





Services:

- Integral solutions of marine coastal infrastructure
- Sedimentological studies and dredging projects. Mouth works
- Erosion control works and coastal protection, jetties and breakwaters
- Project and inspection of submarine pipelines laying. Marine works of intake and discharge, emissaries
- Tourist and sport facilities, artificial beaches
- Marine hydraulics studies
- Oil and gas pipeline
- Mathematical modeling of diffusion and thermal recirculation in thermoelectric power plants cooling water systems
- Waves regime studies based on global retrospective models. Oceanweather's GROW model
- Mathematical modeling of wave propagation in coasts and ports. (GHOST and MAP models from TECNOCEAN STWAVE and ADCIRC)
- Optimization of designs with physical hydraulic models at scale

Coastal Experience Sedimentation & Dredging

In the **Incostas Nouel Group**, we provide services that allow maintaining and securing maritime, river and estuarine navigation channels.

Dredging of lagoons in oil facilities, hydraulic fillings, etc.



Sedimentation Studies and Dredging Projects



Technical direction, project and inspection of dredging. Assistance and navigation aids in the San Juan river and Maturin bar PDVSA Monagas State, Venezuela

Dredging of the production platforms of Pedernales field and the access channel PERENCO OF VENEZUELA, S.A. Delta Amacuro State, Venezuela





Hydrographic services, technical direction, projects and dredging inspection in the oil terminals of Puerto Miranda and Pequiven PDVSA
Zulia State, Venezuela

Dredging technical direction in the Sepetiba channel, Río de Janeiro. CHINA HARBOUR ENGINEERING, Co Sepetiba Bay. Rio de Janeiro. Brazil





Wave, sedimentation and geophysical survey study for a natural gas FSU at Sandino Port.

SANCHEZ ARGUELLO CIA LTDA

2020

Nicaragua

Study of the dredging needs in the Camuri Grande club.

CLUB CAMURI GRANDE A.C.

2019

Venezuela

Consulting services for coastal dynamic study of the San Jorge project.

NICARAGUA NATIONAL PORT COMPANY

2016 - 2017

Rivas Department. Nicaragua

Simulations analysis of pertinence of change in the travel frequency for the disposal of dredged material to the dumping area of the port of San Antonio.

SIGA

2015

San Antonio, Republic of Chile

<u>Professional service to study the sediment accumulation phenomenon in the marine area</u> concessioned to DP World Callao SRL in the port terminal of Callao.

NATIONAL PORT AUTHORITY

2015

Lima. Peru

Studies of Basic Engineering and dredging project of the port of Salaverry.

PORTS NATIONAL COMPANY (ENAPU)

2015

Trujillo. Peru

Fluff study. Consultancy specializing in hydraulics, hydrology and hydrodynamics sedimentological to develop a methodology for measuring fluid muds in the sector of Boca Grande of the Orinoco river.

NATIONAL CHANNELING INSTITUTE (INC)

2013

Boca Grande sector. Orinoco River - Venezuela



Coastline geomorphology study. Litoral transport. Coastline evolution and re-dimensioning. Port of Bilwii.

EMBYSA

2010

North Atlantic Autonomous Region. NAAR - Nicaragua

Geomorphology study of the coast in Miramar. Project "Bolivar's Supreme Dream".

EMBYSA

2010

Nicaragua.

<u>Study of Local conditions, sedimentation and CWS discharge modeling. Project: New coal thermoelectric power central in Puerto Coronel.</u>

COLBUN, S.A.

2006-2008

Puerto Coronel. III Region. Chile

Study on sedimentary processes and flooding risk by extreme lake levels.

PDVSA

2006 - 2009

Tomoporo District. Zulia State, Venezuela

<u>Local conditions study, sedimentation and CWS discharge modeling. Project: New coal thermoelectric</u> power central in Punta Pochoco.

COLBUN, S.A.

2005 - 2006

VIII region, Chile

Local conditions study, sedimentation and CWS discharge model. Project: New coal thermoelectric power central in Penco.

COLBUN, S.A.

2005 - 2006

VIII Region. Chile

Dredging of the production platforms of Pedernales field and access channel.

PERENCO OF VENEZUELA, S.A.

2005

Delta Amacuro State. Venezuela



<u>Technical direction and inspection of the dredging at the petroleum terminals of Puerto Miranda and Pequiven.</u>

PDVSA PETROLEUM, S.A.

2003 - 2004

Zulia State. Venezuela

<u>Dredging at the service pier in the Ricardo Zuloaga generator complex. Thermoelectric power plant of</u> Tacoa.

C.A. LA ELECTRICIDAD DE CARACAS

2003

Vargas State. Venezuela

<u>Dredging technical direction in the Sepetiba channel, Rio de Janeiro.</u>

CHINA HARBOUR ENGINEERING, Co.

2000 - 2001

Río de Janeiro. Brazil

Technical services of dredging, hydrography and navigation for the operations of navigation maintenance in the San Juan river and Maturin bar, terminal of Caripito.

