

The Successful Struggle Against Submarine Tailings Disposal in Marinduque, Philippines

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April 2002

Marinduque is a small island province of some 960 square kilometres lying about 160 km south of the capital Manila in the Philippines. The people of Marinduque fought a 5-year battle to keep tailings that were spilled into a river, in a 1996 mine disaster, from being piped into the sea through Submarine Tailings Disposal (“STD”). They were ultimately successful. For these islanders, the struggle to protect their sea was but the latest in a long history of struggles to protect critical island ecosystems from the impacts of mining by Canada’s Placer Dome Inc. Marinduqueños lost most of these struggles. This case reveals why the battle against STD was almost lost as well, and provides insight into some of the reasons that it was ultimately won.

Brief Corporate Background: Placer Dome Inc. and Marcopper Mining Corporation

Placer Dome Inc. is a major Canadian mining company based in Vancouver, British Columbia. Placer Dome is the third largest gold mining company in North America and 5th largest in the world. Placer Dome is involved in 15 mines in six countries on five continents. As early as 1956, Placer Dome, then Placer Development Limited, became involved in an exploration project on the island of Marinduque in the Philippines, undertaking extensive geological mapping and drilling. In 1964 Marcopper Mining Corporation (Marcopper) became involved in mining operations in Marinduque. Placer Development Ltd. secured and guaranteed more than US\$ 40 million in loans for the new copper mining company from a consortium of American banks and “Placer undertook the responsibility for open pit planning, design and construction...”¹

Placer Dome’s involvement with Marcopper was long standing and core to decision making at the mines.

- From the start of mining by Marcopper in Marinduque, in 1969, Placer Dome has owned 39.9% of the shares in Marcopper, the maximum amount of shares that could, until recently, be legally held by a foreign company in the Philippines.
- Placer Dome managed the two Marcopper mines on the island. All Presidents and Resident Managers of Marcopper, from 1969 until 1997 (when Placer Dome divested) came from Placer Dome. This arrangement was established in agreements Placer Dome had with the banks whose loans Placer Dome guaranteed.
- Placer Dome guaranteed the loans for two successive Marcopper copper mines on the island.
- Placer Dome provided the technical expertise for the two mines.
- Placer Dome was the only mining company involved in Marcopper from 1969-1994. Placer Dome’s secret partner in the mine (50%) until 1986, when he was overthrown, was the Philippine dictator Ferdinand Marcos. After 1986, Marcoses shares were taken over and held by successive Philippine governments (Corazon Aquino, Fidel Ramos) until 1994, when they were privatised.

A 30-year History of Mining Disasters and Social Opposition

¹ Philippine Mining Journal, October 1969:38.

In 30 years of mining under Placer Dome's management, Marinduqueños endured one mining-related environmental disaster after another. For 16 years, from 1975 to 1991, Placer Dome oversaw the dumping of 200 million tons of mine waste (tailings) directly into the shallow waters of **Calancan Bay**, covering corals and seagrasses and the bottom of the bay with 80 square kilometres of tailings. The food security of 12 fishing villages around the bay has been severely impacted for more than 25 years. These tailings are also leaching metals into the bay and are suspected to be the cause of lead contamination found in children from villages around the bay. Calancan Bay villagers were never asked for their permission for this dumping and never compensated for their losses. They protested the dumping vehemently for 16 years. Although Placer Dome executives met regularly with Canadian NGOs during the 1980s over this issue, the dumping was not halted until the mine was depleted.

In 1991, an earthen dam was built in the mountainous headwaters of the **Mogpog River**. The dam was supposed to keep silt, from a waste dump for the new copper mine, out of the Mogpog River. The people of the town of Mogpog actively opposed the building of the dam, fearing impacts on the river they use for food, watering animals, washing themselves and their clothes. In 1993, the dam burst, flooding downstream villages and the town of Mogpog so severely that houses were swept away, water buffaloes and other livestock killed and crops destroyed. Marcopper's Resident Manager, Placer Dome's Steve Reid, denied any responsibility blaming an unusual rainfall. However, when the dam was rebuilt an overflow was added for the first time, in an implicit acknowledgement of faulty engineering. Within two years the toxic waste behind the dam was so high again that it flowed freely through the overflow into the river as it continues to do until today. The Mogpog River is severely affected by the toxic waste flowing through the dam. A species of crab (called Bagtuk) that people used to eat has completely disappeared. According to a letter of August 23, 2001, by Vancouver-based engineering firm Klohn Crippen, "failure of the dam is a virtual certainty in the near term under current conditions." In the letter Klohn Crippen warns that failure of the dam will result in "significant downstream property damage" and "the potential for loss of life."

