IPIECA

International Association of Oil & Gas Producers

Volunteer management

Oil Spill Response Joint Industry Project

IPIECA

The global oil and gas industry association for environmental and social issues

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About this report

In response to the Deepwater Horizon incident at the Macondo Prospect off the Gulf of Mexico In April 2010, the International Association of Oil and Gas Producers (IOGP) formed the Global Industry Response Group (GIRG). This Group was tasked with identifying ways to prevent the recurrence of such an incident and to identify learning opportunities both with respect to the cause of, and response to, the incident. Part of this effort involved the formation of a subgroup on Oil Spill Response (OSR). This group was comprised of nominees from IOGP member companies, from the IPIECA Oil Spill Working Group (OSWG), from Oil Spill Response Limited (OSRL), and from other industry organizations, associations and spill response cooperatives, as appropriate.

The IOGP GIRG-OSR task force reported on its findings to both the IOGP Management Committee and the IPIECA Executive Committee at a joint session in February 2011. While certain actions recommended by the GIRG-OSR report fell within the remit of existing organizations, it was recognized that the most efficient way to execute the resultant work was for the industry to establish a limited duration Joint Industry Project (JIP), governed by the funding companies.

This report addresses Finding 15 of the JIP project, focusing on Volunteer Management.

Introduction

Volunteers[1] have been used in spill response operations for a number of years. Of the 72,000 responders involved in the response to the Macondo spill, 25,000 were volunteers (NRT, 2012). While such a high turnout of volunteers is unusual, even for large high-profile spills, some smaller spills such as the MV *Rena* oil spill off the coast of Tauranga in New Zealand, and the *Cosco Busan* spill in San Francisco Bay, California have involved significant numbers of volunteers. Inadequate planning for, and management of, volunteers can lead to adverse public and political relations. Hence, the importance of effectively managing the participation of volunteers involved in oil spill clean-up operations should not be underestimated.

In the event of a high profile oil spill it is likely that members of the local and national population may wish to assist with the clean-up efforts. Increasing public awareness and concern for the environment, together with the speedy and broad dissemination of important news events via social media, has led to more volunteers offering their assistance in recent times.

Volunteer assistance can prove to be a useful resource for spill response activities, and can provide quick access to a large number of people who often possess useful local knowledge. However, there are a number of challenges that should be fully addressed when deciding whether or not to use volunteers. For example, volunteers may offer a relatively short-term commitment to the response, and will require supervision, training and personal protective equipment (PPE). Motivation may be challenging in the event of a slow and repetitive shoreline clean-up, and volunteers have the potential to generate more waste than contracted clean-up workers (Tucker and O'Brien, 2011).

[1] *For the purposes of this document, a volunteer is defined as a member of the public, most often from the local community, who comes forward following an incident or disaster to assist local and/or national authorities in oil spill response activities. These individuals are unpaid, and are not usually affiliated with a response or relief agency. They will typically not have benefited from prior training in oil spill clean-up techniques or in the use of personal protective equipment.*

Source: Oil Spill Response Limited

Response operations are often complex, demanding and resource heavy, and require the responders/workers to have a clear understanding of priorities, objectives, resource requirements, organization and communication; this can be problematic for short-term volunteers. This document does not seek to address the broader scope of considerations for any clean-up operation, but focuses specifically on offering considerations for good practice that relate to volunteer engagement, coordination and management.

Guiding principles for using volunteers—command considerations

1. Decide whether it is suitable to use volunteers on the response.
2. If it is agreed that volunteers will be used, determine the tasks in which they will be involved, with particular consideration for safety and oil exposure issues.
3. Decide how the volunteer effort will be coordinated and managed within the Incident Command System.
4. Set up a volunteer registration process.
5. Set up a volunteer induction and training process.
6. Advertise the roles that volunteers could fill and how to register their interest.
7. Allocate volunteer resources and produce tasking documents for the specific sites and operations where volunteers will be working.

Activities 1 to 6 can be prepared as part of the contingency planning process. While additional decisions will be made based on the specific circumstances of the spill and the area of impact, it is possible to agree with relevant stakeholders whether, in principle, volunteer assistance would be required, and how volunteers may be used, trained and managed in preparation for any incident that may occur.

Guiding principles for using volunteers—operational considerations

1. When arriving at a site, ensure that volunteers check in and that appropriate personal information is recorded (volunteers should also check out at the end of a shift).
2. Before commencing work ensure that a daily brief is given.
3. Ensure in-field site supervision is in place and scalable.
4. Always have consideration for the welfare and well-being of volunteers.

Command considerations

Deciding whether to use volunteers in the response

There are obvious advantages to using volunteers, such as quick access to a large number of people to assist with the response, and a wealth of local knowledge and enthusiasm. If it is considered that volunteers may be used successfully, these people can also assist in dissemination of the key response messages and priorities into the wider community.

Volunteers do, however, present management and liability challenges which may add to the complexity of the response. For effective volunteer effort, the management of any incident needs to invest in the programme by providing training and personal protective equipment (PPE) as a minimum. Ideally, in order to maximize the useful life of the PPE issued or the time spent on training, the volunteer should commit to spending a period of days on the response. Effective utilization of a volunteer workforce also requires high levels of supervision and direction, which demands management and manpower, in order to maximize their effectiveness. Volunteers may also be harder to keep motivated and working effectively, as the work that they tend to be involved with—particularly shoreline clean-up efforts—is often laborious, repetitive and slow (Tucker and O'Brien, 2011). Additionally, the use of volunteers can pose liability issues through potential exposure to oil and the hazardous materials that may be used in the response. Companies may chose to manage the liability by contractually employing the volunteers so that the nature of the work and obligations of both volunteers and employer are fully understood by both parties from the outset.

It may be that political or other imperatives influence the decision to use volunteers (Gass and Przelomski, 2005). As an example, legal structures in the country in which the incident takes place may specifically prohibit or, subject to certain prequalifications, permit volunteers to be used during the response. Nevertheless, a conscious decision should be made as to whether volunteers should be used or not during the response.

It is preferred that the volunteer workforce is sourced from the local population. This brings to the response the combined benefits of local knowledge of the area and motivation for assisting in mitigating the impact; there is also the practical implication that local volunteers will not require accommodation in an area that may potentially be struggling to house responders that have been mobilized to assist (AMSA, 2013).

Volunteer roles/tasks

Volunteers have been used on many large and small incidents over previous years for a number of different roles. Table 1 on pages 4–5 shows a summary of recent oil spill incidents in which volunteers have been utilized in different roles.

