From:

Wheeler, Alan

Sent:

Tuesday, April 04, 2017 5:54 AM

To:

Ahearn, Jennifer

Subject:

Proposed Oxitec contract

Attachments:

Dr Alan Wheeler.vcf

Good morning Jennifer,

I am writing with regard to the contract proposal for an extension of the Oxitec project. I have been informed that a new proposal has been submitted that will cost CI Government somewhere in the region of\$8,000,000. I have not been provided with details of the contract details such as its scope and objectives and I am concerned that the details of the contract have not been discussed at any of the steering committee meetings. Whilst Oxitec and MRCU are making public statements proclaiming major reductions in the Aedes aegypti population in the treatment area the data I have seen does not support this. I remain a supporter of the Oxitec technology but I am not convinced that the data collected to date indicates a major reduction in the Aedes aegypti population. I am particularly concerned that the steering committee has not discussed the details of the new contract in any of its meetings or the reasons to expand the current trial area. My recommendation at this moment would be to continue the current trail until at least the end of the upcoming rainy season so that we may evaluate the technique and confirm its effectiveness. I also think it unwise to make any further public proclamations of major success until further data has been collected and discussed in the steering committee meeting. I would like to request a meeting with you to review the data collected to date and discuss my concerns in detail. Until I have had chance to meet with you I would appreciate it if my request could be kept confidential.

Thanks

Alan Wheeler

Dr Alan Wheeler

Cayman Islands Mosquito Research & Control Unit Assistant Director (R&D) (345) 949-2557 Work (345) 925-5514 Mobile



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From:

Whitaker, Ligia

Sent:

Friday, August 04, 2017 10:04 AM

To:

Daley-Miller, Donna-Marie; Pouchie, Nellie

Cc:

Holness, Rochelle; Brown, Shaneil-Gay; Barnard, Nancy; Petrie, William

Subject:

RE: Oxitec funds 2018 & 2019

Attachments:

RE: REQUEST - Forecast info for FY 2016/17; 2018 and 2019

Noted, however in the email sent months before I did send in the adjusted request for the remaining 2017, we made note of the need for the increase in the insecticides account. Also in the email, we explained the increase for each account. So I believe these figures should have been in the budget since then.

Also in a meeting between Dr. Petrie and the new Minister, Dr. Petrie has expressed to the Minister the need for additional funding. I believe he has written up a memo for supplementary.

I have attached the email where we sent in the pre-election figures. The figures I sent in last month was per the request on forecast figures for 2018, 2019 and 2010 which is what the SPS covers. I didn't update the 2016 again because from my understanding I am to put in what we have for the 2016/17 budget and then input the forecast figures for the following 3 years. I assumed the new figures for 16/17 would have been requested at the time of the pre-election budget request. Were they not inputted then?

Regarding the figures for Oxitec, I will let Dr. Petrie and Nancy know.

Ligia Whitaker

Finance and Administrative Manager MRCU 99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: (345) 949-2557 | Direct: (345) 244-4116 | Fax: (345) 949-8912

MRCU Website: www.mrcu.ky



From: Daley-Miller, Donna-Marie

Sent: Friday, August 04, 2017 9:30 AM **To:** Whitaker, Ligia; Pouchie, Nellie

Cc: Holness, Rochelle; Brown, Shaneil-Gay; Barnard, Nancy

Subject: RE: Oxitec funds 2018 & 2019

Hello Ligia,

I figure the numbers you indicate below are in USD, yes? As we added US\$3M for both 2018 and 2019 in our SPS submission for Oxitec. Kindly note that we have already made our SPS submission. This will now guide CIG in the budget targets which will be set and passed down to the Ministries and Departments. Just to note, no additional cost was submitted for the Insecticide vote as the numbers sent in by MRCU did not indicate an increase and the deadline has now passed.

Best regards, Donna

From: Whitaker, Ligia

Sent: Friday, August 04, 2017 9:20 AM **To:** Daley-Miller, Donna-Marie; Pouchie, Nellie **Cc:** Holness, Rochelle; Brown, Shaneil-Gay **Subject:** Oxitec funds 2018 & 2019

Importance: High

Good morning Donna,

A meeting was held with Dr. Petrie, Nancy and the Oxitec.

Nancy advised me to let Ministry know to add 3,250,000 to budget 2018 for the Oxitec project. For 2019, 3,500,000.

Thank you

Ligia Whitaker

Finance and Administrative Manager MRCU 99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4116 | Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky



From:

Wheeler, Alan

Sent:

Tuesday, April 04, 2017 11:34 AM

To:

Ahearn, Jennifer

Subject:

Oxitec report on results to date

Attachments:

Steering Committee.docx

Good afternoon Jennifer,

As I follow on to the email I sent this morning I have complied a short report on my interpretation of the results from the Oxitec project to date. I am of the opinion that MRCU members of the steering committee need to meet with yourself to discuss the status of the current project and any plans to expand it.

Thanks

Alan

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Oxitec Project: Results to date

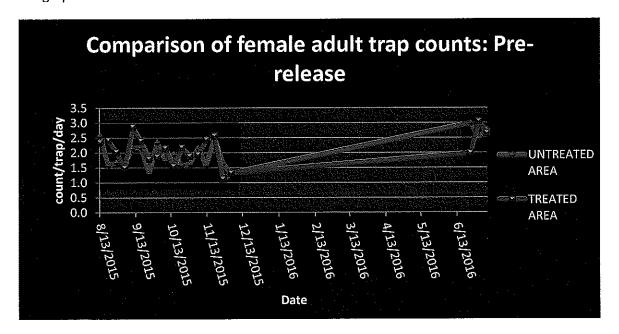
Recent statement made in the media and the recent contract proposal that has been submitted to cabinet for an \$8,000,000 commitment by C.I. Government to employ the Oxitec technology has prompted me to compile my following analysis of the results to date.

The effect of the release of the Oxitec mosquito on the local *Aedes aegypti* population is being evaluated by three measures:

- The adult population is being directly monitored by weekly counts of female mosquitoes collected in traps known as BG sentinel traps.
- Oviposition (egg laying) rate is being measured by two methods
 - Ovipot index is the percentage of placed ovipots found to be positive (have Aedes aegypti eggs in them)
 - o Egg index is a count of the average number of eggs found in each trap.

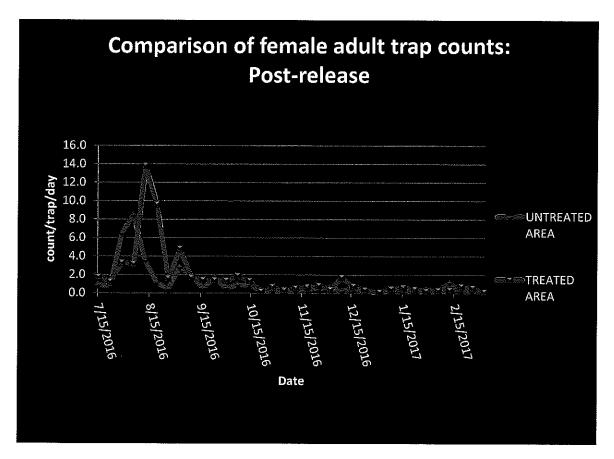
Results of Adult monitoring

The results for BG sentinel traps show that in the pre-release period of monitoring (before the release of the Oxitec mosquito) there was no significant difference in the numbers of female mosquitoes collected in the proposed treatment and untreated areas. The weekly counts of female mosquitoes are shown in the graph below.



After the commencement of the releases in the treatment area there has been a significant increase in the number of female mosquitoes collected in the treatment area. Since the releases began the mean

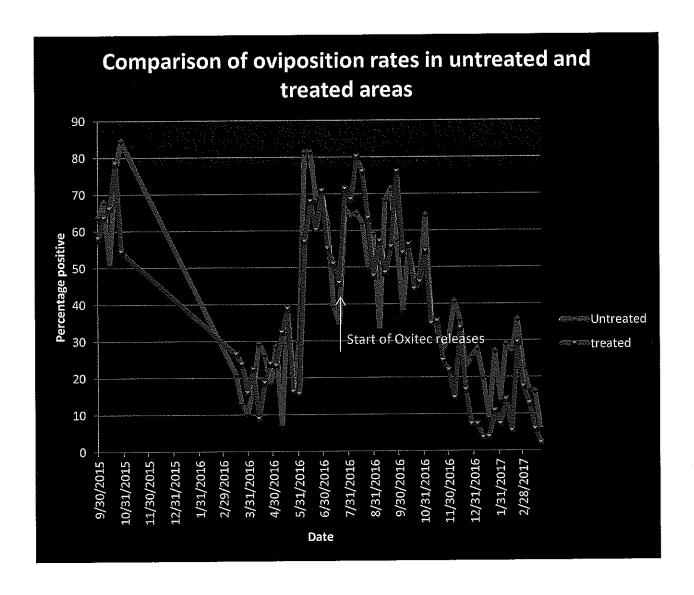
weekly catch in the treatment area has been 1.72 compared to 1.13 in the untreated area (52% higher). Simple statistical analysis of the data shows that prior to the release there was no significant difference in the counts of adult females in the two areas. The increase in female *Aedes aegypti* seen in the treatment area after commencement of the release of the Oxitec mosquito is shown to be highly significant when analyzed using a Wilcoxon Signed Rank test (Z=2.274, P=0.024). The weekly counts of female mosquitoes collected following the commencement of the Oxitec release is shown in the graph below.



The most likely cause of the increase in female mosquitoes in the treatment area is the accidental release of female mosquitoes into the area when males are being released.

Results of Oviposition monitoring

Prior to the release of the Oxitec mosquitoes in West Bay the average ovipot positive rate was 43.6% in the untreated (comparator) area and 41% in the proposed treatment area. Since the releases started the ovipot index in both areas has dropped. A slightly larger drop has been seen in the treatment area (15.77%) than the untreated area (11.7%). Weekly ovipot indices are shown in the graph below



Statistical analysis of the ovipot indices in the untreated and treated areas shows that the reduction seen in the treatment area is not statistically significant (paired t test, t=1.87 with 35 degrees of freedom, P=0.07). Due to the small size of the data set the power of this test is below the desired power of 0.8 and therefore further data collection is required before any conclusions can be made on the effect of releasing the Oxitec mosquito in the treatment area of West Bay.

Comparison of the average egg count in the treated and control area ovipot collections prior to the release of the Oxitec mosquito shows the untreated area to have an average of 19.5 eggs per trap compared to an average of 16.5 in the proposed treatment area. After the release of the male mosquitoes the egg count per trap increased in both areas to 21.7 in the untreated area and 19.5 in the treatment area. This represents an 18% increase in the treated area and an 11% increase in the untreated area.

A comparison of weekly average egg counts per trap is shown in the graph below. Statistical analysis of the data shows that since commencement of the release there is no significant change between the average egg counts in the treated and untreated areas (Wilcoxon signed rank test, z=-1.47, p=0.142).

Conclusions

To date all the measures recorded have shown no significant reduction in the abundance of *Aedes aegypti* in the release area. The ovipot index has shown a 15.5% reduction but a comparable reduction in ovipot index is also seen in the untreated area (11.7%). The larger reduction seen in the treatment area is not statistically significant. Egg count indices in the two areas have both increases when compared to the data collected pre-trial with a greater increase being seen in the treatment area (although this is not statistically significant). Of greater concern is the statistically significant increase in female mosquitoes seen in the treatment area. This increase of 52% compared to the untreated area and needs to be further investigated as it may have been caused by the accidental release of female mosquitoes when male releases are being carried out.

Whilst the data collected to date does not show any significant reduction in abundance of *Aedes aegypti* in the treatment area, this does not indicate that the technique does not work. The release started at a sub-optimal time of the year, after the rainy season had started and the population of *Aedes aegypti* was already high. Subsequent to this the last 4 months of data collection has been made during the dry season when the *Aedes aegypti* population in both areas is very low and the effectiveness of the technique is difficult to measure.

Given the lack of results to show a significant impact of the technique on reducing abundance of *Aedes aegypti* in the test area I consider it unwise and misleading to release Press statements making exaggerated claims about the success of the technique. The official Government Press release dated the 26th January 2017 makes the claim that "the number of wild Aedes aegypti mosquitoes in the treatment area is greatly reduced compared to the nearby non-treatment area". The data does not support this.

I consider it essential that any future Press Releases are first shown to all Government employed members of the Oxitec project steering committee so that statements concerning the project are discussed and any claims verified before release to the public. In addition to all MRCU members of the steering committee being involved in the release of information it is also essential that we are involved in discussions of future plans to extend the project and any new proposed contracts between MRCU and Oxitec.

I have been informed that a new contract has been submitted for signing that will cost CI Government in the region of \$8,000,000 over the next three years. Based on the results to date of the Oxitec mosquito release I believe it would be very unwise to enter into such a contract. To date a technology that is being sold as 'proven' has failed to impact on the *Aedes aegypti* population. Until such time that MRCU is satisfied that the results of the current small scale trial indicate a significant impact the only amendment to the current contract agreement should be to extend (at no further cost to Government)it to allow

further data collection. CI Government should not be expected to pay for a technology that has a yet failed to deliver any significant results.

From:

Wheeler, Alan

Sent:

1.

