

Net Savings to Government = \$16,787,582

### II. Situation 1 - Variation B.

The government decides that the current citrus and vegetable projects don't need to be included in the project area and declines to lease those areas. However, it leases the remaining land used for the cattle project. Under that situation the present value of the total tax exempted from the cattle enterprise is shown below.

### A. Estimated Cost for the Government to Lease the Non-Agricultural Development Rights of the Pasture Land for 25 Years

#### 1. Calculation of Present Value of Tax Exemption

##### Income tax

The annual income tax of \$50,661  
(taxable income for cattle shown on page 20)  
multiplied by the present value factor  
of 9.4375842 = \$478,117

17 See footnote 5, page 4.

**Estate tax**

The estate taxable value of \$453,140 (See cattle land use value shown on page 21) is under the specific exemption of \$600,000 = 0

**Present Value of Total Tax Exempted** = \$ 478,117

**B. Estimated Cost for the Government to Purchase and Manage the Pasture Land Under the Current Market Conditions**

**1. Cost to Purchase the Land**

Future Citrus/Vegetables  
2,950 usable acres at \$2,200/acre = \$ 6,490,000

Cattle Project Lands  
2,031 gross acres at \$1,000/acre = 2,031,000

Total purchase cost = \$ 8,521,000

**2. Cost to Manage the Land**

Annual Management Cost of \$165,060 (5,502 gross acres at \$30/acre) multiplied by the present value factor of 9.4375842 = \$ 1,557,768

**3. Total Cost to Purchase and Manage the Land** = \$ 10,078,768

**C. Comparison of the Cost to Purchase the Pasture Land Versus Leasing the Non-Agricultural Development Rights For 25 Years**

The projected cost to purchase the land versus leasing the rights is shown below:

Present Value of the Projected Purchase = \$ 10,078,768

Present Value of the Projected Lease = 478,117

Net Savings to Government = \$ 9,600,651

**III. Situation 2**

The government has decided to leave the existing citrus grove and vegetable project out of the project area but wants to lease cattle pasture. The landowner agrees to this lease agreement. **Two years later**, the landowner applies for permits to develop the 1,650 acres of improved pasture and the remaining 1,300 acres of usable land for citrus production. The government exercises its right to block the development to preserve the area for panther habitat.

**A. Estimated Cost for the Government to Lease the Non-Agricultural Development Rights for 25 Years and the Agricultural Development Rights of the Future Citrus Land for 23 Years**

Under the proposed compensation plan, the government would be obligated to compensate the landowner with tax credits for the difference in the land value for citrus production and cattle production. Since the non-agricultural development rights are already leased, the compensation would be based solely on the income value difference.

**1. Calculation of Land Use Value Difference**

**Future Citrus Land Value Calculation**

The proposed citrus project would use 3,471 acres, broken down as follows:

Type	Acres
Net tree acres	2,603
Internal roadway dikes & ditches	347
Wetland retention	<u>521</u>
Total Acres	3,471

Using the income analysis shown in Appendix B, the projected net income for a mature citrus grove would be \$660 per net tree acre (\$349,800 divided by 530 net tree acres). Total net income of the proposed citrus development would be estimated as follows:

**2,603 tree acres at \$660/acre = \$1,717,980**

Capitalizing the net income of \$1,717,980 by .1118 results in a gross value of \$15,366,547. Based on IFAS data the land value ranges from 25 percent to 35 percent of the total grove value with an average of about 30 percent, or \$4,609,964. This amounts to about \$1,771 per net usable acre, or \$1,328 per gross acre.

The land value is calculated as follows:

Total Grove Value of \$15,366,547 at 30 percent = \$4,609,964

Land Value of \$ 4,609,964 divided by 2,603 usable acres = \$1,771

Land Value of \$ 4,609,964 divided by  
3,471 Total acres = \$ 1,328

the present value factor  
of 9.2208978 = \$ 2,479,223

### Cattle Use Value of the Future Citrus Land

Using the stocking rates shown in the costs and returns analysis in Appendix B, the proposed citrus area would carry 637 head of brood cows. If you divide the net income (\$50,661) by the number of brood cows (706) and multiply that answer by number of cows that would be carried on the proposed citrus development (637), the final answer will represent the estimated net income from a cattle enterprise that was utilized. Then the total net income capitalized by 11.18 percent will represent the cattle use value of the land.

The calculation is shown as follows:

\$50,661 ÷ 706 brood cows = \$ 71.76  
\$71.76 x 637 brood cows = 45,711  
\$45,711 capitalized by 11.18  
percent = 408,864

### Land Use Value Difference

The difference in value between the citrus and cattle use is shown below:

Proposed citrus use value = \$4,609,964  
Cattle use value = 408,864  
  
Value difference = **\$4,201,100**

## 2. Calculation of Tax Credit for Land Use Value Difference

Under the compensation plan, the government would be obligated to give annual tax credits equal to a reasonable return on the value difference. The calculation below uses 6.40 percent. This is the best long-term rate available for a certificate of deposit over \$1 million within the southwest Florida area.

### Annual tax credit

Value difference of \$4,201,100  
multiplied by .064 = \$ 268,870

### Present Value of Tax Credit for 23 Years

Annual Agricultural Development Rights Value  
Tax Credit of \$268,870 for 23 years multiplied by

## 3. Calculation of Estate Tax Credits

This example assumes the same conditions as described in Situation 1, Variation A and assumes proper estate planning has been accomplished.

### a. Value of Estate Calculation

Cattle Land Value (shown under  
#2, Situation 1, Variation A) = \$ 453,140

Present Value of Future Agricultural Development  
Rights Tax Credits for 15 Years (time remaining  
on lease for 23 years at death)

Annual Tax Credit of \$268,870  
Multiplied by Present Value  
Factor of 7.82818 = \$ 2,104,763

Total Taxable Estate Value = 5,557,903  
Less Spouse Exemption = 600,000

Net Taxable Value of Estate = 1,957,903

Estate Tax on \$1,957,903 = 761,856  
Less Husband Unified Credit = 192,800

Net Estate Tax Owed = 569,056

Present Value of Estate Tax  
Exemption (\$569,056 multiplied  
by present value factor  
of .4035137) = \$ 229,622

## 4. Present Value of the Total Tax Credits for 25 Years

a. Agricultural Development Rights  
Tax Credit - 23 Years  
(shown under #2 above) = \$ 2,479,223

### b. Non-Agricultural Development Rights

Income Tax Credit - 25 Years  
(shown under Situation 1,  
Variation B) = 478,117

Estate Tax Credit  
(shown under #3 above) = 229,622

c. Present Value of Total  
Tax Credits = \$ 3,186,962

**B. Estimated Cost for the Government to Purchase and Manage the Future Citrus Land Versus Leasing the Non-Agricultural Development Rights for 25 Years and the Agricultural Development Rights of the Future Citrus Land for 23 Years**

Estimated cost to the government to purchase and manage the proposed citrus development is repeated below:

**1. Cost to Purchase the Land**

2,950 usable acres at  
\$2,200/acre = \$6,490,000

**2. Cost to Manage the Land**

Annual Management Cost of  
\$104,130 (3,471 acres at \$30/acre)  
multiplied by the present value  
factor of 9.2208978 = \$ 960,172

**3. Total Cost to Purchase and Manage the Land = \$ 7,450,172**

**C. Comparison of the Cost for Government to Purchase the Land Versus Leasing the Non-Agricultural Development Rights for 25 Years and the Agricultural Development Rights of the Future Citrus Land for 23 years**

The projected cost to purchase the land versus leasing the rights is shown below:

Present Value of the Cost to Purchase = \$7,450,172

Present Value of the Cost to Lease = 3,186,962

Net Savings to Government = \$4,263,210

**IV. Economic Impact of the Compensation Plan on the Local Economy**

If the land remains privately held the local economy is not adversely impacted. The property continues to be taxed under the Florida Green Belt law. The calculation of the annual tax contribution to the county governments is shown below.

**A. Calculation of the Tax Contribution to the County Government**

**1. Hendry County Millage Rate - 1993**

County	8.287
School	8.920
Hospital	2.500
SFWMD	<u>.597</u>

Total Millage Rate 20.304

**2. Assessed Taxable Value Based on the Agricultural Land Use (Shown on page 21)**

Citrus Land	\$3,128,801
Vegetable Land	2,795,170
Cattle Land	<u>453,140</u>

Total Taxable Value \$6,377,111

**3. Annual Ad Valorem Tax Calculation**

\$6,377,111 X .020304 = \$129,480.86

**B. Other Economic Benefits**

Estimated annual gross sales of this farm are \$712,961 for the last 22 years of the lease. Using an Economic Activity Multiplier of 1.5, the farm generates \$1,069,442 of economic activity to the local economy.

In addition, the federal government would collect a significant amount of income and social security taxes from the farm's payroll.

If the government purchased the farm, the farm's economic activity and taxes would be lost forever.

**VII. Summary and Conclusions**

This economic analysis is not intended to represent an actual farm within in one of the ecological units identified within the *Florida Panther Habitat Preservation Plan*. These scenarios are intended only to demonstrate how the proposed compensation plan would be implemented and its potential economic impact. A much more detailed analysis would be required if this compensation plan were adopted.

**In each of the situations analyzed above, the government saved by leasing the non-agricultural or agricultural development rights.**

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## THE ADVANTAGES OF THE CONCEPTUAL PLAN

Florida has experienced rapid growth of population and regulation. Now it has both uncontrolled growth and uncoordinated regulations. This plan recognizes the potential to learn from that history. The conceptual plan would allow time for scientists to make a more educated and effective decision about the proper path to pursue for both farmers and panthers.

The landowner working group envisions this project as a “partnership” between agriculture, environmental organizations and government agencies for the next 25 years. The conceptual plan aims to eliminate the adversarial relationship between government and agriculture.

### *Advantages to the landowners*

- \* Leases for a specific period of time, e.g. for 25 years, are more attractive to a landowner than a purchase agreement because they leave the fee simple right intact, have renewable options and umbrella sign-offs. They also give all parties the option to review the lease later. For example, no panthers may be alive in 25 years in south-west Florida, so there may be no need to continue the agreements, or there may be other mitigating factors that need to be taken into consideration.
- \* The landowner working group recommends using estate and income tax relief as primary incentives because these impact landowners the greatest.

### *Advantages to local governments*

- \* Counties would not be penalized economically.
- \* The conceptual plan would assist in providing all government agencies in the comprehensive planning process the ability to properly prepare for future-growth related issues. The property owners within or adjacent to the identified panther habitat project area would benefit as well by knowing the long-term utilization of neighboring property. The conceptual plan may improve real estate values around the project area because of the amenities provided to nearby landowners.

### *Advantages to public*

- \* Habitat protection provided at lowest cost.
- \* The conceptual plan addresses “natural systems function” and attempts to avoid checkerboard parcelization of property. The plan must keep landowners and agencies working together to avoid habitat fragmentation.
- \* The landowner working group would like the conceptual plan to serve as a prototype for dealing with endangered species nationwide, with the panther used as one example. The plan’s scope should be broad enough so that it addresses ecosystem management and overall systems functions.

## METHODS OF MONITORING AND PLAN EVALUATION

The conceptual plan would need to be monitored and evaluated to determine if the desired results are being achieved. We want to ensure that landowners do what they agree to do, that sound scientific knowledge is guiding the plan, and if not, whether the plan should be revised, continued or abandoned.

The plan would be evaluated three ways:

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## **A. Measures**

These measures are the tools that can evaluate the effectiveness of each piece of the plan. Measures include:

### 1. Participation

The extent of landowner participation in the conceptual plan: how many owners, how much acreage, location of the property and reason for participation.

