



## MLML Governing Board Meeting 15 November 2019

# MINUTES

### **Governing Board Voting Members in Attendance:**

Michael Lee (Chair, CSU East Bay - Faculty)  
Mathieu Richaud (Vice Chair, CSU Fresno - Faculty)  
Jim Harvey (MLML, Director)  
Nick Welschmeyer (MLML/SJSU - Faculty)  
Mike Graham (MLML/SJSU - Faculty)  
Sophie Bernstein (MLML Student Body)  
Pam Stacks (SJSU, Research Foundation representative)  
Michael Kaufman (SJSU, Operating Institution - Admin)  
Jason Singley (CSU East Bay - Admin)  
Andrew Lawson (CSUMB - Admin)  
James Lindholm (CSUMB - Faculty)  
Dave Evans (CSU Stan - Admin)  
Brian Sardella (CSU Stan - Faculty)

### **Governing Board Alternates and Non-Voting Attendees:**

Mohamed Abousalem (SJSU - Admin)  
Scott Shaffer (SJSU - Faculty)  
Raj Prasad (SJSURF)  
Cheryl Logan (CSUMB - Faculty)  
Jim Murray (CSU East Bay - Faculty)  
Kathleen Donahue (MLML/SJSU Asst. to Director)  
Jane Webster (MLML/SJSU Financial and Admin Analyst)  
Terra Eggink (MLML/SJSU Graduate Program Coord.)  
Brian Ackerman (MLML/SJSU Marine Ops Manager)  
Jocelyn Douglas (MLML/SJSU EHS Officer)  
Katie Lage (MLML/SJSU - Faculty, Librarian)  
Max Grand (MLML/SJSU - Faculty)  
Tom Connolly (MLML/SJSU -Faculty)  
Mike Prince (MLML Asst to Director)

Call To Order: 9:40 am

**Minutes:** Mina Sattari, MLML Graduate Student, Phycology Lab

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## Acceptance of Spring 2019 Gov Board Meeting Minutes

- Motion to accept the minutes passed

## Items to put forth to vote?

- No items put forth to vote

## CSU Review Team and Administrative Campus Update

- Dean Kaufman gave a summary of the background, CO Review Team, report of recommendations, and creation of a Working Group.
- Chancellor sent a team to review the issue of MLML's operating institution. The Gov Board provided input in this process. The review team met with MLML, SJSU, and CSUMB. The Gov Board crafted a response to the review team report and asked about the fate of the governing board.
- Chancellor accepted the recommendations by the review team and is moving forward with an implementation process.
- Generalities can be interpreted in different ways, CSUMB and SJSU must come to an agreement and collective understanding of the recommendations.
- MLML Consortium campus Presidents were issued a memo notifying them that a working group will be chosen from a list of nominations from each Consortium campus President.
- The consortium model will remain intact and SJSU is looking forward to taking a bigger role in the support of MLML.
- Uncertainty is lifted and it is time to move forward to see what the governing board can do and how philanthropic efforts can increase for MLML.
- A breakdown of tasks and status of assigned tasks and a summary of main points.
- Two large scale recommendations from the chancellor's review team:
  - 1. Optimal organizational design: SJSU remains the operating campus with more prominent leadership role. All consortium campuses have opportunities to participate in ML research activities.
  - 2. There should be some equitable financial responsibilities: students can continue to apply and enroll through any consortium campuses but tuition goes to SJSU. Student services provided by CSUMB with fees paid to them. Participation in research should be pay-to-play so access to facilities is funded fairly.

### *Discussion*

- Moss Landing is in need of funding, Dean Kaufman at SJSU is responsible for our financial status in partnership with the Director of MLML.
- We want MLML to be easily accessible, but we must keep fiscal realities in mind.

### *Implementation Team/Working Group Discussion*

#### *Dean Kaufman, SJSU*

- A group met with Chancellor White and EVC Lauren Blanchard.

- The Chancellor stated that SJSU will continue as MLML's operating campus. The lab is open as a coalition of the willing to participate in both financial and intellectual contributions via a pay-for-play model, they are looking for an inclusionary path so faculty could supervise theses.
- The main point Dr. Blanchard made was to reframe the governing board as to reflect more that it functions as an advisory board.
- Although the term "affinity group" has been used, MLML is still considered a "consortium" because of the degree program and facilities MLML offers.

*Five Tasks Assigned to the Implementation Team:*

- Transfer of tuition revenue to SJSU for delivering academic program.
- Financial people still discussing money part.
- Same model will apply to other campuses but SJSU and CSUMB have the vast majority of students so figuring out this structure is important and other campuses can follow the same model.
- Collect info from MLML for who is registered and what their tuition is and the tuition will be transferred from registered institution to SJSU.
- Arrange for provision of student services by CSUMB and corresponding transfer of fees.
- Close to implementation, some small technical details to be worked out.
- MLML students will be provided a CSUMB Otter ID to give students access to the facilities at CSUMB (gym, medical, housing, etc.); MLML students will have full access to facilities as a CSUMB student.
- Same model applies for students at MLML from other campuses.
- Revision of Gov Board bylaws is necessary. The MLML Bylaws were written in 2004 and modified in 2007; The document currently refers to roles, responsibilities, and organization structures that must be revised going forward:
  - Pay-to-play model
  - Consideration of various sustainable funding models for the operation of MLML

## **PAY TO PLAY**

*Discussion*

- Would graduate students be offered student housing with room sharing or would they be offered any alternative housing? (Terra)
- Undergrad and grad housing is not separated at CSUMB. Most CSUMB grad students do live in east campus housing. Housing may be separated in the future (Dean Lawson, CSUMB)
- What would happen if nobody wants to pay-to play? (James Lindholm, CSUMB)

*Jim Harvey*

- MLML would just be in the same fiscal situation, same operating budget. We would like additional sources of revenue that do not put a burden on faculty here who have

many grad students. MLML is managing what we have fairly well but from the POV of SJSU we could survive the way we are, however, we may not thrive.

- There has been discussion about other universities outside the CSU system being able to pay-to-play. Marine ops already has many outside users paying-to-play so this could be implemented for other MLML resources. Currently Geoff Wheat from the Univ of AK is leasing lab space; this is another example of this structure in use. However, there has been no market analysis of this.