Thursday, August 03, 2017 12:30 PM

To:

Ahearn, Jennifer; Barnard, Nancy

Subject:

Oxitec results

Attachments:

Dr Alan Wheeler.vcf; Steering Committee.docx

Thanks for including me in this morning's meeting,

I have resent a copy of my analysis of the results from April 4th 2017. At that time I reached the conclusion that no significant reduction could be seen in the results collected by Oxitec. I still hold this position and that is why I am opposed to the island wide rollout that will be taking place. I am in favor of continuing the current trial until enough data has been collected to determine if it has worked or not. I do not want to prevent the eventual use of Oxitec's mosquito on an island wide basis but I am strongly of the opinion that we have to prove it can work before taking such a major step and one that could divert available funds away from proven control methods.

WHO does not recommend Oxitecs OX513A mosquito for operational deployment as was stated in this morning's meeting. The Vector Control Advisory Group (VCAG) made the following recommendations on 14 March 2016:

i/Establish well implemented vector control programs using existing tools and strategies are effective in reducing the transmission of *Aedes*-borne diseases, including Zika virus. These tools should be promoted and used to control the Zika virus. They include: (i) targeted residual spraying; (ii) space spraying; (iii) larval control; and (iv) personal protection measures.

ii/Full-scale programmatic deployment is not currently recommended for any of the five new potential tools reviewed by VCAG. However, the VCAG recommended the carefully planned pilot deployment under operational conditions of two tools (*Wolbachia*-based biocontrol and OX513A transgenic mosquitoes) accompanied by rigorous independent monitoring and evaluation."

MRCU's Aedes aegypti control program focuses on larval control and targeted residual spraying. As recommended by WHO this is the only proven way of controlling Aedes aegypti and has been the method I have used during my 18 years in charge of the Aedes aegypti control program. Unfortunately this program is understaffed and needs funding for more effective control. It is my opinion as the person in charge of Aedes aegypti control that this is where we should be investing resources.

Full scale operational deployment (as is planned with the new Oxitec contract) is not recommended by VCAG. I agree with the conclusion that small scale operational trials are needed and most importantly that these trials are accompanied by rigorous independent monitoring and evaluation. The pilot trial in West Bay has been monitored and evaluated by Oxitec and as such does not meet with the VCAG recommendations.

Before any contract is signed for an island wide rollout I would like the opportunity for Nancy to review the data collected to date with MRCU scientific staff and personnel working in the field when she commences as Acting Director next week.

Thank you for taking the time to consider my request

Alan Wheeler

Dr Alan Wheeler

Cayman Islands Mosquito Research & Control Unit Assistant Director (R&D) (345) 949-2557 Work (345) 925-5514 Mobile



Oxitec Project: Results to date

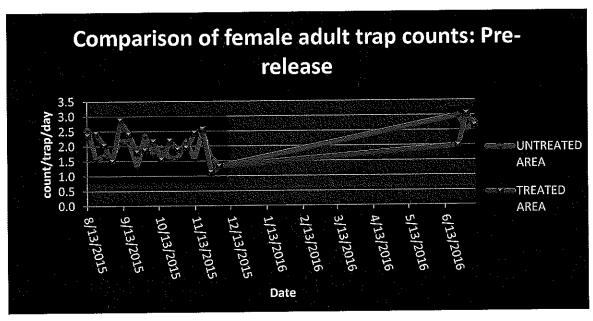
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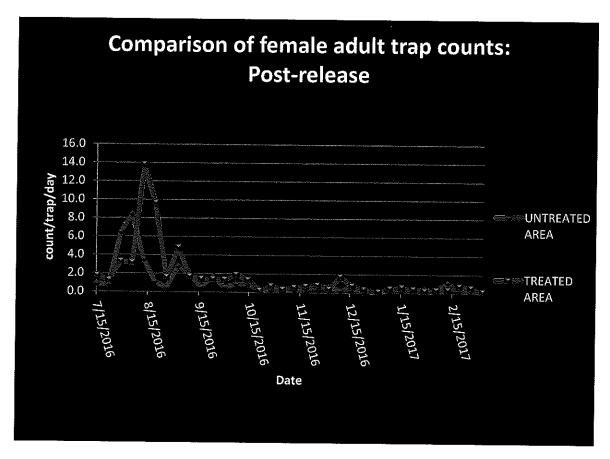
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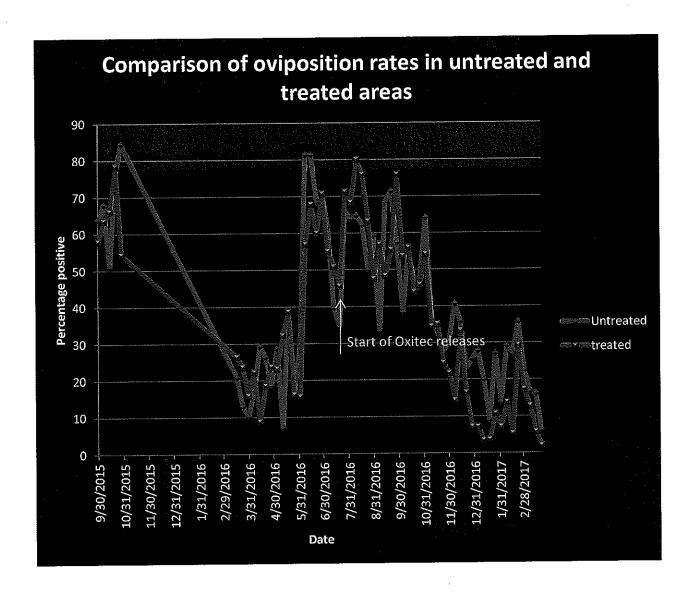
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I consider it essential that any future Press Releases are first shown to all Government employed members of the Oxitec project steering committee so that statements concerning the project are discussed and any claims verified before release to the public. In addition to all MRCU members of the steering committee being involved in the release of information it is also essential that we are involved in discussions of future plans to extend the project and any new proposed contracts between MRCU and Oxitec.

I have been informed that a new contract has been submitted for signing that will cost CI Government in the region of \$8,000,000 over the next three years. Based on the results to date of the Oxitec mosquito release I believe it would be very unwise to enter into such a contract. To date a technology that is being sold as 'proven' has failed to impact on the *Aedes aegypti* population. Until such time that MRCU is satisfied that the results of the current small scale trial indicate a significant impact the only amendment to the current contract agreement should be to extend (at no further cost to Government)it to allow

further data collection. CI Government should not be expected to pay for a technology that has a yet failed to deliver any significant results.

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From:

Wheeler, Alan

Sent:

Friday, August 04, 2017 11:20 AM

To: Subject: Ahearn, Jennifer; Barnard, Nancy RE: Request to share Oxitec data with WHO

Attachments:

Dr Alan Wheeler2.vcf

Good morning Jennifer,

I would like both WHO VCAG and CARPHA to review the data collected during the trial and to make recommendations on how we should proceed. In the past CARPHA personnel have stated to me that one of the reasons they do not promote the Oxitec technique is that they have not seen the raw data from previous trials. Currently the WHO VCAG does not recommend full scale deployment of this technique and only promotes the techniques that have been traditionally used in Cayman for Aedes aegypti control. Allowing VCAG and CARPHA should have benefits for both Oxitec and MRCU. If VCAG review the data and decide it is sufficient to proceed with a full scale trial then Oxitec will have their first confirmation from VCAG that they believe it is ready for operational deployment and they will also have CARPHA promoting the technique. Conversely if the data is found to be lacking in any areas then they can advise what further steps need to be taken to make the technique ready for full scale operational releases.

For MRCU to proceed without the recommendation from this WHO advisory group is (in my opinion) very unwise. Not only could it divert much needed resources from our own control efforts but it could lead to other countries following our example and investing their own vector control resources in an unproven technique. This could have severe negative consequences for Public Health in the region as a whole.

I see requesting approval from VCAG as an important and necessary step before proceeding with the planned island wide operational deployment. I see no reason why Oxitec should object to sharing their data with experts in the field of vector control other than the level of control achieved has not been what they are claiming. As I stated in yesterday's meeting I do have serious concerns about the levels of suppression being claimed by Oxitec during this trial. I am in the process of writing a full report which I hope to have completed by the end of next week. I am requesting that no contract is signed that will commit Cayman Islands Government to expanding the current trial of the technique until you, Nancy and Dr. Williams have had chance to review the report.

Kind Regards

Alan

Dr Alan Wheeler

Cayman Islands Mosquito Research & Control Unit Assistant Director (R&D) (345) 949-2557 Work (345) 925-5514 Mobile



From: Ahearn, Jennifer **Sent:** 04 August 2017 10:49 **To:** Wheeler, Alan; Barnard, Nancy

Subject: RE: Request to share Oxitec data with WHO

Good morning Alan

I believe that it would be Oxitec, and not MRCU, who would have "ownership" of the data from the work in West Bay, so any sharing of the data would need to be done by (or agreed to by) Oxitec. Is this something that you want us to raise with Richard Adey? If so, perhaps Nancy can ask that this be included on the agenda for the next steering committee meeting?

Also, what would you be asking WHO VCAG / CARPHA to advise on? Are you looking for an independent statistical evaluation of the data?

I look forward to hearing from you.

Kind regards Jennifer

From: Wheeler, Alan

Sent: Friday, August 04, 2017 7:41 AM

To: Barnard, Nancy Cc: Ahearn, Jennifer

Subject: Request to share Oxitec data with WHO

Good morning Nancy,

I would like to request permission to share the Oxitec data that has been collected during the West Bay trial with the WHO Vector Control Advisory group and CARPHA. I would like to have a clause in any new contract agreement that makes the full scale operational rollout dependent upon the approval of these two expert organizations after they have been given the opportunity to review the data.

Thanks

Alan

Dr Alan Wheeler

Cayman Islands Mosquito Research & Control Unit Assistant Director (R&D) (345) 949-2557 Work (345) 925-5514 Mobile



	No.	•

From:

Barnard, Nancy

Sent:

Monday, August 14, 2017 1:52 PM

To:

Pouchie, Nellie

Cc:

Parchment, Melva

Subject:

FW: Cayman & Oxitec Signed Contract - April 2016.pdf

Attachments:

Cayman & Oxitec Signed Contract - April 2016.pdf

Follow Up Flag:

Follow up

Flag Status:

Flagged

Dear Nellie

For your information – here is the contract for the "original" West Bay project – as I will be submitting an invoice against this, during the course of this week.

(Ms Nellie please save to L Drive if not already there - I couldn't locate it today but may have missed it).

Thanks.

Kind regards

Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: I (345) 949-2557 | Direct: I (345) 244-4118 | Mobile: I (345) 916-7917 Fax: I (345) 949-8912

MRCU Website: www.mrcu.ky



From: Renaud Lacroix [mailto:Renaud.Lacroix@oxitec.com]

Sent: Monday, August 14, 2017 1:48 PM

To: Barnard, Nancy; Allen, Fraser; Wheeler, Alan

Subject: Cayman & Oxitec Signed Contract - April 2016.pdf

Dear all,

Please find attached the scan of the signed contract between MRCU and Oxitec.

Best

Renaud

•	•	

From:

Barnard, Nancy

Sent:

Tuesday, September 05, 2017 2:13 PM

To:

Pouchie, Nellie; Powell, Natasha (Lyn)

Subject:

FW: media inquiry (Oxitec)

Attachments:

image001.jpg

Importance:

Low

FYI

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

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From: MacGillivray, Catherine

Sent: Tuesday, September 05, 2017 12:05 PM

To: Barnard, Nancy; Renaud Lacroix Email; Richard Adey

Subject: Fwd: media inquiry

Fvi see below

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: "Bothwell, John" < John. Bothwell@gov.ky>

Date: 05/09/2017 11:49 AM (GMT-05:00)

To: "MacGillivray, Catherine" < Catherine. Macgillivray@gov.ky>

Subject: RE: media inquiry

Catherine,

The Council Chairwoman Christine Rose-Smyth has told the compass "Hello Ken. Thank you for your email. I will not be issuing any comment until after the Conservation Council members have had an opportunity to consider

the matter. Sincerely, Christine." Council happens to have a workgroup session tomorrow where this will no doubt be discussed but I don't know what if anything they will decide to say in response (or when we would get that out).

Regards, John

From: MacGillivray, Catherine

Sent: Tuesday, September 05, 2017 9:44 AM **To:** Bothwell, John <<u>John.Bothwell@gov.ky</u>>

Subject: FW: media inquiry

Kind regards,
Catherine MacGillivray
Information Officer

Government Administration Building

133 Elgin Avenue | Grand Cayman KY1-9000 | Cayman Islands

Email: Catherine.MacGillivray@gov.ky

Direct: (345) 244-1773 | Cell: (345) 926-6110 | Fax: (345) 949-5936 | www.gis.ky



From: Ken Silva [mailto:ksilva@pinnaclemedialtd.com]

Sent: Tuesday, September 05, 2017 9:23 AM

To: MacGillivray, Catherine **Subject:** media inquiry

Good morning Ms. MacGillivray,

This is a reporter with the Cayman Compass, working on a story about a non-profit anti-GMO group's report on the Oxitec mosquito project.