It is recommended that, where possible, volunteers work in the areas away from the most heavy contamination; however, it is recognized that it may be necessary to employ volunteers on oiled shorelines (Gass and Przelomski, 2005; NRT, 2012). Volunteers have been more successfully used to assist with the secondary and 'final polish' clean-up after the bulk removal of oil has been

Table 1 A summary of recent oil spill incidents in which volunteers have been utilized in different roles

Incident	Incident details	Volunteers used
Amoco Cadiz (France, 1978)	The *Amoco Cadiz* grounded 3 miles from the Brittany coast due to a steering failure and bad weather. The vessel broke up before it was possible to offload any oil (CEDRE, 2015).	7,000 people, mostly military, were involved in removing oil that impacted the shoreline (ITOPF, 2015).
Ixtoc (Bahia de Campeche Mexico, 1979-80)	An exploratory well being drilled in the Bahia de Campeche suffered a well blowout. It is estimated that 30,000 bbls a day of IXTOC 1 crude was released for approximately 6 months. This oil moved towards the Texas shoreline (NOAA, 1992).	Volunteers were trained by the United States Fish and Wildlife Service (USFWS) in the handling of oiled birds on one of the Barrier Islands impacted (NOAA, 2012).
Exxon Bayway Refinery (New York, 1990)	An underwater pipeline located at the Morse Creek released approximately 13,500 barrels of heating oil into the waterway between New Jersey and Staten Island, New York (NOAA, 2012).	Immediate response efforts attempted to contain the spill and set protective booming for environmentally sensitive areas. Local volunteers used to assist had been pre identified and received training sessions in deploying the equipment. This preparation increased the speed of the practical response (NOAA, 2012).
Mega Borg (Gulf of Mexico, 1990)	The *Mega Borg* was being lightered 57 miles southeast of Galveson, Texas when an explosion occurred. Over 7 days subsequent to the explosion approximately 100,000 barrels of Angolan Palanca crude was released to sea (NOAA, 1992).	Volunteers were given a shortened health and safety course by OSHA (Occupational Safety and Health Administration). Volunteers were used to pre-clean the beaches west of Sea Rim Park to reduce the amount of oiled debris that may be generated (NOAA, 2012).
Haven (Italy, 1991)	The *Haven* caught fire whilst at anchor 7 miles off the coast of Italy. Approximately 450,000 bbls of Iranian Heavy Crude burnt while an estimated 142,857 bbls was released to sea (NOAA, 2012). There was a shoreline impact and clean-up on approximately 110 km of coast (CEDRE, 2015).	Volunteers and military assisted with the shoreline clean up and involved the manual removal of the oil and oiled waste (ITOPF, 2015).
Sanko Harvest (Western Australia, 1991)	The *Sanko Harvest* was a bulk cargo carrier that grounded on a rock 23 miles south of Esperance, Western Australia. It is estimated that 3,500 barrels of fuel oil were spilled (NOAA, 1992).	Two areas which are important breeding grounds for New Zealand fur seals were oiled and seal pups affected were cleaned on site by a team formed of scientists and volunteers (NOAA, 1992).
Nakhodka (Japan, 1997)	While transiting 110 km north east from the Oki Islands in the Sea of Japan the *Nakhodka* broke up in bad weather, instantaneously releasing 6,200 tonnes of medium fuel oil. The leak continued after the wreckage sank, at a rate estimated between 3 and 15 m^3 a day; more oil was released during salvage operations (Moller, 1997).	Volunteers from all over Japan comprised half of the manpower used to clean shoreline in the most contaminated areas, with the remainder of the assistance coming from local workers and government workers (Moller, 1997).

Table 1 (continued) A summary of recent oil spill incidents in which volunteers have been utilized in different roles

Incident	Incident details	Volunteers used
Erika (France, 1999)	The *Erika* broke into two in a storm when carrying approximately 31,000 tonnes of heavy fuel oil as cargo in the Bay of Biscay, 60 miles from the coast of Brittany (ITOPF, 2015).	Large numbers of volunteers offered assistance on the shoreline clean up. Volunteers were used generally for the secondary clean-up of contaminated shoreline, and kept away from the bulk removal of product (Tucker and O'Brien, 2011).
Prestige (Spain, 2002)	The *Prestige* was damaged and listing due to bad weather, and eventually broke in half six days later, spilling 64,000 tonnes of heavy fuel oil off Cape Finisterre, Galicia (CEDRE, 2015).	The Spanish shoreline impacted was cleaned by 10,000–5,000 people per day; these were military, local government personnel, contactors and volunteers. (ITOPF, 2015) (CEDRE, 2015).
Cosco Busan (California, 2007)	The *Cosco Busan* allied with the fendering system of the San Francisco-Oakland Bay Bridge, causing approximately 53,569 gallons of intermediate fuel oil to be discharged into San Francisco Bay.	A total of 2,267 volunteers received training, and 1,007 were deployed to shorelines for tar ball removal.
Hebei Spirit (Republic of Korea, 2007)	A crane barge collided with the *Hebei Spirit,* a fully laden tanker anchored near the port of Daesan, South Korea (ITOPF, 2015).	A large manual shoreline response was mounted that involved up to 10,000 villagers/fishermen per day and more than 50,000 volunteers per day (ITOPF, 2007). The military worked more than 1 million man days in six weeks on the response.
Enbridge Line 6B Pipeline (USA, 2010)	A pipeline leak resulted in approximately 20,000 bbls of crude oil impacting a wetland area (NRT, 2012).	A volunteer manager position was instigated in the wildlife branch who registered, organized and tracked volunteers. Volunteers (who were trained once screened) were mostly used for the cleaning of oiled turtles. (NRT, 2012)
Macondo (Gulf of Mexico, 2010)	A well blowout in the Gulf of Mexico continued to release crude for 90 days (NRT, 2012).	25,000 volunteers were used on the response in the field and for support functions. This effort was coordinated under a Volunteer Coordination Team. Due to the scale of the incident, the activities volunteers became involved in were diverse, but included shoreline surveys, beach pre-cleaning, and external communication (NRT, 2012)
Rena (New Zealand, 2011)	The *Rena*—a container ship—grounded 20 km off the northern coast of New Zealand, spilling an estimated 360 tonnes of oil (CEDRE, 2015).	Nearly 8,000 volunteers registered to assist in the response. Volunteers were involved in shoreline clean-up and bird clean-up operations (POSOW, 2013).

conducted by the attending oil spill removal organizations (OSROs) or trained contractors (Tucker and O'Brien, 2011).

Volunteers can be involved in a number of areas of the response, for example:

Technical:

- Wildlife (typically people/groups involved in the wildlife units are pre-identified/trained as this is a specialist activity requiring training and expertise):
  - Patrols to identify and collect oiled wildlife.
  - Set-up and maintenance of oiled wildlife reception facilities.
- Information technology:
  - The presentation of response status through the use of GIS packages.
- Clean-up:
  - Pre-cleaning of pre-impact shorelines.
  - The clean-up and collection of oiled sediment/debris.

Support:

- Personnel and logistics support:
  - Cooking and/or serving food and drink.
  - Driving people and/or equipment.
- Site Management:
  - Decontamination of people and equipment.
  - Site set-up and control of access points.
  - Assistance with set-up and management of rest and/or accommodation areas.

Volunteers bringing specialist skills such as medical training may also be used as first-aiders. (Gass and Przelomski, 2005; POSOW, 2013).

Volunteer supervision and programme management

In order to effectively manage any volunteer effort it should be understood that there are two distinct types of volunteers that may offer assistance:

- **Groups** (also referred to as 'affiliated volunteers' (NRT, 2012) or 'professional volunteers' (POSOW, 2013): these are generally, although not exclusively, organizations such as charities or religious groups that are likely to already have an internal management or hierarchy. They could also describe a specialist wildlife charity which could have a clear and defined position in the response, such as wildlife rehabilitation. As well as offering the benefits of internal management groups, they may also offer insurance arrangements for volunteers. Some individuals bringing with them medical, IT or other specialist training could be classed as professionals.
- **Individuals** (also termed as 'unaffiliated volunteers' (NRT, 2012) or 'spontaneous volunteers' (POSOW, 2013; Tucker and O'Brien, 2011): these are generally people that have not previously been involved with oil spills or emergency responses, and could be described as 'unskilled' (Tucker and O'Brien, 2011). Individuals with defined skills are termed 'convergent volunteers'.

