Terry Johnson

From: Erin_Fernandez@fws.gov
Sent: Wednesday, August 29, 2007 6:08 PM
To: Bill Vanpelt
Subject: Draft Jaguar Monitoring and Surveys Proposals
Attachments: Jaguar Collaring and Monitoring Proposal 10 yr DRAFT.doc

Hi Bill,

I was asked today to prepare brief proposals for jaguar monitoring and surveys in the borderlands region for our Washington Office. I have to submit them immediately to Sherry/Steve and then our Washington Office, so I don't think you will have time to review them before they're submitted. However, I'd appreciate it if you could review them and let me know if you see any substantive errors (especially in the cost estimates) so that I can alert the WO. I based the costs on our discussion we had a couple weeks ago and on budget information Emil sent me.

Please note these are **internal Draft** proposals only. Once they are finalized, they'll be used for our discussions with DHS regarding implementation of jaguar conservation measures.

Thanks for all your help Bill!
erin

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
201 N. Bonita Avenue, Suite 141
Tucson, AZ 85745

Ph: (520) 670-6150 x 238
Fax: (520) 670-6155

August 29, 2007
DRAFT Jaguar Collaring and Monitoring Proposal

Border-related infrastructure projects and patrol activities may affect movement patterns of jaguars in the borderlands region of Arizona/New Mexico and Sonora/Chihuahua. Specifically, fences and barriers placed along the border may impede jaguar movement across the international border. Installation of fences and barriers may cause an increase in illegal traffic and pursuant law enforcement activities in areas where fences do not exist. Increased activities in these areas may also affect jaguar movement across the border. Maintaining connectivity between Arizona/New Mexico and Sonora/New Mexico is critical to the continued survival of jaguars in Arizona/New Mexico. Should all jaguar movement corridors be severed, it is highly likely that the jaguar will become extirpated from Arizona/New Mexico as we believe jaguars in Arizona/New Mexico rely on interchange with jaguars in Sonora/New Mexico for their continued survival.

To better understand movement and habitat use patterns of jaguars in the border region of Arizona and New Mexico, the Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, propose to capture, collar (with GPS and satellite technology), and monitor jaguars in this region.

To start, likely a jaguar, referred to as Macho B, would be selected for monitoring because he has been detected repeatedly and recently (through the use of remote-sensing cameras) in three mountain range complexes in south-central Arizona (by the Borderlands Jaguar Detection Project). Furthermore, he was detected in areas where vehicle barriers were placed (detection was made before the barrier placement) and near areas where pedestrian fences will be constructed. Though monitoring only one jaguar will not allow us to formulate conclusions about all jaguar movements in the region, it will significantly increase our current level of knowledge.

As additional jaguars are detected in the borderlands region through the use of passive survey techniques (see proposal below), they will, as determined appropriate, be captured and collared to gather further information on jaguar dispersion patterns and habitat use. Results obtained from this effort may help us identify important jaguar travel corridors and use areas and better understand how border infrastructure projects affect cross-border jaguar movements.

Estimated Budget to Capture, Collar, and Monitor Jaguars in the Borderlands Region of Arizona and New Mexico[1]:

Cost of Collar and One Capture Effort	Number of Collar and Capture Efforts	Subtotal	Cost of One Year of Monitoring[1]	Proposed Number of Years	Subtotal	Total[2]
$30,000.00	10	$300,000.00	$70,000.00	10	$700,000.00	$1,000,000.00

[1] Cost of monitoring includes annual satellite uplink fee, as well as personnel and transportation expenses.

[2] Total cost may vary depending on the number of jaguars successfully detected, captured, and collared. Also, there may be overlap in the cost of annual monitoring and annual survey work described below (i.e., depending on the success of detecting, capturing, and collaring jaguars, some of personnel and transportation needs for monitoring may be met by those covered in the survey proposal).

August 29, 2007
DRAFT Jaguar Survey Proposal

Jaguars have been surveyed in select areas in Arizona and New Mexico using remote-sensing cameras since 1997. In 2001, the Borderland Jaguar Detection Project was formed and expanded jaguar survey efforts (including the use of remote-sensing cameras, as well as track and scat transects) to various mountain range complexes in south-central Arizona. The project was designed to detect not only the presence of jaguars in the area, but also the movement of jaguars crossing the border between Sonora and Arizona. Survey work has resulted in the detection of at least two male jaguars, as well as many other species. Additionally, one of the jaguars, Macho B, was detected and tracked crossing the international border and repeat detections of Macho B in different mountain range complexes have allowed researchers to estimate a minimum observed range for him.

The Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, particularly the Borderland Jaguar Detection Project, propose to expand this survey effort (both remote-sensing cameras and track and scat transects) to other mountain range complexes in the border region of Arizona and New Mexico with the goals of: 1) detecting the presence of jaguars in mountain ranges that have not been previously surveyed, and 2) identifying jaguar habitat in Arizona/New Mexico and potential travel corridors into Arizona/New Mexico from Sonora/Chihuahua. Information gathered through this effort may assist land managers and users make more informed decisions regarding jaguar management and conservation efforts in the borderlands region.

Estimated Budget to Survey Jaguars in the Borderlands Region of Arizona and New Mexico:

Cost of Cameras and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Proposed Number of Years	Subtotal	Total
$700.00	250	$175,000.00	$250,000.00	10	$2,500,000.00	$2,675,000.00

[1]Cost of surveys includes personnel and transportation expenses.

Terry Johnson

From: Erin_Fernandez@fws.gov
Sent: Thursday, August 30, 2007 10:12 AM
To: Bill Vanpelt
Subject: Fw: Draft Jaguar Monitoring and Surveys Proposals

Importance: High

Hi Bill - You can disregard my request below. I've been asked to change the proposals to a different format. I'll give you a call to discuss them next week - will you be around?
Thanks!!

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
201 N. Bonita Avenue, Suite 141
Tucson, AZ 85745

Ph: (520) 670-6150 x 238
Fax: (520) 670-6155

----- Forwarded by Erin Fernandez/R2/FWS/DOI on 08/30/2007 09:57 AM -----

Erin Fernandez/R2/FWS/DOI

08/29/2007 06:07 PM

To Bill VanPelt
cc
Subject Draft Jaguar Monitoring and Surveys Proposals

Hi Bill,

I was asked today to prepare brief proposals for jaguar monitoring and surveys in the borderlands region for our Washington Office. I have to submit them immediately to Sherry/Steve and then our Washington Office, so I don't think you will have time to review them before they're submitted. However, I'd appreciate it if you could review them and let me know if you see any substantive errors (especially in the cost estimates) so that I can alert the WO. I based the costs on our discussion we had a couple weeks ago and on budget information Emil sent me.

Please note these are **internal Draft** proposals only. Once they are finalized, they'll be used for our discussions with DHS regarding implementation of jaguar conservation measures.

Thanks for all your help Bill!
erin

[attachment "Jaguar Collaring and Monitoring Proposal 10 yr DRAFT.doc" deleted by Erin Fernandez/R2/FWS/DOI]

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Tucson, AZ 85745

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Fax: (520) 670-6155

Terry Johnson

From: Erin_Fernandez@fws.gov
Sent: Wednesday, September 05, 2007 10:19 AM
To: Bill Vanpelt
Subject: RE: Draft Jaguar Monitoring and Surveys Proposals

Hi Bill,
It turns out we got an extension for the proposals. I will re-write and send them to you by next week for your review. I'll be out of the office Thurs-Mon.
Thanks!

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
201 N. Bonita Avenue, Suite 141
Tucson, AZ 85745

Ph: (520) 670-6150 x 238
Fax: (520) 670-6155

"Bill Vanpelt" <BVanpelt@azgfd.gov>

09/04/2007 04:32 PM

To <Erin_Fernandez@fws.gov>
cc
Subject RE: Draft Jaguar Monitoring and Surveys Proposals

Erin,

I have a Branch meeting Thurs. The only day I will be in the office is Friday.

Bill Van Pelt
Nongame Bird and Mammal Program Manager
2221 West Greenway Road
Phoenix, Arizona 85023
Phone: 602-789-3573
Fax: 602-789-3926

From: Erin_Fernandez@fws.gov [mailto:Erin_Fernandez@fws.gov]
Sent: Thursday, August 30, 2007 10:12 AM
To: Bill Vanpelt
Subject: Fw: Draft Jaguar Monitoring and Surveys Proposals
Importance: High

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Thanks!!

