

DRAFT MEETING MINUTES
PRIORITIZATION WORKSHOP for 2006

Friday, December 9, 2005

ATTENDANCE: Bob Hobdy, Randy Bartlett, Elizabeth Speith, Pat Bily, Forest Starr, Kim Starr, Nathan Varns, Christy Martin, Mindy Wilkinson, Jeremy Gooding, Colin McCormick, Rob Parsons, Lori Buchanan, Kamalani Pali, Greg Hansen, Joylynn Oliveira, Teya Penniman, Elizabeth Anderson, Mike Ade, Russell Suzuki, Aaron Kogan

- The meeting was called to order by Randy Bartlett (MPC/Chair) at 9:20am. Introductions were made around the table.

BACKGROUND INFORMATION / PERSPECTIVES

Funding

- Teya: our funding has been relatively steady over the past couple of years at ~\$800,000. This does not include the NPS support for the Hana crew. The addition of the NPS funding puts us at ~\$1.1 million per year. We have done very well thanks to growing state and county funding.

Staffing

- Teya: we currently have 15.2 FTE based out of Piiholo. That number has varied from 10.1-18.2 FTE over the course of this year. We have 6.4 FTE based in Hana and 2 FTE on Molokai. Our current total is ~25 staff.

Maui Nui

- Teya: in terms of overall perspective it is important to remember that we cover Maui Nui – Maui, Molokai and Lanai. Our focus today is on Maui plants and also on Lanai. Molokai has its own process. Forest: we need to include Kahoolawe as well. They have funds available for invasive species work that they didn't spend this year. Randy: I will see Sol next week and will bring that up. Forest: the off-shore islets restoration committee has finished its assessment. Ken Wood will very likely come back to do some control work.

Incipient vs. "Legacy" Species

- Teya: we need to keep in mind the concept of incipient vs. "legacy" species. The initial MISC concept was to work on incipient species where we could see a difference in a relatively short amount of time. We have been working for quite awhile on the species we are looking at today. New Zealand has very specific criteria as to whether a species should be taken on or not. Most of our species wouldn't qualify in the New Zealand system. We have discovered over the years that we don't really know how much time will be involved until we get in there, start work, and collect enough data to really take a look. It is difficult to judge in the beginning how much in the way of resources will be needed.
- Mindy: I was looking at your final report on the eradicable species project and you indicated that the project caused you to reevaluate what you would consider taking on. Kim: in general the smaller the population, the easier it will be. We removed known individuals for seven out of 14 of the project species, but all of them will have some amount of seed bank and there will be some we missed. Forest: the New Zealand threshold is probably more realistic than we have thought in the past. We also need to continue to look at the buffer species issue to protect important resources. That is more of a site-led than a weed-led strategy. At what point do you make the transition? Kim: once you reach >10 acres, eradication may not be possible. Mindy: of the remaining seven species, can any be eradicated? Forest: more state noxious weed act support would help on a number of them - more enforcement. Kim: the roadblocks to eradication are always species-specific. The local eradication concept was more successful than island-wide. We controlled three-quarters of the local eradications where we were dealing with an outlier population.

- Pat: detectability is a caveat. At one time we thought many of the “legacy” species were incipient because we hadn’t looked enough. We still have a tremendous gap in detectability. We need to focus on the deficiencies in our detectability. Public outreach is great, but it is not realistic as a detection tool. I feel very guarded about jumping on to something new. Usually when you commit resources, you find out there is more and more. Forest: we need different methodology to have higher detection confidence. Mindy: what is your source of support for identifying additional species? Do you have the resources to maintain this effort? Forest: there are no dedicated funds for this element of the project. Mindy: we need to get detection integrated into the agencies and partnerships. Forest: you can drive all the roads on Maui in six months.

