



## **Finding Sanctuary on tour: Lessons from the California Marine Life Protection Act (MLPA) and its implementation**

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## **Introduction**

This is an informal report on what I learnt during my visit to California in September 2008. My trip had the aim of understanding the 1999 California Marine Life Protection Act (MLPA), and how it is being implemented now, in depth. I have tried to distil out the key factors leading to success / failure, in order to see if and how we can apply lessons learnt in California to pressing questions we're facing at home in the UK. I spent about two weeks travelling and speaking to people involved in pretty much all aspects of the MLPA planning process.

This report focuses almost entirely on the MLPA, although there has been other work going on to develop MPAs in California, most notably in the California Channel Islands. There is also a Federal effort going on outside state waters, overseen by NOAA's National MPA Center. I've learnt a bit about these and might refer to them peripherally.

The MLPA planning process is possibly one of the best examples of transparent, participatory, science-based MPA network planning anywhere. It is very complex, with literally hundreds of people involved in one way or another, and many different types of groupings and organisations, all with their own acronyms (there's a list at the end). I am not aiming to give a comprehensive in-depth analysis of the process; simply my personal understanding of how it fits together, who the key players are & what roles they play, and what the key drivers & factors leading to success are. There's loads of additional material on the MLPA Initiative website (<http://www.dfg.ca.gov/mlpa/>), though it's not the most user-friendly of websites. Some further reading is highlighted at the end.

This report can be distributed to anyone & everyone, with the disclaimer that this is not, of course, an official document about the California MLPA process!

## **Some background**

The California MLPA was passed in 1999, and tasked the California Fish and Game Commission (FGC) with creating a network of marine protected areas in Californian state waters (these only go out to 3nm). The legislation sets out six clear, broad goals, which are:

- (1) To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
- (2) To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
- (3) To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity.
- (4) To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.
- (5) To ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
- (6) To ensure that the state's MPAs are designed and managed, to the extent possible, as a network.

Note that the legislation is focussed purely on the protection of biodiversity. Within that context, sustainability and replenishment of economically exploited species are also explicitly included. However, economic sustainability is not referred to in the legislation, and there is no requirement for socio-economic impact assessments, or for socio-economic data to be taken into consideration.

The legislation also sets out three different designations, the full wordings of which are included in appendix 1. In summary, they are:

- a) **state marine reserve (SMR)**: complete no-take (but not no-go) areas
- b) **state marine park (SMP)**: prohibits all commercial extractive activities and potentially some recreational activities
- c) **state marine conservation area (SMCA)**: can prohibit any combination of specific commercial and/ or recreational extraction.

The legislation does not set out any goals for the amount or percentage of area to be protected under these designations, nor what sort of habitats, nor does it give any detailed design criteria (e.g. shape, size, spacing). These sorts of more detailed design guidelines were developed by the Science Advisory Team (SAT) as part of the process.

The MLPA tasks the Fish and Game Commission (FGC) with developing the protected areas. The Department of Fish and Game (DFG) are advisers / staff to the FGC - sort of the equivalent to the statutory conservation agencies in the UK, with a role to provide science-based advice on policy, data & information processing and provision (plus they also have a role in enforcement). After the MLPA legislation was passed, the DFG got together a group of scientific advisers to draw up a proposal for an MPA network along the entire California coastline. This was then presented to stakeholders for a consultation period, but the process folded because of strong opposition from stakeholders who felt disenfranchised and ignored. A second attempt at developing the MPA network did include a stakeholder group, but folded because of a lack of funding, and lack of clarity in the decision-making process, because socio-economic considerations were not taken into account (although this is not a requirement of the legislation, in practise the implementation was difficult without it), and also because the attempt was made to develop a network for the whole coast in one go.

After the two failed attempts at implementing the legislation, private foundations stepped in to help provide funding for a more complex process which the state could not have funded on its own. This has resulted in a public-private partnership, known as the MLPA Initiative, which is tasked with helping the state of California implement the MLPA based on the best available science, through a transparent and participatory process. This third attempt at implementing the MLPA, which is still ongoing, has been successful. The coast has been split into four chunks or study areas. The planning within these four regions is happening sequentially, not in parallel, in the following order:

**Central coast region** (Pigeon Point to Point Conception); Completed in April 2007

**North central coast region** (Alder Creek near Point Arena to Pigeon Point); Planned completion in 2008.

**South coast region** (Point Conception to the California/Mexico border); Data collection will begin in early 2008.

**North coast region** (California/Oregon border to Alder Creek near Point Arena); Date to be determined.

**San Francisco Bay region** (waters within San Francisco Bay, from the Golden Gate Bridge northeast to Carquinez Bridge)

The first of these areas to go ahead was the Central Coast Study Region (CCSR). This was a bit of a pilot, in that it was the first place to trial the current process, and it did not all go smoothly (although the outcome was successful in that an MPA network did get established, and formally implemented in

2007). Some significant changes were subsequently made to the process, applying lessons learnt in the CCSR. I have spoken to a number of people involved in the second region to go ahead, the North Central Coast (NCCSR), and their views on the process have been almost unanimously positive. When asked what could or should have been done differently in the NCCSR process, no-one I spoke to could think of anything. That is not to say they are all happy with the outcome. Consensus between all stakeholders probably cannot be achieved in a process like this, and it was explicitly not aimed for in California. In short, the current MLPA planning process is probably about as sophisticated as it gets in participatory, science-based MPA planning.