The industry generally relies on experienced 'Groups' to manage the volunteer programme. In the absence of a qualified Group, industry will employ an organization or contractor with volunteer management capabilities, or assign a company employee with good personnel management skills to manage the volunteer programme. If using individuals it is preferred that they register with such a Group and are utilized in the response under their auspices (NRT, 2012). This has the benefit of streamlining the management of volunteers as they will be subsumed under the hierarchy already in place within the Group.

In more complex situations, it is often necessary to establish a position within the response management structure to coordinate and oversee volunteer involvement. This position can be described as a Volunteer Liaison Officer (NRT, 2012) or Volunteer Coordinator.

Volunteer Liaison Officer

Common tasks that the liaison officer can reasonably be expected to undertake include:

- working with others to determine the most appropriate roles for volunteers to fill, and any necessary training and skills that the volunteers might need to fill the roles;
- helping to complete tasking forms for these roles/tasks;
- providing information to the media team to advertise the roles that may need to be filled;
- setting up and managing volunteer registration, inductions and training;
- working with logistics to ensure that there are sufficient supplies for the volunteer including, in particular, the correct type and sufficient quantities of personal protective equipment (PPE), as well as ensuring that sufficient food, shelter and transport if necessary are provided;
- providing information for the Situation Report regarding the roles and progress of volunteer involvement; and
- providing facilitation at meetings of groups providing volunteer assistance.

(NRT, 2012; Iwamoto, L. *et al.*, 2008.)

Volunteer registration

A formal volunteer registration process should be established, ideally at the planning stage. This ascertains the volunteers' contact details, how much time they are able to commit to the response (if possible a minimum of two days to ensure that PPE and training time is maximized), if they have any skills or training that could be utilized, if they have any allergies or dietary requirements and to give details of an emergency contact (POSOW, 2013). This registration process can help ensure that volunteers can be tracked through the induction process and out onto field assignments, assisting in ensuring the welfare of the volunteers and effective tracking of resources and effort. This process should also ensure that the risks have been explained, and screening and post exposure surveillance can be conducted if required.

Volunteer induction and training

Prior to any volunteers working on the spill site they should be trained to ensure that they are aware of:

- health and safety information and protocols, including hazards, mitigations and consequences;
- instruction on the correct use of PPE;

- an overview of the incident and its impacts;
- the organization structure and its applicability to the volunteer workforce;
- daily registration procedure, rest breaks, food and drink availability;
- roles and tasks assigned to the volunteer workforce, and how to carry them out safely and effectively; and
- any environmental or cultural considerations for the work area/s.

(POSOW, 2013)

It may be necessary to organize short training sessions on specific tasks to ensure that all volunteers have fully understood the requirements placed on them.

Records should be kept of those that have attended this training; it may be useful to make the attendance of this training compulsory prior to issuing response team identification cards so it can be easily identified whether someone who presents themselves for work has completed the necessary induction training.

Operational considerations

Checking in/out

When volunteers are reporting for work at the clean-up site, they should be checked in, and their presence on site recorded. It is equally important to record those leaving at the end of the shift. This ensures that only those that are registered and inducted enter the site. If it is not possible to restrict access to the shoreline it is advisable to use volunteers preferentially on shorelines that do have controlled access.

In the event that an emergency evacuation of the site is required these records must be accessible to conduct a roll call and ensure that all those working on the site are accounted for. The site set-up should take into consideration the importance of a 'check in/registration post' and ensure that it is prominently located and, ideally, situated so that those entering and leaving the site are naturally 'funnelled past'.

Daily site briefing

The daily site briefing differs from the initial training in that it will be of much shorter duration and will be conducted at the worksite before commencing operations.

The daily site briefing should include reference to the following:

- The safety message, which should:
  - confirm the assembly point in the event of an evacuation of the work area and the signal for an evacuation;
  - explain the procedures to be followed in the event of an accident;
  - identify the location of the first-aid point at the worksite;
  - clarify the type and levels of PPE required; and
  - highlight any near misses or unsafe situations raised from the previous operational period.
- The objective/s and tasks of the operational period.
- Rest breaks and shift timings.
- The weather forecast and tide times (on shorelines).
- The site set-up, including information on:
  - access routes;
  - waste management; and
  - decontamination area.

(POSOW, 2013)

At the end of each day it may also be useful to have a 'hot wash'/debrief to highlight any health and safety issues that have been noticed that day, highlight any additional points or lessons learned from the work completed, and provide details of the plans for the next operational period (POSOW, 2013).

Site supervision

In-field supervision of volunteers is crucial. Without adequate supervision, volunteers may not stick to specified tasks or clean up designated areas, but may instead be tempted to do what *they* believe is for the best. This can cause more environmental damage or pose a safety risk to the workers involved.

In-field supervision of volunteers may differ depending on whether 'volunteer groups' or 'individuals' are being used. If using groups there may already be a clear and established hierarchy that can be utilized. At all times the 'span of control' should be considered and an appropriate number of supervisors, who are suitably qualified, should oversee and ensure the health and safety of those working beneath them.

Welfare and well-being

When volunteers are working on-site, consideration should be given to the provision of:

- Rest breaks: the frequency of the rest breaks are dependent on the weather conditions (extremes of temperature may prompt an increase in the frequency of breaks required), physical fitness of volunteers and the level of exertion required by the task.
- Food and drink: food and drink may be provided for the volunteers; if this is not the case and the volunteers are expected to provide their own food, this should be made clear during the registration process. Consideration needs to be given to dietary requirements.
- Shelter: volunteers should have somewhere to shelter during rest breaks or periods of inclement weather.
- On-site first-aider and facilities: a first-aid post should be set up, clearly signposted and its location pointed out during the daily site briefing.
- Sanitation: portable toilets and hand washing facilities/sanitizers should be provided to avoid any uncomfortable situations for the volunteers and to minimize potential health issues.

Case study 1: MV *Cosco Busan*— volunteer use in California oil spills

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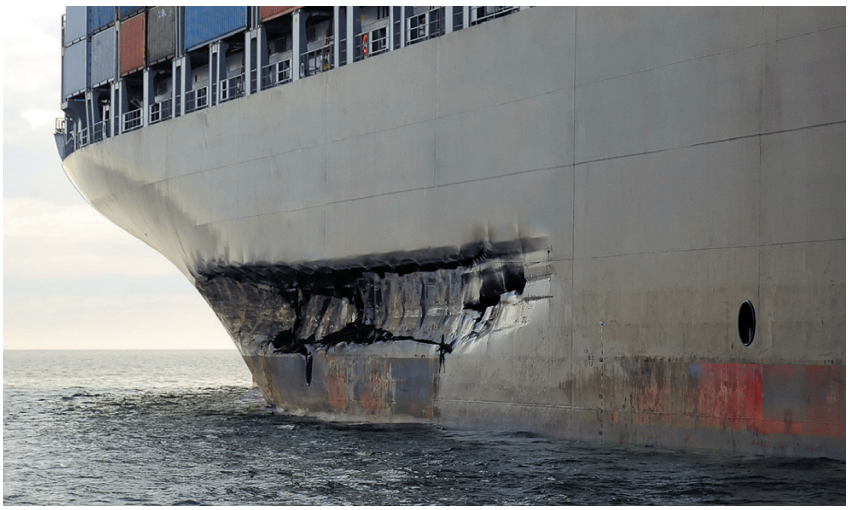
Introduction

Spill background

In the early morning of November 7, 2007, under foggy conditions, the MV *Cosco Busan*, a 900-foot long container ship allied with the fendering system of the San Francisco-Oakland Bay Bridge. The allision opened a 160-ft long gash in the ship's hull, causing an estimated 53,569 gallons of intermediate fuel oil to be discharged into San Francisco Bay. The initial report of spilled oil stated less than 140 gallons, as declared by the Responsible Party (RP) Regan Stone, Ltd. This initial underreporting set the stage for the public's mistrust towards the response effort. The spill affected San Francisco Bay, San Francisco, Marin, Contra Costa, Alameda, and San Mateo.



