

# Greenpeace Report

## Catalan Coastal Destruction 2008

Translation: Barcelona Field Studies Centre  
<http://geographyfieldwork.com>

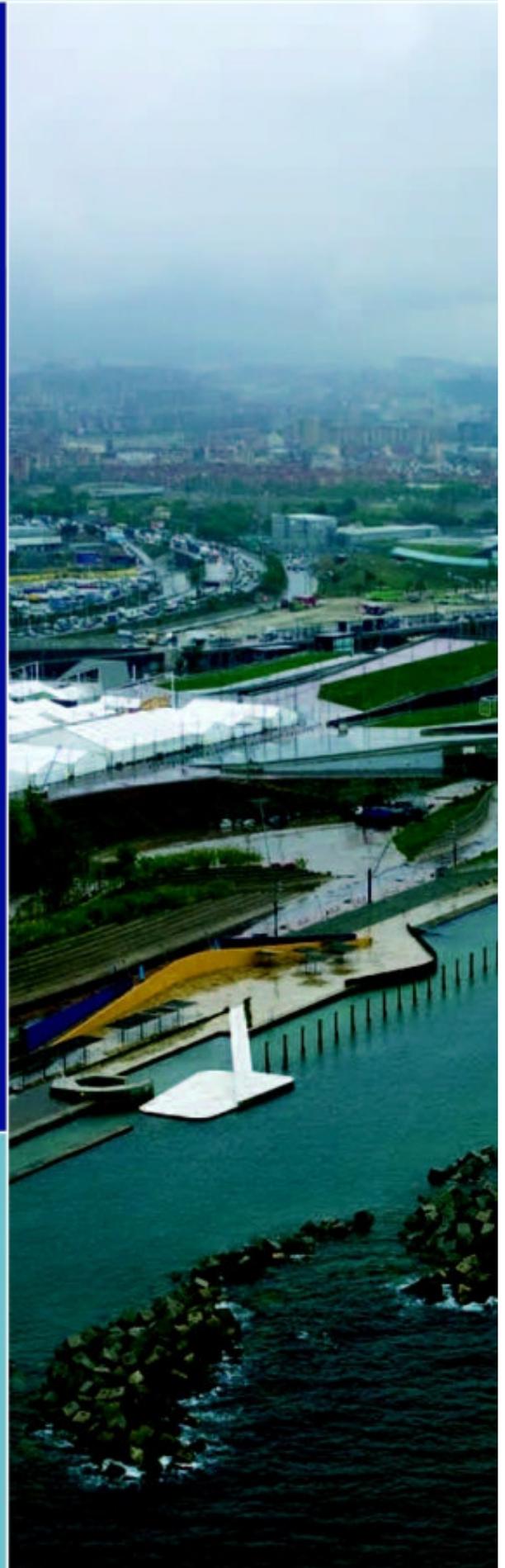
Development growth in Catalonia has been concentrated along the coastal belt as a result of the increase in construction for housing and tourism.

The report also highlights the increased land use dedicated to sport and recreational activities, 160% higher than in the last decade, as well as the growth of 57.8% in land occupied by roads and motorways.

Cataluña



Delta del Ebro,  
Tarragona



The coast of Catalonia has been completely modified by human action. The Zoo and artificial beaches in Barcelona