### **Summary of the planning process**

Perhaps the most fundamental aspect of the planning process is that the Regional Stakeholder Group (RSG) develops the proposals for MPA networks, i.e. the design task is handed over entirely to the stakeholders. They meet over a period of 8-12 months (this has varied between regions, and may be different again for the south coast region, which is about to start), with monthly formal meetings, and informal meetings and communications in between. The commitment on behalf of the RSG members is phenomenal. The RSG meetings are facilitated by professional facilitators, to help negotiations and enable positive discussions and engagement.

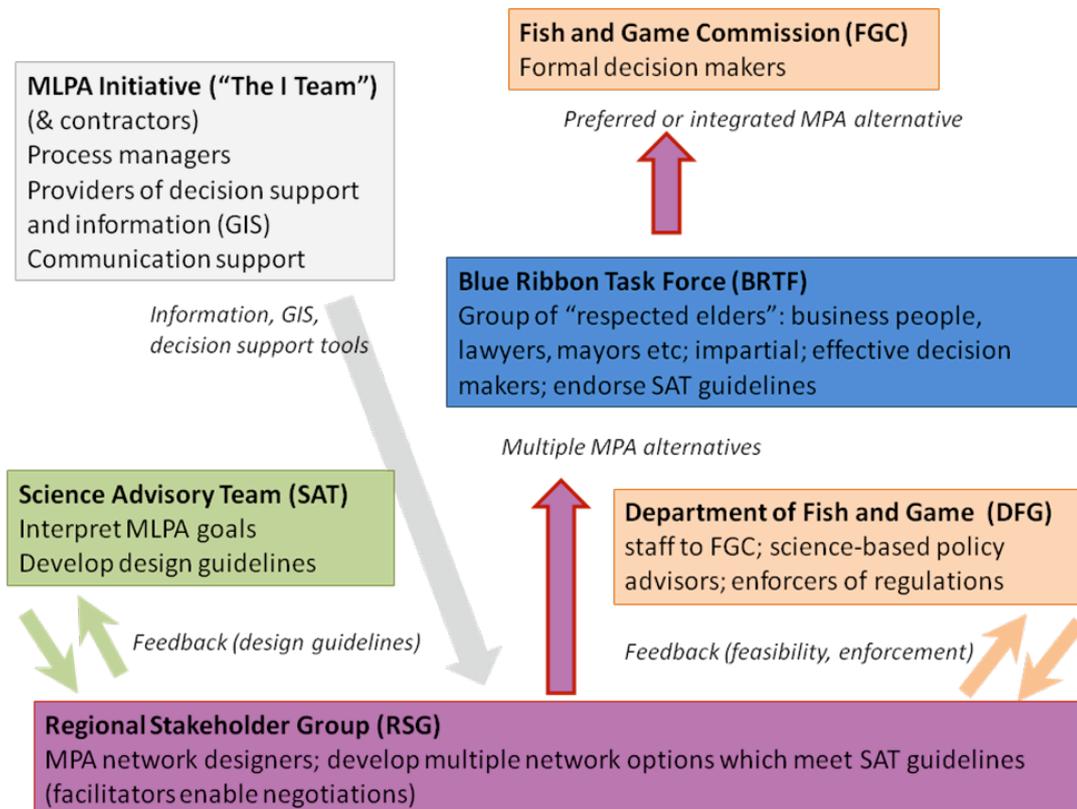
The RSG are given a set of clear design guidelines which their MPA designs have to fulfil. These pertain to the habitats that have to be represented, and the size and spacing of the reserves. The design guidelines are developed by the Science Advisory Team (SAT), a group of well-respected scientists (mostly of international renown) who meet regularly throughout the process. The proposals drawn up by the RSG are evaluated by the SAT, and feedback is given on each proposal to say whether the guidelines have been met or not, and whether/how they need to be improved to make the grade. The RSG also receives feedback on their network proposals from the Department of Fish and Game (DFG), based on more practical considerations such as how easy it would be to enforce a given MPA, whether the boundaries are easy to follow, etc. The RSG then take that feedback and refine or redefine their proposals, in an iterative fashion.