The Boac River Tailings Spill Disaster of 1996

On March 24, 1996, another massive tailings spill at the Marcopper Mine filled the 26-kilometer-long Boac River on the island of Marinduque with 3-4 million tons of metal enriched and acid generating tailings. The spill happened when a badly sealed drainage tunnel in an old mine pit burst. The mined out pit, high in the central mountains of Marinduque, had been used as a storage place for tailings from an adjacent mine since 1992. An investigative team from the United Nations, which visited the island shortly after the tailings spill, noticed unrelated leaks in other mine structures and concluded, "it is evident that environmental management was not a high priority for Marcopper." The UN team also noted that had proper risk assessment's been done on the pit "it is possible...the present environmental disaster would not have occurred."²

Placer Promises Clean Up but Divests from Marcopper

The disastrous Boac River spill finally focused global attention on the mining-related environmental problems in Marinduque. International scrutiny by organizations such as the United Nations put

² UNEP, September 1996. Final Report of the United Nations Expert Assessment Mission to Marinduque Island, Philippines. pp. 68-69.

enormous pressure on Placer Dome, as did the immediate criminal indictment in the Philippines of Placer Dome's John Loney and Steve Reid (President and Resident Manager of Marcopper, respectively, the case is still pending).

Weeks after the disaster, as tailings continued to spew forth from the damaged tunnel, then-CEO of Placer Dome, John Willson, made a written commitment to then-President of the Philippines, Fidel Ramos, stating that "I have authorized the following commitments by Placer Dome: The residents of Marinduque who have suffered personal inconvenience or damage to their property as a result of the Marcopper event will be quickly and fairly compensated... Placer Dome recognizes its responsibility to rehabilitate all areas impacted by the tailings flow... This program will include: 1) the rehabilitation of the river system; 2) the remediation of off-river impacts; 6) the development and undertaking of a program of river and ocean rehabilitation." Placer Dome predicted the clean up would be complete within six months of the spill. A wholly owned subsidiary called Placer Dome Technical Services Ltd. was set up with offices in Manila and Marinduque to manage the clean up and compensation arrangements.

Placer Dome dredged a wide channel at the ocean mouth of the Boac River to catch tailings flowing down from the river into the ocean. Large areas of coral coast had already been covered in tailings³ and continued to be impacted by new tailings coming from the river, even after the channel was dug, because the channel was full of tailings within months.

By August 1996, with the growing realization that the river clean up was not going to be done in six months or even a year, Placer Dome announced that the company planned to divest from Marcopper, but would continue to take responsibility for the ongoing clean up of the river. The commitments made by Placer Dome's CEO to the Office of the Philippine President were ultimately reflected in legal agreements Placer Dome entered into with Marcopper, on February 28, 1997, a month before Placer Dome divested. These agreements are known as the Environmental Reclamation Agreement (ERA), the Tunnel and River Contract, and the Makulapnit Siltation Dam Agreement (MSDA). In entering into these agreements with Marcopper, Placer Dome stated its wish to "maintain its reputation for responsible environmental management and to maintain its ability to generate income from operations in the Philippines."⁴ Placer Dome also recognized the "near insolvent" state of Marcopper,⁵ and referred to the "technical capabilities and international expertise of PDI"⁶ with respect to the work that needed to be done.

In March of 1997, one year after the spill, Placer Dome divested from Marcopper. During the rallies on the first anniversary of the spill, the people in Marinduque summarized their feelings about the divestment by saying: "First Placer dumped its waste, then its shares and now its responsibility."