We're planning on running this story tomorrow, and Dr. Lacroix referred me to you to get a response from government. We're obviously interested in government's response to the GeneWatch's criticism of the efficiacy of the program, but we're also interested in the group's claim that government departments didn't take the proper steps in carrying out the project. I'm particularly interested in a response to the report's claim that the National Conservation Council approved Phase 2 of the project before receiving the June 25 report on how Phase 1 went. Is that the case? Was the Council required to wait for that report?

From:

Barnard, Nancy

Sent:

Wednesday, September 06, 2017 4:33 PM

To:

Pouchie, Nellie; Flynn, Janett; Powell, Natasha (Lyn)

Cc:

Ahearn, Jennifer

Subject:

Oxitec/GeneWatch - media

Attachments:

RE: URGENT Additional Wendy query; RE: Genewatch allegations re mosquitoes

Good afternoon ladies

I wanted to keep you "in the loop" as regards Oxitec/GeneWatch matter.

As usual, I will be extremely careful with PR matters and ensure the Ministry is aware and in agreement with responses, if any, and general PR.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

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MRCU Website: www.mrcu.ky



From:

Barnard, Nancy

Sent:

Monday, September 25, 2017 4:23 PM

To:

Ahearn, Jennifer

Cc:

Pouchie, Nellie; Powell, Natasha (Lyn)

Subject:

Oxitec update post meetings week of 18th September

Dear Jennifer

Below are the action points from MRCU's meetings with Oxitec's CEO Mark Carnegie-Brown and Richard Adey on 21st and 22nd September:

- Oxitec would like to have formal refusals on file from MRCU to Oxitec's 2 year (2018, 2019) and 3 year (2018, 2019, 2020) proposals; both of which had the Grand Cayman island-wide operational roll out starting in 2018.
 This has been discussed with MRCU Ast. Dir and Research Manager, and with Ministry CO. Nancy to action. Aim for w/o 25th September.
- Oxitec asking for payment of the USD 400,000 against 2017 programme (to-date MRCU has received one invoice towards this), and status of remainder of the USD 1.5m earmarked for this year. CFO, CO Ministry; A-Dir, Ast. Dir and Research Mgr MRCU to discuss.
- 3. If Oxitec does go ahead with a new (repeat in year 2018) pilot exercise in West Bay in the same area as the 2016/17 area, as MRCU would like to see, Oxitec would like some clarity on future funding (2018, 2019) to be allocated. Oxitec would likely draft this contract once they have a formal refusal re #1. (Dependent upon same meeting with CFO as #2)
- 4. Similarly, if Oxitec agrees to this pilot repeat in 2018 as per #3, Oxitec would like to see serious intent from MRCU: i.e. a contingency for further expansion after 2018 pilot year complete, provided the pilot achieves what MRCU seeks. (Dependent upon same meeting with CFO as #2 and #3)
- 5. Oxitec would like to have CO Ahearn involved in the communication, in points #1-4.

I would be grateful if we can find time this week or next week, to come to the Ministry to discuss with Nellie, in particular the fiscal parametres of the Oxitec work to date, and future.

Many thanks.

Kind regards

Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

99|Red Gate Rd.|P.O. Box 486|Grand Cayman KY1-1106|CAYMAN ISLANDS

Office: I (345) 949-2557 | Direct: I (345) 244-4118 | Mobile: I (345) 916-7917 Fax: I (345) 949-8912

MRCU Website: www.mrcu.ky



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From:

Barnard, Nancy

Sent:

Tuesday, September 26, 2017 11:57 AM

To:

Pouchie, Nellie; Ahearn, Jennifer

Cc:

Powell, Natasha (Lyn)

Subject:

RE: Oxitec update post meetings week of 18th September

Attachments:

Our offers for Grand Cayman

Hi Nellie

Attached is the email from Richard Adey with the contract proposals made, as referred to in #1, below.

Let me know if you need to talk through any of this - many thanks.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky



From: Pouchie, Nellie

Sent: Tuesday, September 26, 2017 11:34 AM

To: Barnard, Nancy; Ahearn, Jennifer

Cc: Powell, Natasha (Lyn)

Subject: RE: Oxitec update post meetings week of 18th September

Good morning Nancy,

Per yours below, grateful if you could please send me a copy of the Oxitec contract.

Thanks!

Regards,

Nellie PouchieChief Financial Officer



P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Monday, September 25, 2017 4:23 PM

To: Ahearn, Jennifer

Cc: Pouchie, Nellie; Powell, Natasha (Lyn)

Subject: Oxitec update post meetings week of 18th September

Dear Jennifer

Below are the action points from MRCU's meetings with Oxitec's CEO Mark Carnegie-Brown and Richard Adey on 21st and 22nd September:

- Oxitec would like to have formal refusals on file from MRCU to Oxitec's 2 year (2018, 2019) and 3 year (2018, 2019, 2020) proposals; both of which had the Grand Cayman island-wide operational roll out starting in 2018. This has been discussed with MRCU Ast. Dir and Research Manager, and with Ministry CO. Nancy to action. Aim for w/o 25th September.
- 2. Oxitec asking for payment of the USD 400,000 against 2017 programme (to-date MRCU has received one invoice towards this), and status of remainder of the USD 1.5m earmarked for this year. CFO, CO Ministry; A-Dir, Ast. Dir and Research Mgr MRCU to discuss.
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- 5. Oxitec would like to have CO Ahearn involved in the communication, in points #1-4.

I would be grateful if we can find time this week or next week, to come to the Ministry to discuss with Nellie, in particular the fiscal parametres of the Oxitec work to date, and future.

Many thanks.

Kind regards

Nancy Barnard
Director (Acting)
Mosquito Research & Control Unit (MRCU)

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From:

Barnard, Nancy

Sent:

Tuesday, September 26, 2017 12:04 PM

To:

Pouchie, Nellie; Ahearn, Jennifer

Cc:

Powell, Natasha (Lyn)

Subject:

RE: Oxitec update post meetings week of 18th September

Attachments:

RE: Summary and next steps (Oxitec)

Hi Nellie

An interim contract was created but never signed – I flagged this to Richard Adey in August when I came to MRCU.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4118 | Mobile: 1 (345) 916-7917 Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky



From: Pouchie, Nellie

Sent: Tuesday, September 26, 2017 12:02 PM

To: Barnard, Nancy; Ahearn, Jennifer

Cc: Powell, Natasha (Lyn)

Subject: RE: Oxitec update post meetings week of 18th September

Thanks Nancy.

I was actually looking at #2 – is there a current contract for this?

Regards,

Nellie Pouchie

Chief Financial Officer



CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Tuesday, September 26, 2017 11:57 AM

To: Pouchie, Nellie; Ahearn, Jennifer

Cc: Powell, Natasha (Lyn)

Subject: RE: Oxitec update post meetings week of 18th September

Hi Nellie

Attached is the email from Richard Adey with the contract proposals made, as referred to in #1, below.

Let me know if you need to talk through any of this – many thanks.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky



From: Pouchie, Nellie

Sent: Tuesday, September 26, 2017 11:34 AM

To: Barnard, Nancy; Ahearn, Jennifer

Cc: Powell, Natasha (Lyn)

Subject: RE: Oxitec update post meetings week of 18th September

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Per yours below, grateful if you could please send me a copy of the Oxitec contract.

Thanks!

Regards,

Nellie Pouchie

Chief Financial Officer



P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Monday, September 25, 2017 4:23 PM

To: Ahearn, Jennifer

Cc: Pouchie, Nellie; Powell, Natasha (Lyn)

Subject: Oxitec update post meetings week of 18th September

Dear Jennifer

Below are the action points from MRCU's meetings with Oxitec's CEO Mark Carnegie-Brown and Richard Adey on 21st and 22nd September:

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Many thanks.

Kind regards

Nancy Barnard
Director (Acting)
Mosquito Research & Control Unit (MRCU)

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Office: | (345) 949-2557 | Direct: | (345) 244-4||8 | Mobile: | (345) 916-7917 Fax: | (345) 949-8912

MRCU Website: www.mrcu.ky



From: Barnard, Nancy

Sent: Tuesday, September 26, 2017 12:07 PM

To: Pouchie, Nellie

Cc: Ahearn, Jennifer; Powell, Natasha (Lyn)
Subject: FW: Summary and next steps (Oxitec)

Attachments: Cayman & Oxitec Signed Contract - April 2016.pdf; Cayman Islands Government-Oxitec

Implementation Agreement Amendment RA Aug22 2017 CLEAN.DOC

Hi Nellie

The attached and below may also be useful.

It may be easier to discuss by telephone or at a meeting.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky



From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Wednesday, August 30, 2017 6:18 AM

To: Barnard, Nancy

Subject: RE: Summary and next steps (Oxitec)

Dear Nancy

Thanks for the constructive discussion yesterday. Reverting on your e mail below...

The signed agreement which we have for West Bay is entitled **Implementation Agreement** – see attached *Cayman Oxitec signed contract*. That effectively expired at the end of April 2017 so we have been continuing in West Bay since then without being covered with an agreement, which we have been a little uncomfortable with.

What has been loosely called the extension to the West Bay Agreement is entitled **First Amendment to Implementation Agreement -** this is the attachment *Cayman Islands Government-Oxitec etc.*. as also sent on 22nd August. This is not signed although we have been reassured on separate occasions by Jennifer that the CI\$336k will be paid to us this year. Pending signature, I had asked during the meeting August 3rd if we could receive written assurance on the intent to pay us. This First Amendment is trivial in that it just extends the time period of the original Implementation Agreement from end April to end December 2017 for the agreed payment. As there will be no targets to be achieved within that extended timeframe, I would suggest that this could now be signed as is without changes..

The only other agreement drafted was the **Contingency Agreement**, which is not attached here (but I can send it if you like). That agreement was not signed and I trust you will agree there is no point now in pursuing that further. The draft Addendum you sent me, which defined targets, was previously discussed as forming a part of that Contingency Agreement, although no agreement was reached on those targets. The purpose of the Contingency Agreement was to cover Oxitec's outgoing costs incurred in preparing for Grand Cayman, pending a decision to proceed from MOH/MRCU.

As discussed, the results from West Bay have not in the past been formally linked to a commitment to proceed in Grand Cayman. I understand your wish now to specifically link Grand Cayman rollout to target achievement, and suggest that this can be done best within the future definitive agreement for Grand Cayman. I intend to amend our offer for Grand Cayman to incorporate targets to be achieved within the envisaged timeframe February to end July, and send this to you very shortly. If agreed, those targets would then be for incorporation into the future contract. Oxitec's firm opinion is that reaching all three targets is an unreasonably high demand, whereas there is readiness in principle to sign up to achieving two from three.

I did have a thorough discussion with top management since we spoke yesterday and will revert on that more fully in a separate e mail, and send our revised offer accordingly.

I hope this is useful in the meantime, and will be in touch again very shortly, with a view to discussing again on Thursday.

Kind regards,

Richard

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 29 August 2017 15:53

To: Richard Adey

Subject: RE: Summary and next steps (Oxitec)

Dear Richard

Can you please send me the signed version (presumably that was signed by MRCU/Dr Petrie and Oxitec/you or Renaud?) of the "extension to the West Bay agreement" dated 16th April 2017.

I will also need the MRCU and Oxitec co-signed version of the "First amendment to implementation agreement" effective 30th April 2017. I have not seen a signed version of either document, and nor can I locate one on the MRCU computer drive. I will need these to get the invoice 2017/006 CI\$168,000 processed.

Many thanks.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4118 | Mobile: 1 (345) 916-7917 Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky

From:

Barnard, Nancy

Sent:

Tuesday, October 10, 2017 5:08 PM

To: Cc: Ahearn, Jennifer

Subject:

Powell, Natasha (Lyn) FW: Messaging (Oxitec)

FYI

Kind regards

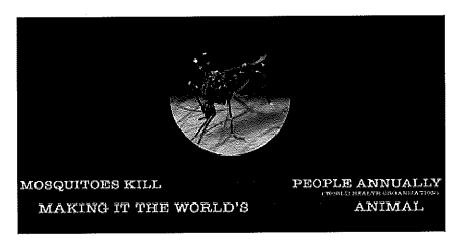
Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky



From: MacGillivray, Catherine

Sent: Tuesday, October 10, 2017 11:41 AM

To: Barnard, Nancy Subject: FW: Messaging

Hi Nancy, looking forward to our meeting on Thursday. Richard sent me some thoughts this morning as per below, which we can take a look at and discuss then, too. I will also print out to bring along with me.

Hoping to get the ISMWS announcement out tomorrow morning! It's also on the NCC agenda, which is made public tomorrow – yikes – so we gotta get it out!

Kind regards,

Catherine MacGillivray
Information Officer

Government Administration Building

133 Elgin Avenue | Grand Cayman KY1-9000 | Cayman Islands

Email: Catherine.MacGillivray@gov.ky

Direct: (345) 244-1773 | Cell: (345) 926-6110 | Fax: (345) 949-5936 | www.gis.ky



Hi Catherine,

Just some preliminary thoughts on messaging....

As there is a public meeting of DOE coming up on 18th and it will probably become clear at that meeting that the planned rollout in 2018 has been revised. So I feel there needs to be a statement ready from MRCU on what is happening.

