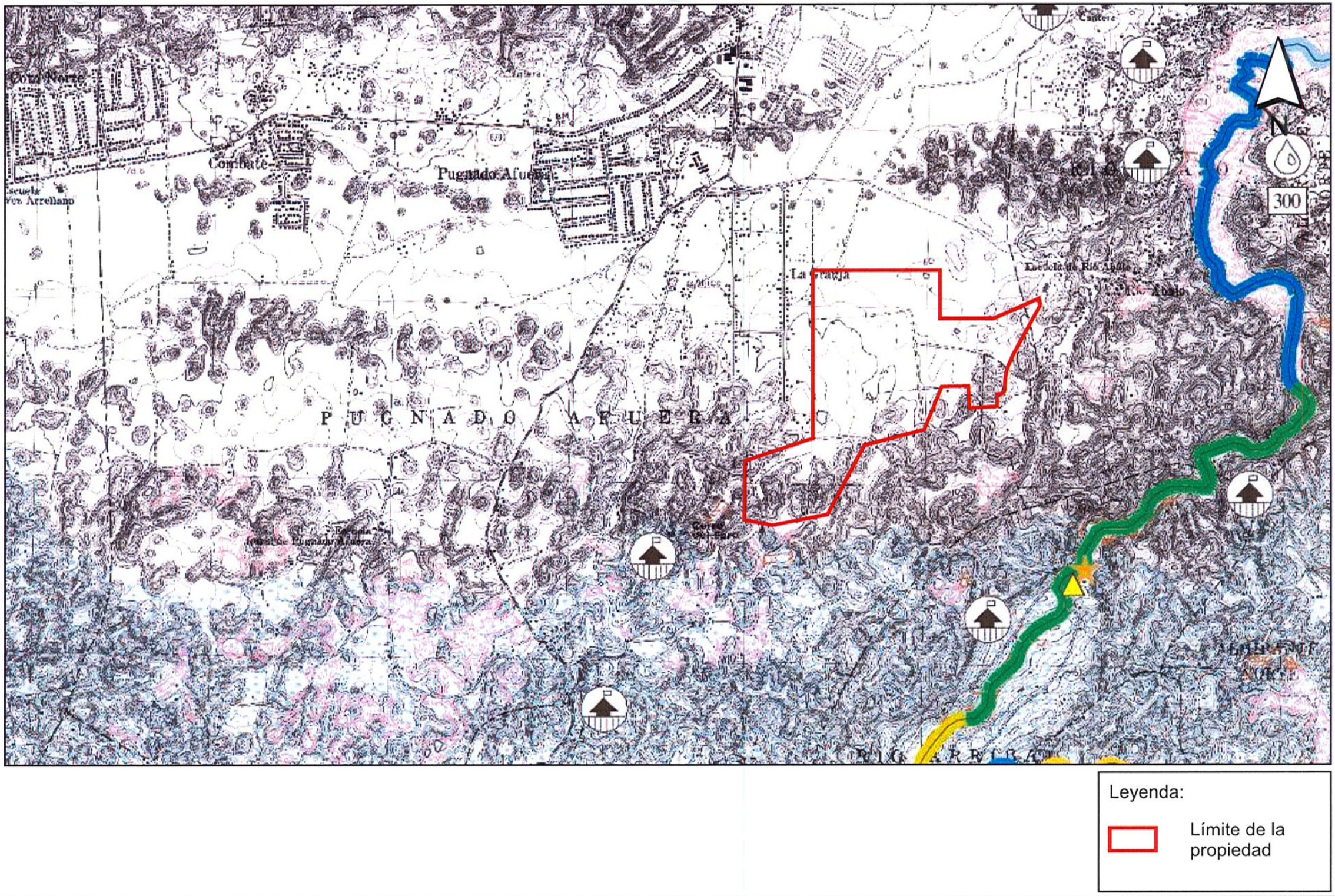


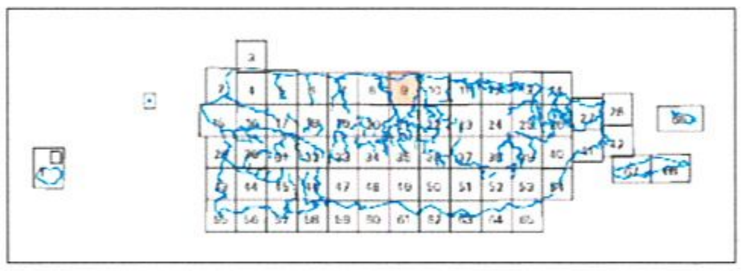
Índice de Sensitividad Ambiental	Desarrollo Residencial La Sabana	Fuente: NOAA Cuadrángulo de Manatí No a escala

SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY CLIFFS
- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
- 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED VEGETATED LOW BANKS
- 10D MANGROVES
- SALT- AND BRACKISH-WATER MARSHES
- FRESHWATER MARSHES
- FRESHWATER SWAMPS
- FRESHWATER SCRUB/SHRUB

STREAM REACHES (RSI)