PDVSA

1986 - 2000

Monagas State, Venezuela

Studies of estuary hydraulics. Works for sedimentation control. Sinamaica lagoon conservation project.

MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES. MARN

2000

Zulia State, Venezuela

Inspection of the dredging at the Puerto Cabello bay.

NOUEL INGENIEROS, C.A.

1995 -1997

Carabobo State, Venezuela

Inspection of the dredging for the CRAY marine terminal.

LAGOVEN, S.A.

1992

Falcon State, Venezuela



<u>Preliminary hydro-sedimentological study of the San Juan river. Mathematical model of the tide</u> propagation.

LAGOVEN, S.A.

1986

Monagas State, Venezuela

<u>Technical assistance for the execution of sedimentation studies in the Orinoco river.</u>

WATERWAYS, NATIONAL INSTITUTE, INC.

1992

Bolivar State, Venezuela

<u>Feasibility study of the dredging at the mouth of the Neveri river.</u>

STATE OF ANZOATEGUI GOVERNMENT

1980

Anzoategui State, Venezuela

<u>Project of the rockfill channel of the Cerro Grande river mouth.</u>

SINGLE AUTHORITY FOR THE STATE OF VARGAS AREA

2002

Vargas State, Venezuela

Inspection of the dredging, piers of the Amuay refinery.

PDVSA PETROLEUM, S.A.

2001

Falcon State, Venezuela

<u>Update and review. Dredging market research in Venezuelan ports and channels.</u>

DRAVENSA

2001

Federal Premises, Venezuela

Puerto Azul Club dredging, proposal for the inspection.

PUERTO AZUL CLUB

2001

Vargas State, Venezuela

Channeling works at the mouth of Copey creek.

MINISTRY OF ENVIRONMENT AND NATURAL RESOURSES. MARN

2001

Miranda State, Venezuela



<u>Evaluation of the effect of the fluvial sediments discharge on the sedimentation of the La Guaira Port.</u>
MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES. MARN
2000

Vargas State, Venezuela

Morphologic evolution study of the Motatan river Delta.

MOBIL EXPLORATION OF VENEZUELA, S.A.

1998

Trujillo State, Venezuela

Diagnostic of the effects of the construction of a reservoir on the stability of the beach. Puerto Maya . HIDROCAPITAL

1998

Aragua State, Venezuela

Loading pier of the Corpoven's cryogenic in Jose. Diagnostic of the actual sedimentary processes. CORPOVEN, S.A.

1995

Anzoategui State, Venezuela

Bathymetric raising and dredging project of the harbor of the Playa Blanca fishery dock.

NOUEL INGENIEROS, C.A.

1995 - 1997

Carabobo State, Venezuela

Recovery of the beach project and sedimentation control at the Puerto Moreno Marina.

NOUEL INGENIEROS, C.A.

1995

Nueva Esparta State, Venezuela

Characteristics of the material to be dredged at the miles 14 to 20 section of the navigation channel of the Orinoco river. Boca Grande channel.

ROYAL BOSKALIS WESTMINSTER

1995.

Bolivar State, Venezuela

Improvement of the mouths of the Marga-Marga, Carampangue, Mataquito and Queule rivers.

MINISTRY OF PUBLIC WORKS. PUBLIC WORKS MANAGEMENT

1995

Chile



<u>"Fluff" studies in the estuary of Maracaibo.</u> NATIONAL CHANNELING INSTITUTE. INC

1995

Zulia State, Venezuela

Study and project of the marine works for the integral project of Puerto Brion in Higuerote.

STATE OF MIRANDA GOVERNMENT

1994

Miranda State, Venezuela

Study of the sedimentary and morphologic processes of Puerto Moreno marina.

NOUEL INGENIEROS, C.A.

1994

Nueva Esparta State, Venezuela.

"Fluff" studies in the outer section of the navigation channel of the Maracaibo lake.

NATIONAL CHANNELING INSTITUTE. INC

1993 - 1994

Zulia State, Venezuela

Consultancy for the sedimentological study in physic model and project of the work: "area to reclaim to the sea", port of San Antonio.

MINISTRY OF PUBLIC WORKS. PUBLIC WORKS MANAGEMENT

1993

Valparaíso. V Region. Chile

<u>Inspection of the dredging at the port of Zazarida.</u>

STATE OF FALCON GOVERNMENT

1993

Falcon State, Venezuela

<u>Sedimentation studies for the location of the Pequiven's pier in Jose port harbor.</u>

PEQUIVEN

1992

Anzoategui State, Venezuela

<u>Venezuelan counterpart to the MOPT Dutch mission in the analysis for Navigation channel</u> improvement and reduction of maintenance costs.

NATIONAL CHANNELING INSTITUTE

1992

Zulia State, Venezuela.



Analyses of the sedimentary processes and dredging and breakwater project in the port of La Vela.