The facts as we understand are as follows:

- MRCU have revised their opinion since Bill Petrie left, and would now like Oxitec to continue in West Bay in 2018 and collect further field data.
- The planned budget for Oxitec's technique in 2018/19 is cut drastically (not yet finalized) and could not now support the rollout as originally planned (We are proposing more gradual rollout plans to better fit budget availability but it is now too late for any expansion in 2018).
- We also understand that there are plans to fill a number of vacant and new positions at MRCU.

From:

Barnard, Nancy

Sent:

Monday, October 23, 2017 12:11 PM

To:

Pouchie, Nellie

Cc:

Daley-Miller, Donna-Marie

Subject:

FW: Key points (Oxitec)

Attachments:

FW: Overdue invoice (Oxitec)

Dear Nellie

Please see below.

I would be grateful if you can please advise me re the yellow highlighted query Richard has, so that I may in turn advise him accordingly.

The memo is forthcoming – will be either today or Tuesday a.m. (re Oxitec to insecticides per our dialogue).

Many thanks.

Kind regards

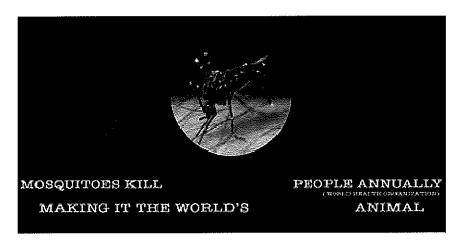
Nancy Barnard Director (Acting)

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MRCU Website: www.mrcu.ky



From: Barnard, Nancy

Sent: Monday, October 23, 2017 12:09 PM

To: 'Richard Adey'
Subject: RE: Key points

Dear Richard

Thanks for your email.

Regarding the timing for West Bay – I believe we have already provided you with the KPIs and percentages which MRCU should like to see reflected, so you can use that to draft the agreement – it was what was given to you at the most recent meetings in Grand Cayman.

I have included them below again.

With the 2018 West Bay pilot, MRCU requires the time to:

- i. Examine other combined control methods and outline a more structured and integrated approach on MRCU's terms and within MRCU's comfort levels;
- ii. Gauge Oxitec's wider operational rollout potential, based on agreed-upon and hopefully successful KPIs as a result of the West Bay Operational Pilot Programme (2018). Oxitec to complete a West Bay Operational Pilot Programme (2018) in the same area of West Bay as it did in 2016-17 to MRCU's satisfaction demonstrating methodology as a stand-alone control technique. This should demonstrate suppression and maintenance of suppression throughout the rainy season(s) of May to October (inclusive) with primary releases prior to the season. Original area in West Bay with buffer to remain outside that area. MRCU provides location, facilities, staff (not including Oxitec staff) and approvals etc. already in place.

In the West Bay Pilot Operational Rollout 2018 Completion Benchmark, MRCU needs to see Oxitec achieving:

Not less than three of the following target levels of suppression:

The suppression target for each metric is:

- Mean eggs per trap: 85%
- Ovitrap index: 85%
- Mean females per trap per day: 85%
- A sustained reduction below the KPI's for three specific months of the project. This would be from August 1st to October 31st2017. MRCU would like to see it expressed as a single figure for the whole 3 month period and not as a running average.

You may need to discuss with Dr Wheeler the below (I can organise a telephone call for us this week), as I believe MRCU may be in a position to:

- a. Bring on additional seasonal staff or volunteers to assist with ground treatments and surveys.
- b. Further examine Bti applications (aerial or ground) and their potential for integrating with Oxitec release technology.

Re the multi-year I will seek clarification from the CFO.

Re the invoices for this FY, CFO (Pouchie) is awaiting your response of supplementary information per my last email to you on this matter – see attached.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4118 | Mobile: 1 (345) 916-7917 Fax: 1 (345) 949-8912

From:

Barnard, Nancy

Sent:

Monday, October 23, 2017 12:53 PM

To:

Pouchie, Nellie; Ahearn, Jennifer; Daley-Miller, Donna-Marie; Powell, Natasha (Lyn)

Cc:

Wheeler, Alan; Allen, Fraser

Subject:

RE: Action steps - Oxitec / MRCU - as at 12 October 2017

Attachments:

MEMO - MRCU to Ministry re Oxitec funding reallocation.23 October 2017.pdf; MEMO -

MRCU to Ministry re Oxitec funding reallocation.23 October 2017.doc

Importance:

High

Dear Nellie

Please see attached the memo to CO's attention.

I have included both PDF (Signed) and Word versions for ease of incorporating to a BN.

Kind regards

Nancy Barnard

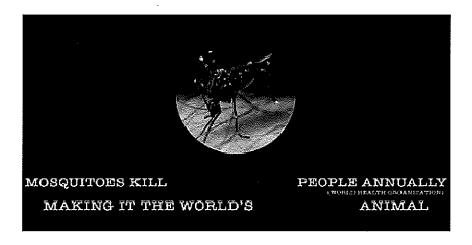
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MRCU Website: www.mrcu.ky



From: Pouchie, Nellie

Sent: Monday, October 23, 2017 10:54 AM

To: Barnard, Nancy; Ahearn, Jennifer; Daley-Miller, Donna-Marie; Powell, Natasha (Lyn)

Cc: Wheeler, Alan; Allen, Fraser

Subject: RE: Action steps - Oxitec / MRCU - as at 12 October 2017

Good morning Nancy,

Please let me know when the memo for the briefing note will be completed so that we may proceed with the request to MOF regarding the unused Oxitec funding to be applied to MRCU to cover its insecticides shortages, as discussed.

Thanks.

Regards,

Nellie PouchieChief Financial Officer



P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Thursday, October 12, 2017 3:53 PM

To: Ahearn, Jennifer; Pouchie, Nellie; Daley-Miller, Donna-Marie; Powell, Natasha (Lyn)

Cc: Wheeler, Alan; Allen, Fraser

Subject: Action steps - Oxitec / MRCU - as at 12 October 2017

Dear all

Please note the below per our meetings recently.

29 September MRCU Director met with CO and CFO, and Policy Advisor, to discuss MRCU/Oxitec way forward.

Action points from the meeting:

MRCU / Nancy must:

- 3 Oct. Draft email for CO's review; to come from MRCU/CO advising Oxitec that we will not be taking up the 3
 year island-wide rollout proposal. [NKB] DONE
- 2. 4 Oct. Advise Oxitec of latest budget figures allocated to GM mosquitoes, which are still subject to change, up until mid-November. These are now at: \$.940m for 2018 and \$.730m for 2019.[NKB] DONE
- 3. 5 Oct. Conservation Council check that we have permission for wider/island-wide deployment in their most recent approval. [NKB] DONE [NKB] We do: through to June 2019.
- 4. 9 Oct. Prepare a memo to CO suitable for forwarding to CTC on sole supplier necessity to support #6 below. Superseded re later meeting 11th October. This can come later in 2018.

11 October the MRCU Director, Ast. Director and Research Manager met with CFO and Deputy CFO to further discuss MRCU/Oxitec way forward.

Action points from the meeting:

Ministry to:

- 1) Aim for w/o 23 Oct: Submit Cabinet Note which MRCU is drafting re updating Cabinet on the Oxitec programme.
- 1) Aim for w/o 23 Oct: Submit Cabinet Paper requesting redirection of the 2017-18 Oxitec funds to insecticide purchase for MRCU; refer to the Cabinet Note re Oxitec Updates to support this redirection

MRCU / Nancy must:

- 2) Aim for w/o 16 Oct: Draft Cabinet Note for CFO re updating Cabinet on the Oxitec programme.
- 3) On 12 Oct: Inform Oxitec of the requirement to submit documentation (invoices, narrative) to MRCU/Ministry CO and CFO in support of the Deployment Extension invoice made of <u>CI 168K</u>. [NKB] Done via conference call with Richard Adey 12 Oct.
 - a. Must include what was expended by Oxitec to arrive at this invoiced amount.
 - b. Oxitec needs to be clear if this is one of the two invoices coming from them this fiscal year i.e. <u>CI 168K x</u> 2 = <u>CI 336K</u> (see Note ii)
 - i. Note: 336k CI is the 400k USD initially being referred to before we amended to CI fund references.
 - ii. Note: This 400k USD is part of the 1.5m USD 1,260,000m CI referred to as being approved for Oxitec expenditure by MRCU this FY towards an eventual island-wide roll out. Anticipated payment to Oxitec in 2016-17 will be CI 336k contingent upon whether they can provide as noted in a. to MRCU's satisfaction and agreement. MRCU/Ministry concern is that there is no signed contract to support this invoice. Additionally, the unsigned (draft) "First Amendment to Implementation Agreement" with the date 30th April 2017 intended for this deployment extension to go on to 31 December, 2017. It was anticipated one payment would be made in June and one in December 2017. However, the deployment stopped in late August 2017. i.e. only four of the intended eight months. [NKB] Discussed this with Richard Adey 12 Oct.
- 2) On 12 Oct: Advise Oxitec that MRCU will ask Ministry to submit a Cabinet Note advising Cabinet of the amended timelines and costings. The Oxitec programme is still a CIG priority. The Cabinet Note will also mention that due to the amended timelines, it is not likely that the 2016-17 and 2018 allocations can be utilised in those fiscal years. The recommendation to Cabinet / Ministry of Finance will likely be to earmark those amounts in later fiscal years. i.e. 2019, 2020, 2021. [NKB] Discussed this with Richard Adey 12 Oct.
 - a. Richard would like NKB to discuss invoicing for 2017-18 funding for payment last quarter of 2018 contingent upon KPIs being met by 31 Oct 2018 re the pilot. He notes it will be very difficult for Oxitec to undertake this given the investment they have put in place 3m+
- 3) On 12 Oct: Advise Oxitec that MRCU is able to purchase Oxitec Cabin this FY 2016-17 for approx. 82k**[NKB]**. Done. Richard not interested in this option at this time NKB/Richard agreed it may unnecessarily complicate matters. Option open for future acquisition.
- 4) On 12 Oct: Advise Oxitec to submit to MRCU/Ministry the **Draft Contract for the West Bay Pilot Operation** with **Key Performance Indicators** which is expected to take place January 1 through to 31st October 2018. **[NKB]** Discussed this with Richard Adey 12 Oct.
 - c. This will comprise the same area as 2016-17 area pilot of West Bay.
 - d. This will include list of the Key Performance Indicators.
 - e. This will go toward satisfying MRCU scientists that the technology works without doubts, according to KPIs, in the Cayman Islands; also toward having the due diligence required for CTC to potentially award future sole supplier contracts to Oxitec.

- 5) On 12 Oct: Advise Oxitec to submit to MRCU/Ministry the Draft Contract for the [TBD] Extended Areas Operation* to commence in 2019, including the decision as to which area/s of Cayman to extend to, contingent upon the West Bay operation KPIs being successful. [NKB] Discussed this with Richard Adey 12 Oct.
 - i. The decision as to extension area/s must be based on dialogue between Oxitec/MRCU scientists as the Oxitec technology will work in conjunction with other MRCU methodology.
 - ii. *Note: formerly referred to as the island-wide roll out.**Note: As the CI 336K will likely already have been invoiced, the remainder will be <u>CI 924,000</u> available to Oxitec potentially if it can be invoiced in 2016-17 FY and expensed in the last quarter 2018 tied in with the Extended Areas Contract.
 - iii. This Extended Areas contract will also show all costs that it will take for the mobilisation for the 2019 Extended Areas Operation bearing in mind this contract will have clauses that ensure it only will come into place *contingent upon success of* the West Bay operation *after* 31st October 2018.
 - iv. If that contract proposal is approved by MCRU/Ministry and Legal, and the go-ahead supported by successful KPIs, the .940m CI can potentially be paid in the last quarter of 2018, for the mobilisation for the Extended Areas Operation which will take place in 2019.

Anticipated available funds for Oxitec in 2018 are: .940m CI now tentatively in the budget for 2018. However MRCU does not wish this to be used for the Pilot repeat.

Anticipated available funds for Oxitec in 2019 are, now tentatively in the budget for 2019: .730m CI

12 October the MRCU Director, met with IO to discuss messaging. In the event the NCC ratification of decision raises queries, message remains: MRCU and Oxitec continue with dialogue. "The deployment of the "Friendly Aedes Aegypti Programme" in West Bay has been completed. MRCU is now in the process of reviewing this deployment, and is in negotiations with Oxitec to agree the way forward. The programme is a public health initiative to combat the Aedes aegypti mosquito which is an invasive species in the Cayman Islands and the primary vector of viruses including Zika, dengue, chikungunya and yellow fever."

