

Table 3. Summary of Criteria and Evaluation Factors

Permit Review Criteria
Natural Resource Issues
Audubon's crested caracara
Bald eagle
Management of preserves.
Public acquisition program
Flowways
Habitat fragmentation
Isolated and seasonal wetlands
Florida panther
Shorebird nesting, foraging and resting areas
Red cockaded woodpecker
Florida scrub-jay
Coastal Forests
Strategic Habitat Conservation Area lands
Wading bird rookeries
Existing Urban/Suburban Infrastructure
Water Quality

Note, even if criteria are not listed in the Permit Review Criteria, the Corps will still review appropriate site-specific information applicable to issues within the Corps jurisdiction in a permit decision.

Ensembles							
Legends	Criteria	Q	R	S	T	U	Natural Resource Issue (but not necessarily same criteria language) also found in the Permit Review Criteria (PRC)
The same Legend or Criteria may be found in different Ensembles, but the location and acres to which is applied will be different.							
There are more than one Legend or Criteria in a single Ensemble since each apply to different geographic area.							
Urban, Industrial, Transition, Airport, Development	Status Quo	X	X	X	X		X
Development (w/ Flowways &c)	Flowway Improvements	X		X	X	X	X
Off-site Compensation	Compensate off-site for wide ranging species			X			X
Urban & Industrial	Criteria for Urban (package of several criteria)						
	Encourage emergent and shoreline planting in retention lakes			X			X
	Restore Flowways			X			X
	Retrofit Septic Systems and package treatment plants			X			
	Provide adequate hurricane shelters and evacuation routes			X			

Legends	Criteria	Q	R	S	T	U	(PRC)
	Large buffer zones around wetlands, flowways, streams, rivers			X			X
	Set and meet Pollution Load Reduction Goals (PLRGs)			X			
Urban Zone (including Lehigh Acres outside of ARF Zone)	Package of several criteria below and also at "Zone Criteria" legend						
	Direct development into this zone in lieu of urban expansion					X	
	Maintain watershed integrity					X	
	Plan carefully for future growth					X	
	Presume alternatives to filling creeks, rivers, wetlands, etc.					X	X
	Less likely are practicable alternative locations outside urban zone					X	X
	Mitigation focuses on maintaining watershed integrity including:					X	
	Groundwater and surface water supply					X	
	Surface water levels					X	
	Flood retention					X	
	Water quality					X	
	Fresh/salt water balance					X	
	Wading bird and fisheries production					X	
	Encourage clustering, Transfer Development Rights, etc. land use					X	
Urban (Lehigh)	Status Quo		X		X		X
Acquire/Restore/Fix, Restore/Retrofit/Redevelop	Lehigh - Redevelopment	X			X		
Lehigh Acres	Lehigh Acres Zone (package of several criteria)						
	Map wetlands, flowways, xeric oak, development concentration			X			
	Reassign densities and development rights to cluster residences			X			
	In vacated zones, abandon/retrofit infrastructure (canals, roads)			X			
	Create regional stormwater management facilities			X			
	Potential regional water storage facility near Harnes Marsh			X			
Greenway	Lehigh Greenway			X			
Water Storage	Lehigh - Water Storage	X					
Acquire, Restore, Fix (ARF) Zone	Package of several criteria below and also at "Zone Criteria" legend						
	Acquire and restore areas with wildlife and water resources					X	
	Place restored ARF Zone areas into Preservation status					X	
	Develop if adjacent other & if compatible w/ resource conservation					X	
Legends	Criteria	Q	R	S	T	U	(PRC)