STATE OF FALCON GOVERNMENT

1991

Falcon State, Venezuela

Analyses of the sedimentary processes and dredging and breakwater project in the port of Zazarida.

FALCON STATE GOVERNMENT

1991

Falcon State, Venezuela

Analyses of the sedimentary processes and dredging and breakwater project in Puerto Cumarebo.

STATE OF FALCON GOVERNMENT

1991

Falcon State, Venezuela

Discharge management of the dredged material at the piers of the Amuay refinery.

LAGOVEN, S.A.

1990

Falcon State, Venezuela

<u>Dredging project and feasibility study of the Lagoven's service pier in Amuay.</u>

LAGOVEN, S.A.

1990

Falcon State, Venezuela

Project of the Sinamaica lagoon recovery.

CORPOZULIA

1990

Zulia State, Venezuela

<u>Preliminary study on the sedimentary processes in the Maracaibo bar and El Tablazo bay, on relation to the navigation channel maintenance dredging.</u>

NATIONAL CHANNELING INSTITUTE. INC

1989

Zulia State, Venezuela

<u>Inspection of the dredging for beach sand filling at Ocumare de la Costa.</u>

MINISTRY OF URBAN DEVELOPMENT (MINDUR)

1989

Aragua State, Venezuela



Sedimentation and dredging studies at the locations of Santa Cruz de Mara and Pararu.

VEPICA BROWN & ROOT

1989

Zulia State, Venezuela

Identification of possible discharge zones with hopper dredge in the area of Boca Grande.

NATIONAL CHANNELING INSTITUTE. INC

1989

Delta Amacuro State, Venezuela

<u>Sedimentological study and field measurements in the Patao cove.</u>

NOUEL INGENIEROS, C.A.

1988

Sucre State, Venezuela

Dredging and hydraulic filling project for a Bauxiven pier in Caicara del Orinoco.

NATIONAL CHANNELING INSTITUTE. INC

1988

Bolivar State, Venezuela

Marketing studies for dredging in Venezuelan ports and channels.

TERMINALES MARACAIBO

1986

Zulia State, Venezuela

Dredging study and project at the fishery port of Zazarida.

NATIONAL CHANNELING INSTITUTE. INC.

1986

Falcon State, Venezuela

Sedimentological measurements in Ciudad Bolívar and Puerto Ayacucho, Sisor project.

OFICINA TÉCNICA DEL MONTE

1986

Bolivar and Amazonas State, Venezuela.

Sedimentation rates estimation. Study for the location of a coal port in the Gulf of Venezuela.

NOUEL INGENIEROS, C.A.

1986 - 1987

Zulia State, Venezuela



Consultancy, technical supervision and evaluation of the dredging and filling programs in Los Tagues.

NATIONAL CHANNELING INSTITUTE. INC

1983 - 1984

Falcon State, Venezuela

<u>Diagnostics of the sedimentary dynamics in the Bajo Grande zone.</u>

NOUEL INGENIEROS, C.A.

1981

Zulia State, Venezuela

Study of alternatives for the Los Patos lagoon conservation.

STATE OF SUCRE GOVERNMENT

1981

Sucre State, Venezuela

Evaluation of the sedimentation problem at the basin and in the access channel of Puerto Miranda.

NATIONAL CHANNELING INSTITUTE. INC

1979

Zulia State, Venezuela

<u>Sedimentological diagnostic and forecast for the necessity of maintenance of the access channel and the harbor of the Zulia's future iron and steel complex.</u>

NATIONAL CHANNELING INSTITUTE. INC

1978

Zulia State, Venezuela.

Study to determine Puerto Maya's beach stability.

OTHEA

1977

Aragua State, Venezuela

<u>Stabilization works in Copey's creek for the marine communication of the Rio Chico navigation</u> channels.

TOURISM CORPORATION (CORPOTURISMO)

1976

Miranda State, Venezuela

Coastal Protecction Works

In the **Incostas Nouel Group**, we design and build solutions to protect settlements near the coast, or to protect the coast itself; such as, defenses to prevent the erosion of the coastline, prevent flooding in coastal areas, caused by overvaluations of the sea level.

Protection against waves at ports or marinas entrances, stabilization of navigation channels in estuarine mouths, protection works for thermoelectric plants, desalination or discharge plants, among others.



Coastal Protection Works

Basic and Detail Engineering of the Coastal Works of the Thermoelectric Power Plant AES ITABO Dominican Republic





Improvement and Reinforcement of the South
Coastal Road of Antofagasta.
MINISTRY OF PUBLIC WORKS. PORT WORKS
MANAGEMENT
II Region. Chile

Improvement Conceptual Study of the Marga-Marga, Mataquito, Carampangue and Queule river mouths. MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT Chile





Basic and Detailed Engineering of the Palma Sola Fishery Port Breakwater.

