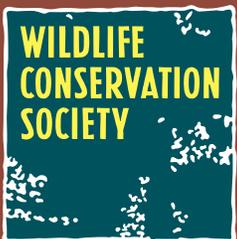




WILDLIFE CONSERVATION SOCIETY'S BEST OF THE WILD 2012

# KARUKINKA

A TEN-YEAR VISION







WILDLIFE CONSERVATION SOCIETY'S BEST OF THE WILD 2012

# KARUKINKA



PHOTO CREDITS: COVER: J. MAHER/WCS. INSIDE COVER: G. WENBORNE. PAGE 2: R. MUZA/WCS. PAGE 4: G. WENBORNE. PAGE 5: D. LABRUNA/WCS (MAP); R. MUZA/WCS. PAGE 6: C. SILVA-QUINTAS/WCS. PAGE 7: G. WENBORNE (TOP); K. REDFORD/WCS (BOTTOM). PAGE 8: M. SANCHEZ. PAGE 9: N. GODOY (TOP); R. MUZA/WCS (BOTTOM). PAGE 10: R. MUZA/WCS. PAGE 12: M. CHACÓN/WCS. PAGE 13: P. NECOCHOA (TOP); A. VILA/WCS (BOTTOM). PAGE 14: A. MUÑOZ/WCS. PAGE 15: A. VILA/WCS. PAGE 16: A. VILA/WCS. PAGE 17: R. MUZA/WCS.



# THE CASE FOR CONSERVATION

WCS ENVISIONS a world in which people value and embrace the diversity of life, live sustainably with wildlife, and ensure the integrity of the natural world. We focus our conservation efforts on the best of the wild – landscapes and seascapes that are rich in biological diversity and where long-term conservation of wildlife and the natural processes they depend upon can be achieved. Our global portfolio of 75 Best of the Wild sites, including Chile’s Karukinka, gives us a leading role in saving some of the wildest places that remain on Earth.

In Tierra del Fuego, at the remote tip of South America, lies Karukinka, a magnificent reserve owned by WCS that shelters Patagonia’s iconic guanaco, its magnificent Andean condor, and the endangered culpeo fox. The intact forests and peatlands of Karukinka hold vast reservoirs of carbon and water in amounts significant enough to help offset carbon dioxide emissions and mitigate the impacts of climate change for the planet. Lying seaward of the Karukinka reserve is Admiralty Sound, where elephant seals, sea lions, penguins, and seabirds thrive.

This magnificent haven remains largely untouched by the human footprint, though threats are mounting. The natural wealth of Karukinka is vulnerable to overexploitation of its peat, timber, fish and wildlife. Careless squandering of this natural capital could deprive the world of one its most important carbon storehouses and one of Chile’s great forest-to-sea treasures.

This prospectus outlines WCS’s strategy to conserve the wildlife and wild places of Karukinka. Please see companion prospectuses for more information about our work in the Andean Patagonia Steppe and on the Patagonian Coast.

**Cover:** Guanacos are icons of Patagonia’s wild places; Karukinka protects 60% of Chile’s total guanaco population.

**Inside cover:** Karukinka is increasingly recognized as a national treasure that is rich in peatbogs, mountains, forest, and coast.

**Opposite:** Owned and managed by WCS, the Karukinka reserve’s forests and mountains offer the people of Chile and the world unparalleled opportunities to explore and understand intact wild places.

# WCS & KARUKINKA



**Above:** Admiralty Sound lies just off the coast of the Karukinka reserve, sheltering black-browed albatross and elephant seals and supporting important local economic activities.