### 2. Overall Systems Function

Determination of the status of the region's biodiversity, hydrology and natural system function.

### 3. Economic and Financial Impact

The economic effect of the plan on county budgets and the local tax base.

### 4. Compliance

Evaluation of whether or how well landowners are following the terms of the lease agreements.

### 5. Landowner Satisfaction

Level of satisfaction that landowners have with their participation in the plan and protection of natural resources and panther habitat. Is there room for improvement? Should steps be taken to achieve greater landowner satisfaction?

### 6. Florida Panther Trends

Monitoring of Florida panthers within the project area would facilitate evaluation of their health and population well-being.

## **B. Research**

The Panther Interagency Committee members would continue research into the long-term needs of the panther and other species and their habitats within the project area to determine if the preservation and compensation methods employed support the species' biological (i.e., habitat and genetic) needs. Based upon the research, modifications in the lease agreements might be considered, provided they met with agreement and permit conditions.

Economic studies also would be conducted to see if the compensation methods are equitable to all parties.

## **C. Evaluation**

The above criteria can be used as a basis to re-evaluate the plan's biological, economical and societal benefits and accomplishments. The evaluation would occur every five years in order to determine modifications that may be mutually appropriate to established leases, permits and whole farm plans.

Such evaluations ultimately would be key to renewal decisions on 25-year leases, permits and plans that ensure long-term preservation of farm programs, natural resource management and Florida panther recovery.

The landowner working group proposes the evaluations be conducted by the Florida Game and Fresh Water Fish Commission in cooperation with the Panther Interagency Committee. Funding for these efforts could come from the Panther Research and Management Trust Fund.

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## *Practical Considerations*

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### COMMENTS FROM THE REVIEW COMMITTEE

The conceptual plan was distributed to a diverse 44-member review committee for reaction and comment. Twenty-two responses were received. Many suggestions were incorporated into the body of the conceptual plan, but others were deemed to alter the plan too much to be incorporated there.

The purpose of this section is to allow members of the review committee to state any questions they may have with the conceptual plan proposed by the landowner working group, or hurdles they foresee with its implementation. Throughout the review process, the committee provided much input. These comments are intended to air realistic concerns that merit further evaluation and continue the dialogue between the landowner working group and the review committee.

The review committee was asked to comment on the tone, style and content of the document.

#### *Tone/Style*

The concepts outlined in the conceptual plan — leasing and purchasing development rights, whole-farm planning and agricultural permitting processes — may go beyond the understanding of a general audience, says Bernie Yokel of the Florida Audubon Society. However, a more technical audience will probably find the document useful.

“It is not an intuitive concept that relates to the way society has traditionally regarded agriculture, and therefore it is going to take some effort on the part of the reader to understand the concept and how it solves the problem,” Yokel says. “This document is cutting some new ground and is written for professionals and interested people who are seeking a solution to a long-standing dilemma.”

Yokel, as well as Hines Boyd of the Florida Department of Agriculture, calls the conceptual plan the best effort to date to address the extinction issue.

“The conceptual plan is not a lyrical document of soaring prose, nor should it be,” Yokel says. “But in terms of a solution to what has appeared to be an almost insolvable problem steadily grinding down to the extinction of the animal it is the most compelling document that has been produced thus far.”

“Your plan is innovative and revolutionary,” Boyd says. “If accepted, it could set an important precedent for cooperation between private landowners and the organizations and public sector agencies interested in natural resource conservation and preservation.”

The conceptual plan might prove more user-friendly if each section were summarized or divided into “pros” and “cons,” says Bill Hammond of the South Florida Water Management District Governing Board. It serves, he says, as a “conceptual document...with fresh approaches and ideas useful in addressing a significant public-private dilemma.”

“There are going to be philosophical differences amongst those involved in panther recovery,” says Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service, “but these differences should not impede the task before us.”

“[The landowner working group] is to be congratulated on making an excellent initial effort in the area of protecting panther habitat through cooperative relationships with landowners,” says Brad Hartman of the Florida Game and Fresh Water Fish Commission. “There is clearly a lot of hard work behind this product and the working group showed imagination and a cooperative spirit in coming up with the current proposal. Overall, this is a satisfactory document that can be used in the future to further explore the particular set of options proposed in this report.”

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## ***25-Year Leasing***

Some reviewers point out a need to have longer leases available for landowners who wish to make a longer commitment to panther protection.

“The apparent bias in favor of the 25-year lease program seems to close out some opportunities for other types of landowner commitment that I believe should be given further examination,” says Bernie Yokel of the Florida Audubon Society.

Brad Hartman of the Florida Game and Fresh Water Fish Commission agrees with this concern by saying, “The proposal of leasing [development rights] for 25 years needs to be compared more closely with outright purchase of development or certain agricultural development rights. Leasing different types of development rights may not be attractive to the taxpayer if it costs a large proportion of the fee simple cost but provides nothing at the end of the 25-year term.”

Like Tom Dyer of Two Rivers Ranch, he “would prefer that the report not throw out fee simple acquisition so quickly...While this alternative may not suit all landowners, it clearly appeals to some.”

The conceptual plan’s call for a re-evaluation of the panther species after 25 years to see if any of the species remains is a poor premise, says Patricia Glick of the Sierra Club. “I would hope that they wouldn’t be allowed to disappear in the first place,” she says. “Frequent monitoring is important, and if panther numbers continue to decline even with the implementation of the proposed program, then the government must take contingency measures.”

The lease “exit clauses” need better defining, reviewers say. Glick points to the need “to eliminate any potential exploitation in agreement terms,” while Linda Riley, a planner for Lee County, calls for a penalty for lease termination to avoid paying “property owners to do what they are planning to do anyway until they are ready to develop their land.”

Other reviewers call for 10-year leases to bring them in line with planning and zoning horizons. “There is no discussion about the potential of vested zoning rights becoming non-conforming, as they are likely to do after 25 to 30 years...” says Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service. “Ten-year time frames are used in other states regarding agricultural tax exemptions.”

Says Linda Riley, “It is extremely difficult to accurately predict future growth rates and trends beyond five to 10 years.”

Still other reviewers suggest that 25-year lease agreements cannot be negotiated under Florida’s current governmental structure. However, new legislative authority could be granted to implement the conceptual plan.

“The biggest shortcoming of the conceptual plan are some glaring misconceptions of how land use planning works in Florida and the state of current land use jurisprudence concerning the public trust responsibilities of local elected officials...” says Jim Murley of 1000 Friends of Florida. “The 25-year lease agreement and proposed land authorities are premised on legal assumptions beyond the current authority of local governments in Florida or, for that matter, in the United States.”

“The conceptual plan sets a 25-year period for leases...yet provides no explanation for why that particular time period was chosen,” says Christopher E. Williams of the World Wildlife Fund. “The conceptual plan should include a detailed analysis of what constitutes a proper lease period from a biological and a policy standpoint.”

## ***Permitting***

The strategy for land use permitting begs re-examination, some reviewers say. Rather than granting full authority to the South Florida Water Management District, the plan should consider instituting a review process similar to developments of regional impact, which are granted by the local government after review by relevant agencies, say reviewers from the state Department of Community Affairs’ Division of Resource Planning and Management.

Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service cautions that the consolidation of the permitting process the conceptual plan describes should be limited to federal, state and local natural resource agencies. The streamlining should not include growth management issues, licensing, building codes, health and safety issues, etc.

Eller also points out that federal agencies seem to be eclipsed by state wildlife agencies in determining what properties are suitable for non-farm development. "The Corps of Engineers and the U.S. Fish and Wildlife Service should participate in determining what is and is not suitable for non-farm development," he says.

Moreover, permits should require implementation of new agricultural best management practices as they are continually redefined, says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist. She also questions permit requirements "that have nothing to do with panthers" because "it seems like panther considerations are causing all other matters to be put aside."

## *Compensation*

Many reviewers caution about the potential for landowners to be overcompensated under the conceptual plan.

"Landowners in productive agriculture on panther habitat can receive compensation for nonagricultural development rights even though there is no market demand or economic pressure to convert the agricultural use to another land use," points out the state Department of Community Affairs' Division of Resource Planning and Management. "Additionally, a landowner engaged in agriculture could request approval for a more intensive agricultural use, be denied...and receive...a financial benefit."

"It is unclear whether a participating landowner is entitled to tax benefits up to the value of the interest he has conveyed, or whether he is simply entitled to relief from all income and estate taxes otherwise due, whether or not those correspond to the value of the interest conveyed," says Michael Bean of the Environmental Defense Fund. If the latter (as appears to be the case), the proposal may offer insufficient incentives to some landowners to participate, may reward others with windfalls, and will surely result in disparate benefits to owners of similar land parcels."

Bean hypothesizes about the use of two identical tracts being used in an identical manner. "The owner of one has sufficient other assets that the marginal tax rate on his estate at death will be 55 percent." He says, "the owner of the other has no other assets, and the marginal tax rate on his estate is only 37 percent. If both are entitled to have the value of the land excluded from their taxable estates, the former will clearly receive a much greater benefit than the latter. Moreover, the differential will be unrelated to the development value of the land foregone by virtue of participating in the conservation program."

Bean suggests "a better approach...is to appraise the value of the development rights foregone and to offer future tax benefits equal in value (using present, discounted values) to those foregone values. In that way, the program will cost what it is worth, there will be no windfalls, and there will be no differential treatment of landowners depending on their marginal tax rates."

He also suggests a different approach to the federal estate tax. "Instead of forgiving the estate tax altogether, it may make sense to consider deferring it until the 25-year conservation agreement (or any extension thereof) expires. This would create a real incentive to continue conservation agreements in effect."

Florida's greenbelt property tax reduction should be taken into account when computing credits for development rights, says Linda Riley, a planner for Lee County.

The conceptual plan's "second level" of compensation — compensation for landowners who are denied agricultural uses for habitat preservation reasons — opens the door for misuse of the program, says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist. "How do we know the applicant really planned to apply for a permit and was not just taking advantage?" she asks. "How do we know she/he had the means to carry out the operation?"

Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency, and Lawrence W. Libby, professor and chair of the Food and Resource Economics Department at the University of Florida,

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agree. "It appears that the landowners may increase their agricultural development scenario simply to get higher compensation through the incentives," Powell says.

"What is ...unclear...is how one could determine that a more intensive agricultural use of the land might be realistic and therefore worthy of compensation under the agricultural development rights level," Libby says. For compensation of development rights, "landowners may expect very high nonagricultural development values and lease payments."

The way the conceptual plan defines agricultural development rights — the difference between the value of the land in its most restrictive agricultural use and the value of the land sold on the market, fully permitted for the most intensive agricultural use — should be amended, because assessing a parcel with development permits inflates the value, he says.

Additionally, landowners who have no intention of developing their properties should not be able to make economic gains from the panther program, Macdonald says.

To better handle landowner compensation, the conceptual plan should follow the land use identified in local growth management plans, say reviewers from the state Department of Community Affairs' Division of Resource Planning and Management. If a lease agreement restricts existing land use, compensation is just. Leasing agreements should include provisions for land use changes and penalties for early termination, such as pro-rated compensation. In addition, the federal Conservation Reserve Program<sup>18</sup> could offer a vehicle to compensate landowners who restore agricultural land to a native state.

Lease payments should be monthly, says Dave Addison, a biologist with The Conservancy, "to protect the government from having to recover money from landowners who opt out of a lease before it terminates and landowners from incurring a large debt if they decide to opt out..."