DITECH
Carabobo State, Venezuela



<u>Sand recharge project and structural reinforcement of the boundary of the Bouganvileae residence,</u> Barbados

D'EMPAIRE REYNA ABOGADOS

Barbados

2018

Conceptual engineering design for coastal protection. Puerto Ilo patio.

SOUTHERN COPPER

Peru

2017

Advice during the execution of the maritime works in Sandy Lane Beach, Barbados

D'EMPAIRE REYNA ABOGADOS

Barbados

2017

Detailed Engineering for the coastal engineering works for the cove project, located in San Carlos, Panama Republic.

EQUINOX

2015

West Panama, Panama Republic of Panama

<u>Protection breakwater construction, required infrastructure for the construction of the baseball stadium located in El Pavero sector, Macuto parish.</u>

LOS TIBURONES DE LA GUAIRA STADIUM CONSORTIUM

2015

Vargas State, Venezuela

Modification of the El Pavero breakwater project, Vargas State.

PMA GROUP

2015

Vargas State, Venezuela

Marine Works, extensión of the Pequiven's plant in Moron, Carabobo State.

ZELDA GROUP

2014

Carabobo State. Venezuela



Basic Engineering of the protection breakwater for the service port of TAECA in the Araya Peninsula, Municipality of Cruz Salmeron Acosta in Sucre State.

TAECA

2014

Sucre State. Venezuela

Breakwater repair and protection Works for the Sports Center in Camurí Chico. Vargas State.

COLISEO PLAYERO CONSORTIUM

2014

Vargas State. Venezuela

<u>Preliminary feasibility study of coastal works for beaches: Honda, Brava y Ramirez, of Montevideo.</u>

MUNICIPALITY OF MONTEVIDEO

2013

Montevideo, Uruguay Republic

Detailed engineering of a breakwater and berth in the expansion area of the El Palito refinery.

Y&V INGENIERÍA Y CONSTRUCCIÓN

2013-2014

Carabobo State. Venezuela

<u>Project west breakwater of the marina and breakwater submerged central beach of Playa Azul Club.</u>

CLUB PLAYA AZUL

2013

Vargas State. Venezuela

Structural design of seawall for slope protection in urbanization Mata Redonda. Maracay.

MINISTRY OF POPULAR POWER FOR THE ENVIRONMENT

2013

Aragua State. Venezuela

<u>Breakwater project marine to protecton perimeter of new stadiun for La Guaira sharks. Macuto, Vargas State.</u>

FONDO GLOBAL DE CONSTRUCCIONES, C.A.

2013

Estado Vargas, Venezuela

Basic and Detailed Engineering of the Palma Sola fishery port breakwater.

DITECH

2011

Carabobo State, Venezuela



Work for erosion control present at the East coast of Punta Palma.

PETROREGIONAL

2008 - 2009

Zulia State, Venezuela

Jetty and breakwater Detail Engineering, Tanaguarenas sector.

INFRAVARGAS

2007 -2008

Vargas State, Venezuela

<u>Project of the coastal works for sedimentation control in the Care river and La Alcantarilla brook</u> mouths.

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

2006 - 2007

Vargas State, Venezuela

Detail Engineering for the construction and repair of breakwaters in the La Zorra fishery port.

CORPOVARGAS

2005 - 2007

Vargas State, Venezuela

Bobures coastal boulevard. Coast protection works, Sucre Municipality.

SUCRE MUNICIPALITY TOWN HALL

2005

Zulia State, Venezuela

<u>Preliminary conceptual studies related to the expansion of the breakwater of the port of Carupano.</u>

TECHNICAL OFFICE LUCHSINGER & BEYER

2005

Sucre State, Venezuela

"El Playón" breakwater: Evaluation of the hurricane Ivan effects.

CORPOVARGAS

2005

Vargas State, Venezuela

Inspection of the construction of the jetty and breakwaters in the Palmar Oeste sector.

CORPOVARGAS

2002 - 2003

Vargas State, Venezuela



Coastal works project of the "El Carboncillo" beach resort.
MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT
2003
Antofagasta. Chile

Coastal works feasibility study for the sea water caption optimization. Shrimp farms. INTER SEA FARMS INTERNATIONAL OF VENEZUELA, S.A. 2002

Zulia State, Venezuela

Protection project of the North breakwater port of La Guaira.
CENTRAL LITORAL PORT
2002
Vargas State, Venezuela

Stabilization works project of the communication channel between the Zazarida lagoon and the sea. STATE OF FALCON GOVERNMENT

2002

Falcon State, Venezuela

<u>Inspection and technical supervision of the discharge jetties in the Curucuti river channeling.</u> CORPOVARGAS

2002

Vargas State, Venezuela

<u>Inspection of the repair of the East Jetty and the discharge channel of the thermoelectric power plant</u> of Tacoa.

C.A. LA ELECTRICIDAD DE CARACAS

2001

Vargas State, Venezuela

San Carlos castle protective jetty project. Paez District.