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
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----- Forwarded by Erin Fernandez/R2/FWS/DOI on 08/30/2007 09:57 AM -----
Erin Fernandez/R2/FWS/DOI

08/29/2007 06:07 PM

To Bill VanPelt
cc

Subject Draft Jaguar Monitoring and Surveys Proposals

Hi Bill,

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Thanks for all your help Bill!
erin

[attachment "Jaguar Collaring and Monitoring Proposal 10 yr DRAFT.doc" deleted by Erin Fernandez/R2/FWS/DOI]

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
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Tucson, AZ 85745

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Fax: (520) 670-6155

Terry Johnson

From: Erin_Fernandez@fws.gov
Sent: Friday, September 14, 2007 3:30 PM
To: Bill Vanpelt
Subject: RE: Draft Jaguar Monitoring and Surveys Proposals
Attachments: Jaguar Collaring and Monitoring Proposals 14Sept07.doc

Hi Bill,
Here are the revised internal draft jaguar monitoring and surveys proposals for our WO. Again, I'd appreciate it if you could review them and let me know if you see any substantive errors so that I can alert the WO. Hopefully these will result in the release of some initial CBP funds to start the collaring/monitoring effort (information gathered would be used to refine the jaguar BMP framework) and also serve as a starting place for our negotiations with DHS-CBP regarding implementation of the monitoring portion of the conservation measures agreed to in the recent border fence BO. We still haven't been contacted by CBP to start ironing out the details of the measures, but once we do, we'll make sure to contact/meet with you and the Tohono O'odham before we all meet with CBP. CBP has 4 months from the signing of the BO to identify and commit to the specific conservation measures (from the BO:
"CBP will support USFWS in jaguar survey and monitoring efforts and conservation and recovery measures. Survey and monitoring methods and conservation and recovery measures will be developed through coordination with USFWS, Arizona Game and Fish Department (AGFD), and the Tohono O'odham Nation within four months following the release of the Biological Opinion. Details and schedules regarding those methods and measures will be identified by the end of the four months. Monitoring of jaguars may include a combination of satellite telemetry and camera survey techniques. Multiple techniques may be used to monitor jaguar habitat; however, one component of monitoring would likely include an assessment of indirect effects to jaguar movements and habitat from border traffic in areas where no fence is installed.")

The entire BO can be found
at: http://www.fws.gov/southwest/es/arizona/Documents/Biol_Opin/070416_PedestrianFence.pdf

Also, have you have a chance to work on the scope of work for the other jaguar/BMP agreement?

Thanks and we'll be in touch.
erin

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
201 N. Bonita Avenue, Suite 141
Tucson, AZ 85745

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Fax: (520) 670-6155

"Bill Vanpelt" <BVanpelt@azgfd.gov>

08/30/2007 12:00 PM

To <Erin_Fernandez@fws.gov>
cc
Subject RE: Draft Jaguar Monitoring and Surveys Proposals

Yep. Not weds.

Bill Van Pelt
Nongame Bird and Mammal Program Manager
2221 West Greenway Road
Phoenix, Arizona 85023
Phone: 602-789-3573
Fax: 602-789-3926

From: Erin_Fernandez@fws.gov [mailto:Erin_Fernandez@fws.gov]
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Erin Fernandez/R2/FWS/DOI

08/29/2007 06:07 PM

To Bill VanPelt
cc

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Please note these are **internal Draft** proposals only. Once they are finalized, they'll be used for our discussions with DHS regarding implementation of jaguar conservation measures.

Thanks for all your help Bill!
erin

[attachment "Jaguar Collaring and Monitoring Proposal 10 yr DRAFT.doc" deleted by Erin Fernandez/R2/FWS/DOI]

Erin Fernandez
Mexico Program Coordinator
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Tucson, AZ 85745

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September 14, 2007
DRAFT Jaguar Collaring and Monitoring (One year)

Border-related infrastructure projects and patrol activities may affect movement patterns of jaguars in the borderlands region of Arizona/New Mexico and Sonora/Chihuahua. Specifically, fences and barriers placed along the border may impede jaguar movement across the international border. Installation of fences and barriers may also cause an increase in illegal traffic and pursuant law enforcement activities in areas where fences do not exist. Increased activities in these areas may also affect jaguar movement across the border. Maintaining connectivity between Arizona/New Mexico and Sonora/Chihuahua is critical to the continued survival of jaguars in Arizona/New Mexico. Should all jaguar movement corridors be severed, it is highly likely that the jaguar will become extirpated from Arizona/New Mexico, as we believe the persistence of the jaguar population in Arizona/New Mexico is dependent upon immigration from Sonora/Chihuahua.

To better understand movement and habitat use patterns of jaguars in the border region of Arizona and New Mexico, the Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, propose to capture, collar (with GPS and satellite technology), and monitor jaguars in this region.

To start, likely a jaguar, referred to as Macho B, would be selected for monitoring because he has been detected repeatedly and recently (through the use of remote-sensing cameras) in three mountain range complexes in south-central Arizona (by the Borderlands Jaguar Detection Project). Furthermore, he was detected in areas where vehicle barriers were placed (detection was made before the barrier placement) and near areas where pedestrian fences are under construction. Though monitoring only one jaguar will not allow us to formulate conclusions about all jaguar movements in the region, it will significantly increase our current level of knowledge.

Estimated Budget to Capture, Collar, and Monitor a Jaguar in the Borderlands Region of Arizona and New Mexico for One Year:

Cost of Collar and One Capture Effort	Cost of One Year of Monitoring[1]	Total[2]	Total to be Contributed by Other Partners	**Total Additional Requested Contribution**
$30,000.00	$70,000.00	$100,000.00	$40,000.00	**$60,000.00**

[1] Cost of monitoring includes annual satellite uplink fee, as well as personnel and transportation expenses.
[2] There may be overlap in the cost of annual monitoring and annual survey work described below (i.e., some of the personnel and transportation needs for monitoring may be met by those covered in the survey proposal).

DRAFT Jaguar Collaring and Monitoring Proposal (Multiple Jaguars and Years)

As additional jaguars are detected in the borderlands region through the use of passive survey techniques (see proposal below), they would, as determined appropriate, be captured and collared to gather further information on jaguar dispersion patterns and habitat use. Results obtained from this effort may help us identify important jaguar travel corridors and use areas and better understand how border infrastructure projects affect cross-border jaguar movements.

Estimated Budget to Capture, Collar, and Monitor Jaguars in the Borderlands Region of Arizona and New Mexico for Five Years[1]:

Cost of Collar and One Capture Effort	Number of Collar and Capture Efforts	Subtotal	Cost of One Year of Monitoring[1]	Proposed Number of Years	Subtotal	Total[2]
$30,000.00	5	$150,000.00	$70,000.00	5	$350,000.00	$500,000.00

[1] Cost of monitoring includes annual satellite uplink fee, as well as personnel and transportation expenses.
[2] Total cost may vary depending on the number of jaguars successfully detected, captured, and collared. There may be overlap in the cost of annual monitoring and annual survey work described below (i.e., depending on the success of detecting, capturing, and collaring jaguars, some of personnel and transportation needs for monitoring may be met by those covered in the survey proposal). The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

DRAFT Jaguar Survey Proposal (Additional Array for One Year and Additional Arrays for Multiple Years)

Jaguars have been surveyed in select areas in Arizona and New Mexico using remote-sensing cameras since 1997. In 2001, the Borderland Jaguar Detection Project was formed. This project expanded jaguar survey efforts (including the use of remote-sensing cameras, as well as track and scat transects) to various mountain range complexes in south-central Arizona. The project was designed to detect not only the presence of jaguars in the area, but also the movement of jaguars crossing the border between Sonora and Arizona. Survey work has resulted in the detection of at least two male jaguars, as well as many other species. Additionally, one of the jaguars, Macho B, was detected and tracked crossing the international border, and repeat detections of Macho B in different mountain range complexes have allowed researchers to estimate a minimum observed range for him.

The Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, particularly the Borderland Jaguar Detection Project, propose to expand this survey effort (both remote-sensing cameras and track and scat transects) to other mountain range complexes in the border region of Arizona and New Mexico with the goals of: 1) detecting the presence of jaguars in mountain ranges that have not been previously surveyed, and 2) identifying jaguar habitat in Arizona/New Mexico and potential travel corridors into Arizona/New Mexico from Sonora/Chihuahua. Information gathered through this effort may assist land managers and users in making more informed decisions regarding jaguar management and conservation efforts in the borderlands region.

Estimated Budget to Expand Jaguar Survey Effort to an Additional Mountain Range in the Borderlands Region of Arizona for One Year:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Total	Total to be Contributed by Other Partners	**Total Additional Requested Contribution**
$700.00	50	$35,000.00	$50,000.00	$85,000.00	$35,000.00	**$50,000.00**

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.

Estimated Budget to Expand Jaguar Survey Effort to an Additional Mountain Range in the Borderlands Region of Arizona for Five Years:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Proposed Number of Years	Subtotal	Total[2]
$700.00	50	$35,000.00	$50,000.00	5	$250,000.00	$285,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.