Source: Getty Images

The damage to the hull of the Cosco Busan*, which led to the release of an estimated 53,569 gallons of intermediate fuel oil into San Francisco Bay.*

Volunteer types and key sources:

During an oil spill, two types of volunteers are utilized to assist with oil spill response activities:

- **Pre-trained (affiliated) volunteers:** these individuals are made up of staff and volunteers from one of over 30 member organizations in the Oiled Wildlife Care Network (OWCN) in California. These volunteers have also registered with OWCN in order to take advantage of specialized oiled wildlife response trainings. Generally, pre-trained volunteers work without compensation. However, if the need arises, they can fill a staff level position depending on need and experience.

- **Spontaneous volunteers:** these volunteers come forward following an incident or disaster to assist a governmental agency, NGO or OWCN with response activities during the response or recovery phase (without pay or other consideration). By definition, spontaneous volunteers are not yet associated with a response or relief agency involved in the incident. This type of volunteer may or may not have specific training related to oil spill response activities. However, a small number of spontaneous volunteers may be utilized for the care and processing of oiled wildlife rehabilitation, especially those volunteers that are already associated with an OWCN member organization but have not yet been through the training to qualify them as a pre-trained volunteer.

Non-wildlife volunteers

Volunteer management and outreach

During the *Cosco Busan* incident, concerned citizens expressed a strong desire to assist with non-wildlife volunteer activities such as oiled shoreline clean-up. Many citizens were frustrated due to a lack of volunteer opportunities in the San Francisco Bay Area. On 10 November 2007, California Department of Fish and Wildlife (CDFW) and Office of Spill Prevention and Response (OSPR) held a public informational meeting where it was explained that only trained individuals with appropriate credentials would be permitted to handle hazardous materials and capture oiled animals, as per California Occupational Safety Hazardous Administration (Cal OSHA) regulations and the San Francisco Bay and Delta Area Contingency Plan (ACP). More than 400 concerned citizens attended the meeting and many of those were under the impression that they would receive training in the capture of oiled animals, as announced by a local radio station. However, this was not the case, and many who attended the CDFW/OSPR informational meeting left frustrated and disappointed.

During the first few days of the *Cosco Busan* incident, the UC declined the use of volunteers outside of the care and processing of oiled animals. By 10 November 2007, concerned citizens began self-deploying to oiled shorelines with their gloves and plastic bags to pick up oil. As it became evident that members of the public were going to clean oiled shorelines regardless of the authorization of the UC, local government decided to develop a Volunteer Use Plan to coordinate non-wildlife volunteer efforts.

To collaborate with local government in managing non-wildlife volunteers, the UC established a Volunteer Unit (VU) at the Incident Command Post (ICP). The VU included representatives from the US Environmental Protection Agency (US EPA), California Volunteers, California Coastal Commission, CDFW/OSPR, City and County of San Francisco (CCSF) and several other government agencies responsible for overseeing/managing the use of non-wildlife volunteers.

The VU identified volunteer deployment sites that would not overlap with wildlife response efforts and/or oil spill contractors. The VU communicated this information to the CCSF and Alameda, San Mateo and Marin counties. These counties activated their emergency volunteer centres, or established just-in-time volunteer centres to screen and register members of the public as Disaster Service Workers (DSW).

The Volunteer Use Plan was approved by the UC on 11 November 2007 and incorporated into the Incident Action Plan.

Volunteer training

In order to meet Cal OSHA requirements for working on oiled shorelines, non-wildlife volunteers received 4-hour HAZCOM (modified 24-hour HAZWOPER) training. The training module was provided by CDFW/OSPR and shared with US EPA to assist with the training sessions.

A total of 17, 4-hour HAZCOM training sessions were held throughout the Bay Area. The number of volunteers trained was 2,267 of which 1,007 were deployed to shorelines for tar ball removal (Figure 1).

Figure 1 Volunteer clean-up programme for the *Cosco Busan* response

Date	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov	Total
Number of training sessions	2	1	5*	0	0	6	0	0	1	0	0	0	2	0	17*
Number of volunteers trained	280	71	910	0	0	881	0	0	61	0	0	0	64	0	2267
Number of beach clean-ups/inspections	2	2	2	2	3	6	5	0	0	0	5	4	10	6	47
Volunteers deployed	170	42	27	65	50	371	109	0	0	0	48	8	83	34	1007
Waste quantity removed (bags)	0	0	0	20*	6	10	226	0	0	0	4	0	29	6	301*
Waste quantity removed (cubic yards)	25	0	0	0	20	20	0	0	0	0	0	0	0	0	65

*approximate numbers
(Participating counties: Alameda, CCSF, Marin and San Mateo)

Liability and health/safety issues

The non-wildlife volunteers utilized for tar ball removal were registered as DSWs and managed by the local government agencies. The managing local government agencies were also responsible for liability and the health/safety of the non-wildlife volunteers. No work-related injury reports were submitted by the managing agencies.

During the *Cosco Busan* accident, safety considerations for volunteer use included:

- primary safety hazards (e.g. volume, type and toxicity of discharged oil);
- secondary safety hazards (e.g. weather, visibility, slips/trips/falls);
- logistics and administrative support requirements (e.g. training, PPE, multi-jurisdictional coordination, public information).

Operational activities

Operational activities for non-wildlife volunteers included:

- creation of a Volunteer Unit within the ICP to coordinate the use of volunteers (deployment sites) with participating Bay Area counties/agencies;
- planned-for and coordinated logistics for the volunteer training sessions, including coordinating with the Bay Area emergency volunteer centres;

- planned for and coordinated logistics for volunteer opportunities at oiled shoreline sites;
- development of public outreach messages about volunteer opportunities and updated websites and other communication tools;
- provision of volunteer information to volunteer-use groups/communities;
- maintaining volunteer registration records; and
- planning and implementation of a volunteer appreciation day.

Successes and challenges

Successes

- Due to the insistence of the public wanting to assist with response activities, several Bay Area counties were able to develop a Volunteer Use Plan that facilitated using members of the public to assist with oiled shoreline clean-up activities.
- A four-hour HAZCOM training module had been developed by CDFW/OSPR prior to the *Cosco Busan* accident, which helped facilitate volunteer training efforts.
- Although difficult at first, all levels of government effectively demonstrated the ability to interact with each other in determining a resolution of contentious issues and the execution of non-wildlife volunteer usage during the response.
- Bay Area counties efficiently and effectively deployed 1,007 volunteers to assist with tar ball removal.
- Bay Area residents were provided with the opportunity to support response efforts.