#### *Discussion*

- For faculty at CSUMB who are primary advisors for their students, they get workload credit from CSUMB so if all tuition is going to SJSU how will that work? Also a lot of students take elective courses at CSUMB so will CSUMB get tuition for those credits? (Cheryl Logan, CSUMB and MLML Visiting Scientist)
- The workload credit for them is relatively small so SJSU is not too worried about that but students taking courses are something that will have to be examined. Tuition should follow cost of instruction so if CSUMB is bearing that cost then they should be paid for that. (Dean Lawson, CSUMB)
- The cost for instruction here at MLML is high compared with the cost of instruction for a large GE class at another school. (Dean Kaufman, SJSU)
- Think about fixed costs vs variable costs. Fixed costs can come from external people but not from consortium. What are the incremental costs of operating something? Not purchases or replacements but actual operation. Cheryl's point about CSUMB is key because MLML only has 10 faculty members here at MLML and the sharing of the workload across the consortium is very beneficial to students. There are strengths in the relationships between students and the CSUMB faculty. If we can reanimate some of the dormant campuses in terms of faculty and research then we should be able to apply the same model as we are with CSUMB faculty advisors (Lee, Chair, Gov Board, CSU East Bay)
- MLML-SJSU encourages outside people to advise theses but in reality, on paper, they are advised by an MLML faculty member (James Lindholm, CSUMB)
- MLML faculty must be the chair of the committee and this works well with people who are here at MLML but it is more difficult for advisors at CSUMB. The degree is what requires a MLML faculty to be a chair. We have tried to allow for these opportunities but changes possibly could be made (Mike Graham, MLML).
- We should change this to more fully engage with outside faculty (Dean Lawson, CSUMB).
- Not being a thesis committee chair is a huge barrier to advising students at MLML. How can this be resolved? Moving forward this is a very important point for CSUMB (James Lindholm, CSUMB).
- This is also a burden on the MLML faculty member for taking responsibility for a student, the workload and providing them a desk. It would be easier for MLML faculty to consider these students if the workload was made clear. MLML faculty would be appreciative of clarity, transparency, and changes (Mike Graham, MLML).

- There is a \$2 million contribution by SJSU which opened up the conversation about tuition being transferred due to the expensive cost of teaching here. Something that is still up in the air is what pieces of money for new infrastructure and facilities should come from the users and what should come from the system? What is the philosophy and purpose of this pay-to-play model? (Lee, Chair, Gov Board, CSU East Bay)
- This model defines researchers outside MLML who need space or boat time. They should be paying for that; this is not a long-term way to fund MLML operations. (Dean Lawson, CSUMB).
- How to make things right going forward? We need to look at what is best for the health of this consortium but it is challenging because forces aren't always directed in the same path. The pay-to-play model can help make progress but there will be more challenges in looking forward and investing in making MLML the best it can be for faculty and students. (Stacks, SJSU)
- What menu of services or interactions could be offered? Subsidized model? Variable cost model? Variable cost plus? (Lee, Chair, Gov Board, CSU East Bay)
- With regards to marine ops, fed gov has to receive lowest rate so this may complicate some of these discussions (Prasad, SJSURF)
- It is important to ask if, philosophically, do past/future contributions warrant using our facilities, or providing discounts or differences with in-house or consortium schools vs outside schools? There are currently separate considerations for the consortium and other institutions like MBARI. (Graham, MLML)
- The basic idea of the consortium establishment is that there are other institutes in the CSU system. MLML aquaculture could become a statewide group. MLML should not be restrained, needs agility to respond to change. One of the assets of the consortium are state and fed grants that involve multiple institutions. We don't want anything to come out of this to be an impediment to research and growth. We would like to provide value like enhancing reputation and visibility.
- In terms of moving forward, we may make judgement over what consortium campuses have contributed to get to this point. How will we get to the point to involve CSU campuses, then start involving external people in the pay-to-play model? It would be beneficial to get other campuses that are further from the coast to have access to marine science. (Stacks, SJSU)
- Where would the money from this pay-to-play model be allocated to? I think the end goal of where we want the money to go to should be important to tailoring the pricing. (Bernstein, MLML Student Body President)
- Lindholm asked if nobody played, things would likely just continue on. So what are the actual benefits of this paying-to-play for consortium? Do he and Cheryl have to pay to advise students or is the value of their advising offsetting the cost? (Lindholm, CSUMB)
- It is very different to encourage an institution to use MLML facilities than it is to have them write the costs of using MLML facilities into a grant. How do we encourage researchers to MLML if they have equivalent facilities? Then we have to make decisions; Should MLML allow a researcher we are close with like a CSU or are we

going to choose an outside group like MBARI who we can make money from? This affects the MLML spirit. We don't want collaborators to resent us. (Graham, MLML)

- It is expensive to operate at MLML and the benefits of the pay-to-play model is that MLML has facilities that are underutilized. MLML could be more productive. (Lee, Chair, Gov Board, CSU East Bay)
- The term "pay-to-play" should be replaced, maybe "shared finance model" Thinking about cost recovery for certain services, the library would have an increased workload so would security, safety, etc. People would need to be present to have access to the lab, etc. (Lage, MLML Librarian)
- Do not think of MLML in isolation, right now MLML is being supported by other SJSU students (Dean Kaufman, SJSU)
- It is not good to have the dichotomy of original members vs. CSU. If the goal is more participation than there should be a more equal playing field for campuses to participate. How will campuses participate vs external entities? (R. Richaud, Vice Chair Gov Board, CSU Fresno)
- If everyone has to pay for everything then this could lead to a decrease of participation. (Lindholm, CSUMB)
- CSUs don't pay attention to MLML as well as other marine labs and field stations. She hasn't seen the CSU system make use of MLML. As a system we should think about the expenses of all the marine stations and the attributions that each bring (i.e. specialties, environments, etc.) An entity like COAST should be considered. For impact we should be getting resources for all of the marine stations. (Stacks, SJSU)
- This discussion is about business management. Marine labs can go from one extreme to the other: you get paid, or you pay via grants. We haven't had a "business manager" here to charge people for the services that we provide. This could be beneficial for organization purposes and to have someone business-minded.
- Do other CSU affinity groups receive supplements from CSU directly? Is there a model or discussion where CSU is going to help SJSU maintain funding? Or is everything from SJSU? (Donahue, MLML)
- When the implementation team asked if there was more money at the Chancellors meeting they said no but SJSU hasn't gone individually to ask. (Kaufman, SJSU)

Break: 11:25am – 11:35am

- Recommendation to survey CSU campuses for the top 5 things they want to leverage at MLML so we can direct the conversation to specific things. (Lindholm, CSUMB)
- Outside of consumables, the cost of vessels are already subsidized by SJSU and consortium. Even though we're restricted by OMB, because we are subsidized we can charge a discount rate to consortium. UCSC pays full day rate but a consortium campus could pay a discounted rate. This model could be applied to other facilities. However if you have a grant it would be nice to put full cost on the grant. (Capt. Ackerman, MLML)

- We can have a discussion of what MLML is now and what it could be. Let's have the numbers and the services mature concurrently. Prepare a current list vs an aspirational list for the spring meeting. (Lee, Chair, Gov Board, CSU East Bay)
- Should we offer participation in the survey to other schools outside the consortium? This would give us a larger scope so we will know what other places want from us. (Graham, MLML)
- It would be useful for consortium campuses to ask the question "what value do I currently get out of being in the consortium? Is the amount we are paying a bargain or is it too much? What could you see getting out of this that you are not currently?" It would be beneficial if we don't wait until the next meeting to discuss this. (Lindholm, CSUMB)

**ACTION ITEM:** James Lindholm, CSUMB will take the lead in drafting the survey and instructions. The survey will be sent out by December 6, 2019. Survey responses due February 3, 2020.