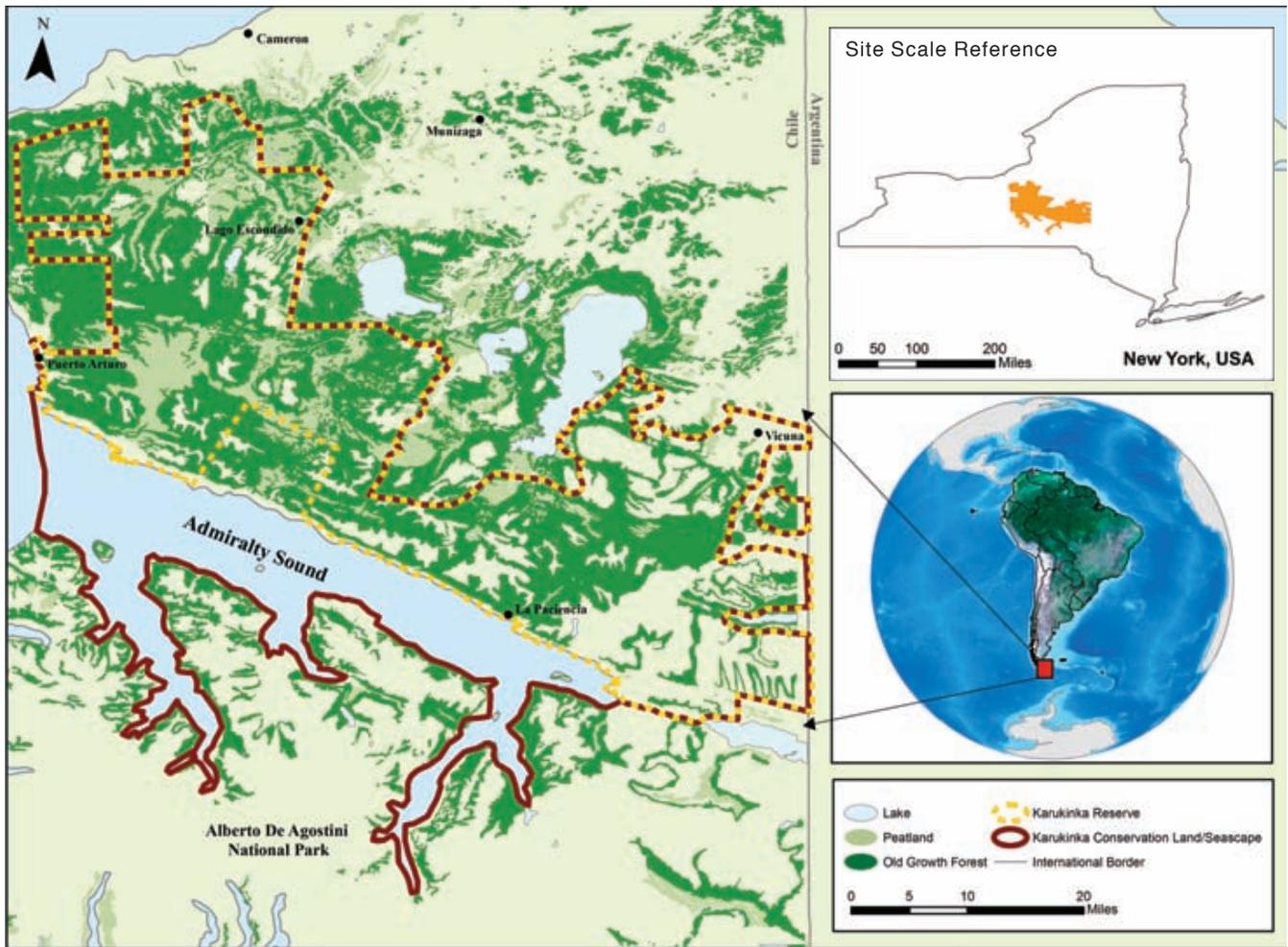
**Opposite: (map)** Karukinka presents a rich opportunity for forest-to-sea conservation, linking the reserve to Admiralty Sound and Alberto de Agostini National Park by using a new model that engages the private sector, local people, and conservationists.

**RUGGED AND REMOTE**, swept by wind and waves, Karukinka – or “Our Land” in the lost language of the Selk’nam people who once inhabited this place – is a verdant 1,160 square mile reserve of cathedral forests, peat bogs, and mountains. Chile’s largest guanaco populations thrive on Karukinka’s windswept slopes; the endangered culpeo fox finds its most important stronghold in its green forests, and South American river otters frolic in its clear, cold rivers. The skies and beaches are a paradise for birds: black-necked swans, colorful ibis, and flying steamer ducks call Karukinka home, as do South America’s largest woodpecker and the majestic condor. A narrow wedge of the Patagonian Sea, Admiralty Sound, bathes the shores of Karukinka, providing vital yet fragile strongholds for elephant seals, black-browed albatross, and leopard seals.

Karukinka’s forests - the largest intact stands of old growth lenga beech in the southern hemisphere - blanket more than 500 square miles. Its extensive peatlands are critical for all life on this remote peninsula and represent some of earth’s most important wetlands. Like a forest in miniature, Karukinka’s peatlands shelter an incredible, yet little known, variety of lichens, mosses, insects, microbes, and fish. These peatlands hold vast reserves of water and serve as a globally important carbon storehouse, sequestering more than 300 million tons of carbon dioxide annually.