Challenges

- The *Cosco Busan* accident illustrated how poorly-orchestrated public information at the onset of an incident can have cascading effects. Because the public did not receive clear information about what was being done to clean up the spill, they took it upon themselves to take action. This resulted in a response objective that ran counter to one of the primary tenets of volunteer management—volunteer opportunities should be developed out of need, not out of the public's desire to volunteer.
- The lack of knowledge about existing volunteer programmes among local, state and federal agencies.
- Political pressure played a role in utilizing non-wildlife volunteers during the response.
- The non-wildlife volunteer issue overwhelmed the UC.
- Bay Area residents expected to receive continuous, real-time information through web-based services and social media. The UC established a website (PIERS), however, the information provided was not timely.
- The lack of non-wildlife volunteer opportunities limited how volunteers could be utilized

Subsequent actions taken

- The Non-Wildlife Volunteer Plan (NWVP) has been adopted and is now part of the San Francisco and Delta/Los Angeles-Long Beach Area Contingency Plans.
- The USCG's Incident Management Handbook describes a Volunteer Unit, Volunteer Unit Leader, Emergency Volunteer Centre Coordinator, Non-Governmental Volunteer Coordinator.
- CDFW/OSPR established a website that provides real-time oil spill information: www.CalSpillWatch.dfg.ca.gov

- CDFW/OSPR created a Twitter/Facebook page.
- CDFW/OSPR developed an interactive web-based volunteer management system.
- CDFW/OSPR and local government continue to drill and exercise the NWVP.

Wildlife volunteers

The OWCN consists of more than 30 member organizations comprising world-class aquaria, universities, scientific organizations and rehabilitation groups.

Established in 1994 by the CDFW/OSPR in response to the *Exxon Valdez* oil spill in Alaska and the *American Trader* accident in Huntington Beach, the OWCN is administered by the UC Davis Wildlife Health Center in the School of Veterinary Medicine.

Recognized as an international leader in oil spill response, the OWCN focuses on four core areas to expediently and effectively offer the best achievable capture and care for oil-affected wildlife: readiness; response; research and outreach.

Volunteer management and outreach

Management of pre-trained and spontaneous wildlife volunteers during the spill was done through the cooperation of the OWCN Volunteer Coordinator, the OSPR Volunteer Coordinator, and a Volunteer Coordinator representative from one of OWCN's member organizations. This cooperative team was responsible for recruiting new wildlife volunteers from the current pre-trained pool and new volunteers from the public, maintaining each volunteer's contact information, scheduling volunteers, and providing the appropriate initial health and safety training at the wildlife facility (i.e. four-hour HAZCOM).

Source: Getty Images

A volunteer attempts to catch an oil-soaked bird at Point Emeryville, California.

Volunteer training

Prior to the response to the *Cosco Busan* accident, the OWCN had an established training programme. Each pre-trained volunteer had to be affiliated with one of more than 30 member organizations of the network, and were required to stay active as volunteers at those organizations in California. The purpose of this active affiliation was for the volunteer to receive ongoing training at their member organization through valuable hands-on experience with wildlife.

The OWCN's training commitment also included various in-person activities to further develop the skills necessary for oiled wildlife response. Ongoing in-person volunteer training included:

- basic training: an introduction to basic skills utilized in oiled wildlife response;
- advanced training: wet labs that provided additional hands on practice in advanced methods of oiled wildlife response; and
- continuing education: outreach seminars and workshops held throughout the state each year.

Unlike pre-trained volunteers, spontaneous volunteers came into the spill with little or no training. All spontaneous volunteers were required to take a four-hour HAZCOM training, which included a health and safety video covering information on regulations, oiled wildlife considerations and hazards that can be encountered during response. Additionally, spontaneous volunteers received on-the-job oiled wildlife training, including working with, and learning from, experienced staff and volunteers.

Liability and health/safety issues

Pre-trained and spontaneous volunteers all signed the CDFW's Oath of Allegiance and Volunteer Service Agreement forms, effectively making them un-paid workers for the state. While CDFW took on the liability of the wildlife volunteers, their responsibility, and their health and safety issues, ultimately fell upon the Responsible Party.

Operational activities

Operational activities for wildlife volunteers included:

- transportation: transport of oiled wildlife from the recovery location to the wildlife facility;
- field stabilization: immediate care of oil-affected animals in the field prior to arrival at the wildlife facility;
- processing and intake: evidence collection and initial health exams at the wildlife facility;
- pre-wash care: stabilization and care of oil-affected animals at the wildlife facility;
- cleaning: removal of contaminants from oil-affected animals;
- pre-release conditioning: care of cleaned animals and conditioning for release back into the wild;
- support: duties to support the animal care efforts at the facility, including laundry, food preparation, lab work, and disinfection and cleaning;
- facility work: construction and maintenance of the various aspects of the facility, including electrical, plumbing and pool systems at the facility;
- administration: duties including answering phones and help with securing supplies for the response; and
- volunteer coordination: duties related to helping to manage the large pool of responding volunteers.

Volunteer call-out

The original call-out for pre-trained volunteers was done by phone utilizing the OWCN volunteer database and through contacts at OWCN member organizations using email requests.

Members of the public that wanted to volunteer as spontaneous volunteers began calling the OSPR hotline. However, the hotline was quickly overrun with hundreds of calls, and the line was transferred to a number at the wildlife facility that went directly to an answering machine. In turn, personnel monitored the answering machine to log the contact information for each caller. The hotline number for spontaneous volunteers was promoted by OSPR through traditional media sources.

Volunteer use

In all, 950 volunteers (a roughly 50/50 combination of pre-trained and spontaneous volunteers) were utilized to care for more than 1,000 oiled birds, contributing more than 13,000 hours of response time, and contributing invaluable amounts of effort to the care and well-being of the animals. Volunteers were used in every aspect of the wildlife response at the wildlife facility, including animal care, animal cleaning, facility maintenance, support (i.e. food preparation, laundry, etc.) and administration.

Successes and challenges

Successes

- Pre-trained volunteers: by maintaining a large pool of pre-trained volunteers with ongoing trainings, the OWCN was able to begin a quick and efficient response to a spill, without the added start-up time of identifying, recruiting and training a labour force. Pre-trained volunteers helped cover all aspects of the wildlife response.
- Volunteer operations: early communications with OSPR's Volunteer Coordinator helped to expedite volunteer operations at the Primary Care Facility. An Emergency Volunteer Centre was quickly established to serve as a base for the pre-trained volunteers to come in and rapidly assist in the response, and act as the site to provide orientation and training for spontaneous volunteers.

Challenges

- Volunteer hotline: the volunteer hotline should have been activated immediately to accommodate the large number of calls that could have been expected given the spill location in the San Francisco Bay Area, known for its informed and engaged citizens. Additionally, once it was activated, the number of calls quickly overran the system.
- Media: the media should have been contacted to provide general and up-to-date information to the public. This should have included information regarding the fact that a volunteer centre had been established and that there were trained volunteers being utilized in wildlife operations.
- Opportunities: public interest in volunteering outweighed the capacity to accommodate spontaneous volunteers, limiting the public's ability to assist, which created a negative impression of the wildlife response.