OVERALL EMPHASIS: PLANTS VS. VERTEBRATES

Summary of Person Hours

- Teya: There is a handout summarizing the time spent on different MISC targets. In the past, we have looked at what we wanted our time allocation between plants and vertebrates to be. We usually end up around 70% plants and 30% vertebrates. We need to look at how that time allocation shifts as we add resources. Do we want to maintain the same balance as resources are added? What does this mean in terms of total person hours? We have seen a 58% increase in total field hours since 2003. Our time on miconia went up even though the percentage of time spent on plants went down during that period. The increase in time spent on vertebrates results from an increase in frog work due to an increase in targeted funding for coqui. Focusing on an arbitrary percentage breakdown may not be very helpful. This breakdown does not include time spent on banana bunchy top virus (BBTV). Elizabeth: miconia hours for the Hana-based crew are not included either. We will be adding the Hana hours to our time-log which will change the percent ratio. Randy: it is good to see an overview of where you are spending your effort and time.

TARGET SPECIES EVALUATION

1). Criteria:

- Threat/risk to environment, agriculture, economy, quality of life
- Feasibility of eradication / control
- Cost / effort to control

2). Decision:

- Site-led vs. species led strategy
 - Maintain effort
 - Increase effort
 - Decrease effort
 - Drop target
 - Priority within list
- Teya: do we want to keep the same criteria (above) as we have in the past? Any suggestions for modifications? Forest: how do the other ISCs prioritize? Mindy: in roughly the same manner. This system is probably easier for group discussion. Some have broken it down into more sub-categories, but it is essentially the same thing. You could be a little more quantitative, but this is totally adequate. Pat: it is simplified. Randy: simple is better. It works for me. Mindy: the only thing a more complex system gives you is a quantitative numerical score. It is important to factor in feasibility. Even if a species ranks high on other categories. It may not be justified for us to spin our wheels on it if the feasibility is low. If there is a time you feel you are holding onto a “legacy” species, it might be worth a more detailed analysis. Use a quantitative score when you are really stuck. Randy: if a decision is unclear or push comes to shove between one species and another, then we could do a more detailed analysis. Teya: scoring is also useful for eradicable species or if we are considering adding a species. Forest: the individual ranking often seems to get cloudy and doesn’t usually mesh with what the people in the room want.

- Pat: those of us in this room tend to be biased towards conservation. We need to remember the other factors such as quality of life, agricultural impact, etc. The decision can become complicated. For example, you may have a target that could invade the dry forest, but our dry forest is ruptured already. Teya: we also need to look at strategies such as focusing on a species because of proximity to an important natural area. Forest: the local eradication concept has been very successful.

PLANTS: PRIORITY TARGETS

Giant Reed (*Arundo donax*)

Progress / Status

- Forest: this plant doesn't produce a seed bank. This increases the feasibility for me. Teya: we rated feasibility low in the past because of technique when we were using a species-led strategy. It is hard to kill at upcountry sites. Kim: once you kill it, it is dead. It doesn't come back, but it doesn't die easily. Randy: we shifted to a site-led strategy last year by dropping the upcountry areas. Does that change the feasibility? Mike: we are almost done with low elevation sites except at the airport. They are going to bulldoze the area and they will move pieces around. The Kahului site is up again, but only two plants. Kihei and Lahaina are pau. The feasibility is high at low elevation. A lower percent of herbicide seems to work better than a higher concentration.

Strategy Recommendations

- Continue level of effort and site-led strategy.

Miconia (*Miconia calvescens*)