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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Marco Giglioli Building 99 Red Gate Road P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Your Ref: M:Ops&Admin

Tel: (345) 949-2557
Fux: (345) 949-8912

CAYMAN ISLANDS GOVERNMENT

MOSQUITO RESEARCH & CONTROL UNIT MEMORANDUM

TO: Chief Officer, Ministry of Health, Environment, and Culture & Housing

COPY: CFO, Ministry of Health, Environment, Culture & Housing

FROM: Acting Director, Mosquito Research & Control Unit

DATE: 23 October, 2017

SUBJECT: Request for the unused Oxitec funding to be applied to MRCU to cover its insecticides shortages

On 31 August, 2017 I wrote a memo to the Ministry outlining the shortfall in the 2016-17 MRCU budget due to two reasons. In synopsis, these were 1) an increase in a product cost, and, that the 2016-17 18-month budget appears to account for three rather than required five island wide (Grand Cayman) larvicide treatments; and 2) the correct number of treatments unfortunately were not transcribed to reflect an 18-month versus the usual 12-month budget cycle.

Regarding the cost: the larviciding chemical used prior to 2016 was dropped from usage and had been the mainstay of MRCU's larviciding operations. That larvicide (Abate) was utilised in one of the five larviciding operations of this 18-month fiscal year. We have had to adopt a much more expensive larvicide (Four Star Bti) in its place to continue our rotation of products. Previously the Abate treatments would cost us approximately US\$600K and that price has now elevated to US\$1.1M per each of those two (Four Star Bti) treatments. The cost of the other larvicide used by MRCU (Natular) has increased somewhat also, and we are relying upon using this for the final two larviciding treatments of the 18-month budget.

Based on MRCU management team's calculations, the department is thus currently in deficit with regards to monies allocated for insecticides. The budget allocation was CI\$3,660,178. MRCU's usage (expensed) to date is CI\$2,926,757. To be expensed (in stock but not used as yet) plus that used but not updated in the system is CI\$1,272,504. Hence there is an apparent deficit of approximately 600K to include smaller ticket items not in the equation.

MRCU's requirements for the remainder of this 2016-17 fiscal year are:

Island-wide larvicide treatment: US\$1.1M

Single brood larvicide to control emergences in between or 'storm broods': US\$400,000

Adulticide: US\$600,000

Ground control products: US\$100,000

Sub-Total: CI\$1,848,000 [US\$2,200,000] required for insecticide purchases

Plus: CI\$600K the inherent deficit

Total: CI\$2,448,000

Concurrently, there was a sum of USD 1.5m allocated during the 2016-17 fiscal year for MRC 15 – Disease Prevention and Control, as a portion of the cost for MRCI to have Oxitec roll out its programme island-wide. Subsequent to this allocation, the Oxitec programme has experienced delays. Accordingly, as a wider Oxitec rollout is now not anticipated until a later fiscal year (anticipated for 2019 or 2020), I respectfully request that this funding be used where possible, to cover the abovementioned insecticide shortages.

MRCU is now extremely low in its insecticide stocks, which will detrimentally affect operations unless the Unit is able to make an urgent overdue insecticide order. The Unit is now in a position of not being able to meet outstanding invoices (as communicated separately to the Chief Financial Officer at the Ministry, along with the outstanding invoices).

Thank you for your consideration of this matter.

Nancy Barnard

Acting Director

From:

Pouchie, Nellie

Sent:

Tuesday, October 24, 2017 11:21 AM

To:

Barnard, Nancy

Cc:

Daley-Miller, Donna-Marie

Subject:

RE: Key points (Oxitec)

Good morning Nancy,

Shout when you are ready.

Regards,

Nellie Pouchie

Chief Financial Officer



P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Tuesday, October 24, 2017 8:32 AM

To: Pouchie, Nellie

Cc: Daley-Miller, Donna-Marie **Subject:** RE: Key points (Oxitec)

Hi Nellie

Thanks – please can I get some further clarification on the below. Are you able to take a phone call at 9:45 a.m. please?

Kind regards

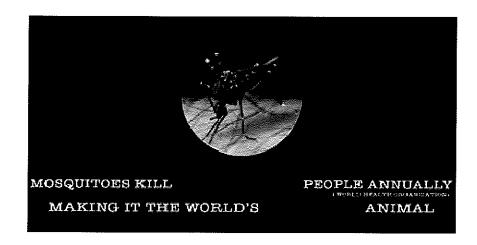
Nancy Barnard
Director (Acting)

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MRCU Website: www.mrcu.ky



From: Pouchie, Nellie

Sent: Monday, October 23, 2017 6:45 PM

To: Barnard, Nancy

Cc: Daley-Miller, Donna-Marie **Subject:** RE: Key points (Oxitec)

Good afternoon Nancy,

With respect to multi-year funding, if the project spans over 2019 and 2020 then funding would have to be secured in 2019 based on the available budget in 2019. We are not able to commit a future unapproved budget period otherwise.

Regards,

Nellie Pouchie

Chief Financial Officer



P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Monday, October 23, 2017 12:11 PM

To: Pouchie, Nellie

Cc: Daley-Miller, Donna-Marie **Subject:** FW: Key points (Oxitec)

Dear Nellie

From:

Barnard, Nancy

Sent:

Thursday, October 26, 2017 12:14 PM

To:

Pouchie, Nellie

Cc:

Daley-Miller, Donna-Marie

Subject:

RE: Overdue invoice (Oxitec)

Hi Nellie

Enjoy your two days well deserved leave!

Re the below – I was explaining to Donna-Marie via telephone today – it seems as though Richard doesn't understand CIG requires documents/proof of expenses incurred to substantiate utterances in his emails. Neither MRCU nor Ministry have, to the best of my knowledge, seen anything which documents proof of expenditure yet. Therefore, I believe the onus remains with Oxitec to provide this back up documentation. I have been very clear with Richard Adey via telephone and e-mail that this documentation is required.

The 2016-17 West Bay Pilot was not meant to cost anything to CIG. It was only with the "deployment extension" May — Dec which was never agreed/signed, that Oxitec state costs were incurred — but as noted — I have never been privy to these costs and can locate nothing on MRCU files. The added difficulty is that they only deployed (against no contract) May to August. No deployment thus far this year since August so unclear why they are invoicing on Sept-Dec "deployment extension".

Let me know if you wish to discuss further.

Kind regards

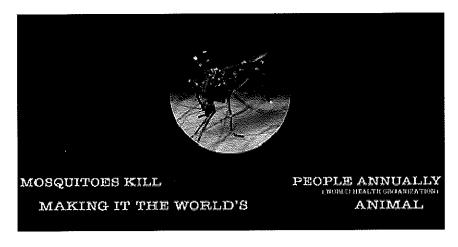
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From: Pouchie, Nellie

Sent: Thursday, October 26, 2017 10:46 AM

To: Richard Adey **Cc:** Barnard, Nancy

Subject: RE: Overdue invoice (Oxitec)

Good morning Richard,

Your email is noted. I will discuss further with MRCU and revert accordingly.

Regards, Nellie

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: Richard Adey < <u>Richard.Adey@oxitec.com</u>>

Date: 10/24/17 5:51 AM (GMT-05:00)

To: "Pouchie, Nellie" < Nellie.Pouchie@gov.ky > Cc: "Barnard, Nancy" < Nancy.Barnard@gov.ky >

Subject: FW: Overdue invoice (Oxitec)

Dear Ms. Pouchie.

In relation to my earlier e mail below, the Implementation Agreement between Oxitec and the Cayman Government covers the operational program in West Bay. The Agreement describes the activities of Oxitec, as provided further below.

Total costs of West Bay from set-up to end 2017 are forecast at US\$1.290m (CI\$1.084m) and we received a separate assurance that MRCU would pay a contribution of US\$400k (CI\$336k) in 2017, for which we are kindly requesting payment.

This sum excludes all amounts spent by Oxitec on production facility preparations for Grand Cayman 2018.

Please let me know if you require additional information. We would appreciate if you could inform us when we can expect payment.

Best regards,

Richard Adey



Richard Adey Regional Manager Caribbean + 43 699 10284232

Set-Up Phase

From:

Barnard, Nancy

Sent:

Friday, November 10, 2017 9:33 AM

To:

Pouchie, Nellie

Cc:

Daley-Miller, Donna-Marie; Powell, Natasha (Lyn); Wheeler, Alan; Fraser.Allen@gov.ky

Subject:

FW: Key points (Oxitec)

Good morning Nellie

Well done at Fin Comm – glad we are through!

Please see the below – Alan and I have a call with Richard this morning, however I am not in the position to discuss the areas highlighted in yellow, with him, as they are currently with you I believe. Our teleconference is at 10am so if there is anything you need from him I am happy to pass it along.

Kind regards

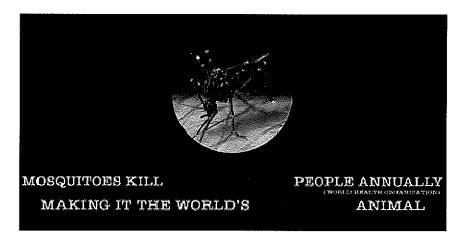
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MRCU Website: www.mrcu.ky



From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Friday, November 10, 2017 9:17 AM

To: Barnard, Nancy

Subject: RE: Key points (Oxitec)

Dear Nancy

Thanks for letting me know that Fraser is no longer in the office. I had planned to give him a call before he left to wish him well, but I can track him down privately.

Regarding our call, from my perspective we need to find agreement on funding/budgets.

Payment of West Bay 2017 invoices is important to Oxitec and we would like to have clarity. I hope you will agree that these past assurances should be kept separate from the way forward.

Oxitec has spent quite heavily and in good faith. A breakdown of our spending is in my e mail of 24th October. It is unfortunately not viable for us to invest further, given the amount already spent, and given the uncertainties around future multi-year funding. I am committed to exploring, but I cannot see a way for continued involvement unless MRCU can make available the funding as follows:

In summary:

West Bay 2017 contribution US\$400k (CI\$336k) West Bay 2018 US\$700k (CI\$588k)

Rollout 2019 Rollout extent depends on budget made available. A small production unit will require around US\$1m (CI\$0.84m) in 2018.

For 2019 rollout, we would need your green light to start work on the factory in July 2018, ahead of all the field data being in at end of October. If there is a reversal of this decision by MRCU between end July and end October we would require incurred factory costs to be borne by MRCU.

I think it makes most sense to have an agreement on West Bay 2018 which is separate and unlinked to an agreement on operational rollout.

I hope we can come to a conclusion on the funding at this stage.

Looking forward to discussing.

Best regards,

Richard



Richard Adey Regional Manager Caribbean + 43 699 10284232

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 09 November 2017 16:16

To: Richard Adey < Richard. Adey@oxitec.com>

Subject: Re: Key points (Oxitec)

From:

Barnard, Nancy

Sent:

Tuesday, November 14, 2017 9:29 PM

To:

Pouchie, Nellie

Cc:

Daley-Miller, Donna-Marie

Subject:

Re: Key points (Oxitec)

Hi Nellie

I have been extremely careful with the handling of the Oxitec matter and my understanding was that you were to provide MRCU some guidance as regards the monies Oxitec is invoicing MRCU for, for 2016-17. That was where we left it after our last meeting with you and Donna-Marie which is the reason why Richard Adey was emailing you to which he wasn't receiving a response, and I didn't want to interject where I was aware that he was in communication with you.

This is the reason why I advised him that the matter of the 200k invoice was currently with you. I hope this helps to clear up any confusion and am happy to elaborate more when we talk. 10 30 tomorrow is fine thanks.

Kind regards

Nancy Barnard
Director (Acting)
Mosquito Research and Control Unit (MRCU)
99 Red Gate Road
P. O. Box 486, Grand Cayman, KY1-1106
345 949-2557 Main ext 4118
345 916-7917 Mobile
nancy.barnard@gov.ky

Via mobile device

On 14 Nov 2017, at 8:13 PM, Pouchie, Nellie < Nellie.Pouchie@gov.ky > wrote:

Good day Nancy,

Today was hectic to say the least.

We do need to discuss where we are at with respect to Oxitec and their submitted invoices. I was of the understanding that these were not proceeding given that they have not been approved for payment, however, Richard Adey's comments are now stating that he has been advised that these are with me and he should be speaking with me directly as to settlement. This is confusing to me.

I am available tomorrow at 10:30. Let me know if his works for you.

Also, will the funding of \$1.260m be utilized for Oxitec for this FY 2016/17? Please advise so that we may be able to proceed on how to secure these funds and/or reallocate accordingly.

Regards,

Nellie Pouchie

Chief Financial Officer

<image004.jpg>

P O Box 110, 5th Floor, Government Administration Building 133 Elgin Avenue, Grand Cayman KY1-9000 CAYMAN ISLANDS

Direct: 345.244.6618

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From: Barnard, Nancy

Sent: Tuesday, November 14, 2017 8:35 AM

To: Pouchie, Nellie

Cc: Daley-Miller, Donna-Marie **Subject:** RE: Key points (Oxitec)

Hi Nellie

I am free anytime today except for 10 to 11:30am. Please let me know what time you'd like to schedule the call – thanks.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky

<image005.png>

From: Pouchie, Nellie

Sent: Friday, November 10, 2017 5:13 PM

To: Barnard, Nancy

Cc: Daley-Miller, Donna-Marie; Powell, Natasha (Lyn); Wheeler, Alan; Allen, Fraser

Subject: RE: Key points (Oxitec)

Good afternoon Nancy,

My apologies for the late reply. We will need to discuss way forward on this matter please. Let's do that on Tuesday sometime.

Have a good weekend!