[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Estimated Budget to Expand Jaguars Survey Efforts to Five Additional Mountain Ranges in the Borderlands Region of Arizona and New Mexico for One Year:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Total
$700.00	250	$175,000.00	$250,000.00	$425,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.
[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Estimated Budget to Expand Jaguars Survey Efforts to Five Additional Mountain Ranges in the Borderlands Region of Arizona and New Mexico for Five Years:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Proposed Number of Years	Subtotal	Total
$700.00	250	$175,000.00	$250,000.00	5	$1,250,000.00	$1,425,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.
[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Note: All cost estimates in the proposals do not include overhead expenses.

Terry Johnson

From: Terry Johnson
Sent: Wednesday, January 28, 2009 9:12 AM
To: Ron Thompson
Subject: FW: Potential Funding Source from Homeland Security OK'd

I guess I am not in the inner circle. Oh, well.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

"Ron Thompson" <RoThompson@azgfd.gov>

01/22/2009 10:19 AM

To <Todd.C.Atwood@aphis.usda.gov>, <Stewart.W.Breck@aphis.usda.gov>, <mculver@email.arizona.edu>, "Emil McCain" <emilmccain@gmail.com>, "Kirby Bristow" <KBristow@azgfd.gov>, "Julie Young" <jyoung@wcs.org>

cc

Subject FW: Potential Funding Source from Homeland Security OK'd

FYI

An Associated Press arcticle appeared in the Arizona Daily Star on Friday, 16 Jan 2009 entitled: *Money Ok'd to fix border fence harm.*

It indicates that the Department of Homeland Security will allocate up to 50 million dollars to mitigate environmental impacts of the US-Mexico border fence. The agency signed an agreement on Wednesday Jan. 14th with the Department of the Interior to set aside funds that the Interior Dept. determines will "soften the environmental damage caused by the fence".

Terry Johnson

From: Terry Johnson
Sent: Wednesday, January 28, 2009 10:53 AM
To: Josh Avey
Cc: Tim Snow; Eric Gardner; Chantal OBrien; Brian Wakeling
Subject: FW: DHS commits $50 million to mitigate border fence

Hi!

Heads up! Before I respond to Tim's question, I need to confirm with USFWS whether the $2 million or so that was supposed to be dedicated by DHS (as mitigation) to USFWS to convey to AGFD for JAGCT jaguar work in the US and to other entities for land conservation in Mexico is now embedded in the $50 Million or is somehow set aside. If it is embedded, I will definitely need to work with other folks in AGFD to represent at least the JAGCT interests, which include funding to continue our ongoing monitoring work by Emil McCain and Jack Childs.

I have not actually seen the details of the DHS commitment, so if you have them or come across them please include me in your distribution loop.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Tim Snow
Sent: Friday, January 23, 2009 12:11 PM
To: Terry Johnson
Cc: Bill Vanpelt
Subject: FW: DHS commits $50 million to mitigate border fence

Terry (mostly FYI) -- However, are there some jaguar con team projects that I should carry forward or was our request for funding of those separate from this $50 million?

-- Tim

Tim K. Snow
Region V Nongame Specialist
555 N. Greasewood Road
Tucson, AZ 85745
(520) 388-4449

Sign up for AZGFD eNews and receive the latest news and information on wildlife issues and events, outdoor tips, education programs, regulations, and more. http://www.azgfd.gov/eservices/subscribe.shtml

From: Josh Avey
Sent: Friday, January 23, 2009 10:41 AM
To: John Windes; Joan Scott; Troy Smith; Bill Knowles
Cc: Eric Gardner; Chantal OBrien; Kirk Young; Brian Wakeling; Larry Riley; Mike Senn; Kimberly Bodary
Subject: FW: DHS commits $50 million to mitigate border fence

Border Habitaters,

We'd like to start to develop some potential projects for Reg's IV & V that we could spend this money on (see article below). It's supposed to be shared with CA, NM, and TX, but I'd like to see us targeting about 90%. Mike Senn et al. will be working directly with the USFWS ES office in PHX to submit our projects. My suspicions are that work projects will score higher than acquisition projects (something that will help put people to work), but I think we should focus on what will be best for our international wildlife and then prioritize the projects before submission. WMD staff will be meeting on this February 2nd, 2009, so if you could provide any ideas you have to me by that morning (Feb 2nd, before noon) we'll take a look at them in the afternoon.

These don't need to look pretty, we just need to start the discussions ASAP. Provide these to me in any format (bar napkins are frowned on, but will be accepted).

John W., here's your chance to get some transportation issues addressed??

Thanks in advance,

JA

From: Larry Riley
Sent: Thursday, January 22, 2009 1:20 PM
To: Eric Gardner; Francisco Abarca; Tony Guiles; Josh Avey; Mike Senn
Subject: DHS commits $50 million to mitigate border fence

Thought this interesting and important enough to send along. You guys were probably on the inside so already know the skinny.

BORDER FENCE: DHS commits $50M for projects to offset environmental damage *(01/22/2009)*

April Reese, E&E Western reporter

The Department of Homeland Security signed an agreement with the Interior Department last week to commit $50 million for mitigation projects aimed at compensating for the effects to the environment from new fencing constructed along the U.S. border with Mexico in recent months.

Under the agreement, Interior will come up with a list of projects, based on recommendations from the department's biologists, and DHS will pay for them. Interior is to submit its list by June 1.

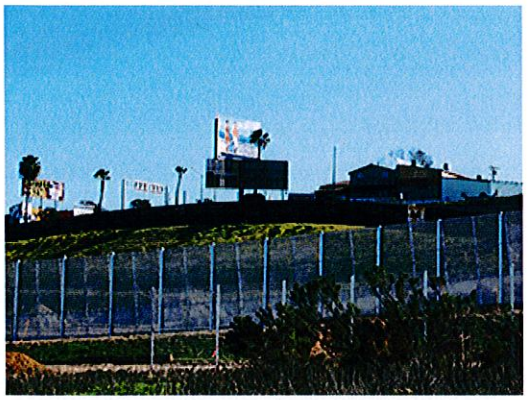
DHS has drawn a welter of criticism from environmental groups, land managers, private landowners and citizens groups for carrying out the fence project, which involves constructing 670 miles of new vehicle and pedestrian fencing along segments of the border in Texas, New Mexico, Arizona and California, without examining its full environmental impacts. Last April, then-DHS Secretary Michael Chertoff used his authority

under the REAL ID Act of 2005 to waive 37 federal laws and all state, local and tribal laws to expedite construction of the fence along 500 miles of the border. Among the environmental laws included in the waiver were the Endangered Species Act, Clean Water Act and the National Environmental Policy Act. Lawsuits challenging the waiver authority were unsuccessful.

At the time, Chertoff said the agency would still take pains to be good "environmental stewards." Weeks after the issuance of the April 1 waiver -- and amid considerable public pressure -- Interior and DHS began discussing the prospect of a mitigation fund to offset the damage of fence projects constructed under the waiver. The $50 million, announced Jan. 15, was included in the fiscal 2009 appropriation for border security, fencing, infrastructure and technology.

"Today's signing of this memorandum of agreement demonstrates that our commitment is not only words, but actual resources, which have been set aside to allow DOI to mitigate the impact of our border security efforts in environmentally sensitive areas," said Customs and Border Protection Commissioner W. Ralph Basham, in a statement issued last Thursday. DHS oversees Customs and Border Protection, which is conducting the fence project with the help of the Army Corps of Engineers. DHS estimates that it has already spent about $40 million to the minimize the environmental consequences of fence segments it constructed without a waiver.

Rick Schultz, Interior's national borderlands coordinator, who helped broker the memorandum of understanding between Interior and DHS, said he is happy with the new agreement. "We're pleased with the level of commitment they've made at this point in time, and we hope to bring them on as full partners in the future," he said, adding that the two agencies are still in discussions about a possible long-term environmental monitoring program.



A new section of 15-foot-high steel mesh border fence stands just west of the San Ysidro Point of Entry. Tijuana, Mexico, is in the background. Photo by April Reese.

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Terry Johnson

From: Terry Johnson
Sent: Wednesday, January 28, 2009 10:57 AM
To: Ron Thompson
Subject: RE: Potential Funding Source from Homeland Security OK'd

I'm definitely not the circle. Possibly a dead end, although I tend to think of myself as Sputnik in a decay arc, increasingly rapidly heading back to Earth.