Subsequent actions taken

- Volunteer hotline: the volunteer hotline has been updated to include multiple lines, which should prevent the system from becoming overwhelmed due to the large numbers of callers. Additionally, alternate forms of communication (i.e. the San Francisco Bay Area's 211 emergency system) have been identified as supplementary sources for providing information to potential volunteers.
- Website: the OWCN web page has been redesigned to convey information to the public and potential volunteers, and now includes a blog. The blog is an excellent way to report updates to the public, and was put to the test in 2010 during the *Deepwater Horizon* event, when the blog reached over 20,000 hits in the month of May during the height of the spill.
- Media: for future spills, OSPR will have a Public Information Officer at the wildlife facility, to quickly report accurate information to the media and help provide media access to the animal care facility. Personnel from UC Davis may also be brought in to help organize media-related activities and help show the oiled wildlife response as a positive experience.
- Spontaneous volunteers: OWCN has expanded its volunteer opportunities and OSPR has expanded its spontaneous volunteer programme to include non-wildlife opportunities (see the *non-wildlife volunteers* section).
- Pre-trained volunteers: the OWCN has expanded its pre-trained volunteer programme to include more opportunities and provide additional training in the form of live and in-person webinars, an annual rehabilitation conference, and 24-hour HAZWOPER training, allowing OWCN to put more volunteers into more roles. Expanding the programme enables OWCN to reach more potential volunteers prior to a spill occurrence, enlisting them as pre-trained volunteers rather than having them come forward as spontaneous volunteers during a spill. Increasing the pre-trained volunteer force will provide a broader understanding of spill response to more people and prevent the public frustration of not being able to help during a spill.
- Volunteer management software: OWCN has obtained and begun to utilize volunteer management software that will allow better tracking of volunteers, and will provide for better scheduling of personnel during a spill response.

Conclusion

The *Cosco Busan* accident illustrated how poorly-orchestrated public information at the onset of an incident can have cascading effects. Because the public did not receive clear information about what was being done to clean up the oil spill, they took it upon themselves to take action. This resulted in a response objective that ran counter to one of the primary tenets of volunteer management: volunteer opportunities should be developed out of need, not out of the public's desire to volunteer. Additionally, this led to poor public perception of the management of the spill, which had to be dealt with during the spill and remedied before any future disasters. Steps have been taken to increase clear communication with the public and make available additional volunteer opportunities.

Case study 2: Response to the MV *Rena* oil spill

Written by Bruce Fraser, the initial volunteer programme coordinator. Pim de Monchy, who was part of the original team and then took over as coordinator, peer reviewed the draft and suggested improvements.

Background

Early in the morning of 5 October 2011, the cargo vessel *Rena* struck Astrolabe Reef 12 nautical miles off Tauranga and grounded.

Source: Science Media Centre

The grounded vessel Rena *on Astrolabe Reef*

The 21-year-old, 236-metre Liberian-flagged cargo vessel was en route from Napier to Tauranga in New Zealand and travelling at around 21 knots when it struck the reef. Its bow section was wedged on the reef and its stern section was afloat. Two of its cargo holds flooded and several breaches were identified in the hull.

The *Rena* was carrying 1,368 containers and 1,733 tonnes of heavy fuel oil on board at the time of grounding. An oil leak was detected on the night of 5 October, and the vessel's owners and insurers appointed a salvor, Svitzer, the next day. The salvage team began working around the clock in extremely dangerous conditions to secure the vessel and make preparations for the complex task of pumping off the heavy fuel oil (HFO).

The salvors began removing the estimated 1,350 tonnes of oil in various tanks on the *Rena* on 9 October, but were hampered by bad weather, equipment breakdown and hazardous and changeable conditions.

A storm overnight on 11 October resulted in the loss of an estimated 350 tonnes of oil from the *Rena*, some of it washing up at various points along the Bay of Plenty coastline. Continuing bad weather the following night saw 86 containers lost overboard. A further 5–10 tonnes of oil was lost from the vessel overnight on 22–23 October.

Oil spill response personnel and volunteers, including large numbers of locals, worked to clean oiled beaches and recover debris from the containers.

More than 1,300 tonnes of HFO was eventually recovered from the *Rena*, with all of the accessible oil removed by 15 November. Containers lost overboard during bad weather were intercepted and recovered, where possible, along with dispersed container contents that had washed up. Container removal operations from the *Rena* began once all of the oil had been removed, with the first container lifted off on 16 November 2011. By 26 December, a total of 341 containers had been removed.

Source: Maritime New Zealand website www.Maritimenz.govt.nz

The Rena *after it broke in two in January 2012*

Source: Maritime NZ

In previous maritime disasters in New Zealand, Maritime New Zealand had relied on paid contractors to undertake clean-up operations. In late 2011, many New Zealand and Australian personnel trained in oil spill response were mobilized to Tauranga to lead staff from within the region. The National Oil Spill Response Strategy outlined the processes, structures and roles for undertaking the clean-up but this did not include a volunteer programme.

After a few days, the Bay of Plenty government and local government representatives and officials noted increasing community frustration arising from keeping people off the beaches and not engaging fully with affected communities. They began promoting the idea of community involvement within the Incident Command Centre (ICC) and finally gained approval from Maritime New Zealand to establish a volunteer programme.

On Wednesday, 12 October 2011, one week after the grounding, the volunteer programme was established.

Description

On 12 October, the regional council began to gear up the volunteer programme with the secondment of staff from government departments, other local government organizations and the contracting of an independent coordinator. At its height, this core team numbered over 20, with more than 30 additional people contributed indirectly to the programme. Other agencies offered logistical support to the team, with valuable contributions coming from organizations such as Sustainable Coastlines and Conservation Volunteers New Zealand.

Setting up clear processes, structures and roles were key factors in ensuring that the beach clean-ups could happen quickly, safely and efficiently.

Source: Richard Moore

Volunteers working on oil recovery

Late on the morning of Day 1 for the volunteer programme, Government Transport Minister Joyce called for 'bullet points' that he could use to make an announcement at 3 pm on ways that the public could be involved. This was quickly organized to ensure that the Minister had something positive and specific to announce on that day.

On that first night, a hastily arranged meeting at a local Surf Club further helped set the course for the functions and approach of the volunteer programme. Attendees at the meeting included surf club leaders, Coastguard members, Coast Care members and ratepayer groups. Their key messages included the following:

- Someone other than Surf Club members needed to tell people to stay off the beaches, as this was affecting their relationships with the very people they relied on for financial and community support.
- People along the coastline of the western Bay of Plenty were becoming frustrated at the lack of action and wanted to help.

In the next few days the work within the volunteer programme focused on:

- establishing a team to run the programme;
- setting up processes, structures and roles, and how these related to existing structures;
- producing a management plan;
- contracting and training nearly 40 staff to coordinate safe and effective volunteer events;
- getting the first clean-ups organized;
- developing a strong communications system; and
- establishing the credibility of a volunteer response within the ICC.

The first public beach clean-up took place on Friday 12 October, two days after the establishment of the volunteer programme (later branded as Operation Beach Clean).

Another important element was the development of effective working relationships with the Iwi (Tribal) Liaison Team who were mobilizing local Maori (the indigenous people of New Zealand) to assist with beach clean-ups. The volunteer programme worked closely with the Iwi Liaison Team sharing information and approaches to engaging people and quickly addressing any issues that arose. For some beach locations proposed for clean-up, it was important to talk with the Iwi liaison staff about any *wahi tapu* (sacred sites), sensitivities or people the team particularly needed to consider.