CORPOZULIA

2001

Zulia State, Venezuela

Inspection and technical supervision of the construction of the East jetty discharge of the Naiguata river channeling.

CORPOVARGAS

2001

Vargas State, Venezuela



Plan for the coast recovery, stabilization and development of the metropolitan litoral. SOLE AREA AUTHORITY OF VARGAS STATE 2000 - 2001
Vargas State, Venezuela

<u>Project of erosion control of the submarine discharge of the Barcelona waste waters treatment plant.</u>
MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES
2001

Anzoategui State, Venezuela

Channeling works project of the mouth and beaches of Palmar West.
SOLE AREA AUTHORITY OF VARGAS STATE
2001
Vargas State, Venezuela

Improvement and reinforcement of the South Coastal road.
MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT
1999 - 2000
Antofagasta. II Region. Chile

Inspection for the expansion of the San Antonio port.
MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT
1997
San Antonio. V Region. Chile

West esplanade protective jetty reconstruction Inspection at the Tacoa thermoelectric power plant. C.A. ELECTRICIDAD DE CARACAS
1996

Vargas State, Venezuela

Marine works project of the sea water intake channel, Aquamarine Shrimp Farm.
ACUAMARINA DE LA COSTA
1994
Zulia and Falcon States, Venezuela

Marine works project and complex planning. Public marina of La Sabana.
FEDERAL DISTRICT GOVERNMENT
1992
Federal District, Venezuela



<u>Project and inspection of the sea water intake of the Siembramar shrimp farm in Barcelona.</u> SIEMBRAMAR

1991 -1992

Anzoategui State, Venezuela

Fishery harbor marine works project. La Zorra fishery core.

FEDERAL DISTRICT GOVERNMENT

1990

Federal District, Venezuela

<u>Discharge works of the Bebedero creek collector and of the "Los Patos" Lagoon channel. Drainage of the west sector.</u>

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

1989

Sucre State, Venezuela

Marine works for the Constanza Port Project.

PUERTO PRÍNCIPE INVESTMENTS

1989

Nueva Esparta State, Venezuela

Project and inspection of the reinforcement works of the Tacoa thermoelectric power plant jetties.

C.A. LA ELECTRICIDAD DE CARACAS

1988

Federal District, Venezuela

<u>Project of marine works reinforcements for the conservation, defense and improvement of the environment for Isla de Aves.</u>

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

1988

Federal Premises, Venezuela

<u>Project and inspection of the Zapara seafront.</u>

NATIONAL CHANNELING INSTITUTE. INC

1987 -1988

Zulia State, Venezuela

<u>Field studies and breakwaters project. Fishery dock in Saucedo.</u>

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

1988

Sucre State, Venezuela



<u>Project and inspection of the marine works for the erosion control and Master Plan for the development of the coastline of Ocumare de la Costa.</u>

MINISTRY OF URBAN DEVELOPMENT. MINDUR

1987

Aragua State, Venezuela

Erosion control in the coasts of La Guardia town.

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

1986

Nueva Esparta State, Venezuela

<u>Project and inspection of marine works in the El Cuchivano beach resort.</u>

TOURISM CORPORATION, CORPOTURISMO

1981

Miranda State, Venezuela

Marine works project for the Copan Marina.

MINISTRY OF URBAN DEVELOPMENT. MINDUR

1981

Federal District, Venezuela

<u>Protection of the filling project and currents study.</u> 2nd Stage of the Maracaibo Lake Boulevard.

MINISTRY OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES

1981

Zulia State, Venezuela

Inspection, repair and consolidation of the works at the western side of the navigation channel of the Maracaibo lake.

NATIONAL CHANNELING INSTITUTE. INC

1981

Zulia State, Venezuela

<u>Project and inspection for the recovery of the beaches and the breakwaters.</u>

PLAYA GRANDE CLUB

1980

Federal District, Venezuela.

Project and <u>inspection of the control jetties</u>. Maurica Beach and Lecherias-Guaraguao section.

STATE OF ANZOATEGUI GOVERNMENT

1980

Anzoategui State, Venezuela

<u>Project and inspection of the expansion of the Catia La Mar jetties.</u>



FEDERAL DISTRICT GOVERNMENT 1980 Federal District, Venezuela

Masterplan project of the 2nd Stage of the Maracaibo Lake Boulevard.
NATIONAL CHANNELING INSTITUTE. INC
1980
Zulia State, Venezuela

Project of the Montserrat marina. Breakwaters, administrative and social buildings and port facilities.

PORTS NATIONAL INSTITUTE

1978

Caribbean Sea, Venezuela

<u>Project and supervision of the construction of the protective jetty and filling of the Cumana's public</u> marina.

SOUCY & ASSOCIATED 1976 Sucre State, Venezuela

Project and supervision of the marine works of the Tacoa thermoelectric power plant.