Progress / Status

- Teya: we have seen a change in the number of plants controlled. From 2003 to 2004 we had a 20% increase in mature plants controlled and from 2004 to 2005 there was a 64% decrease in mature plants controlled and a 49% increase in total plants. This reflects a lot of seedlings controlled. Overall, there has been a 57% decrease in mature plants controlled. This is a positive trend and relates to our stated objective of no seeding trees. We hope the trend is meaningful. Jeremy: the changes could be due to several things. The increases in 2004 may be due to increased presence. It is encouraging that we are finding fewer seeding trees in 2005. We do have more people on the ground, but we are working in areas that have a lower target density. The area where the ground crew has been working for the past couple of months has very few plants and we are beginning to wonder if it is worthwhile to be in that area. The number of seedlings controlled definitely reflects the fact that we are going back to places where seeding trees have been removed. Our 2005 helicopter presence has not been great due to weather. The table doesn't include the last three weeks – we have been flying a lot this past month. In general, we are finding fewer seeding trees; however, during the last three weeks, we found some in unexpected areas. We are getting closer to the goal of reducing seeding trees, but it is hard to demonstrate.
- Russ: we still have some mature seeding trees in Hanawi that we can't get to. Teya: we finally have an approved rappelling program and Adam Radford will be providing staff training in February/March. This should help with the access in some of those difficult areas. Jeremy: Lower Nahiku is difficult. It is not possible to get a clean sweep and there are landowner issues. Mike is making progress.
- Mindy: where would you add resources if you had a choice? Jeremy: I would say more ground crew if our aerial stays the same. Teya: we need another ground crew. Jeremy: it would be great to fly more, but I don't think we could right now. Windward needs another ship. An additional ground crew of five would be most efficient. We agreed in the past that if we added a ground crew, that crew would focus on Nahiku. Pat: these explosions took decades to get to this point. What about HDOA support for recalcitrant landowners? Mike: there is only one bad owner left in Nahiku. The others moved away. Randy: we need a persistent steady effort and presence to keep the relations strong with the community

and to establish relationships with newcomers. Greg: it would be good to have West Maui-based folks go along on aerial recon flights to get a miconia search image.

- Teya: we are going to be faced with the fact that significant NPS funding is disappearing and the CCI program is dead again. Elizabeth: the Hana-based operation is funded through this federal fiscal year. Teya: we plan to have a miconia funding meeting in late January. Randy: the Legislature starts soon so we need to move forward.

Strategy Recommendations

- We need to at least maintain effort. It would be optimal if we could increase effort, but that would require more funds.

ACTION ITEMS

- *Schedule a miconia funding meeting*
- *Invite West Maui staff along on miconia recon flight*

Ivy Gourd (*Coccinia grandis*)

Progress / Status

- Teya: we now have management units for ivy gourd to increase our confidence in thorough coverage of target areas. We have seen a 93% overall decrease in mature plants. For ivy gourd, we really need to look at the changes in terms of specific areas. The number of plants controlled is counted as root nodes because we treat every node. The central valley area is looking good. Mike: the population in Maui Meadows is very limited with only a few sites. Teya: we do have areas that haven't been surveyed for ivy gourd. There is still some gray area. Pat: have we surveyed mauka of the Kihei sites? Forest: we have surveyed there. Kim: we are really lucky we don't have bulbul to spread the ivy gourd. Mike: it is difficult to find via road survey. Teya: we spend a big chunk of time on ivy gourd (15%) and a lot of that is driving time. Kim: are we making headway? Teya: based on the number of flowering plants, it looks like we are. Mike: we have eliminated a lot of sites, but we are finding more. If we didn't deal with this species, the entire place would be ivy gourd. It grows fast. Pat: how many new sites have you found? Mike: only one that I know of. Pat: that is good news since the detection effort has increased. Mike: we can't find any in Central Maui/Kahului anymore. Forest: we will constantly have reintroduction since it is widespread on other islands. Teya: the same is true of fountain grass.
- Randy: Maui Land and Pineapple has formed a landscape advisory board that includes the golf course superintendents. All the MISC targets are on their list. Hopefully there will be more focus to address the situation in the future. The ivy gourd at Kapalua is a huge cost for MISC.

Strategy Recommendations

- Continue at current level.