The conceptual plan overlooks "the premise that residential and commercial development rights need to be leased to protect the panther," says Brad Hartman of the Florida Game and Fresh Water Fish Commission. "A cursory review of the farm sales in the economic analysis did not indicate land sale prices much above the agricultural value of the properties," he says. "While this might make for inexpensive leases, it also might cast the doubt on the need for this, especially in the next 25 years. There is no doubt that urbanization will be a problem in some areas — the location of the 10th university will certainly result in increased urbanization in Lee County panther habitat — but it is not clear that it is the big problem, region-wide, in protecting panther habitat. In areas where urbanization is imminent, we probably cannot afford to buy or lease the rights..."

"The premise that agricultural development (a 'mosaic' of development) would be, with limited exceptions, compatible with panther protection is also not developed in the report (nor, of course, was it explained in the Florida Panther Habitat Preservation Plan)" says Brad Hartman of the Florida Game and Fresh Water Fish Commission. "In future development of this idea, it should be examined more closely."

Another reviewer agrees. "The mosaic [of uses] which exists on the 926,300 acres [of private lands containing Priority 1 habitat] is what must be preserved. Inherent to that is an understanding that additional development is possible, but not on 7,500 of every 10,000 acres."

The reviewer also says, "There should be compensation for good stewardship and for continuing protection and sound use of natural areas, rather than compensation for refraining from destruction... Leasing and purchasing development rights is not the same thing as compensating a private landowner for continuing to protect panther habitat on his or her property. Far too much emphasis is placed on leasing development rights and on providing compensation when a landowner is denied certain uses. What about the landowner who develops a plan to not expand development, but agrees to manage habitat with compatible economic uses? That landowner should be compensated for doing so!"

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18 The federally-funded Conservation Reserve Program offers up to \$50,000 per year to farmers who stop growing crops on cropland subject to excessive erosion because of terrain slope, or cropland that contributes to a significant water quality problem. The landowner signs a 10-15 year contract with the United States Department of Agriculture, agreeing to convert eligible land to permanent vegetative cover. For more information on the CRP program, contact your local Natural Resources Conservation Service office.

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## ***Endangered Species Act Ramifications/Obligations***

A few reviewers, such as Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service, Christopher E. Williams of the World Wildlife Fund and Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist, point out that the Endangered Species Act is law, and that people do not merit compensation for following the law.

The conceptual plan seems to “accept and endorse the premise that federal compensation must be paid whenever regulation under the ESA in any way diminishes the use or value of private property,” Williams says. “We feel that any plan for economic incentives for habitat protection on private land must work...in concert with — not in lieu of — the regulatory protection provided to listed species...”

Williams goes on to say, “the ESA provides several mechanisms for reconciling development with species conservation, including habitat conservation planning under section 10.”

## ***Roles, Responsibilities and Contributions of Landowners***

The property rights issue, which has heated up in recent years, lends controversy to the conceptual plan, some reviewers point out.

Property rights assumptions put forth in the conceptual plan may be misguided, says Lawrence W. Libby, professor and chair of the Food and Resource Economics Department at the University of Florida. Owning land does not imply the right to use or abuse resources, he says.

“The opportunities available to the owner are a function of what the broader society feels is appropriate, and those prevailing human values can change,” he says. “Those fortunate or diligent enough to hold deed to large amounts of real property should not assume that they have unlimited license and that any expression of public will must be accompanied by payment of some kind.”

The conceptual plan’s premise that agricultural land provides prime panther habitat needs clarification, reviewers say. “The wide variety of agricultural lands have varying value to panthers and other wildlife,” says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist.

Moreover, landowners should be required to receive assessments from the water management district as to whether they could expect water permits to increase agricultural operations to be granted prior to becoming eligible for program funds, Macdonald says.

Some, if not many, landowners may not opt to sell or lease development rights, especially if “the gains from development are perceived to be higher than the gains to leasing the rights to the government,” says Patricia Glick of the Sierra Club.

## ***Roles, Responsibilities and Contributions of Government Agencies***

Relationships between various levels of government and their respective involvements in running the panther program need further exploration, some reviewers suggest. Offering local government more control than federal agencies, which, in effect, will pay for the program through tax cuts, may not work, says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist.

The program may overlook the potential administrative costs of running the program, says Patricia Glick of the Sierra Club. The economic analysis appears to underestimate the cost, particularly to local governments, of running, evaluating and enforcing the program. The solution, says Linda Riley, a planner for Lee County, is to roll a local government’s administrative costs into the federally funded program.

The conceptual plan also overlooks the potential for regulatory agencies to deny permits “for reasons other than inconsistency with the panther habitat plan,” says Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency.

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Carl B. Loop Jr. of the Florida Farm Bureau Federation calls for legislative authority to be drafted that designates a lead agency to keep state and local agencies from developing stricter regulations, while Bridget Merrill of the Florida Department of Commerce suggests regional planning council involvement.

Brad Hartman of the Florida Game and Fresh Water Fish Commission notes, "the conceptual plan would have county commissions decide on lease procedures and payments and hold the leases. Since the money to pay these leases is envisioned coming from the federal government, it would seem logical to have the federal government design the process and certainly to hold the leases."

### ***Whole-Farm Planning***

Whole-farm plans were embraced by the Florida Farm Bureau, which said the concept melds with the increasingly popular idea of "ecosystem management." However, growers should not be limited to best management practices (BMPs) defined by the Institute of Food and Agricultural Sciences. Rather, the Natural Resources Conservation Service (formerly Soil Conservation Service) would be a better agency to define BMPs.

According to one reviewer, the development of "whole-farm" plans is the primary mechanism by which the species can be saved and agricultural operations can occur with the least detrimental effect on southwest Florida's fragile environment. The reviewer says the report places too much emphasis on the leasing and purchasing of development rights.

Instead, individual "whole-farm" plans should serve as the document that specifies leasing terms, permit application and farm management.

"The whole-farm plan is integral in developing a long-term management plan," the reviewer says. "The plan [would] designate areas to preserve, plan for appropriate uses and identify compatible agricultural development.

"This document would facilitate implementation of the conceptual plan on an individual farm basis as well as establish the appropriate compensation for an agreed upon management plan." An example of how the whole farm plan would be structured is the Forest Stewardship Plan, the reviewer says.

### ***Ecosystem Protection***

A few reviewers question why the conceptual plan seems to ignore protection of the southwest Florida ecosystem beyond the panther's needs.

"...I...view this program not just as an important program for the panther, but also for other species and natural values of the south Florida eco-region as well," says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist.

"The Plan makes only passing mention of possible benefits to other plant and wildlife species," says Christopher E. Williams of the World Wildlife Fund. "Protection on an ecosystem-basis has the potential to be more beneficial to species and more cost-effective. It is in the best interest of the landowners as well as conservationists to evaluate the plan for application in a multi-species context."

However, a provision about supporting other "critical wildlife species" should be changed to "other wildlife the panther may be dependent upon" to clarify that other species are not protected under "the guise of panther protection," the Florida Farm Bureau says.

### ***Comprehensive Plan Overlay***

Portions of the document pertaining to county growth management plans are contradictory, need further explanation or need to clarify government authority, some reviewers say.

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The idea of designating what acreages are suitable for development could backfire, says Dave Addison, a biologist with The Conservancy. "The idea of pre-approving developments by changing the comprehensive plan well beforehand is not a good one," he says. "It will encourage speculation on adjacent land and discourage neighboring landowners...from entering into leases."

Once density allocations are set, "neither the county nor the landowner should be applying for a comprehensive plan amendment..." says Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service.

Moreover, a landowner's vested rights should end when his or her lease expires, Eller says. "The landowner has ample time to plan ahead regarding post-lease land use and land management changes."

Land use designations under county growth management plans should be allowed to change during the course of the lease, says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist. "A generation may have gone by, huge changes may have taken place in south Florida, the old land use designation may no longer be appropriate at all," she says.

Linda Riley, a planner for Lee County, agrees. "A 30-year freeze on planning regulations would be incompatible with current planning practices," she says. "It would not be practical for a zoning agency to maintain and administer numerous older versions of zoning regulations to use on properties involved in this program...and...it is not rational to use 30-year-old levels of service for concurrency requirements."

Both property owners and county government need to agree on any comprehensive plan amendment, says Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency. Moreover, neither the conceptual plan nor any other publication has defined what "water needs" are necessary to conserve native panther habitat.

### ***Land Authority***

Some reviewers questioned whether the proposed local land authorities should be granted full decision-making power regarding development leases. A federally funded program necessitates more input from federal agencies, says Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service, including lease and appraiser selections. Carl B. Loop Jr. of the Florida Farm Bureau Federation questions whether the federal government will allow a local agency to approve disbursement of federal funds.

Others, like Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency, feel the land authorities should have more autonomy than the conceptual plan spells out. "It appears that a county commission could eliminate any benefit of this program by making a decision that a leased property would not further the mission of the land authority," he says. "Do the county commissions have the scientific knowledge, background and understandings to make such a decision? Is there any appeal process if a county commission does delete a proposed lease?"

Land authorities should also be given the right to approve any trading of compensation values across property lines, he says.

One reviewer asks, "could or should Florida Communities Trust Fund at the Department of Community Affairs play a role? They receive a portion of proceeds from the panther tag and are in the business of providing assistance to local governments to implement the open space elements of their comprehensive plans. Perhaps this portion of the Florida panther license tag money could be used for technical assistance, planning, oversight, etc."

### ***Economic Analysis***

Nigel Morris of AMS Engineering and Environmental, Inc., praised the analysis, saying "it appears to provide a sound basis for establishing meaningful incentives for habitat protection."

Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service suggests expanding the economic analysis to include purchasing development rights as well as acquisition. The "inference" that land acquisition "devalues" land and that government-purchased land generates no tax revenue or economic activity is inaccurate, he says.

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Bernie Yokel of the Florida Audubon Society recommends more “real-life examples” of how the concept could be practiced by landowners.

“There is no attempt to address the fair market value of the development rights being leased,” says Christopher E. Williams of World Wildlife Fund. “Nor is there any consideration given to the relative conservation value of habitat being preserved by each lease. Given the potentially enormous sums of money in tax savings that could be reaped by participating landowners, it would seem prudent to determine: 1) how much should the taxpayers be paying, and 2) what are they getting for their money.

Williams notes, “...in order for policy-makers and the public to fully evaluate the proposed plan, proponents of the plan must produce such an estimate, including the costs of implementation, administration and monitoring.”

Brad Hartman of the Florida Game and Fresh Water Fish Commission praised the analysis. “The economic analysis provides a large amount of information and analysis that is one of the most important parts of this document,” he says.

### *Defining Terms and Concepts*

Some reviewers question the use of the word “mosaic,” suggesting that it was either unclear or needed better definition. “Biologists, agriculturalists, economists are all needed to define as best we can what mosaic will truly work,” says Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist.

Carl B. Loop Jr. of the Florida Farm Bureau Federation questions the meaning of “saving” the Florida panther. “It appears that a ‘stable’ population would be a better goal,” he says. “How big must the population be or how far expanded to reach the ‘saved’ status?”

A definition of the term “vested” would aid readers, says Bridget Merrill of the Florida Department of Commerce.

The conceptual plan could benefit from appendices defining terms and acronyms, says Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency, or by the use of footnotes to attribute quotes and other facts, says Andrew C. Eller Jr. of the U.S. Fish and Wildlife Service.

### *Constraints to Implementation*

Florida’s land assessment and acquisition process is so bureaucratic it may doom the program from the start, says Dale Allen of The Trust for Public Land. “I am quite concerned that the state’s current method for determining the value of land will not allow this system to work,” he says. “Public acquisition is a highly adversarial and bureaucratic process.”

Skepticism that the federal government will act to implement tax credits for southwest Florida farmers runs deep among some reviewers.