The human population here is extremely low, yet Tierra del Fuego’s natural wealth supports important fisheries, mining, and tourism enterprises. Karukinka and its resources, though, are under threat. Beavers, introduced from North America six decades ago, have devastated swaths of forest and peatlands, while grazing livestock and feral dogs threaten wildlife by introducing competition for food and new diseases. Peat mining and uncontrolled fishing in Admiralty Sound further jeopardize the integrity of Karukinka’s ecosystems.

At the heart of the Karukinka landscape lies a one-of-a-kind protected area,



established as a gift from Goldman, Sachs & Co. in 2004 as one of the largest land donations ever made for conservation. Today, the Karukinka reserve is owned and managed by WCS, and exemplifies how innovative approaches to conservation, such as this public-private partnership, can build broad support for science-based conservation of priority natural areas.

WCS's vision is that Karukinka's globally important forests and peatlands provide a verdant home to South America's largest populations of Andean condor, guanaco, and culpeo fox, benefitting the planet by sequestering massive reservoirs of carbon, while its coasts abound with extraordinary numbers of sea birds, penguins and elephant seals.

As the owner of Karukinka, and a respected voice for science-based conservation in the Southern Cone for more than four decades, WCS has the on-the-ground knowledge, credibility, and strong partnerships that are essential to success. To realize our conservation vision over the next decade, new private investment of \$14 million is required. Please join us in leading conservation of this unique and extraordinary wild place.



Above: An Andean condor flies with agility and grace over the granite walls of the Andes.

# UNDERSTANDING THE CHALLENGES & RISKS



**Above:** Valle de la Paciencia is a peaceful wetland rich in mixed forest, peat bogs, and high Andean vegetation that links upland areas with Admiralty Sound.

**KARUKINKA'S FORESTS** have suffered great damage since the introduction of North American beavers in 1946. Without a natural predator in Tierra del Fuego, beavers' industrious construction of dams and ponds has flooded or destroyed nearly 300 square miles of pristine forest and peatland, releasing millions of tons of carbon dioxide into the atmosphere, degrading once rich soils, destroying wildlife habitat, and paving the way for other invasive species to damage Karukinka. The governments of Chile and Argentina, with the support of WCS and other local partners, have recognized this threat: in 2008 the two governments signed an agreement to control beavers in Tierra del Fuego and restore the forests that have been destroyed.

Additional threats are posed by other species that are not native to Karukinka: diseases brought by feral dogs imperil culpeo fox populations that are already in decline from hunting, while poor management of livestock rangelands around the reserve deprives guanacos access to food and essential migratory routes. Guanacos and foxes that are protected within the boundaries of the Karukinka reserve are hunted as they wander onto neighboring lands.

Covering 25% of the reserve and reaching depths of more than 20 feet, Karukinka's peat bogs are jeopardized by steadily growing commercial demand for use of peat in ornamental horticulture and organic soil enrichment. Peat mining is already underway in properties bordering Karukinka, with devastating results to local water flows and soils. Moreover, peat management falls under Chilean mining law, which permits extraction regardless of existing land tenure – even when the peat bog lies within a protected area, as in Karukinka.

The waters adjacent to Karukinka are as vital to wildlife as is the land, safeguarding animals that rely heavily on both land and sea to eat, care for their young, and breed, such as seals, sea lions, penguins and albatross. Bounded by Karukinka to the north and Alberto De Agostini National Park to the south, Admiralty Sound is vulnerable



to uncontrolled fishing, tourism enterprises, and invasive species. Protecting the waters of Admiralty Sound is essential to the survival of wildlife here. However, creation of marine protected areas is in its infancy in Chile, with less than one percent of Chile's marine waters formally protected.

**Left:** Beavers have devastated huge swaths of Karukinka's forest since they were introduced here in the 1940s. WCS advises government agencies on restoration of forests and streams damaged by beavers.

**Below:** Karukinka protects 80% of Tierra del Fuego's peatbogs. Peat mining, shown here, threatens this globally important carbon storehouse and essential ecosystem.



ALTHOUGH MUCH OF KARUKINKA'S VALUABLE NATURAL HERITAGE REMAINS INTACT, THREATS LOOM. ACTION TAKEN IN THE NEXT DECADE WILL BE DECISIVE.