INELECTRA

1975 - 1976

Federal District, Venezuela

Coastal Experience Sport and touristic facilities & Artificial Beaches

In the **Incostas Nouel Group**, we design and develop solutions of the highest quality. From small infrastructures such as piers, access ramp, etc. Even large marine facilities with all the necessary services. We have vast experience in projects for the rehabilitation of new recreational beaches and improvement of existing ones.

Some of our solutions include:

- Pocket or bow beaches
- Protection with submerged breakwater
- Combined solutions
- Submerged dikes
- Artificial sand fillings



Sport and Touristic Facilities. Artificial Beaches



Project and inspection of the improvements of the beaches at the public beach resort of Naiguata.

FEDERAL DISTRICT GOVERNMENT

Centre Litoral, Venezuela

Project and inspection of the marina of the Hotel
Playa Grande Caribe, Puerto Viejo, and inspection
and supervision of the construction of two
breakwarters.
HOTEL, C.A.
Centre Litoral, Venezuela





"El Carboncillo" Artificial Beach Project.
MINISTRY OF PUBLIC WORKS. PORT WORKS
MANAGEMENT
Antofagasta. Chile

Project for the expansion of Los Angeles Beach.

FEDERAL DISTRICT GOVERNMENT

Federal District, Venezuela





Miramar public artificial beach Project. Nagarote. EMBYSA Miramar, Nagarote. Nicaragua 2019

Project of sand recharge at the Bounganvileae residence beach.
D'EMPAIRE REYNA ABOGADOS
Barbados
2018

Ingeniería conceptual del proyecto; Marina del Placer. Sector El Pavero. Macuto .
INVERSIONES MARINA DEL PLACER, C.A.
Estado Vargas. Venezuela
2016

<u>Puerto Playa Marina Project.</u> Wave study, design optimization of the marina and repair of the existing breakwater.

PROMOTORA CLUB DE PLAYA, C.A.

2015

Anzoategui State. Venezuela

Inspection of marine works, dredging and breakwater construction Camuri Club Grande. CLUB CAMURI GRANDE, C.A.
Vargas State. Venezuela
2011

Improvements project of the beaches and marina expansion in Playa Azul Club. CLUB PLAYA AZUL, C.A. Varqas State. Venezuela

<u>Protective jetty project of the integral diagnostic centre and rehabilitation room located at the Catia</u> La Mar Beach Resort.

HOUSING NATIONAL INSTITUTE. INAVI 2006 - 2007 Vargas State, Venezuela

Recovery project of the Tanaguarenas Club beach.
TANAGUARENAS CLUB
2006
Vargas State, Venezuela



Feasibility study of recreational beaches in the Gulf of Venezuela.

CARBOZULIA

2005

Zulia State, Venezuela

Trocadero Resort project, Antofagasta, Il Region.

HYDRAULICS NATIONAL INSTITUTE

2003

Antofagasta. Chile

Studies and projects for the recovery of the oceanic beach, sheltered beach nad port harbor.

PUERTO AZUL CLUB

2000

Vargas State, Venezuela

Construction and enabling of beaches and artificial pools in the Covadonga Beach Resort, Tocopilla.

MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT

2000

Tocopilla. Antofagasta. Chile

Preliminary plan for the marine works for the construction and enabling of beaches and artificial pools. La Chimba.

MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT

2000

Antofagasta. Chile

Construction and enabling of beaches and artificial pools. El Carboncillo.

HONORABLE MUNICIPALITY OF ANTOFAGASTA

1999

Antofagasta. Chile

<u>Project of protection and improvements in El Salitre of Tocopilla beach.</u>

MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT

1997

Tocopilla. II Region. Chile

Feasibility study, marina of Aprodoral Investment in Lecherías, Puerto la Cruz.

INVESTMENTS APRODORAL

1997

Anzoategui State, Venezuela



Preliminary study for improvements in the Caimare Chico Beach.

CIDHCA

1995

Zulia State, Venezuela

Recreational works in Playa Medina, Sucre State. Alternatives preliminary plan.

CORPOMEDINA

1993

Sucre State, Venezuela

<u>Project and inspection of the construction of two breakwaters.</u> Marina of the hotel Playa Grande Caribe.

HOTEL PLAYA GRANDE CARIBE, C.A.

1993 - 1995

Federal District, Venezuela

Marine works project and planning of the La Sabana Public Marina complex.

FEDERAL DISTRICT GOVERNMENT

1992

Federal District, Venezuela

Marine works and planning of the complex for the Catia la Mar, El Pavero and Cabo Blanco community marinas.

FEDERAL DISTRICT GOVERNMENT

1991

Federal District, Venezuela

Feasibility study of a marina and artificial pools. Chuspa Touristic Recreational Complex.

DICHUSPA, S.A.

1990

Miranda State, Venezuela

Marine works project for the marina of the Hotel Puerto Somosagua in El Rincon. Margarita Island.

TREBOLCA

1990

Nueva Esparta State, Venezuela

Project of the Hotel Medano Caribe Beach Club marina.