“It is extremely important that you do not undersell the potential for the federal government to delay or even reject the federal tax credits,” says Patricia Glick of the Sierra Club. “Without the incentives, you have no program! The political environment...is looking to cut taxes and spending, not increase them.”

Duncan M. Powell, endangered species act coordinator with the U.S. Environmental Protection Agency, offers suggestions — such as using wetlands identification procedures for identifying panther project areas, employing section 10 of the Endangered Species Act that covers species habitat or generating an environmental impact study for the action area — as federal mechanisms that could be utilized.

Carl B. Loop Jr. of the Florida Farm Bureau Federation suggests that the conceptual plan be expanded to look for additional options for federal funding, including new language in the Endangered Species Act or a United States Department of Agriculture cost-share program.

“A major question on the efficacy of this approach,” Brad Hartman (Florida Game and Fresh Water Fish Commission) believes, “is whether we can get sufficient long range protection at an affordable price. An unanswered part of this question is how much intensification of agricultural use can be tolerated by panthers and how much will it cost to compensate the landowners for not developing past that point on top of paying them not to develop commercial or residential projects.”

“Citrus can be a lucrative land use,” Hartman says. “Buying or leasing the ‘citrus rights’ to a piece of property could be very expensive. For example, the economic analysis reported that of the 296,300 acres in Hendry County identified for protection and urban development rights leases, 15,000 acres were in citrus, but another 57,000 acres were permitted for citrus. Citrus permits and citrus development desires could be a major factor in the cost of this program.”

### ***Public Education***

Many reviewers, such as Jim Murley of 1000 Friends of Florida, Bill Hammond of the South Florida Water Management District Governing Board, Dennis Jordan, Florida panther coordinator for the U.S. Fish and Wildlife Service and Laurie Ann Macdonald, a St. Petersburg zoologist/ecologist, call for a workshop or “dialogue” that would bring together the landowner working group, the review committee and other interested parties to further explore the conceptual plan.

In the months ahead, public support of the landowners’ conceptual plan will become key to seeing it implemented, says Bernie Yokel of the Florida Audubon Society.

“The persuasion of local, state and federal officials to the usefulness of this new approach will, in good measure, be dependent upon the depth and strength of public support,” he says. “We are shifting from finding a technical and social solution to applying it at the public level.”

## **RESPONSE FROM THE LANDOWNERS**

The landowner working group would like to thank the members of the review committee for their hard work throughout this year-long process. All the review committee’s comments were considered and incorporated into the Conceptual Plan where appropriate. From the preceding comments, however, it is apparent there are issues and concerns still remaining.

No one has said the conceptual plan will not work, only that there are points needing additional thought and clarification; points needing continued dialogue and negotiation; and a few hurdles — some admittedly significant — to overcome. We hope to address these issues and concerns as we continue our work.

We appreciate the viewpoint of each review committee member. It helped improve and enrich the conceptual plan. While we are committed to certain key aspects of the conceptual plan, we also recognize it needs further refinement.

The “Practical Considerations” section contains comments that question, go beyond or alter the original intent of the conceptual plan. In moving forward with this process, we will consider (or encourage new working groups to consider) each point that has been raised and decide how it best can be resolved and whether it should be incorporated into the conceptual plan.

We look forward to the review committee’s continued participation in this process. Without the help of the review committee, we would not be where we are today — on the verge of developing a plan to protect Florida panther habitat on private lands that will work, not just for the panther, but for landowners, government agencies and taxpayers as well.

Thank you, each of you, for your time, your interest and the encouragement you have given us to move forward.

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## *Next Steps: From Concept to Reality*

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The landowner working group would like to carry this project forward to completion in the next two years. The following steps are proposed:

1. Use this project report to stimulate further discussion and input to refine the conceptual plan.
2. Present the project report to landowners whose property contains panther habitat.
3. Ask the landowners to appoint a new working group to represent their interests in refining and implementing the conceptual plan.
4. Expand the review committee to represent a broader number of interests — conservation, scientific, agriculture, business, property rights and affected government agencies.
5. Bring together the diverse groups interested in — and affected by — the panthers' survival in a series of workshops with the purpose of working out differences and refining elements of the Conceptual Plan.

These workshops would:

- Bring together the landowner working group and review committee ; and

Be held for:

- Landowners with property containing Priority 1 and 2 panther habitat (as described in the Florida Panther Habitat Preservation Plan);
- Representatives of federal, state and local agencies who would coordinate permitting;
- County commissioners, planners and other key county staff in counties with Priority 1 and 2 panther habitat; and
- Other interested parties.

It is also proposed that several community education conferences be conducted in counties with Priority 1 habitat.

6. Establish a formal means — such as a monthly newsletter — to exchange information and keep all interested parties informed.
7. Conduct another, more extensive economic analysis to:
  - Determine the estimated costs and benefits of the landowners' strategy to local, state and federal government entities;
  - Compare costs of the landowners' strategy with other protection options;
  - Determine where savings can be made by adopting the landowners' strategy; and
  - Evaluate the most cost-effective way of paying for wildlife protection programs at the state and federal level.
8. Conduct research and prepare papers on each aspect of the landowners' strategy that must be implemented at the federal, state and local levels — including tax code revisions, coordinated permitting and comprehensive plan amendments — to determine the most effective ways each can be carried out.
9. Maintain a legislative watch at the state and federal level to report on legislative actions related to wildlife protection, property rights, tax code revisions, coordinated permitting and other issues that could impact on implementing components of the conceptual plan.

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10. Use two or three farms in southwest Florida as test parcels for developing whole-farm plans; single, coordinated permits; and determining the “mosaic” of land uses that will form the basis for calculating landowner compensation and ensuring the panther’s recovery.

11. Establish working groups to:

- Draft state and federal legislation to amend the income and estate tax codes;
- Pursue coordinated permitting with affected federal, state and local agencies;
- Draft rules and regulations that would govern the inter-disciplinary, multi-agency team-permitting process;
- Work with local governments to prepare comprehensive plan overlays;
- Document all best management practices that would affect farming and panther management practices and set up databases at the Institute of Food and Agricultural Sciences stations located within the project area;
- Set up local land authorities; and
- Work with Boards of County Commissioners to authorize and appoint the local land authorities.

12. Conduct additional workshops and meetings, as necessary, to:

- Inform all agricultural groups about the conceptual plan and how they can work with each component of the conceptual plan;
- Inform agricultural groups about the available best management practices that would affect farming and panther management practices;
- Build consensus among landowners, environmental groups, local, state, and federal regulatory agencies, the Florida congressional delegation and the U.S. Congress to pass legislation authorizing the compensation plan as presented by the landowner working group; and
- Build public support for the conceptual plan.

Additional steps to implement the conceptual plan also would be added as needed.

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## Appendix A: The Landowners' Compensation Plan

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### I. NON-AGRICULTURAL DEVELOPMENT RIGHTS

The cooperating landowners would agree to lease to the appropriate government entity all of the *non-agricultural development rights* on any real property they own within the project area for 25 years. Terms of the lease agreements and landowner compensation are proposed as follows:

#### A. Lease Agreement Obligations - Landowners

1. The cooperating landowners would not request any permits from any federal, state, regional or county government agencies for the purpose of developing any land within the project area for any non-agricultural use during the life of the lease.
2. The cooperating landowners would develop *whole-farm plans* that would identify their existing land uses and include best management practices that are intended to preserve and/or enhance essential panther habitat to the fullest extent possible.
3. The cooperating landowners specifically reserve the right to apply for water and land use permits for more intensified agricultural use of their land within the project area. The landowners may exercise this right on any or all of their land at any time during the life of the lease (see Section II, Agricultural Development Rights, for details).

#### B. Lease Compensation Obligation - The Government

1. The government should compensate all cooperating landowners for the lease of all *non-agricultural development rights* on their land within the project area during the life of the lease as follows:
  - a. No *income tax* would be levied on any income earned from the land within the Panther Habitat Protection Plan Area, regardless of the agricultural development stage during the life of the lease.
  - b. No *estate tax* would be levied on the land and improvements located within the Panther Habitat Protection Plan, regardless of the agricultural development stage, during the life of the lease.
  - c. Landowners may choose or elect another method of compensation, including either *cash or non-cash*, that is agreeable to both parties.
  - d. During the life of the lease, the *surface and sub-surface water resources* available for agricultural production would be reserved and protected for the landowner's use.
    - 1) All existing water use permits and other associated land use permits should be renewed and granted for the entire life of the lease (25 years).
    - 2) Any further water use or other associated land use permits granted during the life of the lease would be granted for the remaining life of the lease.
    - 3) All water use permits and other associated land use permits would be granted through the appropriate *water management district* with the full agreement of all other federal, state, regional or county agencies, as well as any other agencies or organizations that have interest or jurisdiction in water and/or land use regulation.
  - e. During the life of the lease, the real property owned by cooperating landowners within the project area should have an appraised value based upon its use for agricultural purposes, as provided by the *Florida Agricultural Use Assessment Law (Green Belt Law)* of the State of Florida. This value would be the sole value used by the county governments and other taxing agencies for the assessment of ad valorem taxes.

2. The government should provide all the technical services and expertise available to assist the cooperating landowners in the development and implementation of the whole-farm plans at no additional cost to the landowners. The whole-farm plans would be intended to preserve and/or enhance essential panther habitat. In the event that the development, implementation and maintenance of any or all whole-farm plans results in additional costs to the cooperating landowners, the government should compensate the landowners for those additional costs as follows:
  - a. The cooperating landowner should receive tax credits in addition to the compensation shown under I. Non-Agricultural Development Rights, B, 1, a, b, c, d and e. above. These tax credits would equal in value to the additional cost to develop, implement and maintain any or all of the whole-farm plans required. The tax credits should be granted annually during any and all years that the landowners incurred additional costs to develop, implement and maintain whole-farm plans during the life of the lease.
    - 1) The landowner would have the right to use the tax credits against any other income or estate taxes that the landowner may owe.
  - b. The cooperating landowners should have the option to be compensated in cash for the additional costs that may be incurred with the development, implementation and maintenance of whole-farm plans.
3. The government should grant all cooperating landowners, within the project area, all reasonable requests for any water and land use permits for the purpose of developing their land for more intensified agricultural uses. However, the government reserves the right to deny any and all permit requests when it is determined that granting the permit would be detrimental to essential panther habitat needs. In the event a landowner is denied a permit for agricultural use development, the government should compensate the landowner as outlined in the next section.

## II. AGRICULTURAL DEVELOPMENT RIGHTS

Agricultural development rights allow landowners to manage their land in a wide spectrum, ranging from maintaining the native plant communities and using the land only minimally to the most intensive agriculture permissible for that particular property. The landowners within the project area specifically reserve the right to apply for any and all water and land use permits necessary to develop their land for more intensified agricultural uses. However, the government may deny any or all permits for additional agricultural development, if the development is inconsistent with prescribed panther management. In that event, the government should compensate the landowners as follows:

**A. Agricultural Development Rights Value Determination** - The value of these rights would be determined by an economic analysis that would determine:

1. The value of the land for the most restrictive agricultural use in the raw or native state. This value would be derived by capitalizing the anticipated annual income from that agricultural enterprise by a reasonable rate of return.
2. The value of the land that would be realized if it was sold on the open market, fully permitted for the most intensive agricultural use that may be permissible.
3. The difference between the values shown in Section II. Agricultural Development Rights, A, 1 and 2 above would represent the value of the agricultural development rights that would have to be leased based on a reasonable rate of return.