Placer Dome Decides on Submarine Tailings Disposal to "Clean Up" Spilled Tailings

In 1997, Placer Dome stated it would clean up the river by dumping the tailings into the sea using STD. There was not yet much awareness among the people of Marinduque about this technology, but it was

³ UNEP, September 1996. Final Report of the United Nations Expert Assessment Mission to Marinduque Island, Philippines. P. 70.

⁴ Makulapnit Siltation Dam Agreement, 1997.

⁵ Environmental Reclamation Agreement, 1997.

⁶ Makulapnit Siltation Dam Agreement, 1997.

opposed by a core of local people who were concerned about the potential impacts on the sea. On October 30, 1997, the Philippine Department of Environment and Natural Resources (DENR) turned down Placer Dome's first permit application for Submarine Tailings Disposal (STD). In his denial of the permit then-Secretary of the DENR, Victor Ramos, noted that "under current laws and regulations, all the offshore and submarine areas of the country are considered to be Environmentally Critical Areas (ECA). (...) Hence, your application for the submarine placement of redredged channel tailings materials is hereby denied." The department was concerned that rich fishing grounds in the nearby Tablas Strait would be severely harmed. The Secretary wrote, "[w]e would prefer a land-based option..." Boac's mayor Madla welcomed this decision and in a letter of December 1, 1997, to Secretary Ramos wrote: "On behalf of the people of the Municipality of Boac we are extending our sincerest gratitude for heeding our call to save Tablas Strait by not allowing [the company] to dump their contaminated mine tailings into the said Strait."

Placer Dome did not accept the ruling but appealed it. On March 23, 1998, the company won the right to prepare an Environmental Impact Assessment (EIA) that could include the STD option, but as DENR Secretary Ramos added, "[w]e strongly suggest however that alternative land-based disposal options of spilled tailings and a full rehabilitation proposal be made a major part of the study." Placer Dome hired Woodward-Clyde (Philippines) as their main consultants and set out to prepare an EIA for STD.

The offensive to influence government opinion and to win the "hearts and minds" of the people of Marinduque now also went into full force. Derek Ellis of the consulting firm Rescan Environmental Services Ltd. was brought in from Vancouver to give presentations for the officials at the DENR on STD. He was presented by Placer Dome as an academic and as an independent advisor.⁷ Officials from the DENR who attended Ellis's presentation were not aware that he was also a long time member of a consulting firm that had specialized in STD since the 1970s and promoted the technology around the world. On the island, Placer Dome instituted village assistance programs. Survey forms were handed out among the villages receiving assistance in which the people's opinions of STD were polled. If they thought STD was fine they could check a box to that effect. If they thought STD was not fine they could also check a box to indicate this but then they were asked to provide the reasons for their disapproval of STD.⁸ Placer Dome also brought in a consultant who met with villagers in Marinduque and told them that STD was a "proven technology," was "widely practiced" and "acceptable in Canada and practiced there."⁹

The Opposition in Marinduque

⁷ Personal communication of Catherine Coumans with official in the DENR, November 1998.

⁸ In a personal communication with Catherine Coumans, Christopher Sheldon, Manager Stakeholder Partnership, for Placer Pacific Asia PTE.Ltd, who was based in Manila and heading up the village assistance programs in Marinduque, said that the poll was a mistake and had been carried out by an employee without consultation with Sheldon. November 1998.

⁹ Personal communication of Catherine Coumans with villagers in Marinduque. November 1998. In response, Catherine Coumans circulated a brief two page fact sheet (December 1, 1998) that, among other things, explained the laws in Canada effectively banning STD since 1975, the unpredicted consequences STD had had in Canada, and the fact that the only mine using STD was one that had started before these laws went into effect and so was allowed to continue. In response the DENR hired NSR Consultants to refute the fact sheet by Coumans and circulated a 12-page NSR document in Marinduque. The DENR followed up in April 2000 with another document, based on the NSR document, again refuting Coumans's claims. Coumans responded in writing to each point made by the DENR on April 27, 2000 and distributed this document in Marinduque.