- 1 QUIET POOL; LOW-SENSITIVE BANKS
- 2 STRAIGHT CHANNEL WITH CURRENTS; LOW-SENSITIVE BANKS (MUD DOMINANT)
- 3 MEANDERING CHANNEL; SAND POINT BARS
- 4 MEANDERING CHANNEL; VEGETATED POINT BARS
- 5 RAPIDS OVER BEDROCK
- 6 MEANDERING CHANNEL; SAND AND GRAVEL POINT BARS
- 7 SPLIT CHANNEL WITH COARSE GRAVEL; SOME RAPIDS
- 8 SMALL FALLS; BOULDERS IN CHANNEL
- 9 LARGE FALLS; BOULDERS IN CHANNEL
- 10 CHANNELS WITH ASSOCIATED VULNERABLE WETLANDS
- KARST



N W E S

SCALE 1:55000

1 .5 0 1 KILOMETER

1 .5 0 1 MILE

Not For Navigation
Published: May 2000

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

MANATI, P.R. (1982) PR-9

PUERTO RICO - ESIMAP 9

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
62	American coot			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	American kestrel			HIGH	X	X	X	X						X	X	X	-
	American wigeon				X	X	X	X						X	X	X	-
	Black skimmer				X	X	X	X							X	X	-
	Blue-winged teal			HIGH	X	X	X	X						X	X	X	-
	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Caribbean coot	S	T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common moorhen			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe			HIGH	X	X	X	X						X	X	X	-
	Green-winged teal			LOW	X	X	X							X	X	X	-
	Lesser scaup			LOW	X	X	X								X	X	-
	Masked duck	S	T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Merlin			LOW	X	X	X							X	X	X	-
	Northern pintail			LOW	X	X	X	X					X	X	X	X	-
	Osprey			HIGH	X	X	X	X					X	X	X	X	-
	Peregrine falcon	S	E	LOW	X	X	X	X						X	X	X	-
	Purple gallinule			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-
	Red-tailed hawk			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	Ring-necked duck			LOW	X	X	X							X	X	X	-
	Ruddy duck	S	T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Shorebirds			HIGH	X	X	X	X	X			X	X	X	X	X	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	West Indian whistling-duck	S	T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	White-cheeked pintail			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	-
74	American coot			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Brown pelican	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-
	Caribbean coot	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
	Common moorhen			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Osprey				X	X	X	X					X	X	X	X	-
	Pied-billed grebe			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Roseate tern	S/F	E/I					X	X	X	X	X	X				-
	Short-eared owl				X	X	X	X	X	X	X	X	X	X	X	X	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	West Indian whistling-duck	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
	Yellow-breasted crake	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
75	Blue-winged teal				X	X	X	X						X	X	X	-
	Common moorhen				X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe				X	X	X	X						X	X	X	-
	Least grebe	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	-
	Yellow-breasted crake	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
76	Ruddy duck	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-
77	Black-necked stilt							X	X	X	X	X	X	X			-
	Blue-winged teal			HIGH	X	X	X	X						X	X	X	-
	Common moorhen			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	Common snipe			HIGH	X	X	X	X						X	X	X	-
	Wading birds			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-
	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	-
78	White-crowned pigeon				X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP

FISH:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
17	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
29	Native stream fish				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
35	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Reef fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
62	Native stream fish							X	X			X	X	X	X		-	-	APR-MAY AUG-NOV	-	-
	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC
	Tilapia				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	DEC-JUL	DEC-JUL	JAN-DEC	JAN-DEC
74	Largemouth bass				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	JAN-DEC	JAN-DEC
	Native stream fish				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
	Redear sunfish				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	JAN-DEC	JAN-DEC
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC
	Tilapia				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	DEC-JUL	DEC-JUL	JAN-DEC	JAN-DEC
77	Native stream fish							X	X			X	X	X	X		-	-	APR-MAY AUG-NOV	-	-
	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-DEC	JAN-DEC	JAN-DEC

PLANT:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D
72	Ottoschulzia rhodoxylon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X
74	Spiny naiad				X	X	X	X	X	X	X	X	X	X	X	X
79	Pterocarpus swamp				X	X	X	X	X	X	X	X	X	X	X	X
80	Schoepfia arenaria	S/F	T/I		X	X	X	X	X	X	X	X	X	X	X	X
81	Chamaecrista glandulosa mirabilis	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
29	Freshwater crab				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	-	JAN-DEC	JAN-DEC
	Native stream shrimp				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
30	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
35	Caribbean spiny lobster				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Octopus				X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	-	JAN-DEC	JAN-DEC
62	Blue crabs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
	Native stream shrimp							X	X			X	X	X	X		-	-	APR-MAY AUG-NOV	-	-
74	Blackback land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
	Purple land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
75	Blackback land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
	Purple land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
77	Blackback land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
	Native stream shrimp							X	X			X	X	X	X		-	-	APR-MAY AUG-NOV	-	-
	Purple land crab				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swamp ghost crab (zambuco)			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving
17	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X	-	-
	Whales				X	X	X	X	X	X	X	X	X	X	X	X	-	-
20	Sperm whale	S/F	E/E	HIGH	X	X	X	X	X	X	X		X	X	X	X	-	-
35	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X	-	-
	Whales				X	X	X	X	X	X	X	X	X	X	X	X	-	-
36	Humpback whale	S/F	E/E	VERY HIGH	X	X	X	X	X						X	X	-	-

PUERTO RICO - ESIMAP 9 cont.