# VISION FOR THE FUTURE



**Above:** Guanacos were once the foundation of the ancient Selk'nam economy but were driven nearly to extinction by sheep ranching in Tierra del Fuego.

**OUR VISION** is that Karukinka's globally important forests and peatlands provide a verdant home to South America's largest populations of Andean condor, guanaco, and culpeo fox, benefitting the planet by sequestering massive reservoirs of carbon, while its coasts abound with extraordinary numbers of sea birds, penguins and elephant seals.

Working with partners, we will achieve the following conservation objectives to realize our vision in the next ten years:

- Effective stewardship ensures persistence of the world's largest block of sub-Antarctic old growth forest.
- Peat bogs and the ecological processes that support them are recovered and maintained.
- Admiralty Sound's colonies of black-browed albatross and elephant seals are sustained.
- A functional population of guanacos is sustained.
- Culpeo fox populations in Karukinka are stable and increasing.

WCS's strategy for Karukinka will yield a new model for regional conservation in the 21st century: protecting biodiversity and supporting the prosperity of local people through innovative public-private partnerships while offering new insights into the global effort to adapt to climate change.

Our vision will be achieved when:

- Science-based land-use policies in Chile and Argentina allow old growth forest ecosystems to recover throughout Tierra del Fuego.
- Chilean law and policy protects Karukinka's peatlands from mining.
- The Government of Chile establishes a protected area in Admiralty Sound that benefits marine resources and supports local fisheries and tourism.



- A Public Use Plan is adopted in Karukinka that allows local people, visitors, managers, scientists, and students to benefit from and have safe access to the spectacular protected land and seascapes.
- Effective management and sustainable finance programs are in place for the Karukinka reserve.

**Above:** A small colony of black-browed albatross located in Admiralty Sound is particularly significant because it is the only land-locked colony recorded. These majestic birds are vulnerable to poorly regulated tourism, and WCS is developing wildlife-friendly tourism guidelines for Karukinka and Admiralty Sound.

**Right:** Karukinka's globally important forests and peatlands provide a colorful home to some of South America's most iconic wildlife.



# ADDRESSING THE RISKS



**Above:** Patagonian skies, forest and wetlands are a paradise for birds in Karukinka such as this austral parakeet.

**Opposite:** A results chain illustrates how WCS takes action to address threats and achieve conservation of Karukinka.

**WCS AND PARTNERS** will achieve our objectives through five key strategies.

To ensure that science-based land-use policies in Chile and Argentina allow forest ecosystems to recover, WCS will:

- Lead implementation of the 2008 agreement between Chile and Argentina to restore forest ecosystems and control beaver.
- Provide technical assistance to Chile and Argentina to restore riverside habitat that has been degraded by beaver.
- Pilot and monitor innovative eradication and restoration techniques that can be applied elsewhere.
- Work with landowners to prevent forest browsing by livestock.
- Monitor health indicators in guanaco and culpeo fox populations.
- Provide policy and technical assistance in controlling invasive species and wildlife diseases.

To ensure that Chilean law and policy protects Karukinka's peatlands, WCS will:

- Use science to demonstrate the value of peatlands to wildlife, ecosystems, and climate change mitigation to build the case to ban peat mining in Karukinka.
- With partners, build support among policymakers for retiring mineral rights to Karukinka's peatlands.
- With the Chilean Ministry of Environment, monitor carbon and water in peatlands to inform management here and global monitoring networks.
- Engage regional researchers to study the evolving impacts of climate change.

To ensure that a marine protected area in Admiralty Sound benefits marine wildlife and protects local livelihoods, WCS will:

- Participate in a collaborative Southern Cone wildlife monitoring program for penguins, southern elephant seals, red knot shorebirds, and albatross to inform

management and guide tourism development.

- Support Admiralty Sound as a Marine Protected Area in cooperation with tourism operators, fishing communities, and government.
- Help develop a management plan for Admiralty Sound, including information on key wildlife areas and economic development.
- Build support for rights-based fisheries management programs among managers and artisanal fishers.
- Promote the use of international standards for wildlife friendly tourism in Admiralty Sound with the National Tourism Service and National Parks Service.