Golden Gates Estates, Rural Residential	Status Quo	X	X			X		X
Golden Gates Estates Zone 1	Zone 1 Criteria (package of several criteria)							
	Avoid/minimize and mitigate wetland impacts			X	X	X		X
	Culvert entrance roads			X	X	X		
	Address listed species on or off-site			X	X	X		X
	Develop educational pamphlet on natural resource issues			X	X	X		
	Florida Yards and Neighborhoods program			X	X	X		
Golden Gates Estates Zone 2	Zone 2 Criteria (package of several criteria)							
	No more than 10% fill. No more than 50% impervious.			X	X	X		
	Fill not impede sheetflow			X	X	X		
	Eliminate exotics			X	X	X		
	Develop educational pamphlet on natural resource issues			X	X	X		
	Florida Yards and Neighborhoods program			X	X	X		
	Culvert Entrance Roads			X	X	X		
Golden Gate Estates	Protect isolated wetlands							X
	No general permits				X			
	Determine wetland jurisdiction prior to County permitting				X			
	Reconnect wetlands along historic flowways				X			X
	Limitation on clearing of the lot				X			
Agricultural	Status Quo	X	X		X	X		X
Mining	Mining Lands (no special criteria noted)	X				X		
Agricultural - Maintain Intensity	No intensification in activity				X	X		
Agriculture (Limited Intensification)	Limited Intensification (no loss of habitat)			X				
Agricultural - Go To Preserve	If Agriculture ends then goes to preserve				X			
Agricultural	Criteria for Agriculture (package of several criteria)							
	No changes that would lower hydrology			X				
	No uses not associated with agriculture (golf courses, ranchettes)			X				
Rural Residential (Agricultural and Buffer Zones)	Package of several criteria below and also at "Zone Criteria" legend							
	Agricultural lands not converted to non-agricultural development					X		
	Discourage Urban expansion into this area.					X		
	Activities compatible with wildlife and water resource conservation					X		X
Rural Residential	Status Quo	X	X		X			X
Rural	Rural Low Density Mix (package of criteria)							
Legends	Criteria	Q	R	S	T	U		(PRC)
	Avoid and minimize impacts to wetlands			X				X

	Protect nesting areas (e.g., sandhill crane)			X				X
	Mitigate wide ranging species off-site, min 1:1, incl. fox squirrels			X				X
	Maintain or improve hydrology			X				
	Protect RCW habitat. If viability affected, go off-site 1:1			X				X
	No net loss in water table and recharge area			X				
	No net loss in area and function of wetlands			X				X
	Larger buffer zones around wetlands, flowways, streams, rivers			X				X
	Do not contribute to hurricane shelter deficit or increase travel time			X				
	Implement Estero Bay ABM adopted principles			X				
Rural	Rural Criteria (low density uses/connect wetlands)							
	Assumes lower density uses (ranchettes, nurseries, etc.)			X				
	Protect flowways, seasonal wetlands, forest and their connections			X				X
	Use Estero Bay ABM map as acquisition map			X				
Rural Development Criteria	Rural (package of criteria including clustering)							
	One residential unit per five acres overall						X	
	Clustering						X	
	Preserve 50% of the land area in natural state						X	
	Maintain corridors, flowways with connect outside project bounds						X	X
	100% wetland preservation/restoration						X	
Preservation/Conservation	Status Quo		X	X	X	X		X
Preservation Lands	Flowway Improvements	X			X	X		X
Preservation Lands	Preserve (package of criteria)							
	Filter marshes (Ten Mile Canal and from Lehigh Acres)				X			
	Preserve proposed acquisitions				X			X
	Preserve Strategic Habitat Conservation Area for Florida Panther				X			
	Preserve Florida panther Priority 1 and 2 designated lands				X			
	Preserve eagle nests				X			X
	Preserve rookeries				X			X
	Preserve rare native plant communities				X			X
	Preserve seasonal wetlands and flowways				X			X
	Preserve coastal resources				X			X
Legends	Criteria	Q	R	S	T	U		(PRC)
Preserve (Existing & Proposed)	ABM Conservation/Preservation Strategy Map			X		X		
Preservation Lands	Criteria for Preserve (package of several criteria)							