The RSG is ultimately tasked with reducing down their proposals to a small number (around 3), which all need to meet the design guidelines. These proposals are passed to the Blue Ribbon Task Force (BRTF), which consists of a small group (5-7) of impartial “respected elders” (businesspeople, eminent lawyers, former mayors, that sort of thing). They are appointed by the Secretary for Resources (essentially, part of the state Government). The BRTF meet throughout the process and communicate with all others involved, so will have some awareness of negotiations and conflicts within the RSG, as well as a clear understanding of the SAT guidelines (which they endorse). The BRTF, are, in effect, the decision-makers: they weigh up the alternative proposals, and may accept a single one, or accept elements from different ones, and form an “integrated preferred alternative” (this is what happened in the CCSR and NCCSR). This then gets passed on to the FGC, who, under the legislation, are officially tasked with making the decision. Proposals from outside the RSG (e.g. from NGOs or fishermen’s associations) are also allowed to be brought to the table for consideration by the RSG, and are given the same feedback. However, ultimately the BRTF will only take forward proposals from the RSG. [Note that in the Central Coast region, the first to go ahead, there was some lack of clarity in this flow of information and decision making. The RSG finished their work, passed their proposals on to the BRTF, and then didn’t know what had happened until the final announcement was made by the FGC, at which point the BRTF had created an amalgamation of two proposals, which members of the RSG felt like they did not recognise. This created some negative

feeling amongst the RSG, who had put in a lot of time and effort. Subsequently, in the North Central Coast, it was ensured that the deliberations of the BRTF were fed back to the RSG before the integrated proposal was passed on higher up. This gave the RSG a chance to review what had happened to their work, and a large proportion of them ended up formally endorsing the integrated preferred alternative. This is now (Sept 2008) with the FGC, and it is expected that this alternative will go ahead.]

There is one more key player in the process, and that is the MLPA Initiative itself (also known as “The I Team”, and I’m not making this up). These are a group of people who work (mostly full-time) to support, enable, drive, and manage the process. Their roles include facilitating communications, planning/attending meetings, translating scientific advice into guidelines comprehensible to stakeholders, putting together information about the study region - including scientific & environmental background and maps (the regional profile -see below); Data gathering and presentation, GIS – data collation and presentation (cartography); GIS training and support for stakeholder meetings; decision support tools (Doris - see below) and support for the use of the tools, live GIS support at meetings. Some of the Initiative staff are independent employees, others are seconded from or loaned by organisations such as NGOs, Universities, and Government agencies. The MLPA Initiative also contract out specific packages of work to contractors (such as Ecotrust). Without the Initiative staff, none of the process would function at all, but they have no role in developing the MPA proposals themselves.

I’ve tried to summarise the process in a flow chart:



## More details on groups and organisations involved

**The Regional Stakeholder Group (RSG):** The regional stakeholder group consists of 40-50 representatives of regional maritime stakeholders. They are carefully selected by the MLPA Initiative to represent a fair balance of interests, but just as importantly, also on the basis of personalities. The latter was not considered in the selection of stakeholders in the Central Coast (CCSR) process, and caused problems in that a few individuals with strong personalities came to dominate discussions. For the subsequent NCCSR, people wishing to be represented on the RSG had to formally apply to the MLPA Initiative. People were free to nominate themselves or anyone else, and the Initiative also contacted people themselves and asked them to put themselves forward. All potential RSG members were then interviewed by the Initiative and the professional facilitators who facilitated discussions at the RSG meetings, to assess personality traits: people were selected on their capability to engage positively with opposing views, to negotiate, compromise, and an openness for learning and understanding other people's needs and views.

Given that 40-50 people is a very large group for discussions, much of the MPA design work was carried out in smaller working groups, who each developed their own proposals. The working groups were divided up by the MLPA Initiative and the facilitators to ensure a cross-section of interests in each one. To begin with, a large number of proposals were put on the table. Through a process of feedback from the SAT and DFG, and negotiations amongst the groups, these were reduced down to 2 or 3 proposals in the end (the BRTF also played a role in that they were unwilling to have to consider many tens of proposals, and asked for a smaller number).

The RSG meetings were facilitated by professional facilitators trained in resolving conflicts, getting people to talk to each other, foster understanding, making sure everyone's voice gets heard, and helping achieve fruitful negotiations. Like the GIS team, the facilitators were mentioned by virtually everyone I spoke to as a key to success.

Finally, the avenues of communication are also open between the RSG and the SAT: if any of the RSG members has a science question they wanted to ask, or needs explanations and clarifications on any of the design guidelines, they can formally pass that question to the SAT via the Initiative Staff. The reason for passing the question through the Initiative (which was not done from the outset) is to avoid the SAT spending a lot of time trying to answer unclear, vague or open questions, with little resulting benefit. The SAT members serve on a voluntary basis, as do the RSG members. Efforts are made to ensure that at least one of the SAT members (preferably a good communicator - not a given amongst eminent scientists) is present at each of the RSG meetings, to be on hand for immediate questions, clarifications, concerns etc.