### **MLML Governing Board Bylaws**

- The term "MLML" refers to many different things which complicate the Bylaws. We must agree on what we mean when we refer to something. (Dean Kaufman, SJSU)
- The working group tasked the subcommittee to revise the Bylaws. They realized that it is very difficult because they didn't know what the end-game would be. There was little clarity on what the end product should look like so it is difficult to formulate the Bylaws. For example, in the current MLML Bylaws, the Gov Board participates in a leadership role about the review and replacement selection of the director but it is actually overseen by SJSU (the operating institution). (Harvey, MLML)
- The bylaws and operating rules don't reflect what actually happens so we (the MLML Gov Board) aren't doing what we have required ourselves to do due to incremental and slow change due to functionality; Do we need a new set of governing documents? What have we moved away from and why? Is the current practice the right way to do things and should we write them in? We must identify what specific things the documents say and see if it is current practice. This has been worked out amongst the working group but there are some different perspectives between the yes, no, somewhat. We have to decide what is a bylaw and what is an operating rule. This is an opportunity to be productive and constructive. We have to reflect the fact that the degree program is in the bylaws which will exist across multiple campuses. The bylaws refer to a curriculum committee that approves new courses and development etc. We do discuss this but there isn't really a committee for it anymore. We have to decide how to move forward, do we want a smaller group to do it and we all agree with it? If we change this to more of an advisory board, do we vote to change ourselves? The existing bylaws have a few omissions, majority vote isn't laid out. In the past votes were taken on most things. (Lee, Chair, Gov Board, CSU East Bay)
- There are 5 people in working group who will prepare the document and share with the Gov Board for review and approval. (Harvey, MLML)



Motion to vote: Lee, Chair of MLML Gov Board)

Motion seconded by Dean Lawson, CSUMB.

No objections. Passed

### **ACTION ITEM:**

- A draft will be finished before spring meeting (Harvey, MLML)
- All parties can look and discuss amongst their own campuses; deadline to comment is March 23rd.
- What can we expect in terms of timeline and format for MOU? (Lee, Chair, Gov Board, CSU East Bay)
- It can be more of a bullet pointed list (Dean Kaufman, SJSU)
- If this is the model we're using we'd like to be aware. (Dean Evans, CSU Stanislaus)

## **Director's Report**

### **Jim Harvey**

- Death of Pam Roe from CSU Stan announced. She was a friend of MLML and a member of the Gov Board at MLML. Harvey reads memorial piece.
- This is Nick Welschmeyer's last meeting, he's retiring at the end of the year. He advised 24 graduates. His research focused on biological oceanography and recently ballast water projects. He will take emeritus status but will continue research.
- MLML is currently in process of recruiting a new biological oceanographer, 39 applications received, the search committee has selected 4 candidates to interview during the first 2 weeks of December and are hoping to make a choice by the end of the year Professor Hamilton is leading the search.
- There is one place in the Bylaws that talks about the Gov Board doing faculty searches which isn't true. (Kaufman, SJSU)
- Katie Lage, MLML Research Librarian installed an Augmented Reality Sandbox in the MLML-MBARI Library. This is an interactive, augmented reality experiential learning tool
- Diana Steller, MLML Diving Safety Officer was awarded 2019 Naturalist of the year award

## **Visiting Scientist**

AY19-20

Dr. Cheryl Logan, Associate Professor in the School of Natural Sciences at CSU Monterey Bay is here for the Visiting Scientist for AY19-20. Cheryl is a member of MLML's Adjunct Faculty and has been collaborating with MLML Faculty and advising students for several years.

AY20-21

Dr. Scott Shaffer, Professor of Biology at SJSU will serve as MLML's visiting scientist during AY20-21. Scott is also an Adjunct Professor with UC Santa Cruz's Ocean Sciences Dept. He



teaches undergraduate courses in physiological ecology, morphology, conservation biology and spatial ecology. Scott has a wealth of research experience involving field studies on seabirds and marine mammals in remote locations around the globe

AY21-22

The position has been posted and advertised throughout the CSU and it is also in the packet, please distribute. The deadline to apply is 1 July 2020.

## **Graduate Program Report**

### **Terra Eggink**

#### **Enrollment**

- 83 current students in the MS program, 13 non matriculated students:
  - From 4 consortium campuses: SJSU, CSUMB, CSU Stanislaus, CSU East Bay
  - 5 enrolled with Open University through CSUMB
- FTES 36: 75% CSUMB and 25% SJSU
- Feeder schools: 3 CSUMB, 5 UCSC and more campuses.
- Class schedule: there are 3 or 4 new classes this semester with aquatic pollution, inverts, oceanographic instrumentation, x-ray refractometer. Listed as advanced topics.
- New courses are first listed as advanced topics then may go on to get approved and put in the curriculum and catalogue. (Harvey)
- List of grads: total of 18
- Time to degree:
  - 9 students took 4 years or less,
  - 4 students took 4 years
  - 4 students took 3 years
- Since Terra has been here the rate has been 4 years or under (Harvey)

## **Marine Operations**

### **Jim Harvey**

- MLML received a Moyer grant from the CA Air Resources Board to replace the engines on the John H. Martin. The new engines were installed over the summer and will result in fuel and carbon savings. Split cost between Lab and Moyer for engines. New cleaner engines. Put this in the SJSU carbon saving report.
- Still conversations about getting a new research vessel. Possible joint vessel with SCRIPPS has gone quiet.
- There are many ways of acquiring a vessel but we have a model for a vessel that MLML can build that is unlike any other. This will be as close to carbon neutral as possible. Sail assisted, electric propulsion with diesel generators but not traditional engine room, will have more lab space. Will have long legs and the overall cost for the life of the vessel will be as low as possible. Carbon fiber and Kevlar will be used so this boat doesn't corrode. Short small-handed crews, most systems automated, crew size at 3 so day rates

are low. Will have an unlimited range. Generate own power with solar. Electric thrusters allow power generation under sail. Will be more expensive to build est. cost \$20 mil but the life of vessel will make the overall cost low. Larger class cruises. Long distance overnight work accommodations for 16 on board. Cheaper to run. (Capt. Ackerman, MLML)

#### *Discussion*

- Is MLML considering a small vessel or is it this or nothing?
- MLML is looking at electric-hybrid catamaran concept, need to do a comparison
- Pt Sur ship day rate about \$10k a day as a comparison
- CSUs must support each other and our research ship needs
- This boat could be operated for bottom profiling and acoustic work much better due to less sound. (Capt Ackerman, MLML)