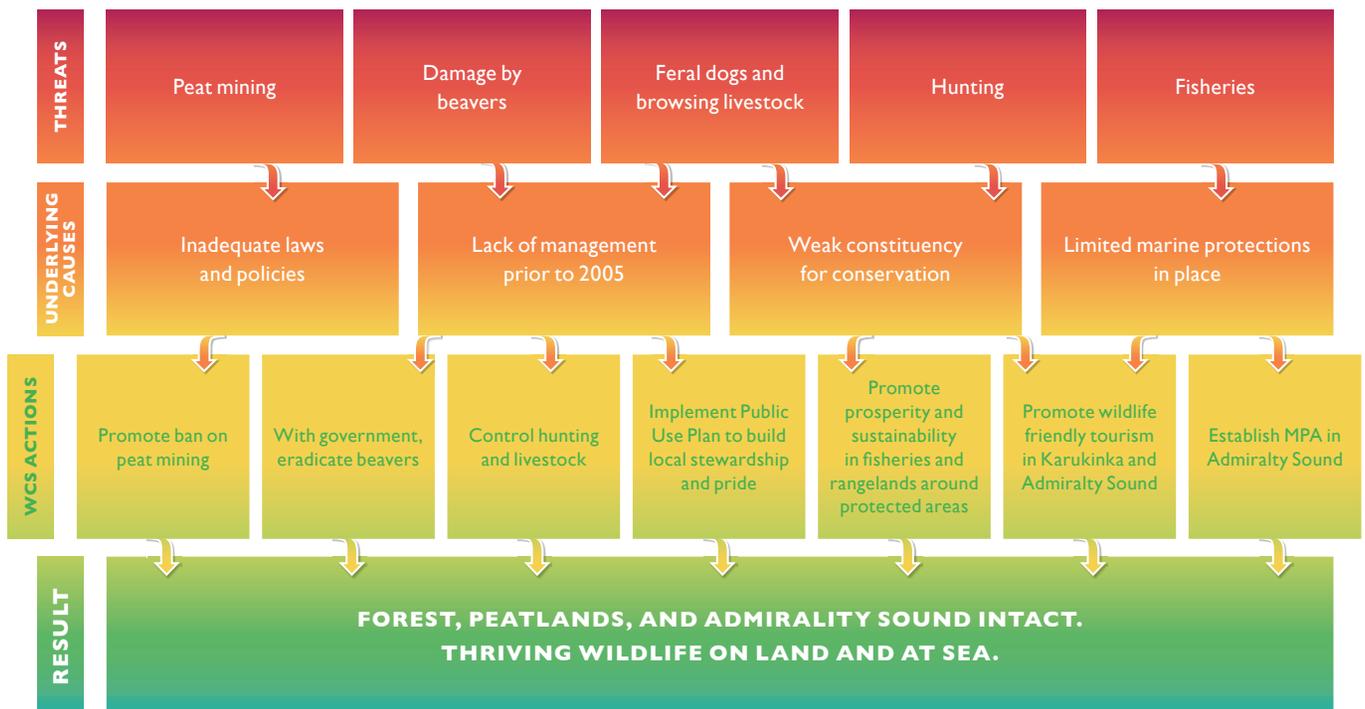
To implement a Public Use Plan in Karukinka that meets WCS’s responsibilities as owners of the reserve to the people of Chile, South America, and the world, WCS will:

- Implement the Public Use Plan to add value to the reserve’s biodiversity; manage the Park for scientific research, education and tourism; and allow the public safe and reliable access.
- Construct the Karukinka circuit, a world-class wilderness experience with 335 miles of trekking and biking trails, 12 camping sites, and six refuges.

- Develop educational materials to inform visitors about Karukinka’s natural value.
- Implement a business plan for the reserve.
- Make capital investments that minimize the impacts of energy and waste management in reserve operations.
- Disseminate the Karukinka educational program through teacher training, field trips, and online curricula.
- Provide field training to Chilean graduate students in wildlife biology, management planning, and research.

To ensure that management of the Karukinka reserve is effective and sustainably financed, WCS will:

- Strengthen enforcement to prevent illegal hunting of guanacos and foxes in and around Karukinka.
- Develop and pilot approaches to control feral dogs in and around the reserve.
- Monitor health of albatross, elephant seals, guanacos, and culpeo fox for use in climate and health networks.
- Help local entrepreneurs establish green tourism businesses in Karukinka informed by socioeconomic and ecological data.
- Establish a regional center of scientific and policy excellence in Karukinka.



# READY TO DELIVER



**Above:** WCS is developing a Public Use Plan to give hikers and mountain bikers access to the coastal forests and spectacular back-country of Karukinka.