The main thing that struck me about the RSG was the tremendous level of commitment from its membership. Meetings were held monthly for a period of around a year, and that is just part of their time commitment: much more went on informally, with RSG members devoting time to reading and understanding the regional profile, learning how to use Doris (see below), speaking to each other on a one-to-one level outside meetings, developing draft MPA designs in their own time, building relationships. They were reimbursed for travel expenses for meetings, and those members who had to give up time at work and income to attend meetings were also given a nominal fee (about 100 dollars or something, so really not much), but effectively, people were volunteering their time. The incentives for this level of commitment are clearly a combination of sticks and carrots: The stick is the

legislation with its clear goals, the obvious political will to see the law implemented, and the endorsement of the decision-makers of the SAT guidelines - all this means that the only way to influence the outcome is to engage positively with the process. The carrot is the fact that the drawing pen is handed to the stakeholders, they are the ones actually creating the MPA network, so there is a real sense of power and ownership (of course, this power only operates within the confines of the SAT guidelines and distribution of natural habitats). They also get to go on social events around the RSG meetings (dinners etc), at the cost of the MLPA Initiative.

**The Science Advisory Team (SAT):** The science advisory team (SAT) consists of around 15 well-renowned scientists based in California (not necessarily the region of study). They are specialists in different areas of marine biology and ecology, the flora, fauna and habitats of the region, the science of marine protected areas, the movement, dispersal and distribution of marine organisms, and oceanographic modellers. They are selected by the MLPA Initiative, anyone can nominate themselves or anyone else for membership of the group. They volunteer their time for free, and it is a significant commitment: they meet regularly throughout the process, develop the design guidelines, develop other background science (e.g. inform on the species most likely to benefit from MPAs, deliberate on issues relating to water quality), and answer questions from the RSG and others involved in the process. When I asked a number of the SAT members about their incentives for being involved, the responses were: a) because they could see their science being applied in a real sense, having a direct impact, leaving their mark on the outcome of the MLPA; and b) because they find the questions interesting. Personally, I also got the impression that because several eminent people were on the group, it was seen as a prestigious thing to do, and also a chance to get together with people they'd known for a long time and have a bit of a jolly.

The design guidelines developed by the SAT centred on size and spacing criteria that the MPA network had to fulfil, rather than percentage amounts of habitat or area to be represented. This was, in part, because percentage targets were deemed "policy" rather than "science" guidelines, and also because the use of percentage targets in the Channel Islands MPA process had caused a lot of negative feeling amongst stakeholders, and the RSG would not have been as accepting of percentages as of the size and spacing criteria (the fact Steven Gaines was on the SAT was also instrumental - his expertise is on the movement and dispersal of marine organisms, and he is an excellent communicator). However, looking at it more closely, the size and spacing criteria applied per habitat (based on a broadscale habitat or "ecoregion" classification with 12 habitats), so in effect a minimum percentage of around 18-20% was set. Also, the NCCS and CCS regions both consisted of linear sections of coast - the SAT are now revisiting the guidelines for the more complex southern study region, which consists of a large bight with lots of islands.

It can be difficult to distinguish clearly between science and policy advice. The SAT were tasked strictly with providing science advice, and the BRTF's role was to decide on policy. However, the policy goals are already prescribed by the MLPA legislation, and the role of the SAT was to translate those goals into quantitative design guidelines. One might argue that these are policy guidelines as much as scientific guidelines, because they are applying scientific knowledge to developing ways of reaching policy goals. Maybe this is splitting hairs.

One point to note is that the SAT has a full-time communications support person dedicated solely to taking the deliberations and advice of the SAT and translating them into language that is easily understood by stakeholders and others.

**The Blue Ribbon Task Force:** The BRTF consist of a small number of impartial policy decision-makers, they have included mayors, eminent lawyers, businesspeople etc with no direct interest in the marine environment. They are selected by the state Government. I got the impression that their incentive for committing themselves to the MLPA Initiative is twofold: firstly, there is the prestige of it, secondly, there seems to be a real sense of working towards something worthwhile, leaving a positive legacy for the future, achieving something to be proud of. The BRTF are not paid (not that they need the cash). They have a strong role to play in keeping the momentum going and keeping the RSG on their toes, by setting timelines, and also by endorsing the SAT guidelines.

The BRTF were also instrumental in achieving relatively high levels of protection within the MPAs of the different designations set out in the legislation. The SAT developed a rating on how high the actual level of protection would be afforded by each of the designations based on exactly what would be allowed / not allowed (see appendix R of the MLPA Master Plan for details). The BRTF, right from the beginning, took the view that there would be little point in implementing MPAs with low protection levels, and this was made clear to the RSG.