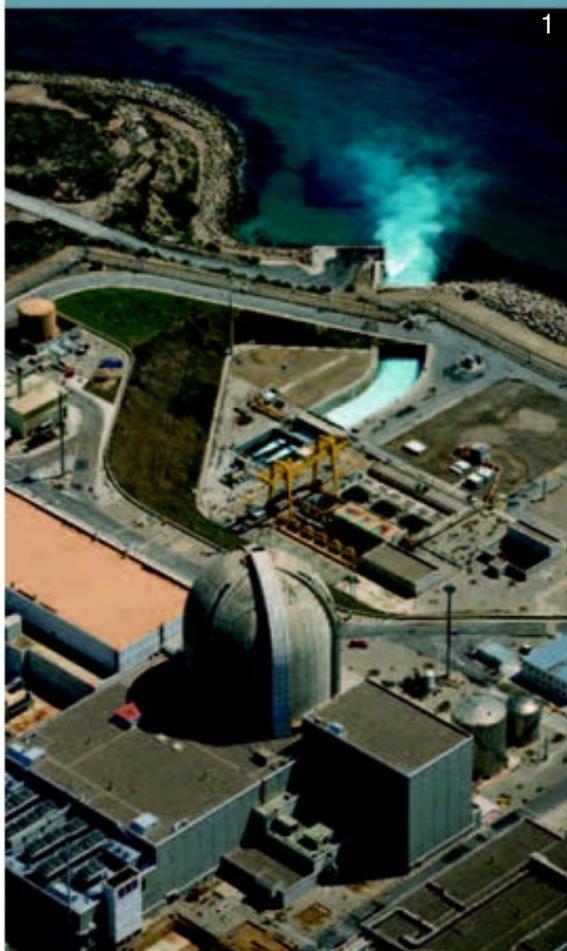
“ Catalonia is the autonomous Spanish community that has the most impact on the Spanish Mediterranean: it is responsible for 42% of pollutants discharged to the sea and 46.5% of its coast is urbanised.



Nearly half of the Catalan coast is already urbanised, the highest rate along the Spanish coast. However, this does not preclude further planning for thousands of more homes along its coastline to generate "urban fabric" in almost all the municipalities that, in some cases even invade the first 500 metres of coastline.

There also seems an insatiable appetite for new port infrastructure, despite the imbalance that exists in the natural dynamics of the Catalan coast due to years of continuous construction and infrastructure development. The Catalan regional port policy plans to build 6000 new berths along its 700 miles of coastline, in addition to the 48,500 already existing in 47 facilities.

Another aspect that is also reflected in the state's coastline is pollution. The deterioration of the Catalan coast is due in large part to the high levels of pollution that has been generated by industrial development. Catalonia is the autonomous Spanish community that has the most impact on the Spanish Mediterranean: it is responsible for 42% of pollutants discharged to the sea, especially in the chemical industry, which is poured directly into the Mediterranean. The European Environment Agency highlights Barcelona, the mouth of the river Ebro and Tarragona as "points of alarm" for pollution along the Mediterranean coast.



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## Degradation caused by urbanisation

Catalonia has 700 kilometres of coastline of which 46.5% is urbanised. Some 40%, comprised mainly of the area of the Ebro Delta and the Cap de Creus, is protected and the remaining 13.5% is land for development. Despite the large percentage urbanised (the largest along the Spanish Mediterranean), the Department of Política Territorial i Obres Públiques continues to justify development of land within the 500 metre wide coastal strip as important for urban infrastructure as defined by coastal law. [20]

Everything seems to indicate that the Government is protecting the interests of big developers and builders at the expense of mortgaging the future of its territory and its inhabitants. Examples like the Castello d'Empuries, which following the publication of the report ***Destrucció a toda costa 2007*** decided to reduce the number of housing units, should extend throughout the Catalan coast. Even so, the Government has invested ten million euros to preserve the coast, a gesture as positive as it is low, given the magnitude of investments in coastal infrastructure.

1. Nuclear power station at Vandellòs II in Tarragona

2. El Cabo de Creus is one of the best preserved areas along the Mediterranean coast

3. The Barcelona zoo works infringe coastal laws.

[20] According to Article 30 of Coastal Law, this will respect the demands of protecting the maritime public domain land in the Area of Influence.

## Planning irregularities in court

### TARRAGONA. SALOU

After months of investigation, the prosecution filed a lawsuit in October 2007 accusing the former mayor of Salou, Esteve Ferran, and his son, Esteve Gombau Ferran, who was also alderman of Urbanism in this town, of the crimes of insider trading, breach of trust, influence peddling and illicit use of privileged information for a variety of irregular actions. The Galas case involved the buying and selling of land in Barenys and the granting of a geriatric concession to the wife of the secretary of the City Council of Salou.