Pampas Grass (*Cortaderia spp.*)

Progress / Status

- Teya: looking at progress over time we had an increase in plants controlled from 2003 to 2004 and then a decrease from 2004 to 2005. This may reflect variability of our methods rather than a real overall decrease. Mike: we are still finding a lot. Forest: during the surveys on Haleakala Ranch, we couldn't find a quadrant without juvenile plants. Teya: will Haleakala Ranch be taking on responsibility for pampas on their property? Pat: they already have a problem with gorse, so I wouldn't bank on it. Koolau Gap's west wall is what alarms me. It is all aerial. I'm curious about the impacts of aerial spraying because it opens up the area for recruitment of more pampas. Forest: the seed bank is relatively short-lived. If we can keep on it and not allow flowering, we can do it. It is worse on Maui than other islands. Teya: this one is probably at a containment level. Mike: we are at containment because we have had more time and good weather. It helps that we are spending less time on arundo. We missed some

- plants in the last couple of years and that was too bad – there are a lot of keiki. We found some new residential sites and we still have landowner issues including some that are feeding up into the Ranch.
- Pat: the seeds are already there before the plume emerges from sheath. Mike: we need to get dropped on the ground in some areas. From the air it is often too hard to tell from the *Carex*. We were on the ground on West Maui and nailed a bunch. They were already unfurling in late June. We bagged the heads and took them out. There is a plant on the summit of Hanaula that has already flowered. There are also plants in the stream at Waikapu. I don't know what to do about these – you can't really spray. Pat: is the feasibility still medium? Maybe it should go down. Teya: medium-low is probably more honest.

Strategy Recommendations

- Maintain same level of effort or ideally increase a little. After a little more time at the current level of effort we will reevaluate how we are doing.

Rubber Vine (*Cryptostegia grandiflora*)

Progress / Status

- Teya: there are no new locations. The one in Hana across from the Hana baseyard is gone. Rubber vine needs to be listed. Mike and I went over to Molokai and took a look at their populations. It will be a challenge, but we are going to give it a shot. Mike and his full crew will be going over for a week in February. Forest: we need a statewide effort to get it listed. Christy: there was a recent plan to plant it along state highways!

Strategy Recommendations

- Maintain same level of effort on Maui and tackle the Molokai populations.

Fountain Grass (*Pennisetum setaceum*)

Progress / Status

- Teya: this one is a true success story on Maui. Overall we have seen a substantial decrease in flowering plants. Mike: there is one new location on Mokulele Hwy. They are weeding it now. There is a constant risk of reinvasion from the Big Island that we need to address at some point.
- Teya: Lanai is a contrast to our significant success on Maui. We are finding large number of old growth plants. We have significantly increased our efforts on Lanai. Elizabeth: we plan on making quarterly trips alternating large and small crews. Mike's crew will go alone twice a year, Mike and Adam's crews will go together once a year, and once a year we will have a big push with the entire staff (including Hana and Molokai crews). Pat: did you find fountain grass inside Kanepuu? Mike: we didn't go inside yet. Pat: some of our crew was out there recently and didn't see any, but they were doing other things and were not very methodical. Teya: we will be doing aerial surveys on Lanai using funds from DOFAW (thanks to Glenn) and we also plan to use the helicopter to drop crews. Forest: have we delineated the outline? Pat: we have swept significant acreage this year via both ground and heli recon. Teya: we have a pretty high level of confidence in our sweeps because the area is fairly open.
- Lori: we have eradicated one population on Molokai. It has been monitored for three years now with nothing found. In another year we should be able to say the same re: a second population. Forest: I would like to put in a word for Kahoolawe. There is still just one known patch. We would like to survey beyond the known area, but it is not cleared to the level that volunteers are allowed in. It would be good to confirm that there is only the one known location, but we would need to hire an EOD to go with us. Teya: put together a proposal and estimate for me.

Strategy Recommendations

- Continue increased effort for a year and then reevaluate.

ACTION ITEM

- Forest to put together a proposal for Kahoolawe fountain grass.

Downy Rose Myrtle (*Rhodomyrtus tomentosa*)

Progress / Status

- Teya: this has been effectively controlled. Mike: there are no seedlings at the controlled site. Kim: education is important on this one and keeping our eyes open.