**The MLPA Initiative:** The MLPA Initiative are the team of people who ensure the whole process is running smoothly, they select RSG and SAT members, ensure everyone has the information they need, provide communications support, make sure the right people are speaking to each other, they organise meetings, do outreach and communications with the wider public, and provide GIS and decision support. The work of the RSG was made easier by a lot of support and information flowing from the MLPA Initiative staff. In preparation for the start of the RSG work, the MLPA Initiative planners developed a “regional profile” for each region: a massive A4 ringbinder full of background information and maps about the environment, biology, geography, and socio-economics of the region. This was given to each RSG member to help level the playing field in terms of knowledge and understanding needed to underpin the planning.

The MLPA Initiative staff, in collaboration with contractors (e.g. Ecotrust) have also worked hard at developing decision support software for use by the stakeholders. The software tool used for the CCSR and NCCSR is called Doris (after some Greek deity, apparently). It is an interactive GIS tool that allows users to design their own MPA network, either as a group within the context of the RSG meeting, or as individuals in their own time. It provides basic feedback to the designer in terms of whether the design criteria are met or not. The GIS staff on the Initiative were on hand during RSG meetings, and spent a lot of time training the RSG members in the use of this tool. The GIS support proved to be well received amongst RSG members, and everyone I spoke to felt that this was a fundamental part of the process.

**The Department of Fish and Game (DFG):** As far as I can work out, they are in effect something akin to Natural England / JNCC, i.e. a governmental body tasked with providing science-based policy advice to the Fish and Game Commission. Their staff include scientists, policy specialists, and data and GIS analysts. Unlike the statutory agencies in the UK, the DFG also have a role in enforcement.

**Statewide Interest Groups (SIG):** The statewide interest groups are groups of stakeholders that have interests at a state (rather than regional) level. They are on hand to provide feedback and advice on the process, but NOT on the location of MPAs – that was solely the remit of the regional stakeholder groups.

**Other organisations:** There are other organisations involved in the process in various ways which you may have heard about. I’m going to describe the ones I know about & the roles they play, but I

know there are more (e.g. companies in charge of IT support, recording & live webcasting of meetings; professional facilitators paid to facilitate the stakeholder meetings; and external “auditors”, such as consultants tasked with reviewing the process, and providing feedback on what is working and what not, and how to improve it). I don’t know the details of each and every one of these.

*Ocean Conservancy:* This is an NGO focussing on marine conservation matters. They sat on the RSG for the CCSR and NCCSR, and put in a tremendous amount of time and effort to build relationships within the RSG, and carry out advocacy within the group and the wider public. That included the creation of a whole set of literature, leaflets and other materials about MPAs and the MLPA to help raise public awareness, as well as the creation of their own GIS materials to bring along to the stakeholder meetings. One of their aims was to ensure consistent, positive media coverage about the process.

*Ecotrust:* Another not-for-profit organisation, based in Portland, Oregon. They supported the MLPA Initiative by helping provide data, supporting & informing the SAT, and developing parallel MPA scenarios using Marxan (& later, MarZone). Their key role in data provision was on the economics: They were contracted by the MLPA Initiative to map the economics of fisheries in central and northern California, and are now doing the same in southern California. Their work is similar to Finding Sanctuary’s Fisherman project, except it asks detailed economic questions as well. Their methodology is written up (see list of reading materials at the end). They have also developed an interactive webGIS which does the same as Finding Sanctuary’s webGIS, but with the economic questions added - a tool to use in spatial economic data gathering.

Further to the Economics work, Ecotrust have also been co-developing Marine Map, the successor to Doris. They have also, in parallel to the work by the RSG, been developing Maxan scenarios to help inform the planning. These were not directly used to develop the MPA networks which were implemented, mostly because of a distrust of the software and its outputs on behalf of the RSG. Finally, Ecotrust have also been beta-testing MarZone (a zoning tool, the follow-on to Marxan).

Looking ahead, Ecotrust have found funding to develop a process by which the fishing industry can communicate more effectively within itself, and allow a better and more effective representation of the whole constituency on the RSG for the south coast region.

*The Nature Conservancy:* TNC is another big not-for-profit organisation. For the NCCSR and CCSR they provided the chief planner to the MLPA Initiative. They were heavily involved in the GIS work, data collation, and preparation of the regional profiles for the NCCSR and CCSR.

## **Numbers of people involved**

It was really difficult to gain a perspective on how many people are actually involved in the MLPA process, no-one seems to have a complete overview. The number of people has also changed between the different sections of coast, and has steadily grown from the CCSR and NCCSR to the South Coast Study Region which is now starting off (this is regarded as the most complicated region to tackle, because of dense urban population centres - LA and San Diego -, water quality issues, and heavy usage of the coastline by recreational and commercial users).