### TARRAGONA. TARRAGONA

In March 2007 the Tarragona court dismissed charges against the former municipal town planner, Angel Fernandez, and ten other people accused of land-use planning crimes and prohibited official activities as well as influence peddling for a project to build 4872 housing units in Terres Cavades.

Angel Fernandez was a 50% partner with his brother in one of the promoters of this urbanisation while head of Urbanism in Tarragona.

In March 2005 a score of former owners brought a criminal complaint against the promoter for the pressures and threats they received for selling their farms between 1995 and 2001. The price paid was six euros despite the fact that there were urban plans that multiplied the price of land. During this process, the prosecution decided to submit another complaint for the crimes of prevarication, bribery, fraud and misrepresentation.

In December 2007, the court revoked the closure of the case and continued criminal proceedings against the former councilman; his brother, Juan Fernandez, the builder Jose Luis Garcia, a member of the brothers Fernandez, Francisco Fraiz, and the representative of Caixa Catalunya, Eduardo Aznar.

### TARRAGONA. TORREDEMBARRA

On the coast of Torredembarra, the planned Muntanyans II developments involves the construction of 560 houses at the mouth of the Gibert torrent, next to the protected wetlands and dunes of Platja Torredembarra i Creixell. The grounds are a biological corridor that connects the protected space to the rural interior. An independent hydrogeological study commissioned by The High Court of Justice of Catalonia has determined that this is an area at risk from flooding, confirming that the urbanisation would be a danger both to the people living there, as well as to the environment.

Criminal charges were brought against Josep Bargalló, current director of the Institute Ramon Llull and former alderman of Urbanism and Environment in the municipality of Torredembarra when it approved the plan of urbanisation. These charges were dismissed in 2008.

## L'Ametlla de Mar: luxury villas at the tip of Bon Capó

The tip of the peninsula Bon Capó was one of the few spaces in the Baix Ebre region that had remained free of cement on the sea front, except for the presence of the controversial Hotel Ametlla de Mar, built on the bed of a ravine now engulfed by the tourist complex.

In the summer of 2007 the Plan of Municipal Urban Planning (POUM) was not yet approved but the developer Pydum was already promoting the construction of the two phases of the complex Residential "Golden Rock" on land classified as urban in the seventies, when cement took precedence over any idea of sustainable development and the current Coastal Act had not been approved. The City Council said then that it had reached an agreement with the promoter to keep most of the area as green space (83%) and reducing the two promotions to only 14 villas built less than 500 metres from the shoreline.

But while City Hall boasts of having saved 17,560 of the 21,000 m<sup>2</sup> of initial urbanised land, all of these areas should have been saved if the Law of Coasts had been implemented properly.



## Deltebre: More new flats than Tarragona and Reus together



Deltebre tops the ranking for new construction in Tarragona. Although it has just over 2% of the population of Catalonia, the Baix Ebre and Monstia region has become a constructor's paradise in the last two years. Its attractive landscape for second-homes and the lower price of land has lead promoters to invest in the area.

Deltebre, located inside the Delta del Ebro Natural Park, has 725 new dwellings (50% second homes), well above the 585 of the capital, Tarragona, to which we have to add another 800 in execution.

The City Council says that the new quota of housing will help create a more balanced urban structure and that "the proximity of the Delta del Ebro Natural Park, does not form an obstacle to urban development, but is an attraction for construction."



[21] An isthmus is a narrowing or tongue of land that links the peninsula across the sea to the mainland.

But the reality is quite different and Deltebre has become another example of speculation on the coast, where large construction companies have generated a lot more supply than the market is capable of absorbing. In addition, the Master Plan of the Catalan Coastal System includes the urbanisation of areas bordering the line of the 500 metre coastal and that will mean a growth of 100% of existing urban land.