In a second I'll forward a message I just finished sending to Josh minutes ago. I should have cc:'d you instead of just Wakeling. Hoist on my own petard.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Ron Thompson
Sent: Wednesday, January 28, 2009 10:34 AM
To: Terry Johnson
Subject: RE: Potential Funding Source from Homeland Security OK'd

Dear Mentor,

I always thought you were the circle. Everyone else are satellites. This is a cut and paste forward from the newspaper. Your branch has much more up to date information and a meeting next week with USFWS. There is a research puma monitoring project being proposed (I do pumas) which is why this was sent to those listed, who are the authors of the proposal (I am not one of the authors). It did not mention the J word in the first draft. I have not seen the second draft.

ron

From: Terry Johnson
Sent: Wednesday, January 28, 2009 9:12 AM
To: Ron Thompson
Subject: FW: Potential Funding Source from Homeland Security OK'd

I guess I am not in the inner circle. Oh, well.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

"Ron Thompson" <RoThompson@azgfd.gov>

01/22/2009 10:19 AM

To <Todd.C.Atwood@aphis.usda.gov>, <Stewart.W.Breck@aphis.usda.gov>, <mculver@email.arizona.edu>, "Emil McCain" <emilmccain@gmail.com>, "Kirby Bristow" <KBristow@azgfd.gov>, "Julie Young" <jyoung@wcs.org>

cc

Subject FW: Potential Funding Source from Homeland Security OK'd

FYI

An Associated Press arcticle appeared in the Arizona Daily Star on Friday, 16 Jan 2009 entitled: *Money Ok'd to fix border fence harm.*

It indicates that the Department of Homeland Security will allocate up to 50 million dollars to mitigate environmental impacts of the US-Mexico border fence. The agency signed an agreement on Wednesday Jan. 14th with the Department of the Interior to set aside funds that the Interior Dept. determines will "soften the environmental damage caused by the fence".

Terry Johnson

From: Terry Johnson
Sent: Wednesday, January 28, 2009 10:57 AM
To: Ron Thompson
Subject: FW: DHS commits $50 million to mitigate border fence

FYI

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Terry Johnson
Sent: Wednesday, January 28, 2009 10:53 AM
To: Josh Avey
Cc: Tim Snow; Eric Gardner; Chantal OBrien; Brian Wakeling
Subject: FW: DHS commits $50 million to mitigate border fence

Hi!

Heads up! Before I respond to Tim's question, I need to confirm with USFWS whether the $2 million or so that was supposed to be dedicated by DHS (as mitigation) to USFWS to convey to AGFD for JAGCT jaguar work in the US and to other entities for land conservation in Mexico is now embedded in the $50 Million or is somehow set aside. If it is embedded, I will definitely need to work with other folks in AGFD to represent at least the JAGCT interests, which include funding to continue our ongoing monitoring work by Emil McCain and Jack Childs.

I have not actually seen the details of the DHS commitment, so if you have them or come across them please include me in your distribution loop.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Tim Snow
Sent: Friday, January 23, 2009 12:11 PM
To: Terry Johnson
Cc: Bill Vanpelt
Subject: FW: DHS commits $50 million to mitigate border fence

Terry (mostly FYI) -- However, are there some jaguar con team projects that I should carry forward or was our request for funding of those separate from this $50 million?

-- Tim

Tim K. Snow
Region V Nongame Specialist
555 N. Greasewood Road
Tucson, AZ 85745
(520) 388-4449

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From: Josh Avey
Sent: Friday, January 23, 2009 10:41 AM
To: John Windes; Joan Scott; Troy Smith; Bill Knowles
Cc: Eric Gardner; Chantal OBrien; Kirk Young; Brian Wakeling; Larry Riley; Mike Senn; Kimberly Bodary
Subject: FW: DHS commits $50 million to mitigate border fence

Border Habitaters,

We'd like to start to develop some potential projects for Reg's IV & V that we could spend this money on (see article below). It's supposed to be shared with CA, NM, and TX, but I'd like to see us targeting about 90%. Mike Senn et al. will be working directly with the USFWS ES office in PHX to submit our projects. My suspicions are that work projects will score higher than acquisition projects (something that will help put people to work), but I think we should focus on what will be best for our international wildlife and then prioritize the projects before submission. WMD staff will be meeting on this February 2nd, 2009, so if you could provide any ideas you have to me by that morning (Feb 2nd, before noon) we'll take a look at them in the afternoon.

These don't need to look pretty, we just need to start the discussions ASAP. Provide these to me in any format (bar napkins are frowned on, but will be accepted).

John W., here's your chance to get some transportation issues addressed??

Thanks in advance,

JA

From: Larry Riley
Sent: Thursday, January 22, 2009 1:20 PM
To: Eric Gardner; Francisco Abarca; Tony Guiles; Josh Avey; Mike Senn
Subject: DHS commits $50 million to mitigate border fence

Thought this interesting and important enough to send along. You guys were probably on the inside so already know the skinny.

BORDER FENCE: DHS commits $50M for projects to offset environmental damage *(01/22/2009)*

April Reese, E&E Western reporter

The Department of Homeland Security signed an agreement with the Interior Department last week to commit $50 million for mitigation projects aimed at compensating for the effects to the environment from new fencing constructed along the U.S. border with Mexico in recent months.

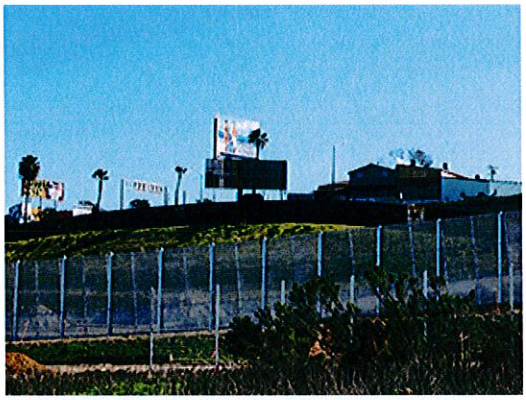
Under the agreement, Interior will come up with a list of projects, based on recommendations from the department's biologists, and DHS will pay for them. Interior is to submit its list by June 1.

DHS has drawn a welter of criticism from environmental groups, land managers, private landowners and citizens groups for carrying out the fence project, which involves constructing 670 miles of new vehicle and pedestrian fencing along segments of the border in Texas, New Mexico, Arizona and California, without examining its full environmental impacts. Last April, then-DHS Secretary Michael Chertoff used his authority under the REAL ID Act of 2005 to waive 37 federal laws and all state, local and tribal laws to expedite construction of the fence along 500 miles of the border. Among the environmental laws included in the waiver were the Endangered Species Act, Clean Water Act and the National Environmental Policy Act. Lawsuits challenging the waiver authority were unsuccessful.

At the time, Chertoff said the agency would still take pains to be good "environmental stewards." Weeks after the issuance of the April 1 waiver -- and amid considerable public pressure -- Interior and DHS began discussing the prospect of a mitigation fund to offset the damage of fence projects constructed under the waiver. The $50 million, announced Jan. 15, was included in the fiscal 2009 appropriation for border security, fencing, infrastructure and technology.

"Today's signing of this memorandum of agreement demonstrates that our commitment is not only words, but actual resources, which have been set aside to allow DOI to mitigate the impact of our border security efforts in environmentally sensitive areas," said Customs and Border Protection Commissioner W. Ralph Basham, in a statement issued last Thursday. DHS oversees Customs and Border Protection, which is conducting the fence project with the help of the Army Corps of Engineers. DHS estimates that it has already spent about $40 million to the minimize the environmental consequences of fence segments it constructed without a waiver.

Rick Schultz, Interior's national borderlands coordinator, who helped broker the memorandum of understanding between Interior and DHS, said he is happy with the new agreement. "We're pleased with the level of commitment they've made at this point in time, and we hope to bring them on as full partners in the future," he said, adding that the two agencies are still in discussions about a possible long-term environmental monitoring program.



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money at that and fix it. Because there is only one Altar Valley, and that is the best dispersal corridor for the cactus ferruginous pygmy owl. Now, it has been bisected. You can't buy another Altar Valley."

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Division Coordinator
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5000 W. Carefree Highway
Phoenix, AZ 85086-5000

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lriley@azgfd.gov

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Terry Johnson

From: Terry Johnson
Sent: Wednesday, January 28, 2009 10:58 AM
To: Ron Thompson
Subject: RE: DHS commits $50 million to mitigate border fence

Now that is VERY helpful. Thanks.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Ron Thompson
Sent: Wednesday, January 28, 2009 10:56 AM
To: Francisco Abarca; Terry Johnson
Subject: FW: DHS commits $50 million to mitigate border fence

More inner circle info.....

From: Todd.C.Atwood@aphis.usda.gov [mailto:Todd.C.Atwood@aphis.usda.gov]
Sent: Tuesday, January 27, 2009 1:39 PM
To: Ron Thompson
Subject: Fw: DHS commits $50 million to mitigate border fence

----- Forwarded by Todd C Atwood/CO/APHIS/USDA on 01/27/2009 01:38 PM -----

"Kirby Bristow" <KBristow@azgfd.gov>

01/26/2009 07:56 PM

To <Todd.C.Atwood@aphis.usda.gov>
cc
Subject FW: DHS commits $50 million to mitigate border fence

Todd,

I think we've already missed the boat. There are rumors of a similar commitment of funds for monitoring which would be a more likely venue for research funding. I'll try and keep on top of this.