Here are some rough figures I got:

NCCSR had about 15-20 full-time MLPA Initiative staff, including 4 planners; 4 GIS; 2 facilitators; 2 execs; 6-8 DFG staff (policy, enforcement, fishery experts)

SCSR has even more people, about 25-30 full-time MLPA Initiative staff: 2 chief execs; 4-5 admin; 3 facilitators, 3 outreach people; 3 science support officers; 1 full-time DFG member on SAT; 6 GIS officers (1 cartography, 3 data analysis, 1 data prep, 1 manager) ; 1 web designer; 4-5 additional miscellaneous biologists, fisheries scientists, planning, meeting support etc. This is in addition to contractors such as Ecotrust, and the SAT, BRTF, SIG, and RSG. And this is just to support the process in one region, the south coast, out to 3nm, after the hard work of developing the process and the decision support tools!

### **The role of decision support software**

Doris was used intensively and with a lot of success by the Regional Stakeholder group. However, reserve design software (Marxan, Marzone) was not used to directly inform the planning process. There were several projects, including the work carried out by Ecotrust, and several research projects at Universities, which developed Marxan scenarios based on the SAT guidelines, the RSG proposals, and the same environmental and economic data used by the RSG. Some of the SAT members were aware or involved in this work, and it influenced to some extent the evaluations of the stakeholder proposals by the SAT. Everyone who has used the software is convinced that it is really valuable in working through very complex planning situations, multiple datasets and criteria, and MarZone is looking even more promising than Marxan (it has a far more user-friendly interface, and with its capacity for multiple-zone planning and consideration of multiple cost factors is more of a marine spatial planning tool than marine protected area planning tool). It is unclear if and how Marxan/MarZone might be used in the southern California process, but Ecotrust in particular are really keen to make it more accessible to the RSG - they have been working on integrating MarZone with Marine Map, resulting in something they are calling “Calzone” (no, I’m really not making it up). This, with some training, and time commitment on behalf of the RSG members, could potentially allow stakeholders to use MarZone themselves to explore MPA network options. Personally I think this is a marvellous opportunity, but I’m not entirely sure how it will work in California with no clear percentage habitat representation goals, because it is these goals (not size and spacing) which Marxan/MarZone feed on. For the purpose of accuracy, I should note that MarZone is actually called “Marxan-Z” (pronounced “zee”) because some other product has already trademarked “Marzone”, but no-one I spoke to referred to it as “Marxan-Z”. It is due to be released publicly (as freeware) within the next three months.

### **The role of economic data**

Economic data was not a legal requirement in this process, but the data provided by fishermen and analysed/ mapped by Ecotrust proved invaluable to the RSG. They had detailed information on the distribution of different types of fishing activity, relative value of different areas to each one of these types of activity, as well as dollar-value of fish landings per species per port. With a combination of these pieces of information, they were able to work out the percentage impact of different MPA proposals on the value of each one of the fishing sectors (based on the amount of area affected, assuming no displacement effort), as well as the dollar amount of impact per port (again, assuming no displacement).

In the CCSR, the timings meant that the economic data was never shown to the RSG, but only used “behind the scenes” to provide feedback to the RSG as part of the evaluation of their proposals. In the NCCSR, they were given access to the information upfront, and the economic impacts of the NCCSR network turned out to be about half of those in the CCSR. Letting the RSG have access to this information meant they were able to consider it and do a lot of weighing-up of this data in relation to

other datasets, as well as knowledge that is difficult to map, such as safety considerations (headlands providing shelter for safe fishing areas, for example).

It is worth noting that Ecotrust felt the one-to-one interaction with stakeholders they interviewed was valuable, if time-consuming. It engages people individually, makes them aware of the MLPA, and makes their knowledge count - even if they face similar problems to those we face here, in that people are initially distrustful, worried about parting with information about their favourite spots, worried about confidentiality, and ultimately worried that the information they provide will one day be used against them.

### **Key factors leading to success**

There are two main reasons why the third process has happened at all, following two failed attempts at implementing the law. Firstly, there has been clear political will to get the MLPA implemented. The Governor's office see this as a positive legacy, and something to hold up and be proud of, and gain from politically. Secondly (and crucially), private foundations stepped in to provide funding for this complex process, which the state could not provide. The money paid for a strong team of managers, GIS and data analysts, communicators and facilitators to drive the process forward and support it throughout.

With the combination of clear goals set out in a strong piece of legislation, and strong political will to see that legislation implemented on the ground, there was enough of a "stick" to provide an incentive for many people to give up their time to contribute to the process, be it as stakeholders, scientists, or decision-makers. The main positive incentive ("carrot") for people to participate and volunteer their time was the chance to have a direct influence on the shaping of the MPA network.

Although it should be abundantly clear, it's worth re-emphasizing that without the involvement of stakeholders at the heart of the process, it would not work. In California, the process would not have worked either without absolute transparency. All correspondence and verbal communications had to be recorded and made public, all meetings are open to the public, webcast, and video archived on the website.