This growth is particularly irresponsible because it will affect the land around it, classified as General Interest (PEIN). Furthermore, development has been allowed in an area affected by coastal regression and this will be the first to suffer the effects of climate change.

## “ The Delta del Ebro ” in 2045

According to the Catalonia Centre for Risk warning based on the results of the Intergovernmental Panel on Climate Change (IPCC), half of the Ebro Delta could become submerged by mid-century if the sea level rise reaches about 50 cm as a result of climate change.



### Salou: top grade corruption

Of the hundred cases of urban corruption on the coast uncovered in recent years, a highlight involves a former mayor of Salou, Esteve Ferran, and his son, Ferran Gombau Esteve, who was also alderman of Urbanism in this town.

After months of investigation, the Prosecution of Tarragona presented a complaint in court number 4 Tarragona in October 2007 blaming both for the crimes of using insider information, breach of trust, influence peddling and illegal use of insider information for various irregular performances: the Galas case, buying and selling of land in Barenys and the granting of a geriatric concession to the wife of the secretary of the City Council of Salou.

The case known as Galas, a community hall in this town that was intentionally burned in 2002 (according to the Generalitat of Catalonia) and on whose grounds 20 houses were built, involves Esteve Ferran Gombau, who owns 50% of the estate. The construction of housing has been carried out by a company Phillipe Trujillo, owner of the remaining 50% of the estate.

Ferran Gombau will also have to clarify various land deals which may be crimes under the Criminal Code. There are at least four operations performed when he was a councilor of Urbanism, which allowed him to have information on the various urban plans affecting the township.

Similarly, the OTP has investigated the awarding and construction of a geriatric concession of about 9000 metres of public land in a project that includes the sale of 77 apartments. The winning company was owned by the wife of the secretary of the City Council.

## Els Muntanyans II in Torredembarra: urban flood risk



Located north of Tarragona, on the coast of Torredembarra, the planned Els Muntanyans II development involves the construction of 560 homes at the mouth of the river Gibert where there are protected dunes and wetland. The land forms a biological corridor that connects the protected space with rural areas inland. According to a hydro-geological study commissioned by the High Court of Justice of Catalonia, the land is designated as a zone of high flood risk. The study confirms that the urbanisation is a danger both to people, due to the flood risk, and to the environment for the negative and irreversible impact it would have.

Despite the importance of this area being recognized in a report prepared by the Directorate General of Coastal Environment Ministry in 2001, which proposed the recovery of land for public use, the City Council approved the Plan of Torredembarra Partial Platja de Torredembarra 4b Muntanyans II. Josep Bargalló, current director of the Institute Ramon Llull and councilor of Urbanism and Environment in the council when it approved the development plan, has been hauled before the courts in Tarragona on criminal charges, where he was found not guilty.

The Salvem els Muntanyans campaign group has been active in the defence of this area and, along with Greenpeace, has repeatedly pressed the Environment Ministry to acquire land in the area within its programme for the purchase of farms. In April 2006 the former Minister Cristina Narbona announced the purchase of 26,000 square metres in the area, but this did not include the ownership of farms of high flood risk of the promoter of the Els Muntanyans II development.



## Degradation of infrastructure

**T**he imbalance in the coastal dynamics, due to years of continuous construction and infrastructure in the coastal strip, does not seem to have had an effect on policy. The best example of this injustice is the port of Barcelona which continues to gain ground from the sea without assessing failures such as the collapse of the pier running off the mouth of the Llobregat, which has seen an extra expenditure of 37.8 million euros.

Catalonia has opted for a sharp increase in marinas and this demand will result in the creation of new ports and harbours. In Tarragona, new marinas are being built at Port Tairua and at Roda de Bara, and existing harbours at L'Ampolla and Comaruga are being extended. In Barcelona, marina development will increase by 15% with possible action in the Thermal de Foix in Cubelles, the expansion already under way at Port Ginesta, the construction of the second phase of the port of Badalona and the proposed redevelopment of the port of Putaruru. The water sports sector have been quick to say that the Catalan coast will have a shortfall of 11,821 berths in 2015 although the number of vessels registered in Spain has fallen by 15% since 2000.