BIOLOGICAL RESOURCES: cont.

REPTILE:

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
32	Green sea turtle	S/F	E/I		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Leatherback sea turtle	S/F	E/E			X	X	X	X	X	X	X	X				FEB-JUN	APR-SEP	-	APR-SEP	FEB-JUN
62	Jicotea				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	JUN-OCT	-	JAN-DEC	JAN-DEC
74	Jicotea				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	JUN-OCT	-	JAN-DEC	JAN-DEC
83	Puerto Rican boa	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

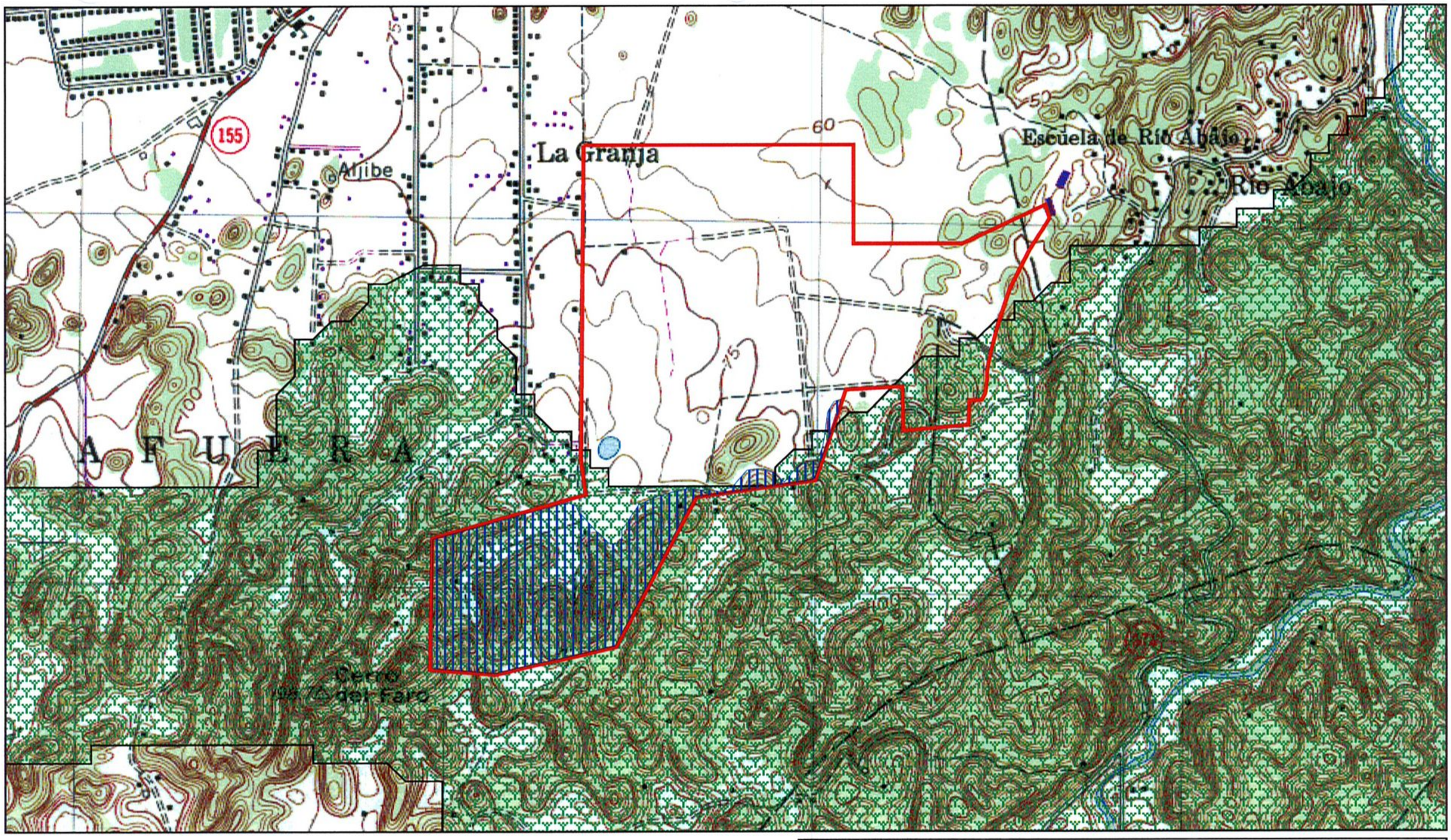
WATER INTAKE:

HUN#	Name	Owner/Manager	Contact	Phone
303	VEGA BAJA FILTER PLANT	PRASA	PR 674, KM 1.0	787/858-2010

WILDLIFE REFUGE:

HUN#	Name	Owner/Manager	Contact	Phone
334	RESERVA NATURAL HACIENDA LA ESPERANZA	DRNA/PRCT	DIVISION DE RESERVAS NATURALES Y REFUGIOS DE VIDA SILVESTRE	787/724-2816
338	RESERVA NATURAL LAGUNA TORTUGUERO	DRNA	DIVISION DE RESERVAS NATURALES Y REFUGIOS DE VIDA SILVESTRE	787/724-2816
339	RESERVA NATURAL PANTANO CIBUCO	DRNA	DIVISION DE RESERVAS NATURALES Y REFUGIOS DE VIDA SILVESTRE	787/724-2816

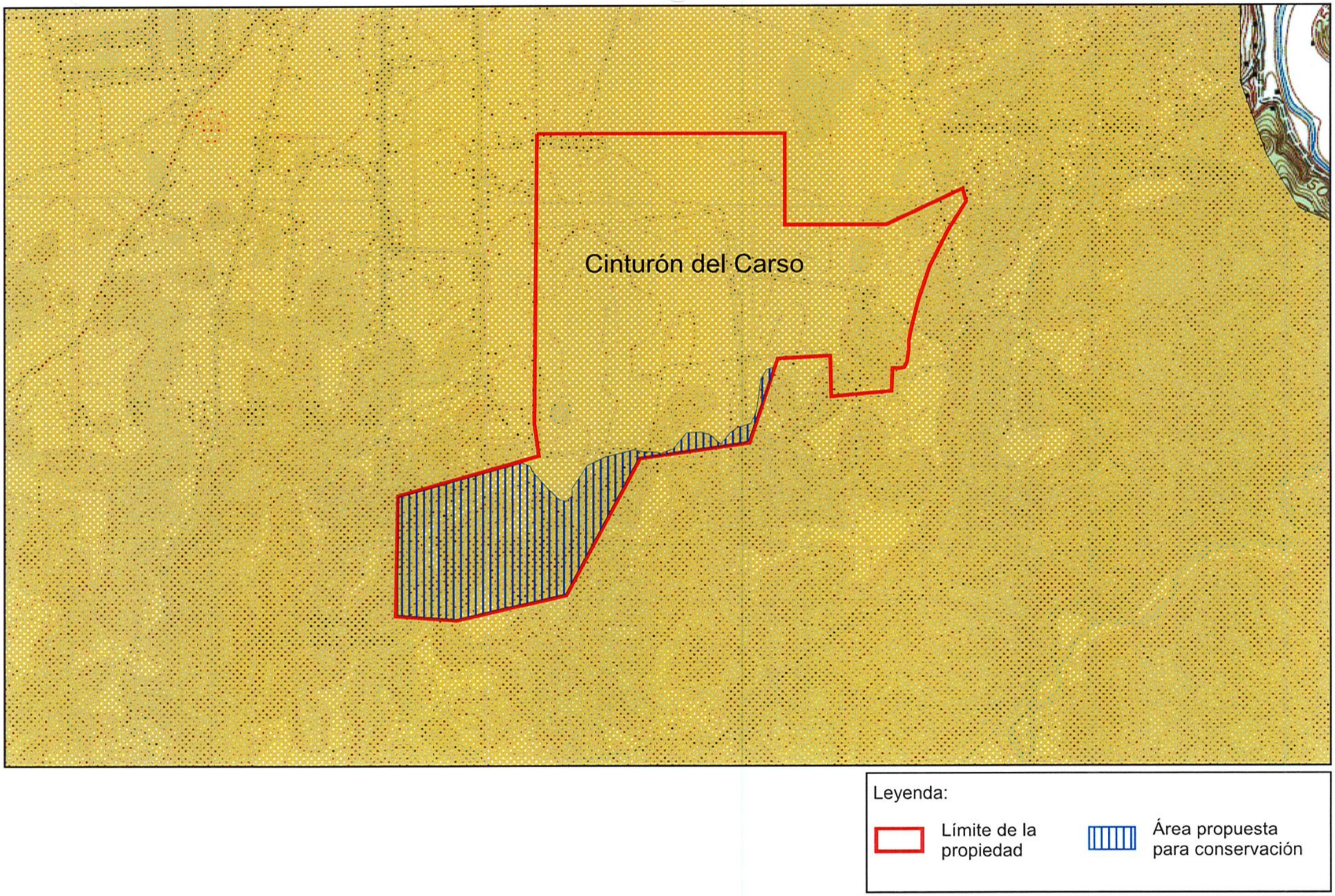
Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.