Here are some more factors (in no particular order):

1. Private money to support a complex and costly process that would not get enough support to work from the state.
2. Participation of stakeholders - have in place the incentives for strong commitment, and support the strong commitment. Support the building of relationships within the stakeholder group: regular meetings & social events, professional facilitation, careful balancing of personalities in putting the group together.
3. Clear decision-making process: everyone needs to know who creates proposals, and who makes decisions as to what to take ahead. A process where the MPA network developed through the stakeholder input is not subsequently undermined, changed, tinkered with in a political process, or through pressure from strong lobbies.
4. Clear timeline on the planning process to keep the pressure on. The CCSR (7-8 months) felt too compressed, around a year would seem about right (assuming all data, process, decision support is in place).

5. A clear understanding of the process and everyone's roles (transparency, managing expectations). Everyone involved in drawing lines and developing guidelines needs to see how their input impacts the outcome.
6. An independent, respected and impartial group of people (the BRTF) sitting in between the stakeholder group and the "official" political decision-makers (in effect, the BRTF are the decision-makers, and they are trusted and respected).
7. Communication support throughout, especially between scientists and stakeholders.
8. A businesslike approach to managing the process – timelines, goals (deliverables) & communications – on behalf of the BRTF, and the MLPA Initiative management. Have a detached businessperson as chief executive, not a scientist, politician or policymaker.
9. Data & GIS support; including the preparation of data for everyone to access and understand it (regional profiles); also the development of and training in the use of decision support software.
10. Understanding of the science, and good communication of the science (science communication support).
11. Clear science-based guidelines which are easy to understand and implement in terms of designing the MPA network.
12. Not setting out to achieve consensus, allowing the drawing of multiple options (all in line with guidelines).
13. The gathering of spatial economic data, and making this available to the stakeholder group for incorporation into their planning.

### **Issues requiring further work**

As indicated earlier, when I asked people what could have been done better in the NCCSR process, no-one could really think of anything. That is not to say everyone went home happy, but the nature of some of the conflicts faced in this sort of process is probably such that some people losing out is inevitable (and this is something that should be acknowledged).

There are one or two points which struck me, and which came up in discussions, where things are less than perfect in the MLPA process, but these issues may not have practical resolution:

- The use of decision support tools such as Marxan/MarZone might be better incorporated into the process. At present, they are used in parallel, to help with evaluations of RSG proposals, and ultimately to have in place some sort of fall-back if the RSG goes completely pear-shaped.
- Use of complex modelling approaches vs RSG - Some of the SAT members are developing really complicated bio-economic models to predict impacts of MPA networks, based on the distribution of biology, the movement and dispersal of biology, as well as the behaviour of people. This can be done only for a small number of species (data requirements) but could be very useful to help inform the planning, but it's difficult how that can be communicated and combined with the RSG planning. It is

not likely that the detailed modelling could ever replace the more broad-brush size/spacing guidelines (which are aimed at capturing a large portion of the ecosystem, and easy to understand and apply), but they are talking about using the models to add information for individual species of importance.

- Communication of scientific uncertainties, and getting acceptance of the science from all stakeholders, remains a problem, even given all the communications support in place. It seems there are some fundamental philosophical differences to be dealt with here, and strongly conflicting interests, which means that uncertainties in data and scientific predictions will always be hard to accept by a lot of stakeholders. This is where the strong legislation, coupled with political will, and endorsement of the best available science by the decision-makers, are all key to making the outcome successful.

- The high level of transparency required by the process caused problems in itself, in that it made informal, day-to-day communications difficult. For example, Ecotrust and the SAT had a lot of direct interaction with stakeholders, which (in order to make everything transparent) needed recording. This meant a lot of tedious form-filling on behalf of contractors and volunteers alike, which probably went beyond what was feasible (and I'm not sure it was always 100% adhered to!). It's hard to see how this might be resolved, beyond ensuring the MLPA Initiative staff providing more communication support.

- Monitoring: this was not thought through enough in parallel to the planning process, and there seems to be no coherent monitoring programme in place at the moment - although there is plenty of monitoring in that Universities have ongoing and new survey work along the entire coastline going on. There is a body called the Marine Protected Areas Monitoring Enterprise, who are developing a more consistent approach, but I'm not clear where they're at or how long it will take. I spoke to one of the scientists doing monitoring in the Channel Islands MPAs, and she was highlighting the importance of thinking about the monitoring much earlier, if only to make sure there are funds and people in place to take on the work as soon as the MPAs are put in place - as well as ensuring a consistent approach state-wide. [Note it is important to maintain some communication support and relationships in place to communicate back to those involved in the planning what the science outcome of the MPAs has been].

- Post-decision implementation, management, enforcement: again, this is now DFG who are in charge, and it seems that not enough attention was focussed on this early enough. It will be interesting to get back in touch with DFG one or two years from now, and find out more about their experiences and lessons learnt.

(These latter two points, monitoring and post-planning implementation, were not issues I focussed on very much during my visit, as I was more interested in getting my head around the planning process. When I asked about them I seemed to get vague answers, but I did not pursue the matter so maybe these points of criticism aren't entirely fair.)