Strategy Recommendations

- Maintain field effort and increase education efforts.

ACTION ITEM

- Increase public education re: *Rhodomyrtus*.

Himalayan Raspberry (*Rubus ellipticus*)

Progress / Status

- Elizabeth: the plant in Kula has been controlled. Teya: it is important to keep an eye out for it. The threat is extreme, feasibility is high and cost is low. The hapu'u trade continues to be an issue and education is important. Elizabeth: the crew needs training in identification. Pat: it would be nice to have a pressed voucher. Joylynn: I've been in touch with the Maui News re: doing a regular feature. So far I haven't had any luck. One of the smaller newspapers may be interested.

Strategy Recommendations

- Be on the lookout and increase awareness.

ACTION ITEM

- Train crew in *Rubus ellipticus* identification.

Eradicable and Other Species

Progress / Status

- Teya: we still have some to knock off and we still owe some time on the project. Kim: public education and awareness is important on these species. Forest: survey is a priority with *Pittosporum undulatum*. Steve and Mach have been finding more plants in Kula. It is on the noxious weed list. Kim: If you decided to make it a target, the landowners would be a problem.
- Mike: on West Maui we saw three tulip trees and on East Maui we are seeing *Tibouchina* moving from high density to low density areas. Randy: please get the points for tulip tree to Greg. We are targeting it as it moves up.

ACTION ITEM

- Get the points for West Maui tulip tree sites to Greg Hansen.

FUNDING / STAFFING IMPLICATIONS OF PRIORITIZATION DECISIONS

- Teya: based on decisions made today we should be able to maintain what we are doing. We neither added nor dropped species.

BRIEF UPDATES

Banana Bunchy Top Virus

- Teya: we've received additional county funding for BBTv work. We are basically serving as hired guns. BBTv is not a MISC target, but we are working on it while we have funds. So far in 2005, we have surveyed a lot more area and we've found a lot more infected plants Pukalani. Our revisits show that we are being successful. We've seen a 79% decrease. Overall people are extremely cooperative. Infected plants have also been found in Kihei and Lahaina. The debris must be left on-site. The BBTv project

has worked out well with our crew structure. The frog crew often works on BBTV during the afternoon. It is a good partnership and pairing of tasks.

Staffing

- Teya: we are in the process of hiring replacements for Josh and Stephanie. We hope to have two new field workers on in early January.

Public Relations

- Joylynn: this year's Malama i ka Aina award went to Nancy Snow of Kula Hardware. Rob helped me present the award. We really need more participation/more applicants. Aaron and I have created a public relations database. It will help to quantify my work and assist in tracking. Shannon, Elizabeth Speith, and I are working on a field book for the general public.

Pest Hotline

- Christy: soon we will have a statewide pest hotline: 643-PEST. Calls will route to the nearest HDOA office. Molokai calls will route to the Maui office. Staff will be trained to log the call, assign a tracking number, and refer the call to the appropriate response person or organization. If nobody is in the local office, the call will forward to Honolulu or to an on-call cell number. The lines will be staffed 7 days a week, 20 hours a day. The new system will require us all to work more closely with our HDOA offices. We have recorded several PSAs that will begin airing on January 23 on most major networks and some cable channels.

Funding

- Teya: we were approved for funding for a new printer and laminator from HISC outreach funds. We are grateful for the funding. We submitted a proposal for development of a coqui free certification program to the HISC Research and Technology program. It will be very competitive. Mindy: last year we funded 17 out of 72 applicants for a total of \$600,000. It is exciting to see so much interest. People are looking at larger scope projects. Elizabeth: we also received another HISC Outreach grant for the Hoike curriculum. This year's award will focus on the "Weed Warriors" unit and will be used to develop field trip opportunities for students.

Mahalos

- Teya: this has been a great year for MISC. I want to express my personal appreciation to the staff and crew for their hard work and also to all the committee members who support us. Randy: and a thank-you to Teya for her leadership!