Leyenda:

- Límite de la propiedad
- Área propuesta para conservación
- Zona de conservación

Zona de Conservación del Carso	Desarrollo Residencial La Sabana	Fuente: DRNA Escala 1:10,000 300 0 300 Meters

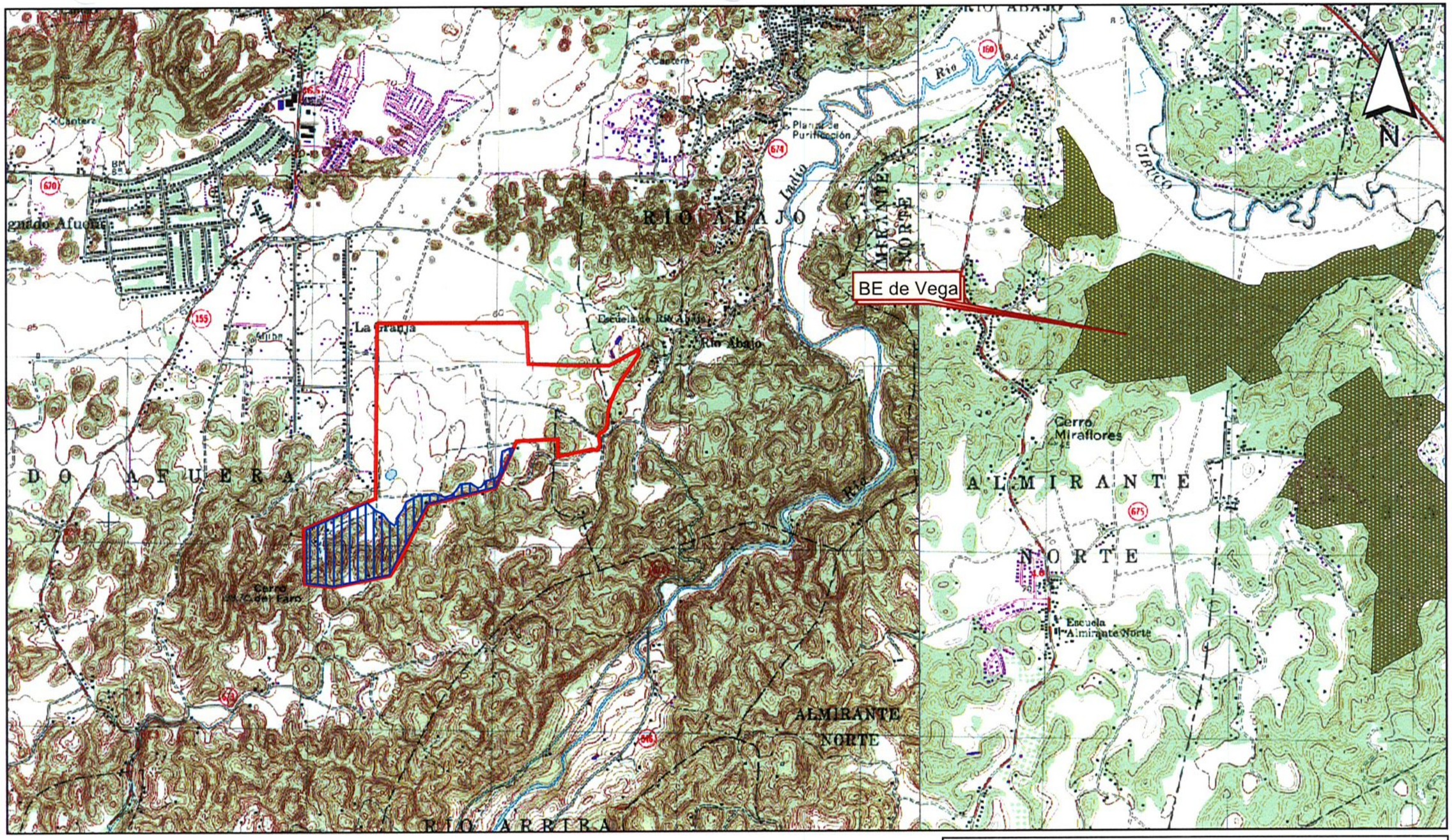


Región del Carso en la que Ubica el Predio Propuesto

Desarrollo Residencial La Sabana