## Barcelona: coastline of concrete



The project of "consolidation" or "stabilisation" of the urban beaches of Barcelona (from the beach at Barceloneta to the beach of the Nova Mar Bella, near the mouth of the river Besòs), began at the same time as the Forum 2004. Artificial input of sand is required to sustain the five new beaches in the city.



A project costing 30 million euros to protect the beaches was started in 2007. This involves the construction of 15 dykes that form a wall two and a half miles long and 10 metres deep in front of the five beaches in Barcelona, as well as a breakwater of 170 metres at Barceloneta beach.

Scientists have warned that the wall will cause difficulties for the natural renewal of sand, as has happened in other cases where similar actions have been implemented.

These works are part of a policy of "hard" coastal civil engineering works that enabled the Ministry of Environment to authorize the construction of Barcelona zoo within the 500 metre shoreline belt, an activity impossible to justify within the Law of Coasts.

This is one of the worst examples of a policy of cement and concrete of a Ministry of Environment forgetting the fragile natural balance of the marine environment.

### Girona: target plan of the Port Authority of Catalonia

The government of Catalonia argues that the Plan of Ports has prioritised the environmental balance and sustainability in growth forecasts until 2015. Although Girona has 23,240 berths for sports boats, the Plan has designed the expansion of the facilities of L'Estartit, Empuriabrava, Marina de Port d'Aro, Pals and Marina de Palamós among others, adding 433 new berths.

Of particular concern are three cases: the first in Roses, which foresees the construction of a new arm of its port that would allow the berthing of vessels of large tonnage and Roses to become a point of scale of large cruise vessels in the Mediterranean, changing the profile of the town and its tourism model. The second is the proposed expansion of 140 new berths and a dry dock for 130 boats at Port Marina de Palamós. This expansion, which would link the marina with the port of Palamós, would mean the demise of the Punta del Molí, the main identity of the town. There is also increasing buoy mooring for 500 boats, spread among S'Alguer, Castell, la Fosca, and Gran de Palamós.

This initiative has been rejected by the Town of Palamós, which seeks to avoid overcrowding and rejects any action that would gain ground from the sea. It has proposed to optimise the currently disused slipway of the marina which has an area of 1958 m<sup>2</sup>. The government is still intending to carry out the planned expansion.

The third is a project to build a skiing marina that would occupy a strip of eight hectares of water, specifically in Carles Mas area of Pals, which has been included within the proposed boundaries of the future Montgrí-Baix Ter-Medes Islands Natural Park. Although the Territorial de l'Emporda Master Plan has classified the area as a high-value biological connector of special protection, both the Pals Town Council and the Department of Environment are open to the proposal.



## Degradation from pollution

Major industrial development in Catalonia makes it one of the most polluting autonomous communities in Spain. For example, 25% of the Spanish chemical industry is located in Tarragona. The industrial discharges are a major source of pollution of the shoreline. Part of the pollution generated by these companies reaches the sea via underwater pipelines (emissaries) and another, very important, through the river discharges from industrialised areas.

42% of the industrial pollution that is discharged directly to the Mediterranean coast in Spain comes from Catalonia. This is in addition to the contributions of the most polluted rivers in this community, the Ebro, the Llobregat and Besòs. Urban discharges also contribute to the deterioration of the Catalan coast. These discharges, excessive contributions of nutrients and organic matter together with the reduction in the amount of water from Catalan rivers that flow into the sea, are causing a decline in the highly charged water quality in certain coastal areas.