**Opposite, top:** Karukinka is a stronghold for the only native terrestrial predator in this part of Chile, the threatened culpeo fox.

**Bottom:** Admiralty Sound is home to southern elephant seals that rest, molt, and breed in the Sound's fjords.

**AT THE DAWN** of the twenty-first century, Karukinka was unprotected and lacked formal management. Though it was largely intact, the damaging effects of poor forestry practices, invasive beaver, peat mining, and poorly regulated fisheries were taking their toll.

In 2004 Goldman, Sachs & Co. provided visionary support to conservation in South America by purchasing this vast tract of land and engaging WCS to work with the Chilean government to establish one of the world's most innovative protected areas. Since then, WCS has developed Tierra del Fuego's strongest science-based conservation program, and we stand ready to deliver on our conservation vision in partnership with the Government of Chile and local people.

The Karukinka Advisory Board was an early creation of our stewardship, allowing Chilean senior business and academic professionals to share their expertise and priorities in guiding management of the reserve. Management structures are in place for the reserve, and Chilean researchers, park rangers, and administrative personnel have been hired to develop and manage Karukinka. With extensive stakeholder input, we have completed a Public Use Plan, which underpins public engagement, including education programs, wildlife-friendly private enterprise, and development of a constituency for conservation in Tierra del Fuego.

WCS has built the strongest environmental education programs in the region, allowing more than 2,000 children to understand for the first time the global

2011 membership of the Karukinka Advisory Board is: Rafael Asenjo (Lawyer, Founder Chilean National Commission Environment); Kathleen Barclay (KCB Business Consultant); Juan Carlos Castilla (Marine Ecologist, Universidad Católica de Chile); Guillermo Donoso (Natural Resources, Universidad Católica de Chile); Pedro Ibáñez (Businessman, Owner of Explora); Antonio Lara (Ecologist, Universidad Austral); Eliodoro Matte (Chilean Business Leader); Laura Novoa (Environmental Lawyer); Alfredo Prieto (Archaeologist, Universidad de Magallanes); Kent Redford (Vice President, Conservation Strategy, and Director, WCS Institute); Steven Sanderson (President and CEO, WCS); Javier Simonetti (Ecologist, Universidad de Chile); Claudio Venegas (Zoologist, Instituto de la Patagonia).

importance of Tierra del Fuego's forests and peatlands through field trips, online curricula, and teacher training. We have provided technical assistance to policymakers with evaluations of the carbon potential of the peat bogs and the forests and development of innovative approaches to land-use management. With partners, WCS facilitated a signed agreement between the governments of Chile and Argentina, pledging to cooperate in restoring forests and eradicating beaver from Tierra del Fuego.

In a significant victory for conservation policy, WCS played a pivotal role in building the case for Chile's 2011 decision to ban salmon farming across all of Tierra del Fuego's waters, including Karukinka's Admiralty Sound. Salmon farms have exploded over the last two decades in central Chile and can bring pollution, diseases, and non-native fish. Though other priority sites in Chile remain vulnerable to salmon farming, the work of WCS and its partners means that Admiralty Sound and other waters of Tierra del Fuego will be safe from this threat.



WITH THE KARUKINKA RESERVE AND PUBLIC USE PLAN AS ITS ANCHOR, WCS IS HELPING PUBLIC AND PRIVATE SECTOR PARTNERS CONTRIBUTE TO AND BENEFIT FROM A COMMON VISION FOR CONSERVATION SUCCESS.



# WHAT IT WILL TAKE



**Above:** WCS park rangers have designed trekking trails in the remote reaches of Karukinka's mountains.

**Opposite:** Juvenile and adult southern rockhopper penguins, shown here in the rocky coastal mountains of Karukinka, benefit from conservation activities that connect upland areas to the coast and the sea.

**THE TOTAL COST OF CONSERVING KARUKINKA** and achieving our conservation vision will be approximately \$22 million over the next decade. Of this amount, new investment of \$14 million in the work of WCS over the next ten years will buttress \$4 million in revenues that will be generated by the Karukinka endowment. This will supplement planned investment of \$4 million in the conservation of Karukinka by our partners on the ground.

*With \$310,000 per year for the next ten years*, WCS will ensure that science-based land-use policies in Chile and Argentina allow forest ecosystems to recover. Funding will allow us to guide the governments of Chile and Argentina in eradicating beavers and other invasive species from Tierra del Fuego, provide technical assistance in restoration of degraded forests, control hunting, and limit access of livestock to the forest.