12:35 break for lunch

12:53 resume

### **Aquaculture class**

#### **Jim Harvey**

- Luke Gardner, CA Sea Grant Aquaculture Specialist salary is funded 75% by CA Sea Grant and 25% MLML. He taught an aquaculture class last semester. He started from the ground up and gave students the task of building a deck and tank plumbing to use for their class project. The requirement of his teaching is what allows him to receive payment from us. He serves as a lecturer. The project students worked on was related to kelp forest degradation due to climate change and warm water blob. The urchins reduced their metabolic rate so there are still a lot of them even though there isn't a lot of food. As kelp tries to grow the urchins eat them. In a normal situation urchin divers would be harvesting but because these urchins aren't valuable they are not being harvested. So the question was: could you get these urchins, feed them, and make them something of value? So students put urchins on 3 different diets. In about 6-8 weeks they could reach reproductive stage, so pretty fast. NPR did a story on the project. Took urchins to a Michelin star rated restaurant and the product was good. Now going through the process of monetizing this process. This Aquaculture course is one that will likely be presented to the Gov Board soon as a separate course that will be regularly offered here at MLML.
- Talks of certificates or degrees in aquaculture.

### **Research**

- MLML is in the process of getting a used freeze dryer. MLML researchers and students currently use UCSC equipment.
- MLML is finding funding to furnish a multibeam system for Professor Aiello.

## **Aquaculture Center**

- The aquaculture program at MLML continues to grow exponentially with new courses, research projects, collaborators and infrastructure.
- A Fish Feed Mill has been offered as a donation to MLML that will allow us to conduct experiments regarding the replacement of fish protein in fish meal. It was assembled in the warehouse.
- Some barriers to using it right now but MLML will get it running soon.
- Dr. Luke Gardner, CA Sea Grant Aquaculture Specialist ran a class project determining purple urchin ranching potential. This project was featured on NPR, reported on in several newspapers throughout the area and inspired a German documentary production crew to feature MLML in a film about the increased purple sea urchin population causing kelp die off in CA

## **New Researchers**

- Geoff Wheat, geological oceanographer from the University of Alaska has moved into MLML via a space-use agreement with SJSU.
- He spent most of his career at MBARI but they ran out of space so he came to MLML and is renting space. This was a challenge because SJSU didn't have long term rental forms but we worked it out. Wheat has expertise in fields we need. One tech works with the mass spec and he is working with us to get our spec back up and running.
- Geoff Wheat will be giving a seminar in the spring.

## **Budget Reports**

- We operate on 3 major revenue streams: SJSU State, SJSU RF, and SJSU Tower Foundation.
- \$3.780 mil is the proposed budget for the last fiscal year, bulk is salary and benefits
- The budget reports show how the rest is partitioned out.
- Proposed facility projects is the one we keep paring down as funding gets more difficult.
- IT: there will be a report next meeting about new initiatives to make IT more centralized.
- At the end of the year if everything goes as proposed, MLML will have 17k left.

## *Discussion*

- Given the fact that last year CSU got more money from legislature (for deferred maintenance etc) how is the state property portion of MLML doing in terms of deferred maintenance? (Lee, Chair, Gov Board, CSU East Bay)
- MLML is getting some of that from SJSU. We have more power outages in Moss Landing, CA than most places. We had a backup generator that was old and didn't work well so SJSU deferred maintenance helped pay for a backup generator. This won't show up on the budget. (Harvey, MLML)
- Is there any talk of having a microgrid so MLML has its own power? Or having power storage?

- MLML was approached by a solar company once but we couldn't match their expectations. This is still a possibility that needs to be discussed more. (Harvey, MLML)
- The biggest maintenance issue at MLML is the roof, estimated to cost over 1 million dollars to repair.

## Research Foundation Budget

- History of MLML and its growth is partially dependent on return of F&A from the SJSURF because in the past MLML got 2/3 of indirects back to the lab so there was enough funding to add property and to add people. That allowed MLML to augment what the state wasn't covering. MLML no longer gets  $\frac{2}{3}$  of the F&A generated, closer to 17%.
- At present, the IT department has 2 research foundation employees and one temporary state employee because in the past SJSURF funding was in good shape and growing and had more flexibility for hiring.
- We are now at a point where the return we get on indirects is not enough to pay the salaries.
- Two facility technicians are also RF employees as well.
- It has been expensive to keep all of these people's salaries funded by our F&A return. This is why we have a red number in this category because we are spending more than bringing in.
- SJSURF gives MLML \$190k a year to supplement facility and administration costs but this isn't enough to cover the total cost.
- The silver lining is that because MLML has less funding, MLML actually pays less of a fraction of the SJSURF costs. As MLML activity has gone down the proportion MLML pays also goes down which helps but not quite enough. (Stacks, SJSU)
- MLML needs \$580k to be able to be in the black but it doesn't look like we'll be able to meet this so one of the possibilities is to reduce salaries by rearranging employees as state employees rather than SJSURF. MLML is growing bigger as a state entity so this makes sense. There are currently discussions about doing this with some current SJSURF positions like IT and facilities. This will reduce salary and benefits line to get closer to what we're actually bringing in. The money for these salaries currently comes from indirects, \$190k from RF annually, and also from rental from Del Mar Seafoods. All of this doesn't = \$580k. (Harvey, MLML)
- In reach could be changes to the effective rate that is coming back; By looking at the balance between field work and lab work. If the majority is on campus then this will bring in more revenue. This changes the percentage/rate charged. (Stacks, SJSU)
- ONR and NSF proposals have gone in with the full on-campus rate so MLML is already doing this. For a long time a lot of MLML activity was state research so we can't get the 52.5% oncampus federally-negotiated rate for the state research. MLML research-related operation support was buffered by a reserve but that reserve no longer exists. (Harvey, MLML)
- SJSURF provided \$190k to help and we invested \$125k when the downward trend was noticed. This shows that SJSU cares about MLML. (Stacks, SJSU)

## **Annual Report AY18-19**

- MLML is still considered a CSU affinity group and is required to submit an annual report to the CO via the SJSU President each year.
- Kathleen Donahue, MLML puts this report together each year.
- MLML is waiting for approval from SJSU. Once approved and submitted to the CO, the annual report will be posted to the MLML website and Gov Board will be notified.

## **Academic Village**

- SJSU has included MLML in a major fundraising campaign and the Academic Village is one of MLML's priorities.
- The Gov Board should be more involved in this and help with fundraising because the academic village will benefit all. (Lee, Chair, Gov Board, CSU East Bay)
- SJSU is recruiting new VP for University Advancement who will be very helpful with this effort and should accelerate the process.