Regards,

Nellie Pouchie

Chief Financial Officer

From:

Barnard, Nancy

Sent: To: Wednesday, November 15, 2017 4:34 PM Ahearn, Jennifer; Powell, Natasha (Lyn)

Subject:

FW: Dr. John Norris - Antibiotic resistance. Looking for antibiograms

FYI

Kind regards

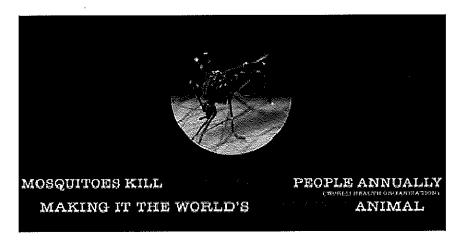
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MRCU Website: www.mrcu.ky



From: Barnard, Nancy

Sent: Tuesday, November 14, 2017 4:26 PM **To:** Richard Adey (Richard.Adey@oxitec.com)

Cc: Fraser.Allen@gov.ky; MacGillivray, Catherine; Renaud Lacroix

Subject: RE: Dr. John Norris - Antibiotic resistance. Looking for antibiograms

Dear Richard

Dr Norris is getting a tour of MRCU by Fraser on Friday at 10am – upon his request. Catherine will also join in.

You should advise your team leader in Renaud's absence, however as I mentioned to Catherine – this is a tour of MRCU **not** a tour/meet and greet of Oxitec staff members nor Oxitec premises. I just wanted you to have the "heads up".

Kind regards

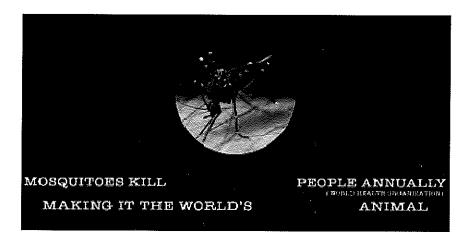
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MRCU Website: www.mrcu.ky



From: MacGillivray, Catherine

Sent: Tuesday, November 14, 2017 4:10 PM

To: Richard Adey

Cc: Ahearn, Jennifer; Powell, Natasha (Lyn); Flynn, Janett; Barnard, Nancy; Wheeler, Alan; Renaud Lacroix; Allen, Fraser;

Williams, Samuel

Subject: RE: Dr. John Norris - Antibiotic resistance. Looking for antibiograms

Hi Richard, yes that is the statement which was approved by all parties and sent to the Compass a couple of weeks ago.

Is the second paragraph (which I have highlighted in red below) for our information only, or do you wish to add this from Oxitec's perspective?

Kind regards,

Catherine MacGillivray
Information Officer

Government Administration Building

133 Elgin Avenue | Grand Cayman KY1-9000 | Cayman Islands

Email: Catherine MacGillivray@gov.ky

Direct: (345) 244-1773 | Cell: (345) 926-6110 | Fax: (345) 949-5936 | www.gis.ky



From:

Barnard, Nancy

Sent:

Tuesday, December 05, 2017 8:44 AM

To:

Ahearn, Jennifer

Cc:

Pouchie, Nellie

Subject:

FW: Draft agreement West Bay 2018

Morning Jennifer

Please see below.

Are you able to meet with Richard on either Thursday or Friday, per his request?

We are underway with the draft agreement for 2018 (which we have to send up to you and onto Legal before finalising) – this is what Richard is referring to re progress with the future.

(Nellie – has there been any progress with guidance from Legal on the two invoices?)

Kind regards

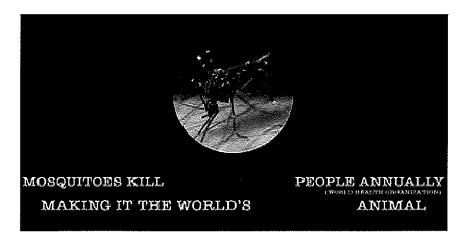
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MRCU Website: www.mrcu.ky



From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Monday, December 04, 2017 3:42 PM

To: Barnard, Nancy

Subject: RE: Draft agreement West Bay 2018

Nancy

I have taken this up with Jennifer. Oxitec really is owed a response on this and we do not want to chase around any further. I think you and I both need to know what is happening on those payments before we can make any progress on the future.

I am looking at the possibility of coming to Cayman on Thursday and Friday this week. This is the only chance for me before December 18th which I feel sure is too late.

If we receive a clear decision today on West Bay 2017 payments, and if Jennifer would like to meet, then I probably just have time to make the travel arrangements needed.

Best regards

Richard

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 04 December 2017 20:08

To: Richard Adey < Richard.Adey@oxitec.com > **Subject:** Re: Draft agreement West Bay 2018

Hi Richard

Please can you follow up directly with CFO Pouchie on that matter - as I know you have been in communication on that.

Many thanks.

Kind regards

Nancy Barnard
Director (Acting)
Mosquito Research and Control Unit (MRCU)
99 Red Gate Road
P. O. Box 486, Grand Cayman, KY1-1106
345 949-2557 Main ext 4118
345 916-7917 Mobile
nancy.barnard@gov.ky

Via mobile device

On 4 Dec 2017, at 12:35 PM, Richard Adey < Richard.Adey@oxitec.com > wrote:

Thanks Nancy,

I will review this today.

On another note, are you able to give me clarity on when your lawyers will have taken a decision on payment of 2017?

Thanks

Barnard, Nancy

Sent:

Tuesday, December 05, 2017 10:51 AM

To:

Ahearn, Jennifer; Pouchie, Nellie

Subject:

FW: Draft agreement West Bay 2018 - URGENT

Importance:

High

Dear Jennifer, Nellie – see another email below from Richard. Grateful for how you would like for me to respond.

Many thanks.

Kind regards

Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky

From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Tuesday, December 05, 2017 10:32 AM

To: Barnard, Nancy

Subject: RE: Draft agreement West Bay 2018

Dear Nancy

A decision on the 2017 payments is a critical factor for us regarding our further involvement. Coming to Cayman to learn that this decision is still not taken or is negative would be highly unfortunate. I feel sure that legal department only advise the decision taker, but do not actually take the decision. I would again like to suggest that decision can now be taken and informed to us so that we know where we stand.

I would need to travel early tomorrow to be available for Thursday and Friday, and would have to leave Cayman at the weekend. I would really appreciate to meet Jennifer as we missed each other last time.

I don't think that there is much of real substance for discussion with Alan as the technical aspects of the collaboration are now properly laid out and broadly aligned. But happy to meet with him.

Looking forward to hearing from you on the above.

Best regards,

Richard

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 05 December 2017 14:48

To: Richard Adey < Richard.Adey@oxitec.com > **Subject:** RE: Draft agreement West Bay 2018

Dear Richard

Alan will be back in office this Friday so a trip would likely be worth it from the perspective of future planning. Given he is flying out from Trinidad on Thursday it may be good to plan to be here Monday also to allow some extra time in case of travel issues.

In the meantime, I have asked Jennifer re a meeting, and Nellie re guidance from Legal for the invoices.

Kind regards

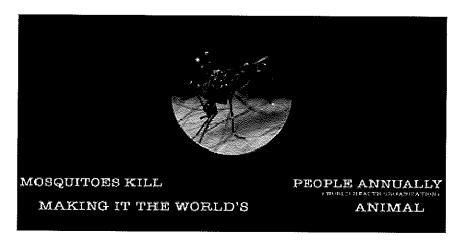
Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: ! (345) 949-2557 | Direct: ! (345) 244-4118 | Mobile: ! (345) 916-7917 Fax: ! (345) 949-8912

MRCU Website: www.mrcu.ky



From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Monday, December 04, 2017 3:42 PM

To: Barnard, Nancy

Subject: RE: Draft agreement West Bay 2018

Nancy

I have taken this up with Jennifer. Oxitec really is owed a response on this and we do not want to chase around any further. I think you and I both need to know what is happening on those payments before we can make any progress on the future.

I am looking at the possibility of coming to Cayman on Thursday and Friday this week. This is the only chance for me before December 18th which I feel sure is too late.

If we receive a clear decision today on West Bay 2017 payments, and if Jennifer would like to meet, then I probably just have time to make the travel arrangements needed.

From:

Barnard, Nancy

Sent:

Wednesday, December 06, 2017 8:45 AM

To:

Pouchie, Nellie

Cc:

Ahearn, Jennifer; Richard Adey (Richard.Adey@oxitec.com)

Subject:

FW: Overdue invoice (Oxitec)

Attachments:

2017-007 Cayman (006).pdf; 2017-016Cayman.pdf

Importance:

High

Good morning Nellie

As discussed with you yesterday, the Unit agrees that the work for the first invoice covering May to August 2017 (2017-007 attached) was completed. Although there was no signed contract, we understood Oxitec to have acted in good faith, and the Oxitec mosquitoes were deployed up to August this year. Accordingly, from the Unit's perspective, that invoice is fine to be processed.

I have written Richard (copied here) once again to ask him to kindly provide some more information on the second invoice covering September to December 2017. I had understood from Dr Wheeler and Fraser that the invoice was labelled "deployment extension" but that Oxitec mosquitoes were/are not actually released during this period. I have asked Richard for more background towards the second invoice such as a breakdown as to what the Unit is being invoiced for during that period.

Kind regards

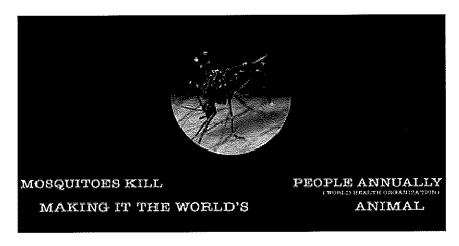
Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

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Office: | (345) 949-2557 | Direct: | (345) 244-4||8 | Mobile: | (345) 916-7917 Fax: | (345) 949-8912

MRCU Website: www.mrcu.ky



From: Barnard, Nancy

Sent: Monday, October 16, 2017 8:51 AM **To:** Richard Adey (Richard Adey@oxitec.com)

Cc: Pouchie, Nellie; Whitaker, Ligia **Subject:** FW: Overdue invoice (Oxitec)

Dear Richard

Can you please submit the supporting documentation for these invoices – what work was done over each time period for each invoice by Oxitec, with expenditure included.

You note the agreement dated 30 April 2017. As we discussed on our Friday telephone call, there was no signed agreement to this deployment extension by either party.

I understand the deployment continuation did proceed notwithstanding the lack of a signed agreement, from May to August 2017 at which point (end of August) the deployment of the GM mosquitoes into the field ceased. Accordingly, the Ministry / MRCU will have to gain a better understanding via supporting documentation and costs, for both invoices, in particular the second invoice as it is my understanding that there has been no deployment since the end of August.

Many thanks.

Kind regards

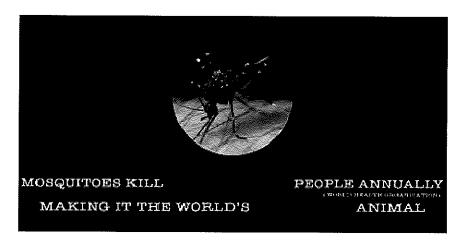
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MRCU Website: www.mrcu.ky



From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Monday, October 16, 2017 5:31 AM

To: Pouchie, Nellie **Cc:** Barnard, Nancy

Subject: FW: Overdue invoice (Oxitec)

Dear Ms. Pouchie,

I have been asked to make contact by Nancy Barnard regarding invoice payments. The two attached invoices relate to the commitments Oxitec received from HECH/MRCU.

Please let me know if and how I can help further in providing any information. I would be happy to call you.

I trust these payments can be settled in short.

Thank you.

Sincerely,

Richard Adey



Richard Adey Regional Manager Caribbean + 43 699 10284232

From: Whitaker, Ligia [mailto:Ligia.Whitaker2@gov.ky]

Sent: 11 October 2017 16:48

To: Barnard, Nancy < Nancy.Barnard@gov.ky >

Cc: Richard Adey <Richard.Adey@oxitec.com>; Wheeler, Alan <Alan.Wheeler@gov.ky>; Vicki Reiber

< Vicki. Reiber@oxitec.com >

Subject: RE: Overdue invoice (Oxitec)

Noted, thank you.

Ligia Whitaker

Finance and Administrative Manager

MRCU 99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4116 | Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky



From: Barnard, Nancy

Sent: Wednesday, October 11, 2017 9:47 AM

To: Whitaker, Ligia

Cc: Richard Adey (Richard.Adey@oxitec.com); Wheeler, Alan; Vicki.Reiber@oxitec.com

Subject: FW: Overdue invoice (Oxitec)

Dear Ligia

There is no signed agreement for this invoice to be paid against.

I am meeting with CFO Pouchie and others today to discuss, after which I will be having a telephone meeting tomorrow, Thursday, with Richard (Adey) to discuss this invoice amongst several other Oxitec matters.

Kind regards

Nancy Barnard

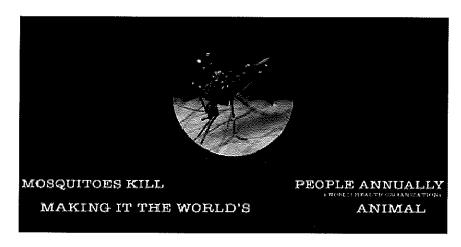
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MRCU Website: www.mrcu.ky



From: Whitaker, Ligia

Sent: Wednesday, October 11, 2017 9:37 AM

To: Wheeler, Alan; Barnard, Nancy **Subject:** FW: Overdue invoice

Hi guys,

This is the first time I am seeing an invoice.