*With \$185,000 per year for the next ten years*, WCS will ensure that Karukinka's peatlands are conserved and are helping to mitigate the impacts of climate change. Funding will allow us to leverage scientific data to promote a ban on peat mining in Tierra del Fuego, establish a long-term carbon and water monitoring program in Karukinka's peatlands, and promote research to illuminate the role of peatlands in mitigating the effects of climate change.

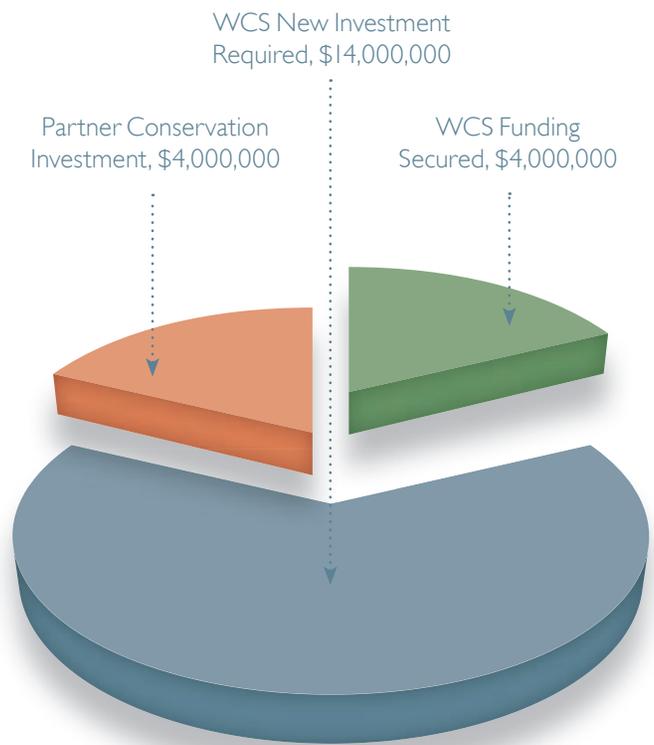
*With \$320,000 per year for the next ten years*, WCS will ensure that a Marine Protected Area in Admiralty Sound benefits marine wildlife and protects local livelihoods. Funding will allow us to identify critical marine wildlife habitats in the Sound and the places where human activities overlap with them, promote creation of the protected area, provide technical support to development and implementation of a management plan, and work with tourism operators and fishers to decrease their impact on the Sound while sustaining their livelihoods.



*With \$760,000 per year for the next ten years, WCS will implement the Public Use Plan in Karukinka. Funding will allow us to manage the reserve and its use, continue to engage local citizens, researchers, decision makers and students in the wonder of Karukinka, complete construction of nature trails and facilities, and build on our successful environmental education program.*

*With \$232,000 per year for the next ten years, WCS will ensure that the Karukinka reserve is well managed and sustainably financed. Funding will allow us to monitor wildlife and threats to them, increase enforcement to prevent illegal hunting, develop an innovative carbon conservation project based on peat protection, support development of wildlife-friendly private sector enterprise in and around the reserve, and establish a research center.*

As the owner of the Karukinka reserve, WCS is uniquely positioned to ensure that threats to this extraordinary wild place are deterred while the benefits conferred by its peatlands, forests, and coasts are secured for decades to come. Please join us in saving this Patagonian haven by achieving our conservation vision and transforming this unique natural treasure into a global conservation legacy.



Estimated Investment in Conservation of Karukinka 2012–2022

# ABOUT WCS



**Above:** Patagonian skies, forest and wetlands are a paradise for birds that thrive in Karukinka's protected areas, including this thorn-tailed rayadito.

**Opposite:** After European settlement, the guanaco was intensively hunted in Chile. However, today an important population is protected in Karukinka.

**WCS SAVES WILDLIFE AND WILD PLACES** by understanding critical issues, crafting science-based solutions, and taking conservation actions that benefit nature and humanity.

WCS conserves critical landscapes and seascapes by helping governments, national organizations, and communities establish and manage parks and protected areas, and integrate them with the complex matrix of surrounding land uses. We conserve species of conservation significance – those that are vulnerable, important to humans, and powerful icons of nature – and, with partners, set conservation priorities across their range. And we build alliances to address four global conservation challenges: the interdependence of conservation, sustainable development, and human livelihoods; natural resource extraction; the interface between wildlife, domestic animal and human health; and climate change.