## **MLML Outreach and Education**

- MLML is trying to do a better job of branding the institute with SJSU's name and logo on all press and media.
- MLML faculty now refer to themselves as MLML/SJSU faculty.
- Netflix contacted MLML to do a program about Monterey Bay. They want to do stories with us next year. They will be here for a year and will have a lot of time for us to get involved.
- MLML commemorated the 30<sup>th</sup> Anniversary of the 1989 Loma Prieta Earthquake that levelled the previous facility by holding an event: "MLML Shakes -30th Anniversary of Loma Prieta".
- MLML's 50th Anniversary book still available.
- There is a 6 minute film about MLML and a short video rendering/concept for the Academic Village on the MLML homepage so if people want media to highlight or describe MLML, these are really good resources.

## **Closing Remarks**

### **Michael Lee, Chair, MLML Gov Board, CSU East Bay**

- In Spring 2020, the MLML Gov Board needs to hold a new election for a new Chair and Vice Chair. There is no term limit but these seats have to be elected every 2 years.

## **ACTION ITEMS:**

- Lee will work with Harvey to send email out to Gov Board members to get self-nominations and other nominations. (if accepted will move forward).

- This election should be on the agenda for the Spring 2020 meeting.
- Kathleen should reach out and confirm named members before next meeting.

**Motion to adjourn**

Motion seconded (Singley, CSU East Bay)

Meeting adjourned: 2:15pm



## Governing Board Meeting

15 November 2019

9:00-9:30am	Pre-Meeting
	Breakfast
9:30am	Call To Order
Michael Lee	<p><b>Introductions</b></p> <ul style="list-style-type: none"> <li>Members, New Members and MLML Attendees</li> <li>Packets (<i>hard copies will be printed if requested</i>)</li> <li>Sign In, Update Contact Sheet, Lunch Orders (<i>Phil's \$10/each</i>)</li> </ul> <p><b>Acceptance of Spring 2019 Minutes</b></p> <p><b>Items to put forth for vote?</b></p>
9:45am	Meeting Commences - Summary of Directors Report
10:00 Kaufman, Lee, Michaud, Harvey	<p>1. <b><u>Administrative Campus Discussion – Implementation Team</u></b></p> <ul style="list-style-type: none"> <li>Summary of background, timeline of events</li> <li>Implementation Team</li> <li>News or updates from consortium campuses?</li> </ul>
12:30 - 1:00	Lunch
Jim Harvey	<p>2. <b><u>Director's Report</u></b></p> <p><b><u>Faculty</u></b></p> <ul style="list-style-type: none"> <li>Professor Nick Welschmeyer, Biological Oceanography has announced his retirement. He joined MLML in 1989 and served as main advisor to 24 alumni between 2001 –present. Nick's research focused primarily focused on assessment of ballast water management and abatement of aquatic invasive species; this research has been conducted in collaboration with Cal Maritime Academy since 2010. <ul style="list-style-type: none"> <li>Nick will remain at MLML as an Emeritus and researcher</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ MLML is currently conducting a recruitment for a new Biological Oceanographer to join our Tenure-Track faculty. MLML anticipates this person will start Fall 2020.</li> <li>● Katie Lage, MLML Research Librarian installed an Augmented Reality Sandbox in the MLML-MBARI Library. This is an interactive, augmented reality experiential learning tool.</li> <li>● Gitte McDonald – Antarctica, emperor penguins</li> <li>● Ivano Aiello – cruises (Chilean margin, Gulf of California)</li> <li>● Scott Hamilton/Rick Starr – 2 statewide MPA projects evaluating performance of marine reserve network</li> <li>● Max Grand - new NSF grant</li> <li>● Amanda Kahn – Nautilus cruise, CNN interview</li> <li>● Tom Connolly - CenCOOS</li> <li>● Mike Graham/Scott Hamilton/Luke Gardner – scallops project and Monkey Faced Eel funding</li> </ul> <p><b><u>Visiting Scientist</u></b></p> <p><i>AY19-20</i></p> <ul style="list-style-type: none"> <li>● Dr. Cheryl Logan, Associate Professor in the School of Natural Sciences at CSU Monterey Bay is here for the Visiting Scientist for AY19-20.</li> <li>● Cheryl is a member of MLML's Adjunct Faculty and has been collaborating with MLML Faculty and advising students for several years.</li> </ul> <p><i>AY20-21</i></p> <ul style="list-style-type: none"> <li>● Dr. Scott Shaffer, Professor of Biology at SJSU will serve as MLML's visiting scientist during AY20-21. Scott is also an Adjunct Professor with UC Santa Cruz's Ocean Sciences Dept.</li> <li>● He teaches undergraduate courses in physiological ecology, morphology, conservation biology and spatial ecology.</li> <li>● Scott has a wealth of research experience involving field studies on seabirds and marine mammals in remote locations around the globe</li> </ul> <p><i>AY21-22</i></p> <ul style="list-style-type: none"> <li>● The position has been posted and advertised throughout the CSU and it is also in the packet, please distribute. <b><u>Post closes 1 July 2020.</u></b></li> </ul>
<b>Terra Eggink</b>	<p><b><u>Graduate Program Report</u></b></p> <ul style="list-style-type: none"> <li>● FTES</li> <li>● Course Schedule</li> <li>● Graduates</li> </ul> <p><b><u>Curriculum Committee</u></b></p> <ul style="list-style-type: none"> <li>● New Aquaculture Class Spring semester 2019</li> </ul> <p><b><u>Research</u></b></p> <ul style="list-style-type: none"> <li>● Edwards Freeze Drier \$15k</li> <li>● Multi-beam sensor \$42k</li> <li>● Research Faculty, Research Affiliate highlights</li> </ul>
<b>Jim Harvey</b> <i>(Ivano at sea)</i>	