Fuente: DRNA
Escala 1:10,000

300 0 300 Meters

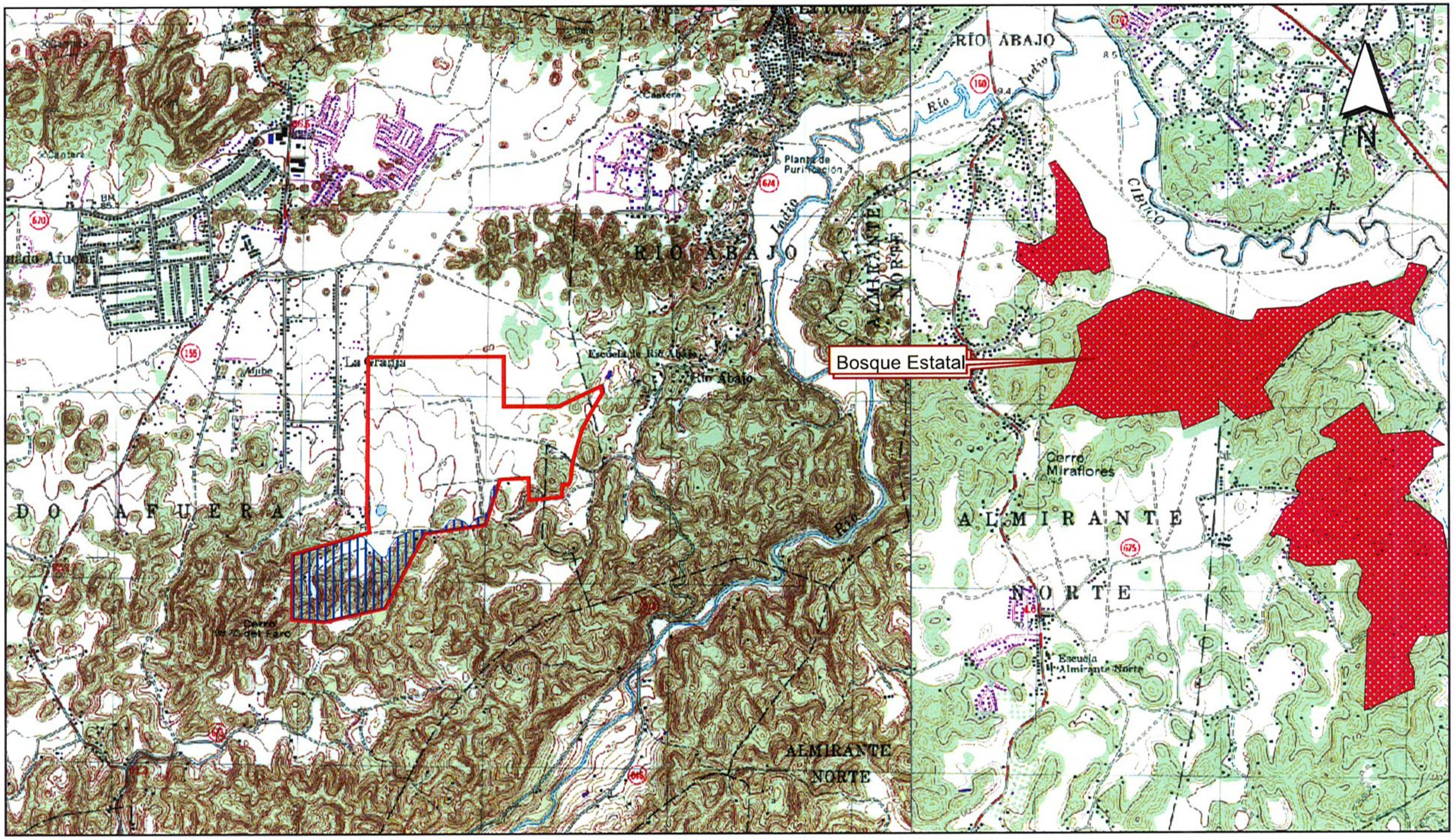


Leyenda:

Límite de la propiedad

Área propuesta para conservación

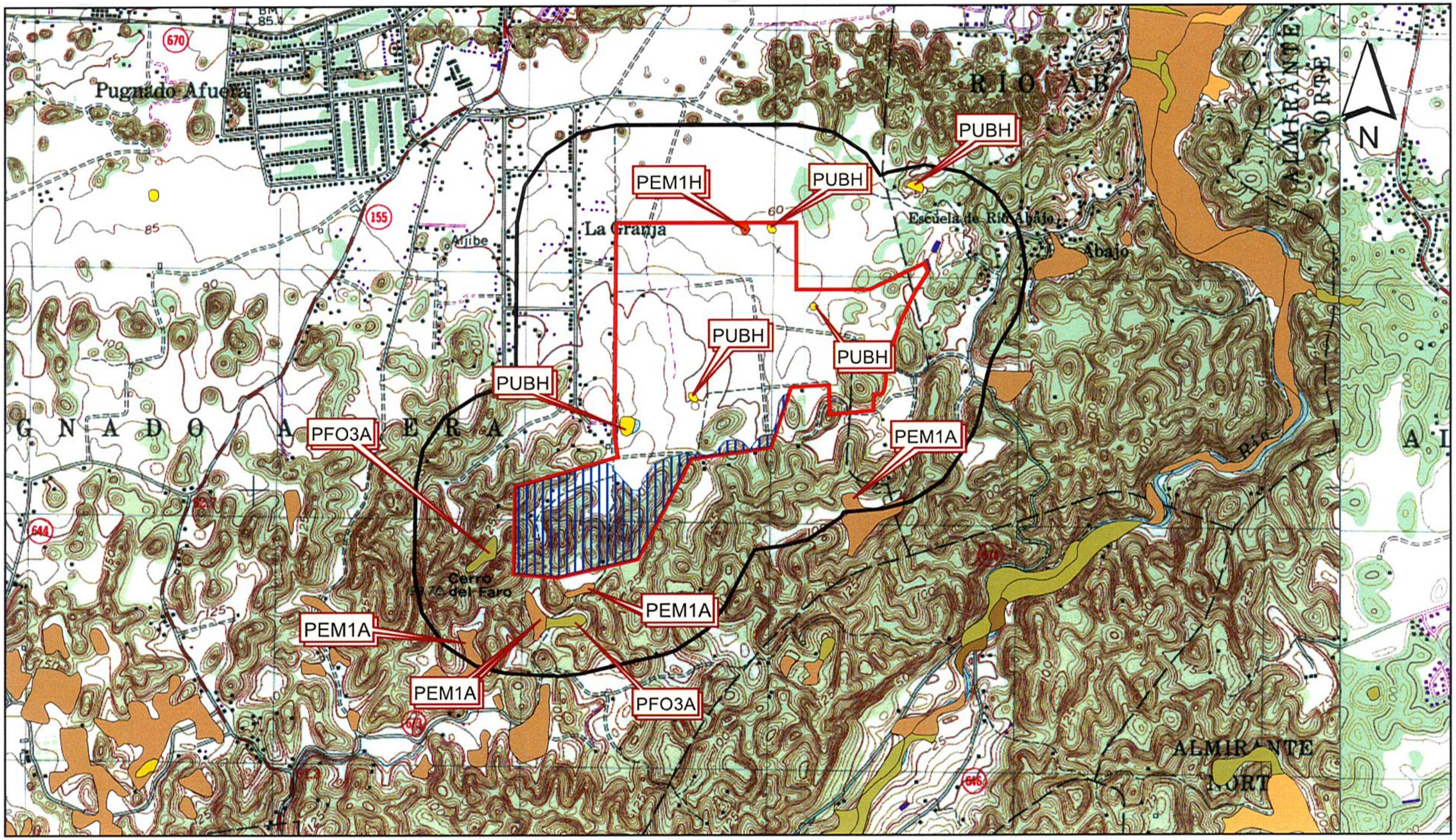
Bosques Estatales o Reservas Naturales	Desarrollo Residencial La Sabana	Fuente: DRNA Escala 1:20,000 400 0 400 800 Meters