Surf Life Saving personnel provided valuable assistance in liaising between the volunteer programme and Surf Life Saving sites along the coastline. Working within the volunteer team, they coordinated the use of surf clubs as bases for registering volunteers and running beach clean-ups. Surf club members were also valuable sources of information as they conducted daily beach sweeps and were eventually trained by the Shoreline Clean-up Assessment Team (SCAT) in undertaking surveillance checks for fresh oil.

Gaining credibility

A major thrust in the first two weeks was to demonstrate to the various sections of ICC that volunteers could play a safe, useful and legitimate role in the beach clean-ups alongside the New Zealand Defence Force and contractors.

Several elements combined to help achieve this outcome, including:

- the development of a robust volunteer team structure and processes;
- the development of a highly credible Shoreline Clean-up Volunteer Management Plan;
- political support for engagement with volunteers in a managed way;
- lobbying within ICC of the concept of a credible volunteer programme; and
- development of a practical Health and Safety Plan, and the willingness of Maritime New Zealand's appointed Health and Safety Manager to consider the proposal.

With many people in the community indicating their willingness to help with the clean-up, the challenge was to set up a system that gathered information appropriately so that they could participate effectively in beach clean-ups.

Regional Council Application Development staff developed a database with input from the volunteer programme staff where people could register online for Operation Beach Clean. This was then publicized widely and attracted growing numbers of volunteers peaking at 8,000.

After taking advice from Health and Safety staff, the criteria for safe and effective volunteer participation in Operation Beach Clean were that people needed to be:

- 16 years of age or over;
- physically fit and capable of working on a beach for four hours at a time; and
- not pregnant or suffering from a respiratory illness.

Providing consistent, safe and effective clean-ups

To demonstrate the credibility of the programme to the public and to the authorities, Operation Beach Clean needed to provide safe and effective clean-ups.

The daily planning process followed the steps below:

- A planning meeting was held with other ICC operations to determine where the clean-ups would occur on the following day (initially) and for the coming week (later in the response).
- Logistical planning was carried out for specific sites to ensure that the appropriate supervisors were present, together with protective equipment, signage, registration areas, decontamination gear, waste collection and a plan for group transport if required.
- Communicating with volunteers to advise where the following day's clean-ups would be located.
- Running the clean-ups using a maximum event size of 200 people, a ratio of one voluntary team leader per 10 volunteers and one paid Site Manager per 50 volunteers.
- Coordinating with any offers of food or other support from corporate organizations, and from citizens who perhaps were not physically fit enough to participate in the clean-ups.
- Checking with volunteers as they finished their four-hour shifts on the beach to check on the quality of their experience.

Feedback from volunteers after early beach clean-ups showed that their experiences were not always consistent or to the same high standard that was expected. While most volunteers reported that the operation had been well coordinated and effective, others suggested that improvements to the experience would be helpful.

The team then ran further training for the beach site supervisors ensuring that they were well briefed, were using the same processes and were providing the same information and degree of coordination.

Agile, flexible approaches

Public beach clean-up operations were effective for much of the main area affected by the oil spill, but it was also important to cater for the needs of specific communities and adopt flexible approaches for different situations.

The Volunteer Programme was mainly concerned with cleaning up oil spilt on beaches while the vessel owner dealt with the debris recovery from spilt containers. However, some volunteers also helped with small debris collection particularly on Waihi Beach to the north of Tauranga after the ship broke in two in January 2012. The programme needed to be flexible enough to adapt to their desire to help with this clean-up.

The public beach clean-ups were appropriate for most areas. However, in Maketu, Matakana Island, and to some extent Motiti Island and the area east of Opotiki—small communities that were heavily affected by oil and debris—the locals coordinated the clean-up operations. Operation Beach Clean supported them with protective equipment, communications, provision of volunteers from outside the community and rubbish removal.

Communicating with the volunteers

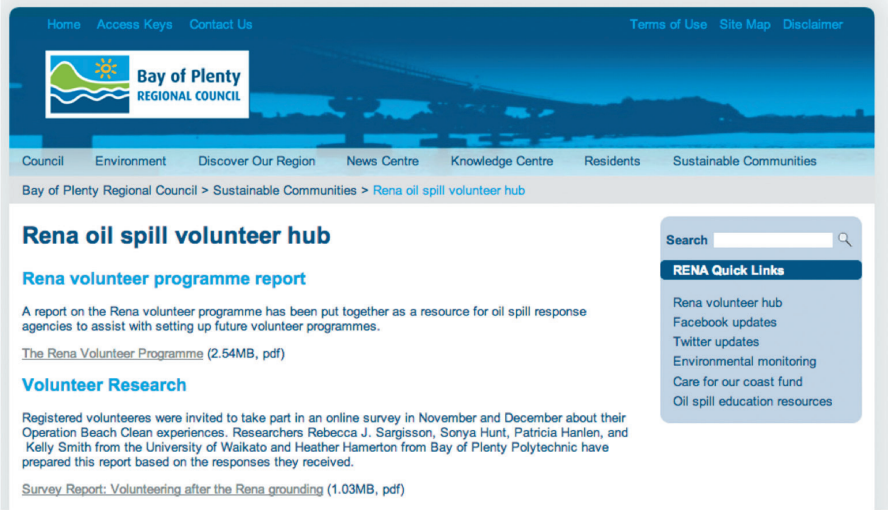
The Volunteer Programme Team recognized the importance of keeping volunteers informed regularly and committed to daily updates for people. These consisted of emails and texts to people on the database and included:

- the latest information about the vessel;
- data on oiled beaches and wildlife; and
- information on clean-ups planned for the following day or days.

A dedicated communications professional worked within the volunteer team throughout the time of Operation Beach Clean. The coordinator and communications advisor would discuss the daily message, the advisor would create the message, check it with the Maritime New Zealand senior communications person for consistency with other messages, have it authorized by the coordinator and then arrange for it to be sent out via ReadyNet (an emergency preparedness communications network).

Once the communication system was set up, ReadyNet provided text and email messaging services to the volunteers on the database. This worked very well and helped keep the volunteers up to date and engaged with Operation Beach Clean. Regional Council and Maritime NZ websites and the council Facebook page also carried information about beach clean-ups.

Initially, communications were targeted at specific locations to ensure that beach clean-ups were not swamped with more eager volunteers wanting to help than could be coped with by the beach site supervisors. Within two weeks of Operation Beach Clean beginning, all volunteers were notified of all events as the first burst of volunteer enthusiasm settled to more manageable numbers.



The Bay of Plenty Regional Council website carried information about beach clean-ups to help keep the volunteers up to date and engaged with Operation Beach Clean.

Corporate sponsorship and support

Many businesses, groups and individuals contacted the volunteer team with offers of equipment, food, drink, staffing, volunteer discounts and support. A dedicated person coordinated these offers and ensured that they were well managed and integrated with the various beach clean-ups.

At the height of the clean-ups, for example, an event held at the Papamoa Surf Club attracted not only more than 200 volunteers, but also corporate, group and individual offers, including:

- Papamoa Surf Club personnel and premises;
- Nestlé Maggi soup and hot Milo drinks for the volunteers;
- Tauranga Environment Centre and its HydroHub with fresh drinking water;
- ANZ Bank offering food and drink; and
- barbecued steak sandwiches from Big Smokey BBQ with the bread supplied by the PAK'nSAVE supermarket and meat from AFFCO (a local meat works).