**B. Agricultural Development Rights Compensation** - If a landowner is denied the right to develop any part or all of his land from the raw state or any intermediate level of agricultural development to a higher or more intensive agricultural development, the landowner would be compensated for the lease of agricultural development rights as follows:

1. No income taxes or estate taxes would be levied, as outlined above under I. Non-Agricultural Development Rights, B, 1, a and b.
2. The water resources and all associated water and land use permits would be protected and granted as outlined above under I. Non-Agricultural Development Rights, B, 1, d.
3. The ad valorem taxes assessed by any county government or other taxing agency would be based on the provisions of the Florida Agricultural Use Assessment Law (Green Belt Law) of the State of Florida as outlined above under I. Non-Agricultural Development Rights, B, 1, e.
4. Landowners may choose or elect another method of compensation, including either cash or non-cash, that is agreeable to both parties.
5. The landowner would receive additional tax credits equal to the value of the annual lease income earned from leasing the agricultural development rights. This annual lease rate would be based on the value determined above under II. Agricultural Development Rights, A, 1, 2 and 3. The annual lease rate would be payable as tax credits for the life of the lease.
  - a. The landowner would have the right to use the tax credits against any other income or estate taxes that the landowner may owe.
  - b. The landowner would have the right to continue to own the land and sell the tax credit rights or to sell the land along with the tax credit rights.
6. If applicable, the landowner should also be compensated as outlined above under I. Non-Agricultural Development Rights, B, 2, a and b, regarding whole-farm plans.

### **III. PANTHER HABITAT RESTORATION**

In some cases, the government may require that land within the project area be restored to its native state or modified to a lesser agricultural use. If cooperating landowners agree to do so, then the following incentives would be in place to encourage this.

- A. No income taxes or estate taxes would be levied, as outlined above under I. Non-Agricultural Development Rights, B, 1, a and b.
- B. The water resources and all associated water and land use permits would be protected and granted as outlined above under I. Non-Agricultural Development Rights, B, 1, d.
- C. The ad valorem taxes assessed by any county government or other taxing agency would be based on the provisions of the Green Belt Law of the State of Florida as outlined above under I. Non-Agricultural Development Rights, B, 1, e.
- D. The landowner would receive additional tax credits equal to the value of the agricultural improvements destroyed, the cost to dismantle the existing agricultural structures and re-establish the native vegetation and the land value reduction that would occur. These values would be determined by an appraisal by a professional in agricultural land use evaluation. In addition, the landowner would also be compensated for the economic impact that the loss of the agricultural development may cause to other enterprises. For example: The loss of 500 acres of existing vegetable or citrus lands would have a serious economic impact on a packing and/or marketing facility the landowner may also own.
  1. The landowner has the right to use the tax credits to satisfy any other income or estate taxes that he or she may owe.

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2. The landowner would have the right to continue to own the land and sell the tax credit rights or to sell the land along with the tax credit rights.
- E. If applicable, the landowner should also be compensated as outlined above under I. Non-Agricultural Development Rights, B, 2, a and b.
  - F. If applicable, the landowner would also receive additional tax credits as outlined above under II. Agricultural Development Rights, B, 4, a and b.

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## ***Appendix B: Addendum to the Economic Analysis of the Conceptual Plan***

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### **COSTS AND RETURNS ANALYSIS OF THE CITRUS GROVE**

The following assumptions have been made.

1. The grove is 50 percent early oranges and 50 percent late oranges.
2. The grove is 10 years old and produces 500 boxes of oranges/net tree acre.
3. The fruit averages 6.0 pounds solids per box of fruit.
4. The average price of 87 cents per pound of solids for the Hamlin and Valencia oranges is based on 1993 IFAS, University of Florida data.
5. The average production costs for Hamlin and Valencia oranges shown below are based on 1993 IFAS, University of Florida data.
6. The depreciation of the capitalized development costs amounting to \$575 per net tree acre will continue for three more years. This is based on an average investment of \$5,750 for grove development and care (excluding land cost) during the first three years that must be capitalized under IRS rules and depreciated over a period of 10 years.
7. The picking and hauling cost will average \$2 per box.
8. All income and costs will be fixed for the duration of the lease. This is not true in the real world, because inflation, trade agreements, natural disasters, etc. will all impact the economics of agricultural production.

#### ***Income Calculation/Net Tree Acre***

500 boxes X 6.0 lbs solids X 87¢ = \$2,610.00.

#### ***Expenses/Net Tree Acre***

Weed Control	\$197.42
Spray Program	190.01
Fertilizer	135.75
Dolomite	10.24
Pruning	39.27
Tree Replacement & Care	82.98
Irrigation	124.16
Drainage	27.80
Ad valorem Taxes	94.00
Management Costs	<u>48.00</u>
Total Expenses	949.63

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## **Net Income Calculations/Net Tree Acre**

### **A. Years 1 - 3**

Income	\$2,610.00
Expenses	
Production costs (rounded)	\$950.00
Depreciation	575.00
Picking & hauling	<u>1,000.00</u>
Total Expenses	2,525.00
Net Income (taxable)	\$85.00

### **B. Years 4 - 25**

Income	\$2,610.00
Expenses	
Production costs (rounded)	\$950.00
Picking & hauling	<u>1,000.00</u>
Total Expenses	1,950.00
Net Income (taxable)	\$660.00

## **Total Citrus Net Annual Income**

A. Years 1 - 3	530 acres at \$85/acre	=	\$ 45,050.00
B. Years 4 - 25	530 acres at \$660/acre	=	\$349,800.00

## **Costs and Returns Analysis of the Vegetable Operation**

As was stated earlier the landowner is leasing the vegetable field to independent farmers at the rate of \$300 per acre, excluding the water retention acres.

### **Income**

1,250 acres at \$300/acre	=	\$375,000.00
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### **Expenses Management and Taxes**

1,250 acres at \$50/acre	=	62,500.00
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<b>Net Income (Taxable)</b>	=	\$312,500.00
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An income analysis of the vegetable industry is very difficult to accomplish without first recognizing that this industry is subject to very volatile market prices within a very short period of time. The market will fluctuate widely depending on the volume of vegetables produced domestically and in Mexico. Vegetables are also very expensive to produce and much more susceptible to weather conditions that can have a major impact on yields. These situations make the vegetable industry a very high-risk enterprise, and the usual rate of return on capital invested cannot be applied without adding a significant risk factor.

For informational purposes only, shown below is a costs and returns analysis to produce an acre of tomatoes and green peppers in southwest Florida during the 1992-93 crop year based on IFAS, University of Florida data. It should be noted these data are based on the net planted acre.

<u>Average Income</u>	<u>Tomatoes</u>	<u>Green Peppers</u>
Average Yield - Units/Acre	1,423	928
Average Price/Unit	\$8.72	\$10.30
Gross Income/Acre	\$12,408.56	\$ 9,558.40

<u>Production Costs</u>	<u>Tomatoes</u>	<u>Green Peppers</u>
<u>Operating Costs</u>		
Transplants	\$385.00	\$700.00
Fertilizer & Lime	280.10	331.70
Fumigant	282.00	282.00
Fungicide	200.77	131.11
Herbicide	56.92	24.31
Insecticide	273.50	253.37
Labor	244.16	316.89
Machinery	316.08	368.67
Interest	194.99	198.41
<u>Miscellaneous</u>		
Level Land	145.00	145.00
Plastic Mulch	234.00	234.00
Cross Ditch	27.20	
Trickle Tube	254.10	
Plastic String	27.50	
Replacement Stakes	105.00	
Stake & String Removal	123.42	
Plastic Removal	156.82	156.82
Tie Plants	145.20	
Prune Plants	78.41	
Set Stakes	81.31	
Scouting	39.00	30.00
Farm vehicles	<u>16.67</u>	<u>19.45</u>
Total Operating Costs	\$ 3,667.15	\$ 3,191.73

<u>Fixed Costs</u>		
Land Rent	\$375.00	\$375.00
Machinery	182.68	238.30
Management	483.58	432.79
Overhead	<u>604.47</u>	<u>540.99</u>
Total Fixed Costs	\$1,645.73	\$1,587.08

### Harvesting & Marketing Costs

Harvest & Haul	\$1,078.00	\$2,810.00*
Packing	2,590.00	
Containers	1,050.00	760.00
Selling	210.00	430.00
Assessments	<u>70.00</u>	<u>0</u>
Total Harvesting & Marketing Costs	\$ 4,998.00	\$ 4,000.00



1. A cow herd of 706 brood cows.
2. Weaned calf crop is 80 percent.
3. Cow herd is replaced at a 10 percent level annually.
4. Bulls are replaced at a 20 percent level annually.
5. Death loss is 2 percent.
6. Retain 85 heifers for replacements and the rest are sold (includes replacements for 2 percent death loss).
7. Sell all steer calves.

### ***Beef Cattle Production Income***

<u>Sales</u>	<u>WT. LBS.</u>	<u>\$/CWT.*</u>	<u>Receipts</u>
71 Cows	900	43.50	\$27,797.00
7 Bulls	1,350	54.75	5,174.00
198 Heifers	450	76.00	67,716.00
282 Steer	500	83.00	<u>117,030.00</u>
Total Income			\$217,717.00

\* Prices quoted from the Okeechobee Livestock Market Report of June 7, 1994, as shown in the Florida Livestock Market Report of June 10, 1994.

### ***Beef Cattle Production Operating Expenses***

<u>Item</u>	<u>Annual Cost</u>
Hired Labor	\$ 18,600
Fuel and Oil	9,727
Seeds and Plants	0
Fertilizer and Lime	24,750
Pesticides	919
Feed	27,057
Veterinary	11,083
Taxes	10,232
Insurance	12,498
Utilities	2,758
Interest	5,648
Repairs	15,036
Other Cash	11,287
Depreciation - Equipment	4,511
Depreciation - Fences and Buildings	2,586
Depreciation - Breeding Stock	9,186
Depreciation - Other	<u>1,178</u>
Total Expenses	\$167,056

### ***Beef Cattle Enterprise Net Income***

Total Income	\$ 217,717
Less Total Expenses	<u>167,056</u>
Net Return (taxable income)	\$ 50,661

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## FARM LAND SALES DATA

### *Sale 1*

Grantor: South Florida Council, Inc., Boy Scouts of America.  
Grantee: Green Glades Ranches West, Inc., a Florida corporation.  
Date: March 12, 1991.  
Public Record: Book 469, page 928, Hendry County, FL  
Acres: 800, more or less.  
Price: \$480,000.00 or \$600.00 per acre.

Discussion: This property is located in the remote southern area of Hendry County, lying just three-quarters of a mile north of Collier County and the north line of the Big Cypress National Preserve. This sale has the Big Cypress Indian Reservation on the west boundary. The Kissimmee Billie Swamp covers much of the property in this sale and it is dominated by swamps and other wetlands. There is about 53.8 percent usable land, and none of it has been developed for improved pasture. About 52.1 percent of the usable soils are very rocky, with continuously exposed rock at the surface in many areas.

There are no water use or surface water management permits that have been granted by the South Florida Water Management District (SFWMD). Access to this property is via State Road 833, the west boundary road in the Big Cypress Indian Reservation, then over an easement along an old woods road. Economic uses of this property will be limited due to its location in the Big Cypress Swamp and the Florida Panther Habitat Preservation Plan, however this property does offer good hunting opportunities. It must be noted that this sale occurred before the land was designated as "Priority one habitat in the Florida Panther Habitat Preservation Plan."

### *Sale 2*

Grantor: Bayrock Investment Co., and Ohio Limited Partnership.  
Grantee: Daniel G. Rosbough, as Trustee of the Revocable Living Trust Agreement dated March 28, 1989, FBO Daniel G. Rosbough,\* as to an undivided one-half interest, and L. Lamar Rou, as Trustee of the L. Lamar Rou Revocable Living Trust U/T/D May 23, 1991,\* as to an undivided one-half interest.  
Date: June 26, 1991.  
Public Record: Book 472, page 1995, Hendry County, FL  
Acres: 641.5, more or less.  
Price: \$641,500 or \$1,000 per acre.