Leyenda:

- Límite de la propiedad
- Área propuesta para conservació

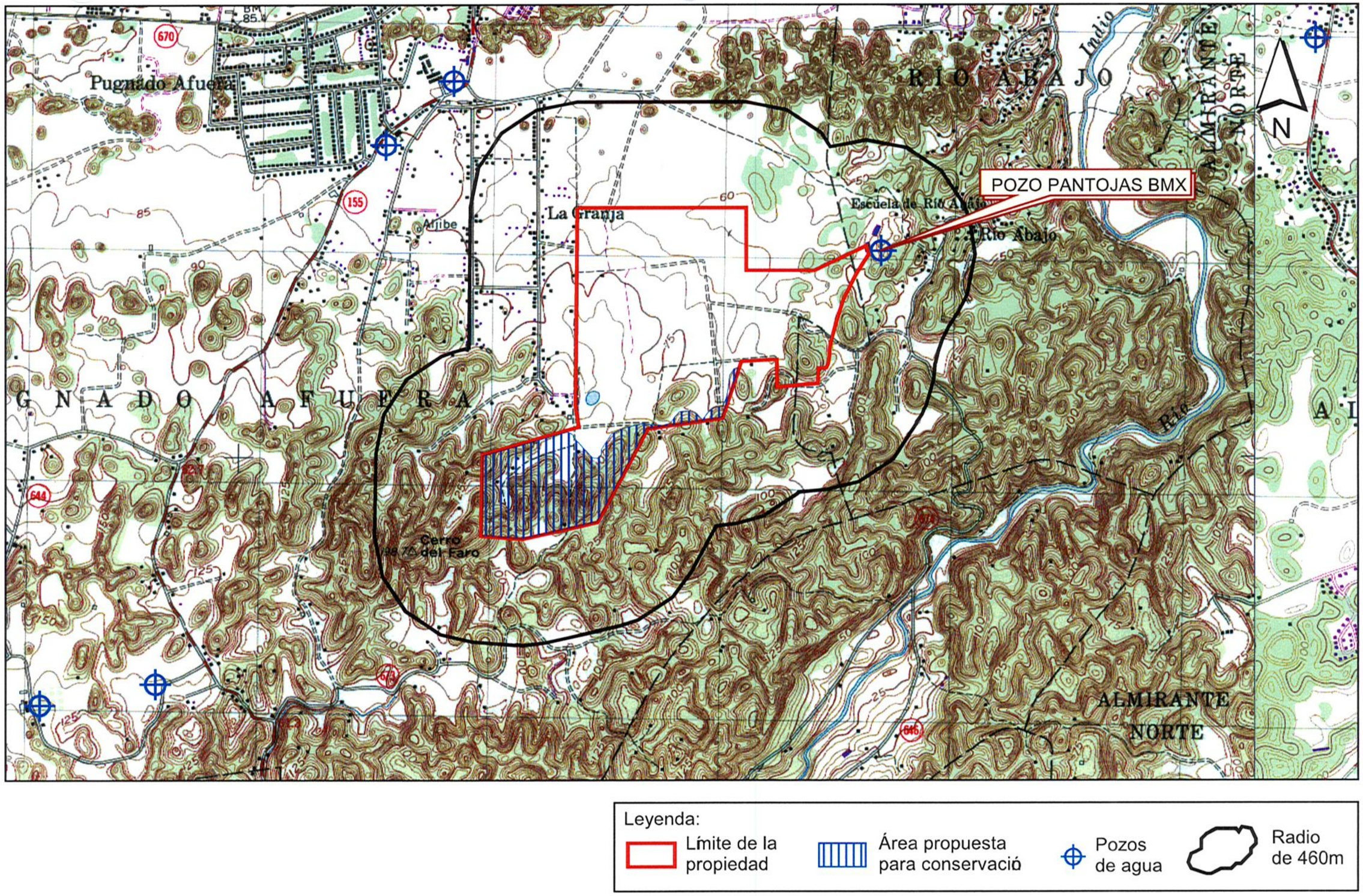
Hábitats Sensitivos	Desarrollo Residencial La Sabana	Fuente: DRNA Escala 1:20,000 300 0 300 600 900 Meters