I didn't know we were paying invoices for Oxitec.

Ligia Whitaker

Finance and Administrative Manager

MRCU 99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4116 | Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky



From: Vicki Reiber [mailto:Vicki.Reiber@oxitec.com]

Sent: Wednesday, October 11, 2017 8:55 AM

To: Whitaker, Ligia

Subject: Overdue invoice

Dear Sirs,

Re: Invoice No. 2017-007 Date: 29th June 2017

Outstanding balance: CI\$168,000.00

Our records show that the above amount is overdue and I would be grateful to receive your payment by return please. I attach a copy of the invoice for your records.

Our banking details can be found on the attached invoice.

If you have any queries please do not hesitate to contact me.

Kind regards

Vicki Reiber
Finance Assistant
Oxitec Limited
71 Innovation Drive
Milton Park
Abingdon
Oxon
OX14 4RQ

Tel: +44 1865 959299 www.oxitec.com Twitter: @oxitec

Facebook www.facebook.com/oxitec

Website www.oxitec.com



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Finance Department
The Mosquito Research and Control Unit
PO Box 486
Grand Cayman KY1-1106
The Cayman Islands
KY1-9000 Cayman Islands

Invoice date: 29th June 2017 Invoice Number: 2017/006 Terms: 30 days from invoice date

Implementation Agreement

First payment under agreement dated 30th April 2017 "Deployment extension"

CI\$168,000.00

Total: CI\$168,000.00

Bank details:

Account name:

Oxitec Ltd

Bank name:

Santander UK plc

Bank address:

Santander

Customer Service Centre

Bootle, Merseyside, L30 4GB

UK

Account number:

00051708

Sort code:

09-07-15

IBAN:

GB18ABBY09071500051708

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INVOICE

Finance Department
The Mosquito Research and Control Unit
PO Box 486
Grand Cayman KY1-1106
The Cayman Islands
KY1-9000 Cayman Islands

Invoice date: 12th October 2017

Invoice Number: 2017/016

Terms: In full by 30th November 2017

Implementation Agreement

Second payment under agreement dated 30th April 2017 "Deployment extension"

CI\$168,000.00

Total: CI\$168,000.00

Bank details:

Account name:

Oxitec Ltd

Bank name:

Santander UK plc

Bank address:

Santander

Customer Service Centre

Bootle, Merseyside, L30 4GB

UK

Account number:

00051708

Sort code:

09-07-15

IBAN:

GB18ABBY09071500051708

Oxitec Cayman Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands

Email: info@oxitec.com Web: www.oxitec.com

From:

Barnard, Nancy

Sent:

Wednesday, December 06, 2017 12:54 PM

To: Cc: Ahearn, Jennifer Pouchie, Nellie

Subject:

FW: Draft agreement West Bay 2018 URGENT

Importance:

High

Dear Jennifer

Re: the below, I would appreciate being able to discuss with you today if at all possible.

We now have two working days to negotiate, based on Richard's directive from his team at Oxitec.

Kind regards

Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky

From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Wednesday, December 06, 2017 12:44 PM

To: Barnard, Nancy

Subject: FW: Draft agreement West Bay 2018

Dear Nancy

Oxitec West Bay 2018 costs based on our existing headcount.

Best regards

Richard

Oxitec West Bay 2018	
	CI\$
Production facility and equipment	68
Staff	375
Travel and subsistence	14
Consumables	70
Legal and outsourcing	24
Local transport	5

Overhead and contingency

32

Total

588

From: Richard Adey

Sent: 06 December 2017 17:52

To: 'Barnard, Nancy' < Nancy.Barnard@gov.ky > Subject: RE: Draft agreement West Bay 2018

Dear Nancy,

Thanks for your e mail. I will send you a breakdown of 2018 costs in short.

I do very much appreciate the sincerity of your efforts, but time has effectively run out and we have not made needed progress on agreement of terms.

There are two days before the Cayman chapter is finally closed at a board meeting, although the decision is supported. I am open to receiving an alternative draft of the contract but it is very much at the eleventh hour. I would also request a decision on the second payment of 2017 within this timeframe, and will send the information you have requested to support that.

Yes of course I expect that you need to keep Alan in the loop and seek his opinion but I am unwilling to have him deal with me directly at this stage.

With best regards

Richard

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 06 December 2017 16:32

To: Richard Adey < Richard.Adey@oxitec.com > **Subject:** RE: Draft agreement West Bay 2018

Dear Richard

I would like some clarity on your last sentences – are you saying we are unable to negotiate further? Or are you saying that we can negotiate further if we look at including costs (a fiscal payment to Oxitec in 2018)? As the latter is what I am prepared to do, but I would need to know you are willing to keep negotiating with me on this. I sincerely want to make this happen.

The rough breakdown of costs would be extremely helpful in being able to justify anything fiscal aligned with the 2018 agreement. I believe all I have to hand is the overall 588k but not a breakdown of those costs.

We've been through the factory idea and I believe we all came to an agreement that the Unit would rather delay this until we are certain we wish to expand the technology use in the future years.

Alan will have to be in the loop going forward, as I am being extremely careful to ensure that he and I are on the same page (you will recall a lot of the problems from the last years stemmed from insufficient communication between the

From:

Barnard, Nancy

Sent:

Wednesday, December 06, 2017 1:38 PM

To:

Pouchie, Nellie

Cc:

Daley-Miller, Donna-Marie; Ahearn, Jennifer; Wheeler, Alan

Subject:

FW: 2017 Invoices (Invoice #2 from Oxitec - information)

Importance:

High

Dear CFO

Please see below.

Alan and I will review same and advise whether this is accurate from the Unit's perspective. Let me know if you need anything further from Richard in the meantime.

Kind regards

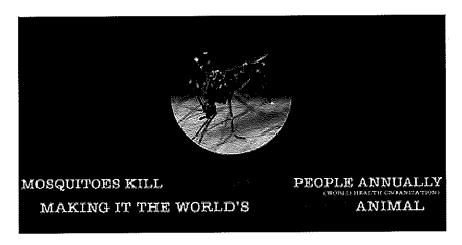
Nancy Barnard
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From: Richard Adey [mailto:Richard.Adey@oxitec.com]

Sent: Wednesday, December 06, 2017 1:35 PM

To: Barnard, Nancy **Subject:** 2017 Invoices

Dear Nancy,

2017 second invoice

The following activities are relevant and undertaken for the period September 1st to December 31st.

- Monitoring of mosquito populations in Comparator and Treatment areas in West Bay, including ovitraping and fluorescence screening (field and lab activities)
- Continual improvement of rearing efficiency to enable increased release rates.
- Review and upgrade of QA systems including updating SOPs relating to production, cleaning, data recording, egg shipment, etc
- Communication/media inputs with GIS
- Planning West Bay 2018

Originally, mosquito releases were also foreseen within the period. Releases did not take place due to some issues from both Oxitec and from Government. Government did not sign a contract extension covering this period and so we did not feel comfortable with continuing releases. We nevertheless have felt compelled to keep the local team in place at full cost in order to enable the continuation of the collaboration into 2018.

I look forward to hearing from you regarding payment of this invoice.

Best regards

Richard



Richard Adey Regional Manager Caribbean + 43 699 10284232

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 06 December 2017 00:13

To: Richard Adey < Richard.Adey@oxitec.com > **Subject:** RE: Draft agreement West Bay 2018

Dear Richard

I have discussed with CO and CFO today.

The payment for the first invoice covering May to August 2017 shall be in process shortly. Although there was no signed contract, we understood Oxitec to have acted in good faith, and that Oxitec mosquitoes' deployment did take place from May to August 2017. I believe your finance team contacted ours with payment instructions a while ago – if our finance team requires more information to make the payment process safely, they will be in touch.

Can you please provide some more information on the second invoice covering September to December 2017. I understood from Dr Wheeler and Fraser that the invoice was labelled "deployment extension" but that Oxitec mosquitoes were/are not actually released during this period. There were of course, other matters to take into

From:

Barnard, Nancy

Sent:

Thursday, December 07, 2017 3:03 PM

To: Cc: Pouchie, Nellie Ahearn, Jennifer

Subject:

RE: FW: 2017 Invoices (Invoice #2 from Oxitec - information)

Attachments:

2017-016Cayman.pdf; Unsigned First Amendment to Implementation Agreement Oxitec

- 30 April 2017.pdf

Importance:

High

Dear Nellie

I have now had the opportunity to review the second invoice from Oxitec for 2016-17 FY. The invoice (attached for ease of reference), for CI\$168,000.00, was submitted to the Unit on 12th October, 2017 and was noted as being the "Second payment under agreement (First Amendment to Implementation Agreement) dated 30th April 2017 Deployment Extension." (This document is also attached for ease of reference).

Having received input also from past Research Officer Fraser Allen and also Dr Wheeler, I would be grateful if you can note the following concerns which the Unit has with this particular invoice.

- 1) The agreement for the extension was not signed by either party.
- 2) The Unit acknowledges that Oxitec mosquitoes' deployment did take place from May to August 2017. At that time, until to-date, there has been no further deployment (from September to December 2017).

As the main spirit of the (unsigned) agreement was to extend the period of the deployment for another eight months, and the extension only lasted for four months, I asked Oxitec to provide information to support payment for this invoice. If the Unit was not receiving the special mosquito strain in the field, what were we being invoiced for?

The below from Richard Adey has the Unit's concerns noted beneath Oxitec's response.

- a) Oxitec: Monitoring of mosquito populations in Comparator and Treatment areas in West Bay, including ovitraping and fluorescence screening (field and lab activities).

 MRCU did not request this. MRCU does not have access to this data. Data is of no value to MRCU unless extension is agreed. Actually, the initial 2016-17 contract stated that Oxitec will be doing this (no charge) in the post-deployment phase for up to 12 months.
- b) Oxitec: Continual improvement of rearing efficiency to enable increased release rates.

 MRCU: The Unit should not be expected to pay for Oxitec to optimise their rearing techniques. This improvement is clearly something that Oxitec as the service provider is responsible for.
 - c) Oxitec: Review and upgrade of QA systems including updating SOPs relating to production, cleaning, data recording, egg shipment, etc.
 MRCU: As with b) – this is Oxitec's responsibility.
- d) Oxitec: Communication/media inputs with GIS.

 MRCU: GIS is a government agency and the expense of the work of the Information Officer has actually been borne by the CIG.

e) Oxitec: Planning West Bay 2018.
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The latter part of 2017 has allowed Oxitec to optimise their techniques which is of a benefit to the company, and needed to happen for the Unit to continue with the company with confidence. Planning, QA, communications etc. are part of a collaborative effort and shouldn't be invoiced to the Unit. Various reasons including production issues and mould in the MRM module, in addition to the Unit's concerns regarding readiness of the project to advance, unfortunately led to a shut-down of releases for the duration of this invoice period (September to December) for which the Unit is being invoiced. In addition, I can appreciate that the ongoing dialogue between the Unit and Oxitec meant that there were no assurances on either side as to future agreements. This may have caused uncertainty, however, to the extent we had even an unsigned agreement amendment, the company should have continued deployment. Or, not invoice the Unit for it.

I can appreciate that it would be more costly for Oxitec to have packed up their business and then restart at such a time as the Unit and the company arrive at a new agreement. This, however, was a risk Oxitec should have been prepared to bear.

I appreciate your guidance with this matter.

Kind regards

Nancy Barnard Director (Acting)

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On Wed, Dec 6, 2017 at 12:38 PM, Barnard, Nancy < Nancy.Barnard@gov.ky > wrote: Dear CFO

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Alan and I will review same and advise whether this is accurate from the Unit's perspective. Let me know if you need anything further from Richard in the meantime.

Kind regards

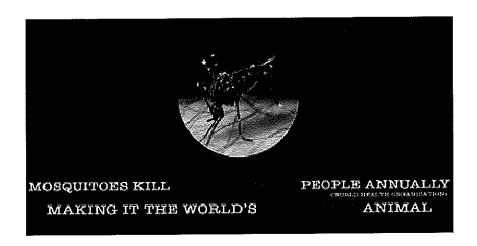
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Sent: Wednesday, December 06, 2017 1:35 PM

To: Barnard, Nancy **Subject:** 2017 Invoices

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2017 second invoice

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Can you please provide some more information on the second invoice covering September to December 2017. I understood from Dr Wheeler and Fraser that the invoice was labelled "deployment extension" but that Oxitec mosquitoes were/are not actually released during this period. There were of course, other matters to take into consideration such as the attempt at finalising agreement extensions and then forming new agreements and so on. What would be helpful for the second invoice is a breakdown as to what the Unit is being invoiced for during that period.

Many thanks.