## **Acronyms explained**

MLPA – The Marine Life Protection Act

NCC SR – North Central Coast Study Region (refers to the North Central Coast MLPA planning process which has completed its stakeholder work and is now going through FGC)

CCSR – central coast (process completed)

SCSR – south coast (process starting up)

RSG – regional stakeholder group

BRTF – Blue Ribbon Task Force

FGC – Fish and Game Commission

DFG – Department of Fish and Game

TNC – The Nature Conservancy (conservation NGO – a big one in the states)

SAT - Science Advisory Team

SIG - Statewide Interest Group

## Further reading materials

The MLPA website is at <http://www.dfg.ca.gov/mlpa/>. I find the site very messy, and hard to gain any sort of clear overview of what is going on (the need to improve the website as a public resource came up at both the SAT and the BRTF meetings which I attended). There are some interesting documents if you look under the “Meetings” section, which include meeting handouts, any documents or maps being presented and discussed.

The main document of interest on the website is the extensive “Master Plan”, with its many appendices, which describes pretty much the whole MLPA planning process. It is written up by the DFG (who are tasked by the law to come up with the process), and it is a bit of a working document that is updated as the process evolves and changes (with a time lag). It is here <http://www.dfg.ca.gov/mlpa/masterplan.asp>. Appendix K is of special interest, it contains “lessons learnt” reports with some very interesting overarching recommendations (unfortunately, it’s 275 pages long).

FAQs, aimed at the general public, are here <http://www.dfg.ca.gov/mlpa/faqs.asp>.

Meetings are all webcast, and video archived (see <http://www.cal-span.org/cgi-bin/media.pl?folder=MLPA-NCCRSR> for the NCC meetings), so there is the opportunity to see how the meetings are chaired and facilitated.

The MLPA itself, for those interested in legalese, is here [http://www.dfg.ca.gov/mlpa/mlpa\\_language.pdf](http://www.dfg.ca.gov/mlpa/mlpa_language.pdf).

The current memorandum of understanding between the California Resources Agency, the DFG and the private foundation providing funding to the MLPA Initiative is here <http://www.dfg.ca.gov/mlpa/pdfs/mou121906.pdf>.

There will soon be a report available somewhere on the site about the key lessons learnt from the NCCSR, which has been prepared by Michael Hardy, an independent consultant.

There are a couple of other reports relevant to the MLPA which I have pdf versions of, let me know if you’d like to see them:

TNC report on the central coast, pulling together data and developing MPA portfolios in line with specified conservation goals (I have a pdf of this, please ask if you’re interested). This was done prior to the start of the MLPA Initiative.

I have public outreach materials produced by the Ocean Conservancy, including a short film on DVD about how important MPAs are - ask if you’re interested.

Ecotrust economic mapping report:

[http://www.resources.ca.gov/copc/ecotrust\\_finalreport\\_nccsr\\_080701.pdf](http://www.resources.ca.gov/copc/ecotrust_finalreport_nccsr_080701.pdf)

## **Appendix 1 – definition of designations, as laid out in the MLPA**

(a) In a *state marine reserve*, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except under a permit or specific authorization from the managing agency for research, restoration, or monitoring purposes. While, to the extent feasible, the area shall be open to the public for managed enjoyment and study, the area shall be maintained to the extent practicable in an undisturbed and unpolluted state. Access and use for activities such as walking, swimming, boating, and diving may be restricted to protect marine resources. Research, restoration, and monitoring may be permitted by the managing agency. Educational activities and other forms of nonconsumptive human use may be permitted by the designating entity or managing agency in a manner consistent with the protection of all marine resources. [PROHIBITS ALL EXTRACTIVE ACTIVITIES]

(b) In a *state marine park*, it is unlawful to injure, damage, take, or possess any living or nonliving marine resource for commercial exploitation purposes. Any human use that would compromise protection of the species of interest, natural community or habitat, or geological, cultural, or recreational features, may be restricted by the designating entity or managing agency. All other uses are allowed, including scientific collection with a permit, research, monitoring, and public recreation, including recreational harvest, unless otherwise restricted. Public use, enjoyment, and education are encouraged, in a manner consistent with protecting resource values. [PROHIBITS ALL COMMERCIAL EXTRACTIVE ACTIVITIES AND POTENTIALLY SOME RECREATIONAL ACTIVITIES]

(c) In a *state marine conservation area*, it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial or recreational purposes, or a combination of commercial and recreational purposes, that the designating entity or managing agency determines would compromise protection of the species of interest, natural community, habitat, or geological features. The designating entity or managing agency may permit research, education, and recreational activities, and certain commercial and recreational harvest of marine resources. [LIMITS RECREATIONAL AND/OR COMMERCIAL EXTRACTIVE ACTIVITIES]