Kirby

From: Chantal OBrien
Sent: Mon 1/26/2009 5:20 PM
To: Ray Schweinsburg; Mike Ingraldi; Kirby Bristow

Subject: FW: DHS commits $50 million to mitigate border fence

FYI, looks like the $ may already be spent on BOs.

Chantal (Chasa) O'Brien
Research Branch Chief

Arizona Game and Fish Department
5000 W. Carefree Highway
Phoenix, AZ 85086
Phone: (623)236-7247
Fax: (623)236-7918

-----Original Message-----
From: Mike Senn
Sent: Monday, January 26, 2009 1:02 PM
To: Brian Wakeling; Chantal OBrien; Eric Gardner; Josh Avey; Kirk Young; Larry Riley
Subject: FW: DHS commits $50 million to mitigate border fence

FYI, for our staff meeting next week.

-----Original Message-----
From: Jim_Rorabaugh@fws.gov [mailto:Jim_Rorabaugh@fws.gov]
Sent: Monday, January 26, 2009 8:15 AM
To: Josh Avey
Cc: Mike Senn; Susan_Sferra@fws.gov; Erin_Fernandez@fws.gov; Sherry_Barrett@fws.gov; Steve_Spangle@fws.gov
Subject: Fw: DHS commits $50 million to mitigate border fence

Josh-

Most of the work has already been done to identify projects for funding in Arizona and the other border states. The first priority for funding in Arizona will be commitments from biological opinions that have not already been funded. I have attached tables we completed as part of an exercise we did for Department of Interior. The tables identify projects in the Tucson Sector and Yuma Sector, and were used by DOI in negotiating the funding agreement with DHS. Note that the table with the Yuma Sector info also includes projects in the El Centro and San Diego sectors of California.
Susan Sferra in our Phoenix Office will have the lead on fine-tuning the details and costs of the Arizona projects - I would suggest a meeting with Susan, Erin Fernandez, and myself in Phoenix to discuss potential roles for AGFD.

Jim

(See attached file: DOI mitigation table CA and AZ BLM-FWS combined 11 Dec 2008.xls)(See attached file: Mitigation Measures DHS Tucson Sector-121708-version 1.xls)

Jim Rorabaugh
USFWS Ecological Services
201 N Bonita Ave, Ste 141
Tucson, AZ 85745
520/670-6150 x 230
520/670-6155 (fax)
----- Forwarded by Jim Rorabaugh/R2/FWS/DOI on 01/26/2009 07:56 AM -----

Steve
Spangle/R2/FWS/DO
I

01/23/2009 04:20
PM

To
"Josh Avey" <JAvey@azgfd.gov>,
Susan Sferra/R2/FWS/DOI@FWS, Erin
Fernandez/R2/FWS/DOI@FWS, Jim
Rorabaugh/R2/FWS/DOI@FWS
cc
"Mike Senn" <MSenn@azgfd.gov>,
Sherry Barrett/R2/FWS/DOI@FWS
Subject
Re: FW: DHS commits $50 million to
mitigate border fence(Document
link: Jim Rorabaugh)

Jim--please work with your folks to set up this meeting with Josh.
Thanks.....SLS.

Steve Spangle
Field Supervisor
Arizona Ecological Services Office
2321 W. Royal Palm Road
Phoenix, AZ 85021
Office: 602/242-0210, x-244
Fax: 602/242-2513

"Josh Avey"
<JAvey@azgfd.gov>

01/22/2009 01:32
PM

To
<Steve_Spangle@fws.gov>
cc
"Mike Senn" <MSenn@azgfd.gov>
Subject
FW: DHS commits $50 million to
mitigate border fence

Steve,

Just touching base on this. Per our discussion with you, we wanted to sit down and craft a priority list that could be submitted in pursuit of some of this funding. Any thoughts on who or when? We're open and just wanted to keep it on the radar.

Thanks,

Josh

BORDER FENCE: DHS commits $50M for projects to offset environmental damage (01/22/2009)

April Reese, E&E Western reporter

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(Embedded image moved to file: pic17410.jpg)

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Lawrence M. Riley

Division Coordinator

Wildlife Management Division

Arizona Game and Fish Department

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Phoenix, AZ 85086-5000

623-236-7302

lriley@azgfd.gov

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Terry Johnson

From: Josh Avey
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To: Terry Johnson
Subject: FW: DHS commits $50 million to mitigate border fence
Attachments: DOI mitigation table CA and AZ BLM-FWS combined 11 Dec 2008.xls; Mitigation Measures DHS Tucson Sector-121708-version 1.xls; pic17410.jpg

TJ,

Hopefully this answers your questions, because this is all we've seen on the subject. Let me know if your particular projects are missing and we can go to bat for them at our pending meeting.

JA

Josh T. Avey
Habitat Branch Chief
Arizona Game and Fish Department
5000 W. Carefree Hwy.
Phoenix, Arizona 85086
623-236-7605 Office
602-882-2576 Cell

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Sent: Monday, January 26, 2009 8:15 AM
To: Josh Avey
Cc: Mike Senn; Susan_Sferra@fws.gov; Erin_Fernandez@fws.gov; Sherry_Barrett@fws.gov; Steve_Spangle@fws.gov
Subject: Fw: DHS commits $50 million to mitigate border fence

Josh-

Most of the work has already been done to identify projects for funding in Arizona and the other border states. The first priority for funding in Arizona will be commitments from biological opinions that have not already been funded. I have attached tables we completed as part of an exercise we did for Department of Interior. The tables identify projects in the Tucson Sector and Yuma Sector, and were used by DOI in negotiating the funding agreement with DHS. Note that the table with the Yuma Sector info also includes projects in the El Centro and San Diego sectors of California.
Susan Sferra in our Phoenix Office will have the lead on fine-tuning the details and costs of the Arizona projects - I would suggest a meeting with Susan, Erin Fernandez, and myself in Phoenix to discuss potential roles for AGFD.

Jim

(See attached file: DOI mitigation table CA and AZ BLM-FWS combined 11 Dec 2008.xls)(See attached file: Mitigation Measures DHS Tucson Sector-121708-version 1.xls)

Jim Rorabaugh
USFWS Ecological Services
201 N Bonita Ave, Ste 141
Tucson, AZ 85745
520/670-6150 x 230
520/670-6155 (fax)
----- Forwarded by Jim Rorabaugh/R2/FWS/DOI on 01/26/2009 07:56 AM -----

Steve Spangle/R2/FWS/DOI	To	"Josh Avey" <JAvey@azgfd.gov>, Susan Sferra/R2/FWS/DOI@FWS, Erin Fernandez/R2/FWS/DOI@FWS, Jim Rorabaugh/R2/FWS/DOI@FWS
01/23/2009 04:20 PM	cc	"Mike Senn" <MSenn@azgfd.gov>, Sherry Barrett/R2/FWS/DOI@FWS
	Subject	Re: FW: DHS commits $50 million to mitigate border fence(Document link: Jim Rorabaugh)

Jim--please work with your folks to set up this meeting with Josh.
Thanks.....SLS.

Steve Spangle
Field Supervisor
Arizona Ecological Services Office
2321 W. Royal Palm Road
Phoenix, AZ 85021
Office: 602/242-0210, x-244
Fax: 602/242-2513

"Josh Avey" <JAvey@azgfd.gov>	To	<Steve_Spangle@fws.gov>
01/22/2009 01:32		

PM

cc

"Mike Senn" <MSenn@azgfd.gov>

Subject

FW: DHS commits $50 million to mitigate border fence

Steve,

Just touching base on this. Per our discussion with you, we wanted to sit down and craft a priority list that could be submitted in pursuit of some of this funding. Any thoughts on who or when? We're open and just wanted to keep it on the radar.

Thanks,

Josh

BORDER FENCE: DHS commits $50M for projects to offset environmental damage (01/22/2009)

April Reese, E&E Western reporter

The Department of Homeland Security signed an agreement with the Interior Department last week to commit $50 million for mitigation projects aimed at compensating for the effects to the environment from new fencing constructed along the U.S. border with Mexico in recent months.

Under the agreement, Interior will come up with a list of projects, based on recommendations from the department's biologists, and DHS will pay for them. Interior is to submit its list by June 1.

DHS has drawn a welter of criticism from environmental groups, land managers, private landowners and citizens groups for carrying out the fence project, which involves constructing 670 miles of new vehicle and pedestrian fencing along segments of the border in Texas, New Mexico, Arizona and California, without examining its full environmental impacts. Last April, then-DHS Secretary Michael Chertoff used his authority under the REAL ID Act of 2005 to waive 37 federal laws and all state, local and tribal laws to expedite construction of the fence along 500 miles of the border. Among the environmental laws included in the waiver were the Endangered Species Act, Clean Water Act and the National Environmental Policy Act. Lawsuits challenging the waiver authority were unsuccessful.