Discussion: This property is located about 13 road miles south, southwest of Clewiston. It has one-half mile of frontage on the west side of State Road 846. This property has 78.7 percent usable land with 90 percent of the usable land developed. The property was purchased fully permitted for citrus production with the water use and surface water management permits already issued by the SFWMD. It is currently being developed for citrus production.

The usable soil types have very rocky soils over about 75 percent of the area. The rocky soils were certainly a consideration in the selling price of this property. Access and location are good.

### Sale 3

Grantor: Helen R. Hallman, John M. Hallman and W. H. Hallman, III.

Grantee: Ernest L. Johnson and Ina L. Johnson

Date: Sept. 18, 1991.

Public Record: Book 475, page 1869, Hendry County, FL

Acres: 1,293.4, more or less.

Price: \$1,110,000, which includes a double-wide prefabricated home and a steel framed barn with a finished office. The land and improvement value were broken down as follows:

Land \$1,034,720 (\$800 per acre)

Improvements 75,280

Total \$1,110,000

Discussion: This property is located in the southeast area of Hendry County. It lies on the south boundary of a 3,500 acre citrus project owned by Collier Enterprises, however it is also located in the northern edge of the area known as the Big Cypress Swamp. The property was purchased at the end of a two-year lease-option to purchase agreement. There were no water use or surface water management permits granted by the SFWMD at the time of sale.

This sale has about 49.8 percent usable soil types of which 75.6 percent have been developed into improved pasture. The remaining 24.4 percent of the usable soils are very rocky. The legal access is from State Road 846 via a series of easements over wooded roads to the property. The economic use of this property will be limited due to its location in the Big Cypress Swamp and the Florida Panther Habitat Preservation Plan, however this property does offer good hunting opportunities. It must be noted that this sale occurred before the land was designated as "Priority One Habitat" in the *Florida Panther Habitat Preservation Plan*.

### Sale 4

Grantor: Ernest R. Reddish, as to an undivided sixty percent (60 percent) interest, Carrol W. Reddish, Jr., as to an undivided twenty percent (20 percent) interest, and Jamie Londono, as to an undivided twenty percent (20 percent) interest.

Grantee: R & R Citrus Development Company, a Florida corporation.

Date: Nov. 21, 1991.

Public Record: Book 477, page 1469, Hendry County, FL

Acres: 785.71, more or less.

Price: \$1,100,000 or \$1,400 per acre.

Discussion: This property is located in the Everglades Agricultural Area. It had been used for sugarcane production in the past, however it was being used for cattle grazing at the time of sale. It is about 23 road miles south of

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Clewiston. The property has 88.4 percent usable land and 100 percent of the usable land has been developed. The property was purchased with water use and surface water management permits already issued by the SFWMD and has been developed for citrus production. In addition, this property has access to surface water irrigation from Lake Okeechobee.

This property has rocky soils over about 37.2 percent of the area. This property is located in a remote area of Hendry County and access to this property is quite limited.

### *Sale 5*

Grantor: ABC Farms, Inc.

Grantee: Stuart T. Meacham, Trustee of Land Trust - I and Stuart T. Meacham, Trustee of Land Trust - II.

Date: Feb. 7, 1992.

Public  
Record: Book 1685, pages 1615 & 1628, Collier County, FL

Acres: 3,678.73 more or less.

Price: \$7,139,074 or \$1,940.64 per acre.

Discussion: This property is located just one mile south of Immokalee. This property has 64.4 percent usable land, but the usable soil type quality was very good, having no rocky soils and a very high percent of Immokalee Sand, a flatwoods soil. The property was fully permitted by the SFWMD for citrus and vegetable production.

The usable land of this property was fully developed with all of the usable land-laser leveled with a semi-closed irrigation system installed. It also has an aquifer with a known bountiful supply of water. This property had been for sale for nearly two years, and the grantor was selling the property to avoid a pending mortgage foreclosure. As a result, this property may have sold below the expected market value.

### *Sale 6*

Grantor: James F. Barfield, joined by his wife, Mary Alice Barfield.

Grantee: McClure Farms, a Florida general partnership, as to an undivided three-fourth's interest, and Daniel Carr McClure, as to an undivided one-fourth interest.

Date: August 3, 1993.

Public  
Record: Book 498, page 1504, Hendry County, FL

Acres: 1,033, more or less.

Price: \$2,249,000 or \$2,177.15 per acre.

Discussion: This property is located seven miles south of LaBelle. This was a well-developed property that has 92.5 percent usable soil types, and 100 percent of the usable land was developed. The property was at the time of the sale and is currently being used for vegetable production. It was fully permitted by the SFWMD for vegetable production with a water use permit and a surface water management permit.

This sale has very good location and access. It lies on the south edge of a large area of residential acreage tracts that range from five acres to 20 acres and more. The west boundary of the property has one mile of frontage on State Road 29 and the south boundary has one and one-half miles of frontage on Sears Road, a paved county road.

There are no rocky soils and the usable soil types are very good.

### *Sale 7*

Grantor: Douglas Lee Johnson and Ina L. Johnson as successor Co-Trustees of the Ernest L. Johnson Revocable Trust dated Feb. 13, 1989.

Grantee: Vigoro Industries, Inc., a Delaware corporation.

Date: Sept. 29, 1993.

Public Record: Book 501, page 176, Hendry County, FL

Acres: 2,824.5, more or less.

Price: \$5,741,000 or \$2,032.56 per acre.

Discussion: This property is situated near the Everglades Agricultural Area in Hendry County. It has 82.1 percent usable land with about 90 percent of the usable land developed. The SFWMD L-3 Canal goes through this property, from the north to the south and results in 595 acres of this property being located on the east side of the canal and the balance of 2,229.4 acres are located on the west side of the canal. The land on the west side of the canal is fully permitted by the SFWMD. The 595.0 acres on the east side of the canal has no permits and originally had access to surface water irrigation. However, the grantor was aware that the 1994 Florida Legislature intended to pass an act that would place a \$23.74 per-acre tax on this property for the next 20 years as part of the Everglades restoration effort that has been in litigation for the last several years. In order to avoid the tax, the grantor made an agreement with the SFWMD that he would renounce the right to use surface water irrigation and would not drain any water from the property. The land on the west side of the canal is irrigated from ground water wells. The only access to the land on the east side of the canal is a bridge that crosses the canal along the south line of the property. The property on the west side of the canal has one and three fourths mile of frontage on State Road 846.

Generally, the soil types are very good, however, 32.2 percent of the usable soils are very rocky with hard limestone within 10 to 30 inches of the surface. All of the land on the eastern side of the SFWMD L-3 Canal is very rocky and the eastern side of the land on the west side of the canal is also very rocky.

The land on the east side of the canal is actually located in the edge of the Everglades Agricultural Area and 47.2 percent of this land has muck soils. Seventy-five percent of the land east of the canal was developed for sugarcane production in the early 1970s, however this land use was abandoned by the landowner because of problems with the rocky soils and water control. It has been used for cattle grazing since that time.

There was a small two bedroom CBS house included in this sale. It had about 1,000 square feet of space.

It must be noted that this land was purchased by the grantor in 1988 for an average price of \$1,342 per acre in two separate real estate transactions. The grantor fully developed the land east of the Canal for vegetable production. However, the land was conveyed to the grantee in lieu of foreclosure of a first and second mortgage held by the grantee in order to settle debts of the estate of the grantor.

Since the grantee accepted the title to this property as full payment of the first and second mortgages held by the grantee without obtaining a deficiency judgement, the value reflected in this sale may be above the fair market value that the real estate market indicates at this time.

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## Sale 8

Grantor: Vigoro Industries, Inc., a Delaware corporation.

Grantee: Williams Ranch of Immokalee, Inc., a Florida corporation.

Date: June 29, 1994.

Public Record: Book 511, page 1,170, Hendry County, FL

Acres: 595, more or less.

Price: \$505,750 or \$850 per acre.

Discussion: This property is located in the Everglades Agricultural Area and is part of the property that was sold and discussed in Sale 9 above. It is about 25 road miles south of Clewiston. It has no permits issued by the SFWMD, although it does have 92.5 percent usable land and 81.1 percent of the usable land was developed for sugarcane production in the early 1970s. However, *this land use was abandoned by the landowner because of problems with the rocky soils and water control.* It has been used for cattle grazing since that time. The SFWMD L-3 Canal goes along the west boundary of this property, from the north to the south. The only access to this property is by private road to a bridge that crosses the canal at the southwest corner of the property.

Generally, the soil types are very good with 47.2 percent of this land having muck soils. However, 100 percent of the usable soils are very rocky with hard limestone within 10 to 30 inches of the surface.

This property was purchased by the landowner that owns the land on the north boundary of this property. However, the property has no access to surface water irrigation or drainage even though it is located in the Everglades Agricultural Area. The buyer had full knowledge of this encumbrance. This property originally had access to surface water irrigation. However, to avoid the \$23.74 tax passed by the 1994 Florida Legislature on this property for the next 20 years as part of the Everglades Restoration effort, a previous owner made an agreement with the SFWMD that he would renounce the right to use surface water irrigation and would not drain any water from the property.

It must be noted that the grantor in this transaction has only owned this property for nine months and is probably liquidating an asset that the grantor received in lieu of full cash payment of a first and second mortgage held by the grantor from the previous owner.

## Sale 9

Grantor: Barnett Banks' Trust Company, NA formerly known as First Florida Bank, N.A. formerly known as the Lee County Bank, Robert A. Roberts, also known as Robert Roberts, and Richard H. Roberts, as Trustees and Trustees of the Testamentary Trust under the last Will and Testament of William E. Roberts, deceased.

Grantee: A & M of Hendry County, Ltd., a Florida Limited Partnership.

Date: Aug. 9, 1994.

Public Record: Book 512, page 1,732, Hendry County, FL

Acres: 7,489.1, more or less.

Price: \$4,900,000 or \$654.28 per acre, including building improvements and water management outfall structures.

Value of Building Improvements and Structures: The value is estimated to be \$150,000

Net Value of Land: \$4,750,000 or \$634.26 per acre.

Discussion: This sale is located about 32 road miles to the northwest of the subject property and is seven road miles south of LaBelle, the county seat of Hendry County. This property has 71.4 percent usable land with 64.9 percent of the usable land developed. The soil types are very good and there are no rocky soils. The location and access are also very good. The property is bounded on the north side by a paved public road known as Sears Road. State Road 29 forms the west boundary for a distance of there and one-half miles and State Road 832 forms the south boundary for about three and one-half miles. An abandoned railroad right-of-way is the east boundary.

This property has a unique feature that has had a significant impact on the marketability of this property and the resulting selling price. Although the entire property has been granted a surface water management permit by the SFWMD, the consumptive water use permit issued by the SFWMD granted a water allocation that will only irrigate 1,200 net acres of citrus. The reason for the limited allocation of water by the SFWMD was there is very little groundwater in the area of the property, and there is no other water resource from which to draw irrigation water. The specific site of the 1,200 acres was not identified in the permit, however, the subsequent engineering plans indicated that it would be located in the southeast corner of the property. The outfall structures for the surface water management plan have all been installed, however none of the water retention facilities have been constructed.