	No public utilities				X			
	No new or expanded transportation				X			
	No well-field expansion				X			
	Restore/Retrofit areas with hydrologic problems				X			
	Use as mitigation receiving area				X			
	Managed for wetlands and wildlife protection				X			X
Preservation/Conservation	Culverts under Tamiami and I-75	X						
Preservation Zone	Denial of all dredge/fill permits in existing preserved lands because:							
	Contrary to conservation purposes of these lands						X	
	Adverse effects wildlife & water resources, including downstream						X	
	Adverse effect Federally listed threatened and endangered species						X	
	Practicable alternatives exist elsewhere						X	
Zone Legends	(Referenced by the Zone criteria packages)							
	Strictly apply 404(b)(1) guidelines including						X	
	Presumption practicable alternative site exist elsewhere						X	X (status quo)
	Presumption new dredge/fill results in degradation to wetlands						X	
	Heightened levels of compensatory mitigation for wetland loss						X	
	No net loss in area and function of wetlands						X	X (status quo)
	Consider only single and complete projects, including all phases						X	
	Presume new dredge/fill adversely affect listed species						X	
	Eliminate use of Nationwide and General Permits						X	
	Reduce potential for additional secondary development						X	
	Presumption against new road and utility construction						X	
	Implement principles of Estero Bay ABM						X	
	Maintain water tables and recharge areas						X	
	Promote restoration of flowways						X	X
	Buffer zones around wetlands, flowways, streams, rivers						X	X
	Buffer zones around eagle's nests and colonial bird rookeries						X	X
	No adverse impacts on water quality						X	X
Legends	Criteria	Q	R	S	T	U		(PRC)
	Not contribute to hurricane shelter deficit or increased evacuation times					X		
	Apply Big Cypress Area of Critical State Concern standards					X		

	Target aggressive acquisition/compensation and restoration						X	
	Scrutinize activities claimed exempt as prior converted cropland						X	
	Encourage best management practices to reduce resource impacts						X	

Evaluation Factors

Evaluation Factor.	Measurement.	Q	R	S	T	U	What influenced evaluation.	Conclusion/Comparison.
Avoidance of wetland impact	Estimate of percent of total area of wetland that is predicted to be filled.	6.6%	7.0%	5.6%	5.8%	5.5%	How flexible is typical configuration of site design for the land use compared to distribution/shape of wetlands in the area that land use is mapped.	Ensemble with less impact better satisfy requirement for avoidance.
Loss of uplands adjacent to wetlands	Portion of study area that may be preserved for natural resource benefits.	38%	38%	42%	42%	43%	Existing preserves total 27%. Native vegetation (upland and wetland) occupy 58% of the study area.	Uplands outside of preserves have higher probability to be impacted.
Availability of compensatory mitigation	Percent of total wetlands in study area that are within areas that are not now preserved but are suggested to be preserved ("new preserves").	17%	19%	22%	23%	24%	Typical compensation is to restore degraded wetlands and preserve in perpetuity.	Larger percentage provides greater selection of wetlands that could be restored.
Acreage ratio	Acres of wetlands in suggested "new preserves" divided by acres that may be filled.	2.6:1	2.7:1	4.0:1	3.9:1	4.4:1	Some wetlands in "new preserves" will not be suitable for compensatory mitigation.	Larger ratio provides greater choice in lands to be acquired and restored.
Availability of replacement of wetland function	Wetlands in suggested "new preserves" were converted to a scored high, medium, and low for their potential quantity of "units of restoration" and wetlands predicted to be filled were converted to a scored for the "units of impact". Ratio is the "units of restoration" divided by "units of impact".	1.8	1.8	2.8	2.8	3.3	Wetlands adjacent to existing development, canals, etc. Converted to a scored "low".	Higher ratio indicate greater assurance that ecosystem benefits would be replaced.
Florida Panther	Percent of Priority 1 and 2 lands (within study area) within suggested preserves.	56%	62%	70%	71%	72%	Existing public preserves with panther use.	Higher percentage on public lands provide greater assurance of preserving population.
Florida Panther	Percentage of lands in agriculture" and whether criteria for non-intensification of use suggested.	26%, No criteria	35%, No criteria	18%, Criteria	25%, Criteria	19%, Criteria	Low-intensity agriculture retains clear areas for prey and travel for panther.	Greater area of low-intensity agriculture increases assurance of conservation of the species.
Evaluation Factor.	Measurement.	Q	R	S	T	U	What influenced evaluation.	Conclusion/Comparison.
Scrub Jay	Number of families within suggested areas of preserves.	6	6	11	8	6	26 known families within study area.	Higher number within suggested preserves increase assurance of preservation of species.
Red cockaded	Number of known clusters located	10	2	13	12	18	40 known groups in study area.	Higher number of groups in