At the time, Chertoff said the agency would still take pains to be good "environmental stewards." Weeks after the issuance of the April 1 waiver -- and amid considerable public pressure -- Interior and DHS began discussing the prospect of a mitigation fund to offset the damage of fence projects constructed under the waiver. The $50 million, announced Jan. 15, was included in the fiscal 2009 appropriation for border security, fencing, infrastructure and technology.

"Today's signing of this memorandum of agreement demonstrates that our commitment is not only words, but actual resources, which have been set aside to allow DOI to mitigate the impact of our border security efforts in environmentally sensitive areas," said Customs and Border Protection Commissioner W. Ralph Basham, in a statement issued last Thursday. DHS oversees Customs and Border Protection, which is conducting the fence project with the help of the Army Corps of Engineers. DHS estimates that it has already spent about $40 million to the minimize the environmental consequences of fence segments it constructed without a waiver.

Rick Schultz, Interior's national borderlands coordinator, who helped broker the memorandum of understanding between Interior and DHS, said he is happy with the new agreement. "We're pleased with the level of commitment they've made at this point in time, and we hope to bring them on as full partners in the future," he said, adding that the two agencies are still in discussions about a possible long-term environmental monitoring program.

(Embedded image moved to file: pic17410.jpg)

A new section of 15-foot-high steel mesh border fence stands just west of the San Ysidro Point of Entry. Tijuana, Mexico, is in the background.
Photo by April Reese.

Mitigation projects will involve either land acquisition, habitat restoration or monitoring to gage how the fence is affecting wildlife and other natural phenomena, Schultz said. "Our biologists say there's plenty of opportunities out there for mitigation," he said.

But Matt Clark, Southwest representative for the Defenders of Wildlife in Tucson, Ariz., said that in some areas, unique ecological systems have been irreparably lost.

"Much of the damage that has been done really does not have a pricetag,"
Clark said, citing the habitat in the Altar Valley of Arizona, part of which lies within the Buenos Aires National Wildlife Refuge, as an example.
"You cannot throw money at that and fix it. Because there is only one Altar Valley, and that is the best dispersal corridor for the cactus ferruginous pygmy owl. Now, it has been bisected. You can't buy another Altar Valley."

Jim Peugh, conservation chair of the San Diego Audubon Society, which is concerned about a fence project now in progress that involves filling a canyon near the Tijuana River estuary (Land Letter, Jan. 16), added that while $50 million is a good "first step," it is not enough to address the environmental damage from hundreds of miles of new fencing. "For this to have much of a protective effect, it would have to be the first installment of a reliable stream of funds to try to minimize the impacts of the project," he said.

Peugh also wondered how far Interior could go in trying to mitigate the damage from the fence. "Some harder issues will be, will the Interior Department be allowed to modify the fence and culvert under it to allow essential wildlife movement across the border?" he asked.

It would have been wiser -- and less expensive -- to address environmental concerns when the fence was being designed, he said.

Peugh, Clark and other environmental advocates would like to see parts of the new fence removed. Schultz said that option is not on the table.
"Removal hasn't been discussed," he said. But Interior has encouraged environmental monitoring during construction of the remaining segments of fence, he added. Fence projects in California and Texas have not yet been completed. In the latter case, DHS is in the midst of court proceedings to condemn some of the private lands along the border.

A new administration, a new approach?

Landowners along the border and environmental groups are hoping the Obama administration will take a different stance on the border fence. New DHS Secretary Janet Napolitano criticized the fence project while governor of Arizona but has not yet indicated whether she will push for a shift in border policy.

"She's got a very pragmatic and grounded approach to the border, and she also has a very good environmental record, so I think she'll be open to reassessing the whole border wall strategy," Clark said of Napolitano. "But I don't anticipate that she'll come in and call for knocking walls down right away."

During her confirmation hearing before the Senate last week, Napolitano said fencing the border in urban areas makes sense, but that fencing the entire Southwestern border is impractical. As governor of Arizona, Napolitano often said of the new border fence project, "Show me a 15-foot-high fence, and I'll show you a 16-foot-high ladder."

Clark said he would like to see DHS place a moratorium on construction until the new administration decides what approach it wants to take on border security.

Schultz said that regardless of what the new administration's policy is, DHS will have to continue balancing border security with environmental protection. "Regardless of the nation's policy on border security, it's in the best interest of Interior and DHS to work with the environmental community to find ways to do both," he said.

Meanwhile, challenges to the fence continue. Last week, the Texas Border Coalition, a group of border town mayors, county judges and other officials, asked the U.S. Supreme Court to hear an appeal by El Paso County, the city of El Paso and others challenging the constitutionality of Chertoff's waivers.

Click here to read the Texas Border Coalition brief.

Lawrence M. Riley

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Sign up for FREE Arizona Game and Fish Department e-newsletters at www.azgfd.gov/signup

Terry Johnson

From: Ron Thompson
Sent: Wednesday, January 28, 2009 3:36 PM
To: Chantal OBrien; Eric Gardner; Terry Johnson; Josh Avey
Cc: 'Todd.C.Atwood@aphis.usda.gov'; Kirby Bristow; Brian Wakeling
Subject: FW: DHS commits $50 million to mitigate border fence
Attachments: Landscape Connectivity for Large Carnivores_ConceptualProposal_Jan28.doc

All

I believe you four can assist in taking this forward, if you deem it a functional and worthwhile project. Terry and Kirby have a copy. Kirby, was to review the document further, as was I, but time is wasting and I asked Todd to release it in now for consideration. Terry, Kirby is using Emil now to capture lions and he is very good at it and I have rewritten a contract to allow him to continue should Kirby's project be expanded under this proposal. At some point everyone needs to slow down long enough to involve Sonoran Stakeholders.

Ron

LANDSCAPE CONNECTIVITY FOR LARGE CARNIVORES IN THE ARIZONA-SONORA SKY ISLANDS: IDENTIFYING CORRIDORS AND DETERMINING THE IMPACTS OF THE BORDER FENCE

PRINCIPAL INVESTIGATORS: TODD ATWOOD (NWRC), JON P. BECKMANN (WCS), STEWART BRECK (NWRC), KIRBY BRISTOW (AZGFD), AND JULIE K. YOUNG (WCS)

ABSTRACT

Large carnivores (cougars, black bears, and jaguars) inhabiting the sky islands of southwestern U.S. and northern Mexico exist in populations connected by dispersal events between islands of suitable habitat. Human activity that reduces dispersal opportunities (*e.g.*, the U.S.-Mexico border fence) could sever corridors linking populations, thus threatening the continued existence of isolated wildlife populations in the southwestern U.S., particularly rare species like jaguars. We propose to combine three techniques, satellite telemetry, population genetics of carnivores, and genetic mutations of viruses that carnivore's host, to determine potential impacts of the U.S.-Mexico fence on large carnivores and possible strategies for mitigating impacts (*e.g.*, fence design). GPS data from individual animals inhabiting the trans-border region will be acquired with satellite telemetry and used to identify linkage corridors and critical habitat. Genetic data from carnivores will provide baseline data on population structure and help assess population-level impacts of linkage corridors over a long time period. Studying rapidly evolving viral organisms (*e.g.*, Feline Immunodeficiency Virus) present in animal hosts will allow us to monitor movement of disease agents across the border and offer a faster method of assessing disruptions in connectivity in carnivore populations. By using this multi-tiered approach we will gain a more thorough understanding of the impact of the border fence on movement of large carnivores, impact on carnivore population structure, and importance of mitigating strategies for enhancing the existence of Jaguars in the southwest U.S.

COLLABORATORS

JACK CHILDS AND EMIL MCCAIN (JAG), MELANIE CULVER AND LISA HAINES (UOFA), CLAY NIELSEN (SOUTHERN ILL), GARY ROEMER (NMSTATE), AND RON THOMPSON (AZGFD)

INTRODUCTION

We propose to assess landscape connectivity for large carnivores in the trans-border region of Arizona and Sonora, in a collaborative venture involving federal, state, non-governmental organization (NGO), university scientists, and resource managers. Cougar (*Puma concolor*) and black bear (*Ursus americana*) are charismatic species that move over extensive tracts of land and require large areas of suitable habitat in which to persist. These species also utilize habitat important to the persistence of other species, such as jaguar (*Panthera onca*), ocelot (*Leopardus pardalis*), and bobcat (*Lynx rufus*). In the Sonoran Desert, suitable habitat for large carnivores is distributed mostly within mountain ranges (*i.e.*, "Sky Islands") embedded in a matrix of inhospitable lowland desert. Thus for large carnivores to persist within this landscape, linkages connecting isolated Sky Island habitats must be maintained.