	<p><b><u>Marine Operations</u></b></p> <ul style="list-style-type: none"> <li>● MLML received a Moyer grant from the CA Air Resources Board to replace the engines on the John H. Martin. The new engines were installed over the summer and will result in fuel and carbon savings.</li> </ul> <p><b><u>Aquaculture Center</u></b></p> <ul style="list-style-type: none"> <li>● The aquaculture program at MLML continues to grow exponentially with new courses, research projects, collaborators and infrastructure.</li> <li>● A Fish Feed Mill has been offered as a donation to MLML that will allow us to conduct experiments regarding the replacement of fish protein in fish meal. It was assembled in the warehouse; please let us know if you want to see it.</li> <li>● Dr. Luke Gardner, CA Sea Grant Aquaculture Specialist ran a class project determining purple urchin ranching potential. This project was featured on NPR, reported on in several newspapers throughout the area and inspired a German documentary production crew to feature MLML in a film about the increased purple sea urchin population causing kelp die off in CA.</li> </ul> <p><b><u>New Researchers</u></b></p> <ul style="list-style-type: none"> <li>● Geoff Wheat – University of Alaska (tenant agreement)</li> </ul> <p><b><u>Budget Reports</u></b></p> <ul style="list-style-type: none"> <li>● State</li> <li>● SJSU Research Foundation</li> <li>● Tower Foundation</li> </ul> <p><b><u>Annual Report for AY18-19</u></b></p> <ul style="list-style-type: none"> <li>● The Chancellor’s Office requires all affinity groups to write an annual report in October each year, signed and submitted by the administrative campus President. MLML’s is currently being reviewed by SJSU.</li> </ul> <p><b><u>MLML Outreach and Education</u></b></p> <ul style="list-style-type: none"> <li>● MLML-SJSU branding</li> <li>● Academic Village (<a href="https://www.mlml.calstate.edu/2019/01/14/the-academic-village/">https://www.mlml.calstate.edu/2019/01/14/the-academic-village/</a>)</li> <li>● Outreach and Media <ul style="list-style-type: none"> <li>○ Netflix production</li> </ul> </li> <li>● MLML Shakes – 30<sup>th</sup> Anniversary of the 1989 Loma Prieta earthquake</li> <li>● 50<sup>th</sup> Anniversary Book - copies still available!</li> </ul>
3:00pm	Adjourn

**Fall 2019 Graduate Program Report  
MLML Governing Board Meeting  
Nov. 15, 2019**

**1. Enrollment - headcount**

- 83 current students in M.S. program
- 13 external/non-M.S. students taking MLML classes
  - 3 SJSU undergrads
  - 1 CSUMB undergrad
  - 2 SJSU grad students
  - 1 Stanislaus State undergrad
  - 1 CSU East Bay grad student
  - 5 Open University (CSUMB) students

**2. Enrollment - FTES**

- Total FTES: 35.9; by campus as follows:

**Fall 2019 FTES by campus**

<i>Campus</i>	Total Students by Level			Total Units by Level		FTES	
	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total Enroll</i>	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total FTES</i>	<i>Campus FTE %</i>
East Bay	0	1	1	0	3	0.25	0.70%
Fresno	0	0	0	0	0	0.00	0.00%
Monterey	6	61	67	22	293	25.88	72.10%
Sacramento	0	0	0	0	0	0.00	0.00%
San Francisco	0	0	0	0	0	0.00	0.00%
San Jose	3	19	22	10	106	9.50	26.46%
Stanislaus	1	0	1	4	0	0.27	0.74%
<b>TOTALS</b>	<b>10</b>	<b>81</b>	<b>91</b>	<b>36</b>	<b>402</b>	<b>35.9</b>	

U=Undergraduate; G=Graduate

MLML graduate students enrolled in zero-unit course are included in total enrollment and FTES

**3. Feeder schools for Fall 2019 cohort (18 students)**

- 3 CSUMB
- 5 UCs (2 UC Irvine, 1 UCLA, 1 UC Davis, 1 UCSC)
- 1 USC
- 1 Westmont College
- 1 Pacific Lutheran Univ.
- 1 Old Dominion Univ.
- 1 Univ. of Findlay
- 2 Univ. of Miami
- 1 Cornell Univ.
- 1 Univ. of Oregon
- 1 Oregon State Univ.

**Fall 2019 Graduate Program Report  
MLML Governing Board Meeting  
Nov. 15, 2019**

**4. Fall 2019 MLML Class Schedule**

MS #	Course Name	Units	Professor(s)	Day	Time
103/203	Marine Ecology	4	Graham/Hamilton	Th	9-5
105	Marine Science Diving	3	Steller	F	9-5
113/213	Marine Ichthyology	4	Hamilton	T	9-5
124	Invertebrate Zoology	4	Kahn/Geller	W	9-5
142	Physical Oceanography	4	Connolly	T	9-5
201 & 280	Scientific Writing & Library Research Methods	4	McDonald/Lage	M	9-1
274	Adv. Topics: Aquatic Pollution	4	Grand	W	9-5
274	Adv. Topics: Scanning Electron Imaging & X-ray Analysis Techniques	4	Aiello	T	9-5
274	Adv. Topics: Oceanographic Instrumentation	3	Connolly	Th	1-4
298/9	Research/Thesis	1-4	Faculty	Arr.	Arr.

**5. Fall 2019 graduates (expected)**

Drew Burrier, Physical Oceanography

*The internal wave dynamics of Barkley Submarine Canyon*

Holly Chiswell, Chemical Oceanography

*Water Column Methylmercury Production in the California Current*

Steve Cunningham, Phycology

*Physical and Biological Consequences of Giant Kelp (Macrocystis pyrifera) Removals within a central California kelp forest*

Amanda Heidt, Invertebrate Zoology and Molecular Ecology

*Spatial characterization of meiofaunal diversity along the California coast and potential abiotic drivers*

Jessica Jang, Ichthyology/Pacific Shark Research Center

*Reproductive strategies of the Big Skate (Beringraja binoculata, Girard 1855) with evidence of multiple paternity*

**Fall 2019 Graduate Program Report**  
**MLML Governing Board Meeting**  
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Laurel Lam, Ichthyology/Pacific Shark Research Center

*Geographic and habitat-based variation in Lingcod (*Ophiodon elongates*)  
demography and life history along the U.S. West Coast*

Brijonnay Madrigal, Vertebrate Ecology

*Characterizing the acoustic behavior of odontocete species using passive acoustic  
monitoring in Monterey Bay, the Bering Sea, and the Chukchi Sea*

Cynthia Michaud, Physical Oceanography

*Effects of Phytoplankton Composition and Biominerals on the Episodic Pulses of  
Particulate Organic Carbon to Abyssal Depths*

Alex Olson, Chemical Oceanography

*The biogeochemical behavior and speciation of mercury in the sea surface  
microlayer: implications for transport to watersheds via fog*

Miya Pavlock-McAuliffe, Physical Oceanography

*Sandbar and Shoreline Response to Storm Events: Sunset State Beach (northern  
Monterey Bay, California)*

Elizabeth Ramsay, Phycology

*Morphological variability within *Dictyoneurum californicum* and *Dictyoneurum  
reticulatum* along a wave exposure gradient on the Monterey Peninsula*

## **6. Summer 2019 graduates**

Heather Barrett, Vertebrate Ecology

*Investigating the energetic cost of anthropogenic disturbance on the southern  
sea otter (*Enhydra lutris*)*

Patrick Daniel, Physical Oceanography

*Examining the contribution of wave-induced transport to nearshore chlorophyll-a  
variability in Northern California*

Sierra Helmann, Biological Oceanography

*Resolution of the chlorophyllide a problem in the routine measurement of  
chlorophyll a*