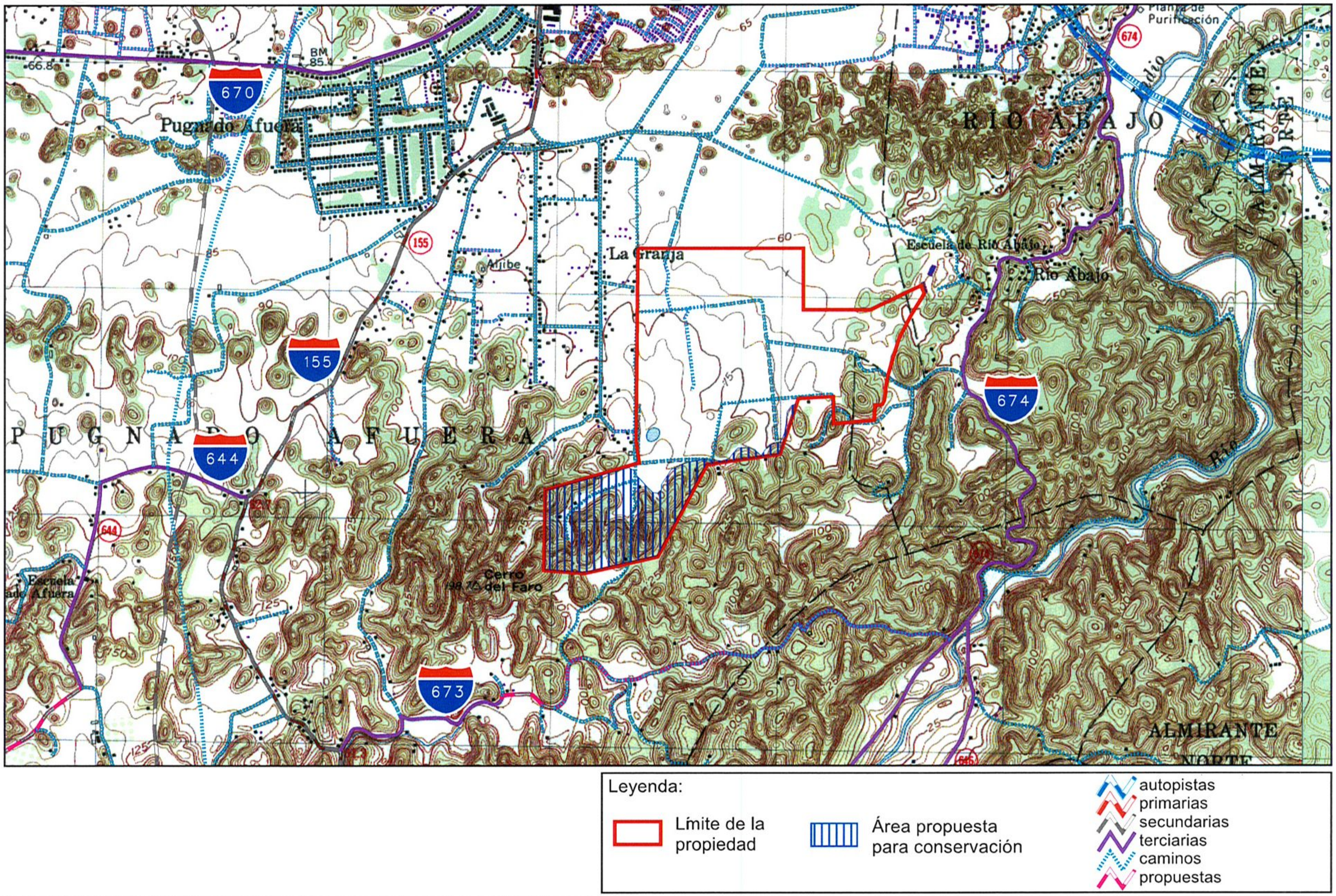
Leyenda:

- Límite de la propiedad
- Área propuesta para conservación
- Radio de 400m

Sistemas de Humedales	Desarrollo Residencial La Sabana	Fuente: USFWS Inventario Nacional de Humedales Escala 1:15,000 300 0 300 600 900 Meters



Pozos de Agua Potable	Desarrollo Residencial La Sabana	Fuente: DRNA/USGS Escala 1:15,000 300 0 300 600 900 Meters



Infraestructura Vial

Desarrollo Residencial La Sabana

Fuente: ACT
Escala 1:15,000

300 0 300 600 Meters