J-4 INVESTMENTS

1990

Falcon State, Venezuela



Project for the construction of a breakwater in El Pavero Sport Complex.

FEDERAL DISTRICT GOVERNMENT

1986

Federal District, Venezuela

<u>Project of the improvement in the oceanic beach of Puerto Azul.</u>

PUERTO AZUL CLUB

1987

Federal District, Venezuela

Expansion project of Los Angeles beach.

FEDERAL DISTRICT GOVERNMENT

1982

Federal District, Venezuela

Preliminary scheme and feasibility study of the port works of the Las Mercedes Nautic Club.

IMGECIMA

1985

Zulia State, Venezuela

Preliminary project of the Oricao Club beach.

ORICAO PROMOTIONS, S.A.

1981

Federal Disctrict, Venezuela

Feasibility preliminary study of touristic use of the national coasts.

TOURISM CORPORATION. CORPOTURISMO

1979

Federal District, Venezuela

Improvement project of the touristic beach resort of Macuto.

FEDERAL DISTRICT GOVERNMENT

1978

Federal District, Venezuela

Marine works project of the El Palmar Nautical Sports Centre.

SIMON BOLIVAR CENTRE

1977

Federal District, Venezuela



<u>Project and counseling to the inspection of the marine works of the Cabo Blanco Recreational</u> Complex.

OSCAR CARMONA 1976 - 1977 Federal District, Venezuela

Alternatives selection of sand borrow for the Central Coasts beaches.

TOURISM CORPORATION. CORPOTURISMO

1977

Federal District, Venezuela

Central Coasts quarries and beaches capacities studies.

CORPOTURISMO

1976

Federal District, Venezuela

Nauguatá public resort beaches improvements project and inspection.

FEDERAL DISTRICT GOVERNMENT

1976

Federal District, Venezuela

Camuri Chico resort beaches improvements project.

SOUCY & ASOCIADOS

1975

Federal District, Venezuela

Camuri Chico-Caribito resort project and inspection of beaches filling.

SIMON BOLIVAR CENTRE

1975

Federal District, Venezuela

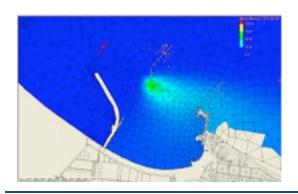
Coastal Submarine pipeline and Effluents Diffusion

At the **Incostas Nouel Group,** we offer solutions in sanitary engineering, we have extensive experience in the design of underwater outfalls and effluent diffusers, which are adapted to the regulations of each country.

We carry out all the necessary field studies to characterize the existing local conditions; bathymetry, current measurements, geophysical survey, tidal measurements, etc. Fecal coliform dispersion study. For the determination of the position we use mathematical models of diffusion and thermal recirculation. SMS, CORMIX.



Submarine pipelines Projects and Studies of Effluents Diffusion



Works of intake and discharge for the thermoelectric power plant associated to the expansion of the El Palito refinery.

Y & V - PDVSA

Carabobo State. Venezuela

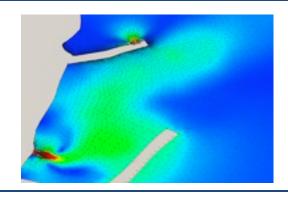
2009 - 2010

AES ITABO plant modification of discharge to the sea works. Basic and Detail Engineering.

ITABO

Dominican Republic

2008





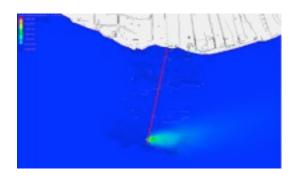
Study of local conditions, sedimentation and modeling of the CWS discharge. New Puerto Coronel coal thermoelectric power central.

COLBUN, S.A.

VIII Region- Chile
2006

Conceptual, Basic and Detailed Engineering of the submarine emissary. Pluvial sanitation of the Guajimia Creek and it's main effluents.

> DESSAU INC Santo Domingo, Dominican Republic. 2008





Consultancy for the execution of Detailed Engineering studies and designs for the construction of the necessary works for the Santa Marta city aqueduct system supply final solution.

INAR ASOCIADOS, S.A.

2016 - 2017

Santa Marta, Colombia.

Conceptual and Basic Engineering of the emissary in Turiamo for the discharge of excess water from the Valencia Lake.

HIDROCENTRO

2014

Carabobo State. Venezuela.

Hydro-Thermal Study. Modeling of diffusion and thermal recirculation and sand and CMEC ENGINEERING, C.A.
Carabobo State. Venezuela
2012

<u>Feasibility Study of Water System of Adduction and discharge for cooling of Project Combined Cycle</u> Termozulia III.

ENELVEN

2010

Zulia State. Venezuela

<u>Bathymetry, marine currents and conceptualization of intake and discharge works study for the Juan</u> Bautista Arismendi thermoelectric power generating plant. El Guamache sector.