## **7. Spring 2019 graduates**

**Fall 2019 Graduate Program Report**  
**MLML Governing Board Meeting**  
**Nov. 15, 2019**

Tyler Barnes, Geological Oceanography

*Assessing beach variability & shoreline change in Monterey Bay, CA*

Melissa Nehmens, Ichthyology/Pacific Shark Research Center

*Life History of the Southern Lanternshark, *Etmopterus granulosus*, from the Southwestern Indian Ocean*

Stephen Pang, Ichthyology

*The effect of sex ratio on the reproductive biology of two sex changing fish (*Lythrypnus dalli* and *Rhinogobiops nicholsii*)*

Natalie Yingling, Biological Oceanography

*ATP as a Quantitative Proxy for Living Microbial Biomass: Cellular ATP Content Under Stress*

**8. Time-to-degree**

Average time to graduation for the above 18 graduates:

- 9 semesters/4.5 years



## MLML Class Schedule — Spring 2020 semester

Semester begins: Tuesday, January 21, 2020

First day of classes: Thursday, January 23, 2020

Last day of classes: Monday, May 11, 2020

Semester (and Academic Year) ends: Friday, May 22, 2020

Course #	Course Name	Professor	Units	Day	Time	Classroom
MS 131/231	Marine Botany/Biology of Seaweeds	Graham	4	Mondays	9-5	214
MS 143	Chemical Oceanography	Grand	4	Wednesdays	9-5	508
MS 204	Sampling & Experimental Design	McDonald	4	Tuesdays	9-5	202
MS 208	Scientific Methods	Graham/ Harvey	4	Thursdays	9-5	109
MS 263	Data Analysis Techniques	Connolly	4	Tuesdays	9-5	109
MS 272	Subtidal Ecology	Hamilton/ Steller/Kahn	4	Thursdays	9-5	214
MS 274	Advanced Topics: Aquaculture	Gardner	4	Wednesdays	9-5	214
MS 274	Advanced Topics: Population Biology	Kahn	4	Mondays	9-5	109
MS 285 & 274	Seminar & Advanced Topics: Climate Change & Science Communication	Aiello	4	Thursdays	1-5	202



11/7/2019

**MLML State Budget FY 18/19 & FY 19/20 Proposed**

		<b>FY 18/19</b>	<b>Actuals as of</b>	<b>FY 19/20</b>	<b>Actuals as of</b>
		<b><u>Budget</u></b>	<b><u>6/30/2019</u></b>	<b><u>Proposed Budget</u></b>	<b><u>10/31/2019</u></b>
<b>REVENUE</b>					
	Salary	1,950,803	1,987,035	2,065,164 <sup>12</sup>	538,720
	Benefits	976,490	994,488	976,490	270,155
<sup>9</sup>	OE&E	228,743	228,473	228,743 <sup>13</sup>	228,473
	Utilities	275,600	280,287	280,900	96,811
<sup>2</sup>	Salary Recovery / Reimbursement	(25,407)	(51,704)	(25,407) <sup>14</sup>	(15,548)
<sup>2</sup>	Benefits Reimbursement	(18,135)	(36,186)	(18,135)	(9,109)
	Visiting Scientist Support	21,425	21,429	21,425	-
<sup>16</sup>	Other Reimbursement/Support	18,794	24,977	37,880	16,559
	CSUMB Contribution	50,000	50,000	50,000	-
	Prior Year Balance Forward	196,891	196,891	163,107	163,107
<sup>1</sup>	Roll-Forward Encumbrances	-	34,020		23,864
<b>TOTAL REVENUE</b>		<b>\$ 3,675,204</b>	<b>\$ 3,729,710</b>	<b>\$ 3,780,167</b>	<b>\$ 1,313,032</b>
<b>SALARIES (Salary \$)</b>					
<sup>3</sup>	Faculty	815,393	782,987	922,320	295,707
<sup>4</sup>	Staff	904,178	914,123	925,944	318,283
<sup>5</sup>	Temporary Faculty	14,330	14,665	-	2,890
<b>SALARIES (OE&amp;E)</b>					
<sup>6</sup>	Visiting Scientist	30,002	30,709	30,000	11,804
<sup>7</sup>	Graduate Assistants	63,700	58,983	63,700	16,513
<sup>8</sup>	Student Assistants	123,200	142,833	123,200	65,132
<b>BENEFITS</b>		976,490	961,755	976,490	261,046
<b>TOTAL SALARIES &amp; BENEFITS</b>		<b>\$ 2,927,293</b>	<b>\$ 2,906,055</b>	<b>\$ 3,041,654</b>	<b>\$ 971,375</b>
<b>OPERATING EXPENSES</b>					
<i>ADMINISTRATION</i>					
	Taxes / Liability Premiums	1,400	763	1,400	-
	Office Supplies	5,000	3,965	5,000	1,063
	Copiers & Maintenance	8,000	9,455	8,000	4,508
	Furniture/Equipment	2,000	6,949	4,500	3,016
	Postage / Postage Meter Rental	1,605	2,099	1,605	570
	Telecommunications	6,000	5,400	6,000	2,400
	Memberships	5,400	5,400	5,400	100
	Faculty / Staff Recruitment	4,000	-	15,000	1,574
	Startup Funds	52,462	33,679	22,000 <sup>17</sup>	22,073
	SeaGrant Position Reimb. (25%)	27,000 <sup>15</sup>	27,288	27,000 <sup>15</sup>	6,686
	Travel / Training	4,000	2,440	4,000	1,153
	Miscellaneous	2,500	2,327	2,500	149
	Reimbursable Grant/Award Exp.		4,693	-	
	Roll-Forward Expenses		29,781		750 <sup>11</sup>
<b>TOTAL ADMINISTRATIVE EXPENSES</b>		<b>\$ 119,367</b>	<b>\$ 134,237</b>	<b>\$ 102,405</b>	<b>\$ 44,042</b>
<i>INSTRUCTIONAL SUPPLIES</i>					
	Equipment/Services	18,000	14,565	18,000	2,793
	Aquarium Room Refresh	1,000	878	1,000	
	Class Materials & Supplies	8,000	3,279	8,000	604
	Baja/Chile Course	5,000	1,411	5,000	
	Oceanographic Instrumentation	-		-	275
	Miscellaneous	1,000	370	1,000	700
	Roll-Forward Expenses				
<b>TOTAL INSTRUCTIONAL SUPPLIES</b>		<b>\$ 33,000</b>	<b>\$ 20,502</b>	<b>\$ 33,000</b>	<b>\$ 4,371</b>