Anthropogenic disturbance such as border fence construction and the related human activity patterns influenced by fences, may significantly impact animal movement patterns and sever linkage corridors that connect carnivore populations between Mexico and the U.S. Our goals are to identify suitable habitat and linkage corridors for carnivores along the Mexico-U.S. border so that impacts associated with borderland security can be identified and mitigated. Trans-boundary carnivore linkages can be identified through several alternative techniques. First, satellite telemetry locations of individual carnivores can be used to identify corridors of movement and corridors where movement is impeded. Thus questions pertaining to large carnivore movement relative to the type of border fence (*i.e.*, Normandy style vehicle barrier or impermeable wall), mitigation strategies (*e.g.*, fence openings), and spatial/temporal patterns of human movement (*i.e.*, traffic, trail density) can be directly addressed with this technique.

However, this information only provides proximate information on landscape connectivity, with only some insight into how these linkages and barriers impact populations across a broad geographic range (*i.e.*, Sky Islands throughout Mexico, Arizona, and New Mexico). A second approach is to use genetic information from cougars and black bears to link the genetic

similarity of individuals within populations to habitat features across a broad geographical landscape. Areas containing individuals with similar genetic makeup indicates intact linkage corridors. This information portrays connectivity over an historical timescale and would allow us to determine whether movement of individuals throughout Mexico and Arizona has occurred on a regular basis or has been limited by factors other than the border fence.

Because of the long life span of carnivores, detecting population impacts resulting from reduced movement of individuals (*i.e.*, border fence) could take decades to detect. However, genetic data from rapidly evolving viruses (*e.g.*, retroviruses) carried by carnivore host species can be used to rapidly assess impacts to connectivity of large carnivore populations. Methodology would include analysis of viral DNA sequences collected from animals born before and after border fence completion. If fence construction significantly impacts movement of individuals between populations, then rapidly evolving viruses should show differentiation between populations in a short time period (few years) rather than decades. (Details of all three methods are in Appendix II.)

Each of the three techniques (satellite telemetry, host genetics, and viral genetics) provides different information relevant to understanding the impact of the border fence on large carnivores and each technique could be executed independently of one another. However, to gain the most comprehensive understanding of the population structure of large carnivores, identification of important linkage corridors, and the direct and indirect impacts of the U.S.-Mexico border fence we recommend executing all three techniques simultaneously and synthesizing the results in a hierarchical fashion. Successful implementation of this project will require a multi-national coordinated effort that combines the collected expertise of many individuals with different skills. Thus as part of this proposal we provide details of the collaborative effort associated with this project.

OBJECTIVES

We will use a novel hierarchical approach, integrating satellite telemetry technology and molecular techniques, to assess multi-scale landscape connectivity in the Arizona-Sonora Sky Islands. Specifically, we will:

(i) identify linkages based on habitat and occupancy models, that incorporate field data from satellite telemetry locations of carnivores and changes of human movement across the border;

(ii) develop linkage models based on carnivore genetic structure, that reflect population structure due to "historic" linkage corridors because of the long generation time of the focal species;

(iii) use genetic markers from rapidly mutating viruses (*e.g.*, feline immunodeficiency virus; FIV) common to the host species to develop linkage models reflecting population structure due to "contemporary" linkage corridors[Ŧ];

(iv) validate all models with independent datasets of carnivore movement and genetic structure; and

(v) use validated models to predict how suitable habitat patches and linkages may be modified according to future anthropogenic activity, including additional border fence construction, and for other species, such as jaguars.

[Ŧ]Data from this objective will provide baseline information on population connectivity prior to border fence completion, and will be essential for long-term detection of disruption or restoration of connectivity following fence completion and mitigation.

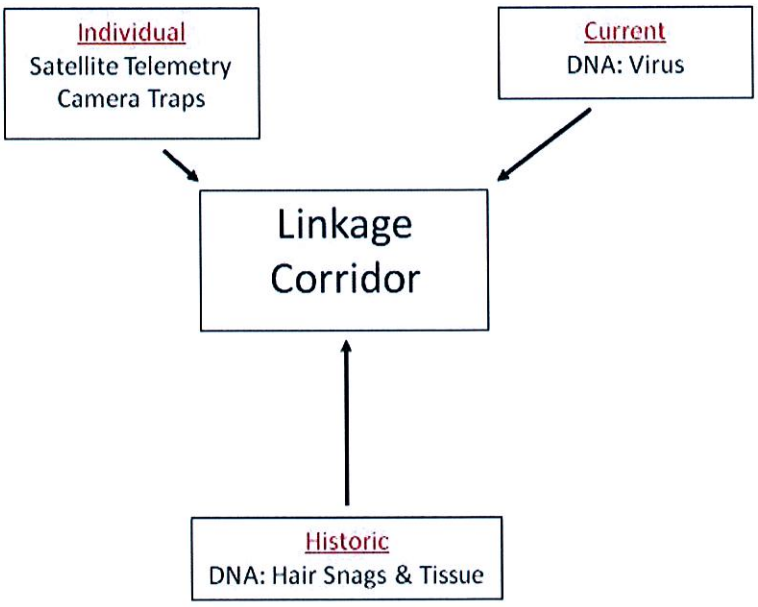

Figure 1. Schematic framework for landscape connectivity of large carnivores, with arrow length illustrating the time frame measured.

TIME TABLE

2007: Collect hair from black bears (hair snag grid) in Arizona

2008: Collect hair from black bears (hair snag grid) in Arizona

Capture and collar black bears (7) and cougars (3)

Design and construct hair snag grid in Mexico (Los Fresnos)

2009: Capture and collar black bears (15) and cougars (15), collect blood

Collect hair from black bears (hair snag grid) in Arizona and Mexico

Obtain data on region's habitat and human impacts

Test for viruses in blood samples from cougars and bears and analyze viral DNA sequences

Establish camera trap grid in Arizona (and Mexico)

Analyze data and write reports

2010: Capture and collar black bears (15) and cougars (15), collect blood

Collect hair from black bears (hair snag grid) in Arizona and Mexico

Obtain data on region's habitat and human impacts

Analyze viral DNA sequences

Repeat camera trap grid in Arizona (and Mexico)

Analyze telemetry, habitat, human and camera data and write reports

2011: Analyze genetics (viruses and hair samples)

Repeat camera trap grid in Arizona (and Mexico)

Obtain data on region's habitat and human impacts

Analyze telemetry, habitat, human, and camera data

Write and present findings

JUSTIFICATION

The U.S.-Mexico borderland is one of the most biologically diverse regions in the United States. Anthropogenic disturbance and border fence construction may be altering the distribution of suitable habitat and severing movement corridors that connect large carnivores. Since the early 1990's, an unprecedented increase in undocumented immigration and other illegal activities have shifted from urban areas to more remote regions of the borderland, potentially harming the wildlife and habitat of this region. At the same time, enforcement-related road and wall construction, lighting projects, and off-road vehicle and low-flying helicopter patrols have increased. Approximately 70% of the Arizona border has been impacted by border fences. The impacts of this fence are unknown but may include altering the movement of individual animals and creating a barrier for wildlife along the border. The fence also may cause migrant traffic and law enforcement activities to move into previously undisturbed mountain regions along the border, creating additional changes for resident wildlife populations.

Identifying suitable habitats and the movement corridors along the border, and identifying potential impacts to carnivore populations will help establish management practices that balance security issues on the border and important ecological processes, such as dispersal,

that maintain viable large carnivore populations in the Sonoran borderland. Our approach has two broad applications. Immediately, our work will increase our understanding of the effects of anthropogenic disturbance, including border fence construction, on landscape connectivity for large carnivores in the Arizona-Sonora Sky Islands. Second, our study will establish the precedent and develop methodology for using rapidly mutating viruses as tools for assessing landscape connectivity for host species. This work will identify vulnerable areas for large carnivores, thereby facilitating the identification of crucial linkage and corridor habitats. Finally, our study will enhance understanding of movements of viral organisms and the potential to use an exogenous retrovirus as a tool for assessing landscape connectivity for this trans-boundary region.

COLLABORATION

In order for the proposed research to be fully successful, we will need to build collaborative relationships with scientists, resource managers, government agencies, land managers, and students from both the U.S. and Mexico. Current efforts involve collaboration between the National Wildlife Research Center, Arizona Game and Fish Department, Wildlife Conservation Society, Institute for Wildlife Studies, University of Arizona, New Mexico State University, and The Nature Conservancy and Naturalia A.C. in Mexico. We are working towards strengthening our engagement within Mexico. In addition to conducting field work in the U.S., we are also working on property managed by The Nature Conservancy and Naturalia A.C. in Mexico. We are training their staff, so that similar work can continue in Mexico beyond this study. We intend to promote dialogue and training opportunities for Mexican scientists with the help of these organizations and our contacts at the US Fish & Wildlife Service and Commission of Ecology and Sustainable Development of the State of Sonora (CEDES). Furthermore, our partnership with faculty at the University of Arizona and New Mexico State University may provide excellent opportunities to host students from Mexico. Our goal is not only to provide opportunities within

this project, but also foster the exploration of future conservation needs by Mexican scientists and students engaged in this project.