During the 1970s while tailings were dumped into Calancan Bay, surrounding fishing villages were primarily aided in their attempts to stop the dumping, by an upper middle class engineer from the nearby town, Franco Preclaro, and a Catholic nun from Manila, Sr. Aida Velasquez. Thanks to the efforts of Mr. Preclaro the dumping was highlighted in the Manila media in the late 1970s putting pressure on regulatory authorities who eventually issued a “cease and desist order.” This order was overturned, in 1981, by President Ferdinand Marcos (the secret partner of Placer Dome). In 1981, Marinduque became a diocese and received its first Bishop, Bishop Raphael Lim. Since then the local Roman Catholic Church has been the primary and most consistent local organization supporting all villagers affected by mining on the island through its Social Action Centre. Sr. Aida Velasquez was instrumental in attracting international attention for the plight of the Calancan Bay fishing villages, which led, in the 1980s, to meetings in Canada between Placer Dome executives and NGOs. During the 1980s there was shareholder action against Placer Dome in Canada on this issue. Legal action by the villagers led, in 1988, to another “cease and desist” order against the dumping from the regulatory authorities, but, again, this order was overturned by the Office of the President.

Protest against the mine was localized between 1975-1991 around the bay and the villagers there. Once the dumping into Calancan Bay stopped in 1991, much of the international focus on the mining-related environmental problems in Marinduque also faded, even though the bay was never rehabilitated and continued to affect livelihood and health. The massive dam failure in Mogpog in 1993 and the ongoing environmental problems in the Mogpog River never received much attention although some villagers and local politicians tried to raise awareness about the environmental effects and Sr. Aida Velasquez and the local Roman Catholic Church brought this issue back to the awareness of Canadian NGOs in 1995.

Importantly, opposition to the mine was never supported by elected officials or town elite in Marinduque, with rare exceptions such as Franco Preclaro. Town residents wanted to keep the electricity the mine generated and sold locally. Many elected officials either benefited directly, through contracts, or believed the mine necessary for employment on this small island where employment is still largely based on fishing and farming.

With the massive tailings spill into the Boac River in 1996, opposition took on a new form. For the first time villagers from Calancan Bay, Mogpog and Boac joined in solidarity and for the first time elected officials, local mayors (with the exception of the mayor in whose town the mine is located), provincial board members and eventually a new Congressman, elected in 1999, joined the affected villagers and took a stand against the clean up plans of Placer Dome. Locally, this opposition is primarily led by the Roman Catholic Church through its umbrella organization Marinduque Council for Environmental Concerns (MACEC), whose members include other local NGOs, villagers and elected officials. The local chapter of the Philippine Rural Reconstruction Movement (PRRM) also became an active supporter of mining affected villagers after the spill and a member of MACEC.

This broad coalition was very effective in the years after the spill in making their voice heard in Manila through petitions, resolutions, demonstrations and yearly commemorative events on the anniversary of the spill. This coalition also took a firm stand against STD. They were conscious of the fact that deep sea disposal of mine waste was not yet an accepted practice in the Philippines. They also knew that many other mining companies were interested in using STD in the country. They saw their struggle as not only aimed at protecting their own coastal waters but also to avoid a setting a precedent for STD in the Philippines.

Placer Dome's Second Application for STD is turned down

Woodward Clyde completed the EIA studies and Placer again applied for a permit for STD. On February 16, 1999, PDI's second request for an STD permit was turned down by then-DENR Secretary Antonio Cerilles, on the basis of "absence of social acceptability as evidenced by the consistent opposition from directly affected stakeholders of Marinduque...."¹⁰ Cerilles ordered that a final river clean up and rehabilitation program be submitted "within 30 days (...) for immediate implementation by PDTS [Placer Dome Technical Services]."¹¹

Placer Dome did not accept the ruling and instead halted all further work on the river. Instead, the company focussed on a campaign to prove the social acceptability of STD through an "Information Education Program" and by seeking endorsements from individual villages. Placer Dome eventually claimed various local groups were in support of STD, such as the "Marinduque Incurable Scuba Diving Addict Club, Inc.," which has never been heard of locally.¹²