The grantor has indicated that the buyer offered to pay \$2,025 per usable acre for the 1,200 acres that have a water allocation for citrus production, provided adequate water retention areas were included in the sale. Based on the permitting requirements of the proposed site, a total of 1,641.6 acres would be required for the permitted citrus project. However, the grantor would not sell the land with the water allocation separate from the balance of the property. Based on this analysis, the land with a water allocation for citrus production was valued at \$2,430,000 or \$1,480.26 per gross acre. The remaining 5,847.5 acres of the land was valued at \$2,320,000 or \$396.75 per gross acre.

This is the first recorded sale of real estate in southwest Florida that reflected a value where it has been determined that a consumptive water use permit would not be issued by the SFWMD.

In addition to the above market data, the government purchase of part of the CREW area of Lee and Collier Counties indicated that 17,528 acres were purchased for an average price of \$988 per gross acre. The purchase price ranged from a high of \$1,500 per acre for uplands to a low of \$660 per acre for wetlands.

## CITRUS GROVE SALES DATA

### *Sale 1*

Grantor: Bayrock Investment Co., an Ohio Limited Partnership, authorized to do business in the state of Florida.

Grantee: Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints, a corporation existing under the laws of the state of Utah and authorized to do business in the State of Florida.

Date: Aug. 22, 1991.

Public Record: Book 474, page 1063, Hendry County, FL

Acres: 1,674, more or less.

Price: \$10,700,000 including building improvements.

Estimated Value of Building Improvements: \$67,040.

Estimated Value of Fruit Crop: None

Net Sale Price to Grove: \$10,632,960 or \$6,351.82 per acre.

Age: Two years.

Varieties: Hamlins and Valencia.

Irrigation: Micro Jet.

Production: None at the time of the sale.

Discussion: This sale is located in the Devils Garden area of Hendry County. The citrus grove on this property was just two years old at the time of the sale and, therefore, had not yet produced a marketable crop. The grove is fully permitted by the SFWMD and has a large water retention area as required by the SFWMD. Drainage is via a canal to the Everglades and it is irrigated from water wells. The grove is planted with 57.4 percent early Hamlin oranges and 42.6 percent late Valencia oranges, all on Carrizo rootstock. The tree density is 151.25 trees per acre.

This grove has one mile of frontage on State Road 833 and has good access and location. This sale occurred at a time when the price of citrus fruit was about 50 percent higher than it is at this time. The price of the fruit at the time of the sale no doubt influenced the selling price of this property.

## *Sale 2*

Grantor: Harriette R. Williams Downey, Bessemer Trust Company of Florida, and West Shell, Jr., as Trustee of the Harriette R. Williams Trust dated June 2, 1987.

Grantee: Caloosahatchee Groves General Partnership.

Date: March 23, 1992.

Public Record: Book 481, page 1605, Hendry County, FL

Acres: 254, more or less.

Price: \$2,563,300 including a mobile home and the fruit crop.

Estimated Value of Building Improvements: \$6,000.

Estimated Value of the Fruit Crop: \$575,000.

Net Sales Price to Grove: \$1,982,300 or \$7,804.33 per acre.

Age: Mature - over 20 years.

Varieties: Hamlins.

Irrigation: Micro jet.

Production: 546 boxes per net tree acre.

Discussion: This sale is located in the Fort Denaud area of Hendry County. This sale has about one-fourth mile frontage on State Road 78 and thus has very good location and access. This citrus grove is considerably older than the other sales and is planted entirely to early Hamlin oranges. Several rootstocks were used, including Sour Orange. As a result of tristeza disease, there has been a significant loss of trees during the last several years. The tree density varies, but it is generally less than 100 trees per acre. However, the average production is quite high due to the age and size of the trees.

This grove is fully permitted by the SFWMD, however, it was developed before water retention areas were required and has direct drainage to the Caloosahatchee River. About 30.5 percent of the grove is irrigated from wells and the balance of 69.5 percent is irrigated from Jack's Branch, a creek that flows to the Caloosahatchee River.

This sale occurred at a time when citrus fruit prices were much higher than they are now. Except for the tree losses from tristeza disease, the selling price would likely have been much higher.

### **Sale 3**

Grantor: A. Duda & Sons, Inc., a Florida corporation.

Grantee: The Prudential Insurance Company of America.

Date: Sept. 4, 1992.

Public Record: Book 487, page 1446, Hendry County, FL

Acres: 1,488.9, more or less.

Price: \$12,285,200 including the fruit crop.

Value of Fruit Crop: \$400,000.

Net Sales Price to Grove: \$11,885,200 or \$7,982.53 per acre.

Age: Five years.

Varieties: Hamlin and Valencias.

Irrigation: Seepage.

Production: 318 boxes/net tree acre at the time of sale.

Discussion: This property is located about six miles west of the Felda area of Hendry County. This property was actually part of a very large citrus grove development that is owned by A. Duda & Sons, Inc. This company still owns grove acreage on the west, north and east sides of this sale. This property has no direct access to a public road, and the owners use a private easement to access the property. The location and access are inferior when compared with the other sales.

The citrus grove is planted with 29 percent early Hamlin oranges and 71.0 percent late Valencia oranges, all on Carrizo rootstock. The soil types, tree density and grove development layout are very good. However, this grove was five years old at the time of sale and had come into limited production.

The property is fully permitted by the SFWMD, however, there are no water retention facilities because it was developed under a permit issued prior to that requirement. The grove is irrigated by water from the Townsend canal, which brings the water from the Caloosahatchee River. This canal lies on the north boundary of the property and also provides the drainage for excess water from the property.

This sale occurred during a period of very low prices. However, when this sale was analyzed, it was found that the buyer has contracted with the seller to manage the grove and market the fruit. The seller, A. Duda & Sons, Inc., owns and operates their own concentrate citrus juice plant and fresh citrus fruit packing house. As a result, the buyer has gained access to the long-term market contracts held by A. Duda & Sons, Inc. These contracts are for higher prices than the current market and are accessible for several years.

#### *Sale 4*

Grantor: Citrus Ventures, Inc., a Florida corporation.

Grantee: Tropic Groves General Partnership.

Date: June 30, 1993.

Public Record: Book 2401, page 3582, Lee County, FL

Acres: 320.1, more or less.

Price: \$3,500,000 or \$10,934.08 per acre, excluding fruit.

Building Improvements: None.

Age: Mature - over 10 years.

Varieties: Valencias, Hamlins and Pineapples.

Irrigation: Micro Jet.

Production: 550 boxes/net tree acre.

Discussion: This sale is located near the Corkscrew community in Collier County, just over the line in Lee County. It has one-half mile of frontage on Corkscrew Grade, a public, but unpaved road, and therefore has fairly good access and location.

This is a mature citrus grove that is planted with 60.8 percent early Hamlin oranges on Sour Orange rootstock, 32.7 percent late Valencia oranges on Carrizo rootstock, and 6.5 percent mid-season pineapple oranges on Sour Orange rootstock. Although, there is a significant acreage planted on Sour Orange rootstock, there has not yet been a serious tree loss, and the production of this grove is considerably higher than the average grove for its age. The tree density is very high, and the soil types, and development layout of this sale are very good.

This grove is fully permitted by the SFWMD and was developed prior to the requirement for building water retention areas. As a result, this grove has direct drainage via a canal to the Corkscrew Swamp.

This sale occurred just after a season of very low prices, however, the early price indications for the 1993-94 year were already looking much stronger at the time of the sale.

#### *Sale 5*

Grantor: Brackett Groves, Inc., a Florida corporation.

Grantee: Alpha Real Estate Investments, Inc., a Florida corporation

Date: July 12, 1993.

Public  
Record: Book 497, page 1935, Hendry County, FL

Acres: 350, more or less.

Price: \$3,250,000 including the fruit crop and 26 percent of the buildings and water management facilities.

Estimated Value of Fruit Crop: \$575,000.

Estimated Value of Buildings and Facilities: \$200,000.

Net Sale Value to Grove: \$2,475,000 or \$7,071.43 per acre.

Age: Mature - about 10 years old.

Varieties: Valencias and Hamlins.

Irrigation: Micro Jet.

Production: 497 boxes/net tree acre.

Discussion: This sale is located about 10 miles east of La Belle in Hendry County, just south of State Road 80. It is about 45 road miles north, northeast of the subject property. It has no public road frontage and access is by private easement, therefore location and access are inferior to that of the other sales. This sale is actually two separate parcels that are not contiguous with each other. A 30-acre parcel is located about one-quarter of a mile north of a 320-acre parcel.

This is a mature citrus grove that is planted to 70.1 percent early Hamlin oranges and 29.9 percent late Valencia oranges, all on Carrizo rootstock. The tree density, soil types and development layout is good.

This citrus grove was developed as part of a large project that encompasses more than 1,300 acres and two other owners. The irrigation system and the surface water management for the entire project is shared by all the owners. The grove is fully permitted by SFWMD and has a small water retention area, although it is much smaller than is required under current SFWMD rules. About half of the grove is irrigated with wells and the other half is irrigated with surface water brought from the Caloosahatchee River via a canal to the property. Drainage from the grove is to the Caloosahatchee River via two different canals. Since the irrigation and surface water management systems for the entire project have to be managed together, the sale included 26.7 percent interest in the buildings, equipment and water management facilities.

This sale occurred just after a season of very low fruit prices, however the early price indications for the 1993-94 crop year were much stronger at the time of the sale.

## *Sale 6*

Grantor: Johnson Family Partnership.

Grantee: Citrus Ventures, Inc., a Florida corporation.

Date: Sept. 16, 1993.

Public  
Record: Book 2425, page 1444, Lee County, FL

Acres: 600, more or less.

Price: \$3,700,000 including the fruit crop.

Estimated Value of Fruit Crop: \$650,000.

Net Sale Value to Grove: \$3,050,000 or \$5,083.33 per acre.

Age: Five years old.

Varieties: Valencias and Hamlins

Irrigation: Micro Jet.

Production: 378 boxes/net tree acre.

Discussion: This sale is located near the community of Corkscrew in Collier County, just over the line in Lee County. It is situated adjacent to the property in Sale 4 on the west side. This property has one mile of frontage on Corkscrew Grade, a public unpaved road. As a result, this sale has a similar access and location to that of Sale 4.

This well-producing grove was a little more than five years old at the time of sale and has not yet come into full production. About 58.5 percent of the grove is planted to a combination of late Valencia and Rhode Red Valencia oranges that are on Carrizo and Swingle rootstocks. The remaining 41.5 percent is planted to early Hamlin oranges on Sour Orange and Carrizo rootstocks. About 54.0 percent of the grove is planted with a density of 165 trees per acre. The remaining 46.0 percent is planted with a density of 198 trees per acre. The soil types and development layout are very good.

There is an area of Rhode Red Valencias that was infected with Exocortis, a disease that severely stunts the trees and greatly reduces production. This infected area amounts to about 10 percent of the grove.

The grove is irrigated from wells and is fully permitted by the SFWMD. There is a water retention area constructed as per the SFWMD requirements and drainage is via a canal to the Corkscrew Swamp.

This sale occurred just after a season of very low fruit prices, however, the early price indications for the 1993-94 crop year were much stronger at the time of the sale. When this sale was analyzed, it was found that it was the liquidation of assets for an estate. It had an outstanding mortgage, and the mortgagee suffered a substantial loss upon the sale and refinancing. It is obvious that this was a "forced sale" that resulted in a lower selling price.

## *Sale 7*

Grantor: Hendry-Mackey Groves.

Grantee: J. & S. Carter, Inc.

Date: Oct. 18, 1993.

Public

Record: Hendry County, FL

Acres: 672, more or less.

Price: \$4,750,000 including the fruit crop.

Estimated Value of Fruit Crop: \$628,110.

Net Sale Value to Grove: \$4,121,890 or \$6,133.76 per acre.