woodpeckers	within suggested preserves.						Existing sites in old growth pine.	preserves increases assurance of preservation of the species.
Bald Eagle	Number of nests located within suggested preserves.	18	18	20	19	18	74 known nests in study area. Concern also with adjacent lands.	Higher number of nests in contiguous preserve provides more assurance of preservation of the species.
Woodstork	Maintenance of existing seasonal wetlands is suggested, especially short hydroperiod wetlands.						Species already nesting elsewhere due to loss of wetlands. Needs marshes providing prey base throughout year.	Maintenance/restoration of short hydroperiod wetlands restores historic nesting productivity and foraging habitat availability.
Audubon's crested caracara	Proposed continuation of low intensity agriculture"	140,000 acres agriculture, no criteria.	181,000 acres agriculture, no criteria.	97,000 acres agriculture w/ limited intensification.	130,000 acres agriculture, 54,000 with no intensification.	152,000 acres agriculture, some with limited intensification.	Study area fringe of 10 county area where population is found.	Continuation of low intensity agriculture and greater area of preservation of seasonal wetlands better provide opportunities to maintain or expand population.
Piping Plover	Affect on beaches and tidal flats directly or by water quality change.						Barrier beaches and tidal flats used as wintering sites.	Could be affected by water quality. Increased coastal development degrades habitat.
Snail Kite	Suggested preservation of seasonal wetlands.						Feed only on apple snails, only found in seasonal wetlands.	Greater number of seasonal wetlands within contiguous preserves increases probability of maintenance of species.
West Indian Manatee	Affected by coastal development and seagrass loss.						Boating mortality, loss of seagrass from prop dredging and decline in water quality.	Increased coastal development degrades habitat.
American Crocodile	Changes in timing and quantity of freshwater (see Flowways factor). Fill affects foraging habitat						Changes in freshwater flows and dredge/fill affect estuarine resources.	Maintenance of flowways reduce potential changes in hydro patterns, increasing potential for preservation of the species. Increased coastal development degrades habitat.
Eastern Indigo Snake	Native Habitat							More fragmentation and reduction in habitat impacts species.
Sea Turtles (Loggerhead, Green, Hawksbill, and Kemp's Ridley)	Effects on beaches.						Effects include artificial lighting, beach renourishment, human presence, exotic vegetation, and dredge/fill.	More coastal development degrades habitat.

Evaluation Factor.	Measurement.	Q	R	S	T	U	What influenced evaluation.	Conclusion/Comparison.
Multi-Species Recovery Plan (MSRP)	BPJ assessment of how suggested Ensemble provides specific implementation of the MSRP. Converted to a score from 4 (best) to 24.	17	23	6	13	9	Whether landuse/criteria included that explicitly supported the MSRP.	Those with mapping of preserves or, for all land types, resource protection criteria such as found in the MSRP enhanced its implementation.