In another corporate offer, Telecom bussed staff into Tauranga from the Waikato and Auckland areas for a one-day beach clean-up. The volunteer team provided training and protective equipment while the company provided food and drink. Many local residents supported the volunteers with plates of cakes, muffins, scones and other food as a way of showing their appreciation.

Recognizing and thanking the volunteers

At the beginning and end of each beach clean-up, supervisors thanked the volunteers for their efforts and asked for feedback. The daily email message would reiterate the thanks, and the local leaders also recognized volunteer efforts in their daily newspaper columns.

Volunteers at the 'thank you' event in March 2012

Source: Maritime NZ

More specific ways that the volunteers were recognized included:

- music and food for an event at a beachside tavern organized by the volunteers;
- $5,000 in fuel vouchers from Z-Energy;
- $22,000 credit from Vodafone for volunteer phones;
- free tickets to Summerfest Tauranga;
- vouchers from local businesses; and
- a thank-you event on 11 March 2012 at Mount Maunganui Beach.

Move to adopt a beach programme

As the volunteer programme progressed with public beach clean-ups, local communities were increasingly calling for greater autonomy in looking after 'their patch of beach', particularly after the worst of the oil had been cleaned up. Elements of this approach were present from the beginning of the programme, particularly with a local Ratepayers' Association who demonstrated a confidence and organizational ability from their involvement in an estuary care programme.

Small, local groups, under the umbrella of Adopt a Beach, undertook daily scans and clean-ups of specific sections of beach. Operation Beach Clean supported them with coordination, provision of protective gear and rubbish removal.

For some time, the Adopt a Beach scheme operated alongside Operation Beach Clean but ultimately, as the amount of oil coming ashore or exposed by erosion decreased, the local initiative became more and more common. In early December, the public beach cleans were suspended (the last Operation Beach Clean was on 5 December 2011) and efforts concentrated on supporting, training and equipping the community-led programmes.

Twenty-five Adopt a Beach programmes were created involving more than 3,000 hours of community effort.

Research

At the same time as the Volunteer Team was deciding how best to gather responses from the volunteers, the Bay of Plenty Polytechnic and University of Waikato designed a social research project on the volunteer programme. The online questionnaire was launched in November 2011 and was completed by 164 volunteers who were registered volunteers for beach clean-up activities (a self-selected sample).

The findings[1] of the research project were as follows:

- Respondents were principally over the age of 30, with the number of female respondents increasing to age 60, and then decreasing. The number of male respondents remained fairly stable above age 30.
- The largest percentage of respondents were employed full-time, followed by retirees. Only small numbers of respondents were unemployed.
- Respondents reported feeling angry, powerless, heartbroken and concerned when they first heard of the *Rena* oil spill.
- Most respondents learned about the opportunity to volunteer from television, newspapers or radio, showing that traditional mass-communication channels may still have outweighed more modern technologies, such as the Internet in 2011.
- Email and text messaging were the preferred means of communication once respondents had registered as volunteers.
- There were many reasons given by respondents for volunteering. The main reasons were feeling a sense of duty and responsibility, conservation, and a desire to help the community and future generations. Respondents also stated that they were regular users of the beach and wanted to contribute to the clean-up effort.
- Respondents overwhelmingly reported that their experience as a volunteer had been positive, and that volunteering had helped them to feel that they belonged to their community.
- Respondents agreed that the volunteer effort was well organized.
- Most respondents agreed that they would be willing to volunteer again, both for oil spill clean-up events as well as other types of disaster and non-disaster activities.
- Distance from home and work commitments were identified as the greatest barriers to future volunteering. Work commitments decreased as the age of respondents increased, but the physical nature of the work became more of a barrier as the age of respondents increased, suggesting that, while older people are motivated to volunteer, thought needs to be given as to the various capacities in which they are best able to help.

[1] Source: *Oil clean-up volunteering after the Rena grounding: An online survey* (2012), Rebecca J. Sargisson, Sonya Hunt, Patricia Hanlen, Kelly Smith and Heather Hamerton

Highlights

The greatest highlight was seeing the recovery of the once oil-blackened beaches almost to their normal states before Christmas 2011, partly through the efforts of determined community members.

Highlights included:

- the work of thousands of volunteers who helped remove oil from the beaches;
- the extraordinary collaboration between various agencies and organizations to help develop the volunteer programme;
- the considerable generosity of local and national businesses who contributed goods, personnel and cash;
- the wonderful contributions of locals who turned up with boxes of food to feed the volunteers;
- the beach site supervisors who gave up many hours to help with the programme; one supervisor and his son put their contracting business on hold for three weeks to help with the volunteer programme;
- the way in which communities felt more united as they worked together to overcome a shared problem; and
- the fast conversion of initial community frustration and anger into a prolonged willingness to help.

Lessons learned

The following factors contributed to the success of the volunteer programme:

- Above all was the determination and commitment of the people who volunteered, some many times over.
- Official acceptance and support for a volunteer programme.
- A flexible and enthusiastic Maritime New Zealand Health and Safety Manager.
- Robust systems, structures and processes within the volunteer programme.
- Effective beach site supervisors.
- Efficient systems for organizing and running beach clean-up events.
- Keeping volunteers well informed.
- Listening to community and volunteer feedback and making changes when needed.
- Using the experience, networks and advice of other groups such as Sustainable Coastlines, Conservation Volunteers New Zealand, Surf Life Saving New Zealand, Coast Care and Iwi groups.
- Integrating the volunteer programme deeply into other processes used within ICC.
- Coordinating corporate, community and individual offers of help, resources and food.
- Recognizing the volunteers.
- Developing a Beach Site Supervisors Team, training them thoroughly and providing them with resources to enable consistent, safe and efficient clean-up operations.
- Being flexible and adapting the beach clean-ups to suit the needs of local communities.
- Establishing early and strong relationships with Surf Life Saving personnel and considering having one of their representatives working closely with the volunteer team.

Possible improvements to the Volunteer programme could include:

- provision for community involvement in the Maritime New Zealand National Oil Spill Response Plan and similar Regional Oil Spill Response Plans, where appropriate;
- moving more quickly to the Adopt a Beach programme or run it alongside Operation Beach Clean to cater for different needs;
- registration of volunteers on-site for each beach clean-up from the beginning instead of one week into the programme;
- faster integration of the volunteer programme into other work areas of the ICC; and
- paying closer attention to evidence provided by community members on what is happening on the beaches, and feeding this information into other intelligence gathered, e.g. the SCAT programme.

Summary

The volunteer programme became an important part of the beach clean-up working alongside the New Zealand Defence Force and contractors organized by the Operations section of the ICC. Starting with a blank sheet of paper for organizing the volunteer programme and working under the pressure of community expectation for involvement, Operation Beach Clean came to be recognized as a credible and useful part of the clean-up operation. This was a response to a particular situation in a populated beach area, and these factors contributed to the shape and form of the Bay of Plenty volunteer programme in late 2011.

Acknowledgements

Maritime New Zealand (www.maritimenz.govt.nz)

Bay of Plenty Regional Council (www.boprc.govt.nz)

A fuller description of the volunteer programme and the research results can be found on the Bay of Plenty Regional Council website.

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