The high pollution load of the discharges in Catalonia has led the UN to identify Barcelona and Tarragona as priority pollution black spots on the Mediterranean. Similarly, the European Environmental Agency identifies Barcelona, the mouth of the river Ebro and Tarragona as "Points of alarm" for pollution on the Mediterranean coast. In addition, using data provided by the industry itself (on the State Register of Emissions and Pollutant Sources, EPER) the zone of the Port of Barcelona contributes 38.2% of polycyclic aromatic hydrocarbons (PAHs) that are dumped directly in the sea



### Delta del Llobregat: continued environmental degradation

The river Llobregat wastewater includes discharges from important production centres in the chemical industry (Martorell) and metallurgy (Castellbisbal). Chlorine is one of the most common pollutants, very aggressive to the marine environment for its slow environmental degradation, its ability to accumulate in the tissues of living organisms and for its toxicity.

In Martorell, the Solvay company manufactures chlorine and chlorine derivatives, such as PVC. Its installations have discharged into the river Llobregat for years and now they do so directly to the Mediterranean via a submarine outlet. In Castellbisbal, the CELSA company casts metal, and discharges more than 250 kilograms per year of cadmium into the river. This figure represents almost 25% of cadmium discharged in Spain.

Since the '60s, the river Llobregat has also been the recipient of the discharges of many tanning industries, textile and paper mills that have downloaded a wide variety of organic pollutants such as pesticides, surfactants and plasticizers. In addition, the effluent from more than 30 wastewater treatment plants also reaches the river.

In addition to industrial waste that collects in the river Llobregat, its waters have significant levels of contaminants considered endocrine disruptors that are currently in use (such as phthalates or alkylphenols) and possess the ability to disrupt the hormone system of wildlife. Of particular concern is its presence in the lower course, where the worst biological quality is mainly due to the salinisation by the salt mine in Sallent operated by Iberpotash.

## “ The river water is not wasted in the sea ”

Given the scarcity of water there are many voices that speak of wasting the fresh water that goes into the sea. The input of fresh water is essential for coastal river zones like the front of the Ebro Delta where it maintains sardines or anchovies that depend on a mix of freshwater and saltwater.

The barrier of fresh and cold water forming in front of coastal rivers is the most effective measure against jellyfish that have invaded the Mediterranean coast in recent years looking for warm and salty waters in which to reproduce.

### Mouth of the Besòs: impossible biological conditions

The river Besòs very high levels of nutrients. In fact, according to information from the United Nations, it is the river with the highest levels of phosphorus and nitrogen from all who discharge into the Mediterranean.

A scientific study that has analysed the biological quality of some Catalan rivers over 25 years, including the Besòs, concludes that although the water quality has improved in high and middle stretches of the river by constructing purification in the 90s, the improvement has not been felt in the lower course which still maintains a biological low or very low status. The main problem for the biological recovery of the waters of the Besòs is the abstraction of water that limits the dilution of the water from the treatment plants. For example, the values of ammonium in the lower Besòs are very high (between 2 and 4 ppm) and, according to the report, This fact in itself makes the recovery of the biological conditions impossible.



### Delta del Ebro: alarm point



The Ebro Delta is considered an "Alarm Point" by the European Environmental Agency. The river Ebro has high levels of pollutants accumulating in its mouth as it suffers from many discharges from industrial production facilities and has chemical and organic waste throughout its bed. The waters of the Ebro Delta were clearly eutrophic and impoverished in terms of diversity of species. It has one of the most serious cases of chemical contamination in Spain, led by the company Ercros in the reservoir of Flix (Tarragona).



The production at the Ercros factory situated on the banks of the river Ebro at Flix has led to the accumulation of more than 700,000 tons of toxic sludge at the mouth of the river, and has consequences for the marine environment. Scientific studies have shown a significant accumulation of pollutants in the reservoir of Flix and effects on wildlife. Among the toxic sludge at Flix are radioactive waste, even more contaminants and durable radio nuclides found coming from the use of phosphorite (ore that naturally contains uranium 238 within its crystal structure) and which is used for the production of dicalcium phosphate (an additive for animal feed). Currently, Spanish and European governments have pledged 155 million euros to settle the pollution caused by decades of Ercros production. These works of "decontamination" that began in 2008 and will last 42 months, have forced 62 municipalities to develop a specific Emergency Plan before the start of operations to extract the waste.