Strategic Habitat Conservation Area (SHCA)	Percentage of the total area of SHCA in the study area that will be in the suggested preserve areas.	56%	56%	65%	69%	69%	8.2% of SHCA in State is within study area.	Insufficient preserves to protect minimum viable population.
Wading Bird Rookeries	Number rookeries found within the suggested preserve areas.	17	13	17	18	17	Not measured is effect on foraging range up to 15 kilometers (30 kilometers for Woodstorks). Total 25 sites.	Higher number of rookeries and foraging range in preserves provide more assurance of preservation of species.
Seasonal wetlands	Percent of total area that will be found within suggested preserves.	70%	73%	76%	75%	86%	Seasonal wetlands not evenly distributed across landscape.	14% to 30% of historic impacted habitat not located in preserves.
Connectivity provided between major habitat areas	BPJ assessment of number of connections explicitly provided by the Ensemble. Converted to a score 4 (best) to 24.	21	18	6	10	8	Wider the connection Converted to a scored lower (better).	Wider and more numerous connections provide better wildlife habitat and reduce disturbance from adjoining land uses.
Flowways	Similar to Connectivity, since most connections follow natural flowways. Converted to a score 4 (best) to 24.	18	23	5	6	8	Routing flows through contiguous natural areas Converted to a scored lower (better).	Wider flowways of natural vegetation preserve ability to store floodwaters, prevent downstream pulse flows, and increase habitat value.
Regional significant natural resources. Plans and goals of the Southwest Florida Regional Planning Council	Assessment of how the Ensemble specifically provides implementation of plans and goals. Converted to a score 4 (best) to 24.	20	17	4	6	7	Comparison of mapping or criteria to the goals.	Explicit inclusion of maps or criteria better support resource protection goals.
High priority wetlands important to wetland dependent species	Percentage of all wetlands and uplands that would be within preserve areas suggested by the Ensembles.	79% wetland / 37% upland	79% wetland / 38% upland	82% wetland / 46% upland	86% wetland / 77% upland	87% wetland / 49% upland	37% of study area is important wetland and 19% of study area is important upland.	Percentages of upland lower than wetland indicate lower wetland habitat buffer support.
Shoreline	Assessment how suggested Ensemble affects fringe's ability to provide aquatic nursery and foraging habitat. Converted to a score 4 (best) to 24.	20	21	7	7	8	Reduction in area of mangrove, saltmarsh, or, landward of the fringe, pineland and hardwood hammock plant communities.	No direct affect on mangrove or salt marsh, but higher score reflects higher potential for indirect effect on estuaries landward of the coastal fringe.
Historic Properties	Site specific.						Site specific.	Addressed in specific application.
Property Rights	Assessment of how Ensemble's suggestions reduce rights. Converted to a score 48 (least effect) to 0 (greatest reduction).	45	47	18	21	12	Affect on fair market value of property, reasonable expectation for use of land and return on investment, and vested rights.	
Evaluation Factor.	Measurement.	Q	R	S	T	U	What influenced evaluation.	Conclusion/Comparison.
Difference from Comprehensive Plans	Assessment of how different the Ensembles are from the Plans. Converted to a score 16 (most agreement) to 0 (greatest difference).	14	16	7	7	5	Additional criteria or restrictions lowered Converted to a score.	Large difference between Ensembles.

Economic Sustainability: Job Creation	Assessment of effect of suggestions in Ensembles on creation or elimination of jobs. Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability)	13	13	6	5	4	One influence is restrictions on intensification of agriculture prevents year round jobs from citrus.	Restrictions on area or type of land use restrict opportunity for job creation.
Economic Sustainability: Home affordability	Assessment of change in cost of homes from suggestions in Ensembles. Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability).	11	11	6	6	4	One is restrictions on density (number of homes per acre).	More restrictions increases cost per unit of homes.
Economic Sustainability: Cost of living	Assessment of change in costs resulting from suggestions in Ensembles. Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability).	10	10	7	7	7	Restrictions add to costs. Costs passed to consumers.	More restrictive criteria increases cost of living.
Economic Sustainability: Property tax base	Area of development suggested by Ensembles. Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability).	13	14	7	6	5	Number of acres and type of land use.	Restrictions on use of land (intensification of agriculture) or area of development reduces tax base.
Economic Sustainability: Cost to implement	Cost to acquire preserves and perform restoration suggested by Ensembles. Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability).	12	13	5	6	3	Area of suggested "new preserves".	Larger "new preserves" adds costs passed to local goods and services.
Economic Sustainability: Increased taxes	"Cost to implement" divided by "Property Tax Base". Converted to a score 16 (positive influence) to 0 (less protective of economic sustainability).	12	13	6	6	4	Preserves must be supported by property tax base.	Higher area of preserves at same time as smaller area of development increases taxes.
Aesthetics	Possible socio-economic influence						Areas of preserve.	Many persons attracted to area for presence of natural areas.
Management of Public Lands	Narrative assesment of effect on management of verious locations of development suggested by the Ensembles.	Greatest area of develop ment.	Greate st area of agricult ure", preferable to urban	Increa ses area of preser ve adj to public lands.	Less urban adjace nt to Corksc rew Marsh.	More restrict ive criteria .	Considered (1) compatability of the surrounding land use with the land management plans and (2) whether change in land use degrade or improve natural resources on public land.	Management least effected when public lands surrounded by low intensity activities and by expansion of contiguous preserves.