Age: About 36 percent is mature and 64 percent is three years old.

Varieties: Hamlins, Valencias, Ambersweet and Ruby Red Grapefruit.

Irrigation: Drip.

Production: 255 boxes/net tree acre.

Discussion: This sale is located in southeast Hendry County bordering the Lee County line. This property has no direct access to a public road. Access to the grove is from State Road 82 north along a private easement through three other properties. As a result, this sale has an inferior access and location when compared to the other sales.

The mature Hamlins and Valencias of the grove produced 579 boxes of fruit per net tree acre, and the young grapefruit block produced 225 boxes of fruit in 1993-94. The remainder of the young grove did not have a marketable crop in 1993-94. About 48.6 percent of the grove is planted to a combination of late Valencia and Rhode Red Valencia oranges that are on Carrizo, Swingle and Volkamericana rootstocks. Another 43.4 percent of the grove is planted to early Hamlin oranges that are on Sour Orange, Carrizo, Cleopatra, and Swingle rootstocks. There is about 4.6 percent of the grove planted to Ambersweet oranges on Cleopatra rootstock and the remaining 3.4 percent is planted to early Ruby Red grapefruit on Carrizo rootstocks.

This grove is planted with a much greater tree density than the other sales. About 65.6 percent of the grove is planted with a density of 215.11 tree per net tree acre. Another 19.1 percent of the grove is planted with a density of 174.24 trees per net tree acre. About 11.9 percent of the grove is planted with a density of 193.6 trees per net tree acre. The remaining 3.4 percent, which is the grapefruit, is planted with a density of 161.33 trees per net tree acre. The soil types and development layout are very good.

There are 51.3 acres of Hamlins that were planted on Sour Orange rootstock in 1984. As of 1991, nearly 20 percent of these trees were lost to tristeza disease, which kills trees planted on Sour Orange rootstock.

The grove is irrigated from wells and is fully permitted by the SFWMD. There is a water retention area constructed as per the SFWMD requirements, and drainage is via a canal to the Townsend Canal and then the Caloosahatchee River.

This sale occurred just after a season of very low fruit prices. However, the early price indications for the 1993-94 crop year were much stronger at the time of the sale. When this sale was analyzed, it was found that it occurred just before foreclosure by the mortgagee, and the selling price may have been below market value.

## ***Sale 8***

Grantor: Citrus Ventures, Inc., a Florida corporation.

Grantee: Tropic Groves General Partnership - Two.

Date: Feb. 7, 1994.

Public  
Record: Lee County, FL

Acres: 350, more or less.

Price: \$3,500,000 or \$10,000 per acre, excluding fruit, but including improvements.

Estimated Value of Building Improvements: \$100,000

Net Sale Price to Grove: \$3,400,000 or \$9,714.29 per acre.

Age: Mature - over 10 years.

Varieties: Valencias, Hamlins and Pineapples.

Irrigation: Micro Jet.

Production: 378 boxes/net tree acre.

Discussion: This sale is located near the Corkscrew community in Collier County, just over the line in Lee County. This sale lies adjacent to Sale 4 on the east side and in fact was part of the property purchased in Sale 4. The buyer and seller in Sale 4 are the same principals in this sale, and the buyer was exercising an option that was purchased on this property at the same time the buyer was purchasing Sale 4. It has one-half mile of frontage on Corkscrew Grade, a public, but unpaved road, and therefore has access and location similar to that of the property in Sale 4.

This is a mature citrus grove that is planted with 65.2 percent late Valencia oranges on Carrizo rootstock, 17.7 percent early Hamlin oranges on Sour Orange rootstock, and 17.1 percent mid-season Pineapple oranges on Sour Orange rootstock. Although there is a significant acreage planted on Sour Orange rootstock, there has not yet been a serious tree loss. However, the production of this grove is below the average grove for its age. The tree density is much greater than that of the other sales. The soil types and development layout of this sale are good.

This grove is fully permitted by the SFWMD and was developed prior to the requirement for building water retention areas. As a result, this grove has direct drainage via a canal to the Corkscrew Swamp.

This sale occurred just after a season of very low prices, however, the early price indications for the 1993-94 year were already looking much stronger at the time of the sale.

## ***Sale 9***

Grantor: Robert and Patricia Mackey.

Grantee: Arthur Evans, Trustee.

Date: Sept. 2, 1994.

Public  
Record: Hendry County, FL

Acres: 235, more or less.

Price: \$1,115,000 or \$4,744.68 per acre, including fruit and building improvements.

Estimated Value of fruit: \$138,000

Estimated Value of Building Improvements: \$35,000

Net Sale Price to Grove: \$942,000 or \$4,008.51 per acre.

Age: 5 years.

Varieties: Valencias and Hamlins.

Irrigation: Micro Jet.

Production: 300 boxes/net tree acre.

Discussion: This sale is located in the community of Felda in Hendry County, just north of the Collier Line. It has three-quarters of a mile of frontage on State Road 830A, a public paved road and therefore has very good access and location.

This is a young citrus grove that is planted with 46.6 percent early Hamlin oranges on Sour Orange and Swingle rootstock. The remaining 53.4 percent is planted to late Valencia oranges on Carrizo and Swingle rootstock. Although, there is a significant acreage planted on Sour Orange rootstock, there has not yet been a serious tree loss and the production of this grove is considerably higher than the average grove for its age. The tree density is fairly high. The soil types and development layout of this sale are good, however there are some serious water control problems within the grove.

This grove is fully permitted by the SFWMD and drainage from the retention reservoirs is via several road right-of-way ditches to a large ditch that carries the water to the Okaloacoochee Slough.

## ECONOMIC DATA REFERENCES

The economic data presented in this analysis is based the following sources:

1. Budgeting Costs & Returns for Central Florida Citrus Production, 1992-93; Economic Information Report EI 93-1, July 1993, by Ronald P. Muraro, G. Tim Hurner, Jr. & Thomas W. Oswalt.
2. Budgeting Costs & Returns for Southwest Florida Citrus Production, 1992-93; Economic Information Report EI 93-2, July 1993, by Ronald P. Muraro & Edgar D. Holcomb, Jr.
3. Production Cost For Selected Vegetables in Florida, 1992-1993; IFAS, University Of Florida Circular 1121, by Scott A Smith and Timothy G. Taylor.
4. Vegetable Summary, 1992-1993, May 1994; by Florida Agricultural Statistics Service.
5. Farm Business Analysis Reports of Hendry County Beef Cattle Enterprises, by Dallas Townsend, County Extension Director, Hendry County, FL
6. Farm Land and Citrus Grove Sales Data, by Gulf Citrus Properties, Inc.
7. 1993 Property Tax Milage Rates For Hendry County, Florida, by Hendry County Property Appraiser.
8. Government Property Management Costs, by Tom Logan, Florida Game and Fresh Water Fish Commission.

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## Appendix C: Definitions

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**Agricultural development rights** — The rights to establish improved pasture, row crops, citrus or other agricultural operations.

**Agricultural production** — The production for commercial purposes of crops, livestock and livestock products, swine, ratites, exotic animals, birds and nursery and greenhouse products including the processing or retail marketing of such crops, livestock and livestock products, swine, ratites, exotic animals, birds and nursery and greenhouse products if more than 50 percent of such processed or merchandised products are produced by the farm operator, and the raising and stabling of horses for commercial purposes. For the purposes of the conceptual plan, “crops, livestock and livestock products, swine, ratites, exotic animals, birds, nursery and greenhouse products” include but are not limited to:

1. Fruits, including citrus and tropical fruit;
2. Vegetables, including tomatoes, peppers, cucumbers, celery, corn, squash, lettuce, beans, cabbage, and eggplant;
3. Horticultural specialties, including nursery stock ornamental shrubs, ornamental trees and flowers;
4. Livestock and livestock products, including horses, cattle, poultry, milk and eggs;
5. Aquatic plants and animals and their byproducts.

**AFT** — American Farmland Trust

**Best management plan** — A plan describing best land, farming and panther management practices, including an installation schedule and maintenance program, which, when completely implemented, would improve and maintain soil, water and related plant and animal resources of the land.

**Commission** — Florida Game and Fresh Water Fish Commission

**Conceptual Plan** — A plan that was prepared by a 10-member working group, eight of which were landowners, over the course of a year and is described herein under the section entitled “The Landowners’s Strategy.” It is a proposal to protect all of the 926,300 acres of priority habitat on private lands as listed in the Florida Panther Habitat Preservation Plan.

**Developer** — Any person, including a government agency, undertaking any development as defined in chapter 380.04, Florida Statutes.

**Development** — The carrying out of any material change in the use or appearance of the land.

**Development rights** — A severable real property right subject to covenant and restriction in a parcel of land that constitutes the complete and entire right to improve the parcel of land to any other use than agricultural. Such improvements include, but are not limited to, the construction of homes, businesses, infrastructure and other development activities as defined in Chapter 380.04, Florida Statutes. The lease of a development right by the fee simple owner does not confer with it the right of public access to the real property, although the fee simple owner has the discretion to grant such access.

**Development permit** — Any building permit, zoning permit, plot approval, rezoning, certification, variance or other action having the effect of permitting development.

**FACEE** — Florida Advisory Council on Environmental Education.

**Farm** — Land that is being used for or is available for agricultural production as defined above.

**Florida Panther Habitat Preservation Plan (FPHPP)** — Document produced by the panther interagency committee to give direction to protecting the panther’s habitat in southwest Florida.

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**GFC** — Florida Game and Fresh Water Fish Commission.

**Government agency** — The United States or any department, the state of Florida or any department, any local government or department, or any instrumentality thereof.

**IFAS** — Institute of Food and Agricultural Sciences.

**Land** — The earth, water and air above, below, or on the surface, and includes any improvements or structures customarily regarded as land.

**Land Authority** — A body authorized by Florida Statutes to oversee the purchase of rights or interests in property for the purposes of maintaining Florida's unique natural resources; protecting air, land, and water quality; and for providing land for natural resource based recreation.

**Land development regulations** — Includes local zoning, subdivisions, buildings and other regulations controlling the development of land.

**Land use** — The proposed or existing development that has occurred on land.

**Landowner** — Person holding title to the land.

**Lease** — A contract granting use or occupation of land or holdings during a specified period in exchange for rent.

**Local comprehensive plan** — Any or all local comprehensive plans or elements or portions thereof prepared, adopted or amended pursuant to the Local Government Comprehensive Planning and Land Development Regulation Act, as amended.

**Local government** — Any county or municipality.

**Mosaic of land use** — An aggregate or combination of land uses.

**Non-agricultural development rights** — Rights for any development that is not related to or required for agricultural production.

**Project Area** — The area critical to protect the Florida panther's habitat as defined in the Florida Panther Habitat Preservation Plan.

**Parcel of land** — Any quantity of land capable of being described by legally defined boundaries.

**Regional planning agency** — The agency designated by the state land planning agency to exercise responsibilities in a particular region of the state.

**Resource Management Plan** — The resource management plan is the consolidation of all whole-farm plans prepared for each property in the project area. The resource management plan guides criteria for developing the whole farm plan. It also includes management criteria for all resources — panther, panther habitat, other wildlife, water, etc.

**SFWMD** — South Florida Water Management District.

**Structure** — Anything constructed, installed or portable, the use of which requires a location on a parcel of land. It also includes fences, billboards, swimming pools, poles, pipelines, transmission lines, tracks and advertising signs.

**USFWS** — United State Fish and Wildlife Service

**Whole-farm Plan** — A whole-farm plan is a site-specific plan which includes management schemes designed to protect a farm's soil, air, water, native plants and animals and other natural resources