The Search for Independent Expert Advice

The people of Marinduque decided to take matters into their own hands after Placer Dome's refusal to abide by Secretary Cerilles order for a river clean up. They decided to hire independent consultants to provide them with a sound scientific basis for various clean up options. This demand had in fact been incorporated in DENR-Secretary Cerilles's February 16, 1999 letter. Cerilles ordered the "[h]iring of independent technical consultants by the provincial government to be funded by PDTS."¹³

The DENR offered the people of Marinduque the services of two "independent" consultants: Stuart Jones and David Gwyther. The DENR praised the credentials of these two men but left out the fact that these mining industry consultants were well-known advocates of STD. The consultants had been working for two of the major consulting firms promoting STD, NSR Consultants and Dames and Moore.¹⁴ Through international connections Marinduqueños were informed about the two consultants and reject them.

On May 25th, 1999 a Congressional Inquiry was called by the Committee on Ecology to review complaints by Marinduqueños over the continued delay in the clean up of the river. This inquiry investigated evidence of increasing toxicity and health concerns of villagers near the river, delays in compensation payments, and Placer Dome's continued insistence on STD as a clean up option. The people of Marinduque reiterated their opposition to STD and demands for an independent assessment by a team of scientists of their choosing. After the inquiry Congressman Edmund Reyes of Marinduque travelled to the United States in search of a team of scientists to come to Marinduque to review potential clean up options for the tailings in the river. He met with NGOs, university departments, and members of the United States Geological Survey (USGS) who expressed an interest.

Placer Dome managed to convince the DENR to strike its own "independent review committee" to review Placer Dome's STD plans. This committee became extremely controversial. The investigations

¹⁰ Cerilles, Antonio. February 16, 1999.

¹¹ Ibid.

¹² Placer Dome Technical Services, March 1999. Restoring the Boac River. pp. 19-20.

¹³ Cerilles, Antonio. February 16, 1999.

¹⁴ David Gwyther has since joined NSR Consultants.

of the most qualified person on the committee, its Chair, Dr. Zenaida Batac-Catalan whose specialization is Aquatic Ecology and Pollution, led her to conclude that STD was not an acceptable option based on Placer's own studies. There was considerable tension over her position on the committee.¹⁵ On February 16, 2000 there was a meeting of the review committee for which Dr. Batac-Catalan had called in sick. During this meeting the decision was made to approve Placer Dome's STD plans. Two other members of the committee never signed off on this decision. Dr. Batac-Catalan resigned from the review committee. On June 13th 2000, Dr. Batac-Catalan wrote a letter to DENR Secretary Cerilles expressing her disappointment with the fact that a vote was taken in her absence and setting out in 5 pages her reasons for opposing Placer Dome's STD plans. She argued that Placer Dome had not been able to sufficiently show that STD would not cause environmental harm and that tailings management, once they had been placed into the ocean, would be impossible if anything went wrong. She also noted the need to protect the food web at the bottom of the ocean and expressed concern for health effects from metal leaching on Marinduqueños who rely on seafood.

The DENR never formally released the brief review committee decision. DENR officials agreed to await the review of the USGS before making a final decision on the issue of STD.

The United States Geological Survey Provides Independent Advice

On March 14, 2000 a Memorandum of Agreement (MOA) was struck between the DENR and the Provincial Government of Marinduque. This MOA requires the People of Marinduque, through the Provincial Governor, in consultation with the Provincial Board, to select a consultant to conduct an independent review and recommend a final remediation plan for the river. Placer Dome stated they would not pay for independent advisors chosen by the people.¹⁶

In May 2000, an independent USGS-led team spent a week in Marinduque and inspected all mining-related environmentally damaged areas. They reviewed all reports made available to them and consulted widely with the people of Marinduque. In the Fall of 2000 the USGS released their report concerning Marinduque's mining related impacts. The USGS report strongly recommends a "systems approach" to remediation on the island insisting that the Boac River remediation cannot be separated from the need for island-wide remediation. The USGS report documents large mounds of tailings left in the river and in the catchment area where the rivers enters the sea. The report states that these tailings "will be a long-term source of acid and metals into the environment, and are therefore in need of remediation."¹⁷ With respect to STD, the USGS warned that, "there is considerable potential that a highly acidic, metal-enriched, and environmentally detrimental plume would develop in the ocean around the tailings discharge point during tailings disposal...."¹⁸ Following the findings of the USGS report, the DENR assured Marinduqueños that STD would no longer be considered an option for disposal of the tailings in the Boac River.