In addition, 14 others have the "recommendation" to do so. The municipalities were chosen after an analysis of the risks that have been identified for various reasons.

In February this year, the Ebro River began studying the possibility of banning fishing from the reservoir of Flix and the Ebro Delta, having found mercury levels higher than what is legally established in some species of fish, such as carp or catfish. The tests carried out revealed that in 15% of the individuals in these species, concentrations of organochlorines and mercury exceeded the legal limit health (0.5 ppb) and 40% were above the target of quality (0.3 ppb).

## Chemical refineries in Tarragona and Vila-Seca: suffocated by chlorine

The industrial hub of Tarragona is the largest chemical site in Spain, as it accumulates nearly 25% of total production and generates 36.45% of the pollution of the Spanish Mediterranean.

At the coast of Tarragona, on the beach at La Pineda, pollution is discharged directly to the sea through submarines pipes by numerous companies located in the municipalities of Tarragona and Vila-Seca.

Tarragona is also the province which has developed the industry's most extensive form of chlorine. Among the pollutants released by this industry are heavy metals such as mercury, cadmium or lead, organochlorine chemicals such as hexachlorobenzene or vinyl chloride and other elements used as additives for the manufacture of chlorinated materials such as PVC.

The companies that dump their contaminated water directly into the sea are Aces, Repsol (with two emissaries), BASF (with two emissaries), Clariant, Bayer, Solvay, and Aiscondel Aragonesas. The construction of a large submarine pipe would replace the eight which currently exist and which would group all discharges of this industry into one outlet. The argument of the Tarragona Association of Chemical Industries is that a single channel waste dump helps dilute pollution due to a greater flow. The reality is that this plan helps dissolve corporate responsibility in cases of dumping and makes it difficult to control.

At the site of chemical Tarragona there are two refineries, with Repsol the most important. In the last two years, this company has caused several severe pollution episodes. In August 2006, a leak was detected of between 5,000 and 20,000 litres of fuel oil in a pipeline that connects a Repsol plant with the Port of Tarragona. In January 2007 a ship that was discharging oil to Repsol resulted in a spill at sea. In October same year, Repsol reported the spill of about 500 litres of crude oil in the Port of Tarragona. In February 2008 a spill into the river Francolí killed thousands of fish. Despite these repeated episodes of contamination, the authorities have not enhanced surveillance measures and security as well as the necessary sanctions to end this threat.

Tarragona and Vila-Seca are among the main points of pollution (hot spots) along the Spanish Mediterranean coastline. The province of Tarragona is the main focus of issuing many of the substances identified as priorities by the Barcelona Convention for the Protection of the Mediterranean Sea, as BTEX<sup>[22]</sup> (75%), halogenated organic compounds (77%), dichloroethane (100%), mercury (39.9%) or lead (59, 8%).



[22] BTEX is an acronym used to refer to the pollution generated by a group of aromatic compounds (benzene, toluene, ethylbenzene and xylenes).

# Black Spots on the Catalan Coast

1. Girona. L'Estartit, Empuriabrava, Port d'Aro y Palamós. New berths for sports boats.
2. Barcelona. Mouth of the Besós. Severe industrial pollution.
3. Barcelona. Urban beaches. Construction of dykes along the beaches.
4. Delta del Llobregat. Severe environmental degradation.
5. Torredembarra. Els Muntanyans II. Urbanisation within a high flood risk zone.
6. Tarragona y Vila-Seca. Chemical refineries. Severe industrial pollution.
7. Salou. Urban corruption.
8. L'Ametlla de Mar. Punta de Bon Capó. Urbanisation within 500 metres of the coastline.
9. Deltebre. Excessive urbanisation.
10. Delta del Ebro. Severe industrial and organic pollution.