During a century of conservation, WCS has helped to establish more than 150 protected areas around the world, including Gabon's expansive new national park system and the first no-take marine reserve in Belize. We helped save the American bison from extinction and attracted global attention to the plight of Mongolian gazelle, mountain gorillas, humpback whales, and tigers. We created the first international veterinary program focused on free-ranging wildlife. We believe in vesting people in conservation, and have established innovative partnerships with communities in Zambia, Cambodia, and Bolivia to ensure that people benefit from conservation. WCS field conservation activities are enhanced by our four zoological parks and an aquarium in New York City, which connect people to nature and build a powerful US constituency for wildlife conservation.

WCS is committed to save the Best of the Wild – 75 landscapes and seascapes in 60 countries around the world.\* Please join us in this mission.

\*For a full list of the WCS Best of the Wild Scapes and other Best of the Wild publications, please visit [www.wcs.org/bestofthewild](http://www.wcs.org/bestofthewild)



WCS IS GRATEFUL TO THE FOLLOWING FOR LEADERSHIP SUPPORT OF  
OUR WORK IN KARUKINKA:

Bobolink Foundation  
Butler Conservation Fund  
CONAMA-FPA  
EXPLORA-CONICYT

Gordon E. Dyal  
Goldman, Sachs & Co.  
Linden Trust for Conservation

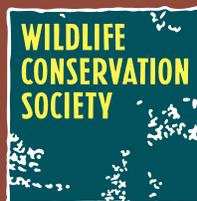
WCS'S SUCCESS IN KARUKINKA CAN BE ATTRIBUTED IN PART TO OUR  
STRONG PARTNERSHIPS:

Advanced Conservation Strategies  
Centro Austral de Investigación  
y Ciencia-CADIC  
Centro de Estudios Avanzados en  
Ecología y Biodiversidad-CASEB  
Centro de Estudios del Cuaternario-CEQUA  
Centro de estudios del Hombre Austral  
Consejo Asesor Karukinka  
CORFO-Innova  
Corporación Nacional Forestal-CONAF  
Embajada de EEUU (U.S. Embassy, Chile)  
Empresa Nacional del Petróleo-ENAP  
Escuela Baudilia Avendaño  
Escuela Bernardo O'Higgins  
Riquelme, Porvenir  
Escuela Patagonia  
Escuela Santiago Bueras  
Escuela Villa Las Nieves  
Ex-Comisión Nacional del Medio  
Ambiente-CONAMA  
Explora-CONICYT  
Felicidad  
Fundación Chile  
Fundación Senda Darwin  
Fundación Suiza en Puerto Yartou  
Gobernación de Tierra del Fuego  
Grupo de Estudios Ambientales-GEA

InsideRSE  
Instituto Antártico Chileno-INACH  
Instituto de Ecología y Biodiversidad-IEB  
Instituto de Fomento Pesquero-IFOP  
Instituto de Investigaciones  
Agropecuarias-INIA  
Instituto de la Patagonia-IP  
Island Conservation  
Jardín Caperucita Roja  
Jardín Infantil Papelucho  
Landcare Research, New Zealand  
Liceo Hernando de Magallanes, Porvenir  
Ministerio de Obras Públicas-  
Dirección de Vialidad Magallanes  
Ministerio Medio Ambiente-Chile The  
Ministry of Environment-Chile  
Municipalidad de Porvenir  
National Parks Service Chile and Argentina  
Pontificia Universidad Católica  
Red de la Alta Dirección de la  
Universidad del Desarrollo  
Secretaría de Ambiente y Desarrollo  
Sustanable, Argentina (Secretary  
of Environment-Argentina)  
Servicio Agrícola y Ganadero-SAG  
(National Livestock and Agriculture-Chile)  
Travesía

Universidad Austral de Chile  
Universidad Católica del Norte  
Universidad de Chile  
Universidad de Concepción  
Universidad de Magallanes  
Universidad Federico Santa Maria  
Universidad Santo Tomás  
University of California Santa Barbara  
University of California Santa Cruz  
U.S. Department of Agriculture, Animal  
and Plant Health Inspection Service  
Veterinarios sin Fronteras Canada  
Wetlands International  
WWF-Chile

FEBRUARY 2012



Wildlife Conservation Society  
Latin America & the Caribbean Program  
2300 Southern Boulevard  
Bronx, NY 10460-1099  
718-220-7158