GTME - CORPOELEC

2010

Nueva Esparta State, Venezuela

<u>Basic and Detail Engineering of the intake and discharge works for the Termozulia II thermoelectric</u> power generating plant..

JANTESA - ENELVEN

2008-2010

Zulia State, Venezuela

Conceptual, Basic and Detailed Engineering of the submarine emissary. Pluvial sanitation of the Guajimia Creek and it's main effluents.

DESSAU- INC.

2009

Santo Domingo, Dominican Republic



Modification works project of the cooling water system discharge of the AES ITABO thermoelectric power plant.

AES

2008

Dominican Republic

Local conditions, sedimentation and Conceptual Engineering for the discharge of the cooling water system. Project of the new coal thermoelectric power central in Punta Pochoco.

AES GENER

2006

VIII Region, Chile

Study of the local conditions, sedimentation and Conceptual Engineering for the discharge of the cooling water system. Project of the new coal thermoelectric power central in Penco.

COLBUN, S.A.

2006

VIII Region, Chile

Study of the local conditions, sedimentation and Conceptual Engineering of the cooling water system discharge. Project of the new coal thermoelectric power central in Puerto Coronel.

COLBUN, S.A.

2006

VIII Region, Chile

Positioning of the optic fiber cable laying in the Orinoco River between the communities of Los Barrancos and San Felix..

CORPOTELETECNICAL

2006

Monagas and Bolivar States, Venezuela

Studies for the definition and construction of zones for discharge of material coming from the cleaning of the river banks..

CORPOVARGAS

2005 - 2007

Vargas State, Venezuela

Study of the submarine discharge of the Puerto Piritu project, conceptualization of the submarine emissary.

DESSAU SOPRIN - MARNR

2004

Anzoategui State, Venezuela



Extension of the East Coast communities submarine discharge. HIDROCAPLITAL 2001 Vargas State, Venezuela

Project of the to the sea discharge. Puerto La Cruz drainage.

OBHIDRA

1977

Anzoategui State, Venezuela

Coastal Experience Marine Hydraulics

At the **Incostas Nouel Group**, we have extensive experience in marine hydraulics and coastal engineering, which allows us to characterize the physical behavior of the coastal environment.

Studies of coastal dynamics, bottom morphology, diffraction, refraction and reflection of the waves, calculations with the OUTRAY model.



Dynamic coastal study of the San Jorge project. EMPRESA PORTUARIA NACIONAL EPN Nicaragua 2016

Coasts dynamics study of the sector in between Cabo Blanco and Punta Cazonero, Antolin del Campo Minicipality, Playa El Agua, Nueva Esparta State.

TRATEVENCA

2014

Nueva Esparta State. Venezuela.

Fluff Study. Specialized consultancy in hydraulics, hydrology and sedimentological hydrodynamics in the Boca Grande of the Orinoco river sector.

NATIONAL CHANELLING INSTITUTE (I.N.C.)

2013

Boca Grande sector. Orinoco River - Venezuela

Study of coasts dynamics of the sector between Punta Cabo Blanco y Punta Cazonero, El Agua beach.

TOURISM CORPORATION. CORPOTURISMO

2001

Nueva Esparta State, Venezuela

<u>Calculations of marine hydraulics related to the diffuser of the submarine emissary.</u>

CONTRINA

2000

Anzoategui State, Venezuela

Studsy of coasts hydrodynamics. North beach of Chichiriviche.

TOURISM CORPORATION. CORPOTURISMO

1994

Falcon State, Venezuela

Inspection of the hydraulic model of the service pier of the Numrep project..

CORPOVEN, S.A.

1994

Carabobo State, Venezuela

Marine hydraulics for the project of the new San Antonio port esplanade.

MINISTRY OF PUBLIC WORKS. PORT WORKS MANAGEMENT

1994 - 1995

San Antonio, V Region, Chile



Study of the hydraulic functioning of the El Morro lagoon of Porlamar.
IMPARQUES
1993
Nueva Esparta State, Venezuela

Coastal Experience Other Studies

At the **Incostas Nouel Group**, we can offer consulting services, studies and projects inherent to the maritime, river and lake environment.

Our projects range from existing infrastructures, with significant limitations, to virgin lands that require large-scale planning.



Other Studies

Consulting, inspection, evaluation and diognostic services at Morning Glory landfill. Apanas reservoir.

CONINCASA CONSTRUCCIONES INGENIERAS DEL CARIBE, S.A. 2019 - 2020

Jinotega Nicaragua

<u>Update of the material extraction sites for the risks management works, Vargas Plan 2005.</u>

CORPOVARGAS

2005 - 2006

Vargas State, Venezuela

Additional scopes of the environment impact study of Punta de Aves project, Chichiriviche.

VARADERO DEVELOPMENTS

2003

Falcon State, Venezuela

Salinization study of the Maracaibo lake.

NATIONAL CHANNELING INSTITUTE. INC.

1996

Zulia State, Venezuela