	<i><u>FY 18/19</u></i>	<i><u>Actuals as of</u></i>	<i><u>FY 19/20</u></i>	<i><u>Actuals as of</u></i>
	<i><u>Budget</u></i>	<i><u>6/30/2019</u></i>	<i><u>Proposed</u></i>	<i><u>10/26/2018</u></i>
<i>MARINE SCIENCE DIVING</i>				
Supplies & Repairs	10,000	11,619	10,000	2,600
Roll-Forward Expenses				
<b>TOTAL MAR. SCI. DIVING EXPENSES</b>	<b>\$ 10,000</b>	<b>\$ 11,619</b>	<b>\$ 10,000</b>	<b>\$ 2,600</b>
<i>ENVIRONMENTAL HEALTH &amp; SAFETY</i>				
Supplies & Permitting	8,600	10,485	8,600	567
Museum	1,500	196	1,500	1,256
Roll-Forward Expenses		-		
<b>TOTAL EHS EXPENSES</b>	<b>\$ 10,100</b>	<b>\$ 10,681</b>	<b>\$ 10,100</b>	<b>\$ 1,824</b>
<i>FACILITIES</i>				
Janitorial Services & Supplies	33,425	33,871	33,425	9,610
Landscaping / Restoration	5,040	4,620	5,040	1,680
Vehicle Maintenance & Repair	7,000	12,054	7,000	1,349
Gasoline Charges	8,000	8,047	8,000	1,900
Marine Operations	3,000	13,929	3,000	538
Proposed Facility Projects	21,000	1,280	20,000	1,075
Scheduled Maintenance & Repair	10,000	9,629	10,000	2,477
General Supplies & Repairs	34,750	35,661	34,750	8,903
Seawater System	21,000	29,266	21,000	17,664
Roll-Forward Expenses		4,240		9,385
<b>TOTAL FACILITIES EXPENSES</b>	<b>\$ 143,215</b>	<b>\$ 152,596</b>	<b>\$ 142,215</b>	<b>\$ 54,582</b>
<i>UTILITIES</i>				
Electricity	205,438	202,500	203,000	74,757
Gas	42,378	48,601	48,600	12,065
Water	4,525	5,657	5,700	1,797
Sewage	6,976	7,229	7,300	2,511
Trash	16,284	16,300	16,300	5,680
<b>TOTAL UTILITY EXPENSES</b>	<b>\$ 275,600</b>	<b>\$ 280,287</b>	<b>\$ 280,900</b>	<b>\$ 96,811</b>
<i>LIBRARY</i>				
Services	10,000	-	10,000	-
Books/ILL/Supplies	7,000	11,243	7,000	7,206
Periodicals	92,220	96,781	92,220	5,873
Roll-Forward Expenses		-	-	13,729
<b>TOTAL LIBRARY EXPENSES</b>	<b>\$ 109,220</b>	<b>\$ 108,024</b>	<b>\$ 109,220</b>	<b>\$ 26,808</b>
<i>NETWORK</i>				
Hardware	17,000	22,171	17,000	920
Software	16,300	3,957	16,300	72
Roll-Forward Expenses		-	-	-
<b>TOTAL NETWORK EXPENSES</b>	<b>\$ 33,300</b>	<b>\$ 26,128</b>	<b>\$ 33,300</b>	<b>\$ 992</b>
<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 733,802</b>	<b>\$ 744,075</b>	<b>\$ 721,140</b>	<b>\$ 232,029</b>
<b>TOTAL EXPENSES</b>	3,661,095	3,650,130	3,762,794	1,203,404
<b>TOTAL REVENUE</b>	3,675,204	3,729,710	3,780,167	1,313,032
<b>CASH FLOW BALANCE</b>	14,108	79,580	17,373	109,627
<b>ADJUSTED BALANCE</b>	<b>\$ 14,108</b>	<b>\$ 79,580</b>	<b>\$ 17,373</b>	<b>\$ 109,627</b>

**Notes:**

- <sup>1</sup> Open encumbrances from previous fiscal year are rolled forward into the next year's budget
- <sup>2</sup> Faculty buyout
- <sup>3</sup> Faculty: AY 2018 = 9, Fall 2019 = 10
- <sup>4</sup> Staff = 11 (1 position covered 30% by CoS)
- <sup>5</sup> Temporary Faculty: AY 2018 = 1, Fall 2019 = 1
- <sup>6</sup> OE&E Salaries - MLML pays salaries and all benefits
- <sup>7</sup> Graduate Assistants: Fall 2018 = 5, Spring 2019 = 4, Fall 2019 = 7
- <sup>8</sup> Student Assistants: Summer 2018 = 12, Fall 2018 = 12, Spring 2019 = 16, Summer 2019 = 14, Fall 2019 = 16
- <sup>9</sup> Includes State Support OE&E budget and \$50K from Provost
- <sup>10</sup> Actual expenses only, no blanket encumbrances
- <sup>11</sup> Expenses on rolled encumbrances from the previous fiscal year
- <sup>12</sup> Salary budget based on estimated totals for FY 18/19; salary monies are now centrally held, so any salary savings are eliminated.
- <sup>13</sup> OE&E reduced to cover salaries that do not have regular salary lines (SA, GA, TF)
- <sup>14</sup> Faculty buyout now held centrally, can only be used as credit to hire TF replacements
- <sup>15</sup> MLML reimburses UC San Diego for 25% of salary and benefits for SeaGrant Aquaculture position
- <sup>16</sup> Includes MLML Misc. Trust Fund, vehicle use reimb., RSCA, UofA rent payments, other misc. reimb.
- <sup>17</sup> Starting FY19/20 Startup funds will be held centrally, hires starting prior to Fall 2019 are Dept.'s responsibility

FY 18/19 Projects		FY 19/20 Projects	
Flume (building, power, sea water)	TBD	TBD	20,000
Main Lab Transformer	13,000		
Seminar Room Kitchen Architect	8,000		
TOTAL		TOTAL	
\$ 21,000		\$ 20,000	

## MLML Operating Budget: SJSU Research Foundation: AY19-20

*Includes MLML Operations, Norte, Del Mar, Sandholdt, Firehouse and Shore Lab*

REVENUE	FY 2019-2020 ESTIMATED
Current Balance in F/A Overhead Accounts	(251,880)
Other Income Estimated - Cost Center Revenue	335
Rental Income (Del Mar, Sandholdt Center)	127,000
F&A Return <i>(Less 10% to PI's, Res 198, Reserve)</i>	68,836
SJSURF Admin and Facility Supplement	190,000
Revenue	134,291
Operating Budget:	583,290
Projected Year End Balance:	(448,999)

OPERATING EXPENSES AY19-20	FY 2019-2020 PLANNED
Salaries, Wages and Benefits	410,290
Administrative Costs - primarily insurance	35,000
Information Technology	20,000
Supplies and Equipment	15,000
Services & Facility Costs	51,000
Construction, Maintenance and Repairs	34,000
Diving Costs	3,000
Small Boat Support	15,000
Operating Costs:	583,290

RESERVE	FY 2019-2020
Balance Reserve Account	563,513

REFINANCING ACCOUNT	FY 2019-2020
Balance Refinancing Account	(2,969,142)