Evaluation Factor.	Measurement.	Q	R	S	T	U	What influenced evaluation.	Conclusion/Comparison.
Water Quality: Pollution Loading	Assessment of Ensembles. Converted to a score 3/+ (least likely to affect water quality) to	13/0	15/0	6/0	9/+	6/+	Type of land use and type of treatment of the runoff.	Reduction in area of urban or criteria to provide treatment reduced likelihood of impact.

	15/0 (more likely an impact).								
Water Quality: Freshwater pulses	Assessment of Ensembles. Converted to a score 3/+ (least likely to affect water quality) to 15/0 (more likely an impact).	12/0	13/0	7/0	6/+	6/+	Area of new impervious surface and acres of wetland preservation.	Increase in urban with decrease in wetland areas (that provide peak storage) increases pulses.	
Water Quality: Habitat Loss	Assessment. Converted to a score 3/+ (least likely to affect water quality) to 15/0 (more likely an impact).	13/0	12/0	6/+	7/+	4/+	Quantity of wetlands.	Higher quantity of natural vegetation preserved maintains capability to assimilate pollutants.	
Water Quality: Groundwater impact	Assessment. Converted to a score 3/+ (least likely to affect water quality) to 15/0 (more likely an impact).	11/+	11/+	5/0	7/0	6/0	Protection of Surficial Aquifer System.	Protection of lands surrounding wellfields either by criteria or placing in preserve reduces likelihood of impact.	
Hurricane Preparedness	Assessment of suggestions in Ensembles.	Increase in urban area.					Increase in population offset by increase in roads and shelters.	None were considered to have change preparedness.	
Water Management. (7 factors: infrastructure, home damage, home construction, flood depth, historic flow patterns, water storage, and aquifer zoning.)	Assessment whether seven factors were "addressed" by suggestions in Ensembles. Converted to a score is the number of +'s. Higher the Converted to a score, the less potential for impact.	6	14	17	13	14.5	Provision for funding infrastructure. Criteria to prevent home construction in floodplain. Preservation of flowways. Preservation of wetlands (store water and preserve groundwater levels).	R provides criteria for homes within floodplain and funds infrastructure. S, T, and U provide wetland preserves and flowways.	
Cumulative impacts: Social factors. (4 factors: Infant mortality, Road needs, Crime rates, Hurricane vulnerability)	Assessment of the cumulative effect for each of the individual factors of the suggestions in the Ensembles. Lower the Converted to a score, the less likely will be a degradation.	46	65	36	40	42	Area of urban development. For Hurricane vulnerability, presence of flowways.	Increase in urbanization has cumulative impacts, but flooding from hurricane addressed by presence of flowways.	
Cumulative Impacts: Environmental factors. (6 factors)	Assessment of the cumulative effect for each of the individual factors by the suggestions in the Ensembles. Lower the Converted to a score, the less likely will be a degradation.	104	113	72	69	71	Area of development and contiguous preserves. Presence of flowways.	Greater development increases of air and water pollution (and vulnerability of watershed) while increases in contiguous preserves reduces impacts to wetlands, hydrology, and preserves.	

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