Kind regards

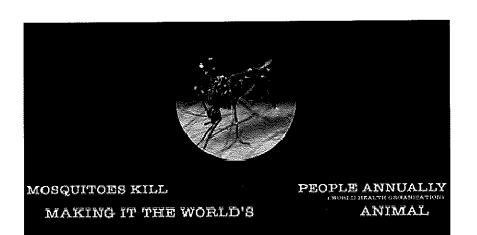
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From:

Barnard, Nancy

Sent:

Friday, January 12, 2018 11:54 AM

To: Cc: Pouchie, Nellie Ahearn, Jennifer

Subject:

FW: FW: 2017 Invoices (Invoice #2 from Oxitec - information)

Attachments:

2017-016Cayman.pdf; Unsigned First Amendment to Implementation Agreement Oxitec

- 30 April 2017.pdf

Importance:

High

Tracking:

Recipient

Recall

Pouchie, Nellie

Succeeded: 1/23/2018 2:47 PM

Ahearn, Jennifer

Dear Nellie

Alan and I had a long and positive conference call with Oxitec's new team today, along with their scientist here in Cayman (Renaud).

One of the matters under discussion were the two invoices submitted by Oxitec in 2016-17. Kindly note that with invoice #2 (about which I wrote to you my concerns below/attached) Oxitec is now in agreement that the work (deployment) was not done in Sept-Dec 2017 and the therefore invoice #2 will be dropped. I will seek to get the retraction of invoice #2 in writing from Oxitec and send through to the Ministry.

Kind regards

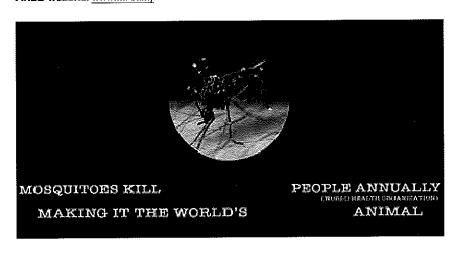
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Importance: High

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Kind regards

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Mosquito Research & Control Unit (MRCU)

99 Red Gate Rd. P.O. Box 486 Grand Cayman KY1-1106 CAYMAN ISLANDS

Office: 1 (345) 949-2557 | Direct: 1 (345) 244-4118 | Mobile: 1 (345) 916-7917 Fax: 1 (345) 949-8912

MRCU Website: www.mrcu.ky

On Wed, Dec 6, 2017 at 12:38 PM, Barnard, Nancy < Nancy.Barnard@gov.ky > wrote: Dear CFO

Please see below.

Alan and I will review same and advise whether this is accurate from the Unit's perspective. Let me know if you need anything further from Richard in the meantime.

Kind regards

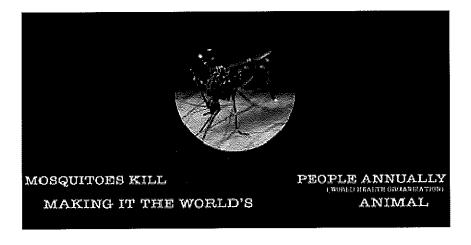
Nancy Barnard Director (Acting)

Mosquito Research & Control Unit (MRCU)

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From: Richard Adey [mailto: Richard. Adey@oxitec.com]

Sent: Wednesday, December 06, 2017 1:35 PM

To: Barnard, Nancy **Subject:** 2017 Invoices

Dear Nancy,

2017 second invoice

The following activities are relevant and undertaken for the period September 1st to December 31st.

- Monitoring of mosquito populations in Comparator and Treatment areas in West Bay, including ovitraping and fluorescence screening (field and lab activities)
- Continual improvement of rearing efficiency to enable increased release rates.
- Review and upgrade of QA systems including updating SOPs relating to production, cleaning, data recording, egg shipment, etc
- Communication/media inputs with GIS
- Planning West Bay 2018

Originally, mosquito releases were also foreseen within the period. Releases did not take place due to some issues from both Oxitec and from Government. Government did not sign a contract extension covering this period and so we did not feel comfortable with continuing releases. We nevertheless have felt compelled to keep the local team in place at full cost in order to enable the continuation of the collaboration into 2018.

I look forward to hearing from you regarding payment of this invoice.

Best regards

Richard



Richard Adey Regional Manager Caribbean + 43 699 10284232

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: 06 December 2017 00:13

To: Richard Adey < Richard.Adey@oxitec.com > Subject: RE: Draft agreement West Bay 2018

Dear Richard

I have discussed with CO and CFO today.

The payment for the first invoice covering May to August 2017 shall be in process shortly. Although there was no signed contract, we understood Oxitec to have acted in good faith, and that Oxitec mosquitoes' deployment did take place from May to August 2017. I believe your finance team contacted ours with payment instructions a while ago — if our finance team requires more information to make the payment process safely, they will be in touch.

Can you please provide some more information on the second invoice covering September to December 2017. I understood from Dr Wheeler and Fraser that the invoice was labelled "deployment extension" but that Oxitec mosquitoes were/are not actually released during this period. There were of course, other matters to take into consideration such as the attempt at finalising agreement extensions and then forming new agreements and so on. What would be helpful for the second invoice is a breakdown as to what the Unit is being invoiced for during that period.

Many thanks.

Kind regards

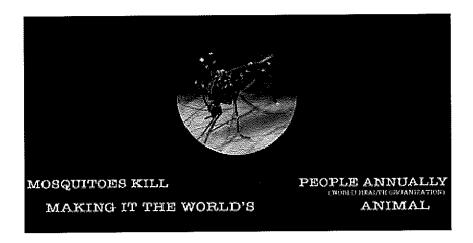
Nancy Barnard Director (Acting)

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Finance Department
The Mosquito Research and Control Unit
PO Box 486
Grand Cayman KY1-1106
The Cayman Islands
KY1-9000 Cayman Islands

Invoice date: 12th October 2017

Invoice Number: 2017/016

Terms: In full by 30th November 2017

Implementation Agreement

Second payment under agreement dated 30th April 2017 "Deployment extension"

CI\$168,000.00

Total: CI\$168,000.00

Bank details:

Account name:

Oxitec Ltd

Bank name:

Santander UK plc

Bank address:

Santander

Customer Service Centre

Bootle,

Merseyside,

L30 4GB

UK

Account number:

00051708

Sort code:

09-07-15

IBAN:

GB18ABBY09071500051708

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(never signed by either party)

FIRST AMENDMENT TO IMPLEMENTATION AGREEMENT

THIS FIRST AMENDMENT is effective as of 30th April 2017, and serves to amend the Implementation Agreement entered into by and between Oxitec Cayman Limited ("Oxitec") and The Cayman Islands Government ("The Government") on 18 April 2016 (the "Agreement"). Capitalized terms used herein and not defined shall have the meaning ascribed to them in the Agreement.

WHEREAS, pursuant to Clause 14.1 of the Agreement, the parties hereby mutually agree to amend the Agreement as set forth herein.

1. In order to accommodate the Deployment Extension, as set forth below, the Term is amended and restated as follows:

The period from the Commencement Date until the end of the Implementation Plan (which has a date of 28 December 2018) unless terminated prior to this date in accordance with clause 11.

2. Deployment Phase is amended and restated as follows:

Deployment Phase is extended by eight (8) months ('Deployment Extension'), now set as the period of seventeen (17) months from the first open release of the Strains as identified in the Implementation Plan, the date of commencement of which was 28 July 2016. As a result of the Deployment Extension, The Government shall pay Oxitec a total of three hundred and thirty six thousand Cayman Dollars (CI\$336,000), payable in two (2) equal payments in the amount of CI\$168,000 each on 30th June 2017 and 31st December 2017.

3. Territory is amended and restated as follows:

An area of Grand Cayman as agreed between the Parties and set out in Schedule 2. The Territory may be expanded during the Deployment Phase in a writing signed by duly authorized representatives of each Party.

As set forth in Clause 4.1, written notice is hereby provided that the **Steering** Group is amended and restated to reflect the following members:

Mr. Richard Adey (Oxitec), Dr. Andrew McKemey (Oxitec), Mr. Geoffrey Tutner (Oxitec), Ms. Nancy Barnard (The Government), Dr. Alan Wheeler (The Government) and Mr. Fraser Allen (The Government).

4. Clause 6.7 is amended and restated as follows:

For the avoidance of doubt the Mass Rearing Module ('MRM') supplied by Oxitec in accordance with clause 6.1 shall at all times remain the property of

Oxitec. From the completion of the Deployment Phase until 31/01/2019, the Government shall evaluate whether it wishes to retain the MRM; if so, it shall purchase the MRM from Oxitec at a cost of eighty four thousand Cayman Dollars (CI\$84,000) plus any taxes that might be payable on this sum. If The Government has not purchased the MRM on or before 31/01/2019, Oxitec shall be entitled to remove or relocate the MRM free of all charges, liens or rents of any kind.

5. All other terms and conditions of the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this First Amendment to Implementation Agreement by their authorized representatives.

The Cayman Islands Government
By:
Name:
Title:
Date:

From:

Barnard, Nancy

Sent:

Thursday, February 15, 2018 9:56 AM

To:

Ahearn, Jennifer; Powell, Natasha (Lyn)

Cc:

Roberts, Sharon; MacGillivray, Catherine; Wheeler, Alan

Subject:

RE: Oxitec Aedes GM Project at Cayman Islands (Rede Brasil Atual)

Dear Jennifer, Natasha:

Many thanks. I have discussed with Alan and Catherine and we would like to revert with the response as approved for the second query and steer clear of the first query. The reason is because although the 62% rate was quoted in the MRCU report mid-2017, that wasn't for the overall end of contract suppression rate (the scientists at MRCU/Oxitec are still having dialogue on the latter). Accordingly, it may be better to focus on the second response only.

Kind regards

Nancy Barnard Director (Acting)

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MRCU Website: www.mrcu.ky

From: Ahearn, Jennifer

Sent: Thursday, February 15, 2018 9:19 AM

To: Powell, Natasha (Lyn)

Cc: Barnard, Nancy; Roberts, Sharon; MacGillivray, Catherine

Subject: Re: Oxitec Aedes GM Project at Cayman Islands (Rede Brasil Atual)

Good morning

Thanks for this.

This is fine to go out, given it is based on info already in the public domain.

Kind regards

Jennifer

Sent from my iPhone

On Feb 15, 2018, at 9:16 AM, Powell, Natasha (Lyn) < Natasha. Powell@gov.ky > wrote:

CO is in meetings and it appears as if she has a full day.

I am including her in this reply and will print a copy for the mail folder in case she misses it.

Natasha Q. Powell

Policy Advisor (Culture & Environmental Health)

Desk extension: 345-244-2369 | Mobile: 345-936-2369 |

<image003.jpg>

From: Barnard, Nancy

Sent: Thursday, February 15, 2018 9:14 AM

To: Powell, Natasha (Lyn)

Subject: Oxitec Aedes GM Project at Cayman Islands (Rede Brasil Atual)

Importance: High

Hi Natasha

Please ask CO if she is happy with us responding with the below. (Note – the answer to Q1 I have taken from the June 2017 MRCU report in the public domain, while Q2 response is similar to the local response to Cayman Compass queries this week. Oxitec has signed off on the below.

What are the results that you have been obtained? Are they good?

The outcome is within expectations according to previous field suppression observed in the Cayman Islands, Brazil and Panama with substantial (62%) suppression observed within 4 to 6 months following the start of releases at an adequate rate.

Is the Cayman goverment planning to continue the project? Why?

The 2016-17 project has now been concluded. MRCU is currently in the final stages of talks with Oxitec regarding the "Friendly Aedes aegypti Programme" for 2018. The 2018 programme will give MRCU scientists time to assess a new integrated vector management (IVM) approach with Oxitec in the same area of West Bay in 2018 with a view to the potential future use of Oxitec within an integrated control strategy for the management of Aedes aegypti in the Cayman Islands.

Many thanks.

Kind regards

Nancy Barnard
Director (Acting)

Mosquito Research & Control Unit (MRCU)

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MRCU Website: www.mrcu.ky

From: Barnard, Nancy [mailto:Nancy.Barnard@gov.ky]

Sent: Friday, February 09, 2018 5:10 PM

To: Cida Oliveira

Cc: Ahearn, Jennifer; Powell, Natasha (Lyn)

Subject: Re: Oxitec Aedes GM Project at Cayman Islands

Dear Ms Oliveira

Thank you for your email - I will revert early next week to you.

Kind regards

Nancy Barnard
Director (Acting)
Mosquito Research and Control Unit (MRCU)
99 Red Gate Road
P. O. Box 486, Grand Cayman, KY1-1106
345 949-2557 Main ext 4118
345 916-7917 Mobile
nancy.barnard@gov.ky

Via mobile device

On 9 Feb 2018, at 4:03 PM, Cida Oliveira < cidadeoliveira 21@gmail.com > wrote:

Dears,

I am a brazilian journalist and work at Rede Brasil Atual (www.redebrasilatual.com.br).

Here, we have been reported news about Oxitec Aedes GM. The company have been testing their mosquitoes in cities like Piracicaba, in São Paulo state and Juiz de Fora, in Minas Gerais.

And will do tests in Indaiatuba next april.

I want know very much what is the situation about Oxitec Aedes GM Project at Cayman.

What are the results that you have been obtained? Are they good? Is the Cayman government planning to continue the project? Why?

Thank you very much, Cida de Oliveira Rede Brasil Atual www.redebrasilatual.com.br 5511-3295-2802

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