In the Spring of 2001 Placer Dome appeared to accept this ruling, although the company continued to promote through media that STD was the best clean up solution. Placer Dome started preparing a plan to return the tailings to the open mine pit.¹⁹ Marinduqueños, however, requested that the USGS conduct

¹⁵ Personal communication with Catherine Coumans. December 1999 and January 2000.

¹⁶ Personal Communication by Catherine Coumans with a DENR official. April 2000.

¹⁷ <http://geology.cr.usgs.gov/pub/open-file-reports/ofr-00-0397/> p.2.

¹⁸ *ibid.*

¹⁹ Jim Robertson, May 10, 2001. Personal Communication with Catherine Coumans.

a thorough scientific review of all clean-up options before any action be taken. On February 19th, 2001 the Provincial Board passed a resolution endorsing the USGS as their “qualified third party technical review consultants.”

Last Minute Back Room Deals

President Joseph Estrada was increasingly coming under attack for corruption and by the end of the year people were rallying in the streets in what was called People Power II after the peaceful revolution that ousted then-dictator Marcos in 1986. In the very last days of the regime, DENR Secretary Cerilles signed about 200 Environmental Compliance Certificates (ECC). One of these, dated January 18, 2001, barely a day before the regime fell, was an ECC for Placer Dome Technical Services permitting Placer Dome to implement STD to clean up the Boac River tailings. The Officer in Charge of the new administration cancelled all these so-called “midnight deals.” Marinduqueños became aware that an ECC for STD had been signed but were not overly concerned that this ECC held any validity. Nonetheless, on October 3, 2001, a delegation of elected officials from Marinduque met in Manila with PDTS president Ian Lewis to discuss their dissatisfaction with the long delayed compensation payments and with the lack of transparency about engineering studies by Klohn Crippen that Placer Dome had commissioned to assess all dams and structures at the mine site.²⁰ At this meeting Lewis informed the delegation that the ECC for STD that former DENR Secretary Cerilles had signed in January had been “hand delivered” to Placer Dome in August and that Placer Dome considered this ECC valid. Ian Lewis also referred to the DENR “Review Committee” report never released by the DENR, as evidence that an independent assessment had approved the STD option. Lewis admitted that the new DENR Secretary Heherson Alvarez had in a letter dated September 6, 2001, referred to the “inadvertent release” of the ECC and had “suspended” the released ECC. It was clear that PDTS was again trying to get approval for STD.

Placer Dome Pulls Out of Philippines and Leaves Clean Up to Marcopper

On October 9th, a congressional inquiry was held to review Placer Dome’s plans for the clean up of the river, delays in compensation, and the need for greater transparency around studies by Placer Dome. On the evening before the Congressional Inquiry a letter dated August 23, 2001, from Placer Dome’s consultants Klohn Crippen was leaked. The letter highlights conclusions from Klohn Crippen’s June 14, 2001 report that five structures at the mine site need urgent repairs and that two structures (the dam at the top of the Mogpog River and the pit containing mine waste), are in such bad shape that “failure is a “near certainty in the near term under current conditions.” The Klohn Crippen letter refers twice to potential for “loss of life” downstream as a result of collapse of these two structures and notes that collapse of the pit “would threaten the safety of any mine personnel that might be in the vicinity when the failure occurred.” This is the same unstable pit that Placer Dome had been considering as an alternative disposal site when STD no longer seemed an acceptable option. On October 11, 2001, the DENR ordered Placer Dome, its subsidiary PDTS, and Marcopper to immediately fix the dangerous dams and structures or face criminal action should a disaster occur. In December 2001, without warning or consultation, Placer Dome Technical Services closed its office in Marinduque and its office in Manila and pulled out of the Philippines. Placer Dome left behind the toxic mine tailings in the Boac River, the threat of five dangerously unstable mine structures, and the incomplete compensation of Marinduqueños affected by the 1996 spill.

²⁰ Authors of this paper were present at this meeting.