STAKEHOLDERS AND SPONSORS

Arizona Game and Fish Department

Arizona Zoological Foundation

Institute for Wildlife Studies

Naturalia A.C. (Mexico)

National Wildlife Research Center

SEMARNAT & CEDES (Mexico)

The Nature Conservancy

US Fish and Wildlife Service

US Department of Homeland Security

Wildlife Conservation Society

APPENDIX I – Project Budget

Item	Description	Amount	Total
Graduate Students	Support for 1 Ph.D (4 years) & 3 Master students (2 years each) for a total of 10 years	$30,000/year	$300,000
PI Salaries	2 months/year of salary for 5 Co-PIs for a total of 30 months for the 3-year project	$5,000/month	$150,000
Technician Salaries	Support for biological technicians to assist graduate students and PI's for a total of 36 months	$2000/month	$72,000
GPS Collars	30 GPS collars for mountain lions & 30 GPS collars for black bears. Data transmission fees.	$6,000/collar	$360,000
Vehicle Costs	2 vehicles over 3 years for a total of 6 years	$10,000/year	$60,000
Travel	Travel costs for PI's (5) and graduate students (4) over a 3 year period at $1,000 per person (9 total) per year (3 years)	$1,000/year/person	$18,000
Computer Hardware/Software	The project would require field laptops, desktops for habitat modeling, GIS software, and other misc. hardware/software	N/A	$50,000
DNA Samples-AZ	Collect tissue samples from 200 cougars & 200 black bears in AZ	$15/sample	$6,000
DNA Samples-MX	Collect tissue and blood samples from 100 cougars & 100 black bears in Sonora, MX	$300/sample	$60,000
Genetic Costs - tissue	This only includes analysis of tissue samples (600 total)	$50/sample	$30,000
Blood Screening for viruses	Screening costs for diseases in the blood samples (600 total)	$200/sample	$120,000
Genetic Costs - blood samples	This includes genetic analysis of viral DNA from blood samples (~300 total)	$125/sample	$37,500
		SUB-TOTAL	$1,263,500
	Institution Overhead	15% overhead	$189,525
	Estimated Total Cost	**TOTAL**	**$1,453,025**

APPENDIX II – Summary of Methods

Satellite Telemetry Analyses.— Cougars and black bears will be captured and fitted with radio-collars, designed to transmit animal locations to satellites, so that data are available in real-time and before collars are recovered. Data collected from collared animals will be used to identify fine-scale corridors of movement, linkage zones across the border, and potential impenetrable border areas. Linkage zones differ from corridors in that a corridor simply implies the movement across a region from point A to point B; whereas a linkage zone implies that individuals live within and fulfill their ecological roles within the region. This is in addition to enhancing the probability of movement through the area. Camera trap grids will be placed within identified corridors, linkages, and areas with potential barriers to classify their importance to other species.

Travel routes will be classified into one of four categories based on an assessment of the importance of the route to carnivore movements in accordance with data gathered with GPS-collars and camera traps. Corridors will be classified as Category 1 if they are invariant or appear, based on GPS data and camera traps, to facilitate major movements of numerous animals across and throughout the border region. Corridors will be classified as Category 2 if they are locally important routes that facilitate movements within a specific area, such as funneling animals along a riparian area. Category 2 will also include corridors where multiple paths lead to the same area, so that the loss of a single route would not extinguish movement or migration to that area. Corridors will be classified as Category 3 if they appear to be ancillary tributaries off main routes that facilitate movement into localized areas. The loss of an ancillary route might mean that carnivores no longer use a specific section of land, but it would not completely eliminate use of a major area such as the Peloncillo Mountain Complex. Finally, Category 4 will include blocked corridors, areas that appear to be regularly used by wildlife but

are impenetrable to border crossings. A similar classification scheme will be utilized to quantify linkages.

To facilitate classification of travel routes and linkages, camera traps will also be used to obtain population estimates of carnivores. Animals with distinctive individual markings (*e.g.*, pelage or ear tags) can be identified through photographs taken with remote camera stations, and the theoretical framework of mark/recapture models can be used to estimate population abundance (Otis et al. 1978; Nichols 1992). The technique, in combination with capturing and marking, has been successful at providing a rough estimate of black bear population size (Martorello et al. 2001).

Molecular Analyses.—Genetic signatures of individual animals (cougar and black bear) and viruses from those individuals will be compared between sample areas in the Sky Islands to determine how anthropogenic activity is mediating changes in landscape connectivity. We will collect cougar and black bear blood, muscle, and hair samples from hunters, trappers, and federal and state wildlife agency biologists in Arizona and Sonora. Cougar and black bear samples will be analyzed using standard microsatellite techniques at University of Arizona. Additional black bear hair samples will be collected from hair snags placed on a 4x4-km grid throughout the study area in Arizona and segments of Sonora. These hair samples will be analyzed using standard microsatellite techniques at Purdue University.

Virus samples will be analyzed using micro-array analyses with a Roche 454 sequencer at New Mexico State University. We will first identify potential viruses for further genetic analyses, focusing on viruses that are common in cougars or black bears but do not appear to have detrimental affects to the host species. For example, we will likely use feline immunodeficiency virus (FIVpco) in cougars. The prevalence of FIVpco can reach 58% in some populations of cougars, and there is a 50% risk of being infected with FIVpco by the age of 2.5 years in most populations. Although prevalence of infection is high, evidence indicates there is no impact of the virus on survival of infected cougars. The molecular genetics of FIVpco, like

most lentiviruses, is characterized by rapid evolution and high intrahost diversity. Those characteristics, combined with high prevalence and no apparent effect on cougar survival, lead us to believe that genetic markers from FIVpco may be powerful tools for assessing contemporary landscape connectivity in cougars.

Once we have selected and extracted DNA from viruses, we will use a Bayesian model-based clustering method in program STRUCTURE to assign individual and virus samples to populations. For population-based analyses, we will use a hierarchical clustering algorithm to group nearest individuals. Hierarchical clustering is a step-based approach that groups the closest pair of individuals, clusters, or individual-cluster pair based on Euclidean distances. Following a cluster routine, a new centroid location is generated representing the geographical center of all individuals in the cluster. We will allow individuals and clusters to merge at distances equal to or under the average dispersal distance of focal species. We will use the program FSTAT to calculate descriptive statistics and genetic distances for sample groups. We will use Mantel tests to test for correlations between geographical and genetic distances. If Mantel tests indicate splits between any geographical groups, we will use partial Mantel tests to assess how much additional genetic differentiation can be attributed to the geographic barrier(s).

There are many factors that can potentially influence gene flow when it is modeled as a function of landscape connectivity. A priori, it is questionable to assume which landscape features and linkage corridors are most strongly related to gene flow and in which ways. Thus, a multifactor approach is necessary. To that end, we will assemble organizational models of isolation by distance and barrier, and landscape resistance surfaces representing the factorial combinations of landscape variables determined to be most influential in cougar and bear dispersal and daily movement.

The goal of the organizational-based analysis will be to determine the relative support for isolation by distance and barriers in comparison to isolation by gradients of landscape

resistance. The primary advantage of this analytical approach is the ability to separate correlation from causation— genetic dissimilarity may be correlated with distance or barriers, when in fact environmental resistance is the primary determinant of genetic structure. Hypotheses based on landscape resistance will be represented by GIS raster maps whose cell values are equal to the hypothetical resistance of each cell to gene flow, and the most supported model will be used to generate a spatially explicit visualization of landscape resistance. This approach will allow us to weight candidate linkage corridors by environmental resistance and rank their biological importance to cougars and bears.

Synthesis.— Our hierarchical approach to decomposing landscape connectivity in time and space allows us to compare historic and contemporary connectivity for large carnivores in the borderland Sky Islands. Specifically, we will use data obtained from all three methodological approaches to develop quantitative landscape linkage models that depict how the distribution of suitable habitat patches and the corridors that connect them have changed over time. This approach will allow us to identify important linkages and corridors between and within populations and facilitate land-use planning decisions at multiple spatial scales and on both sides of the Arizona-Mexico border. Furthermore, our data will provide baseline information on population structure before fence construction is complete, and will be useful in guiding the location of mitigation features that facilitate trans-border movement by wildlife. Finally, our sampling design can be easily adapted into protocols for monitoring change in population structure following fence construction.

Terry Johnson

From: Terry Johnson
Sent: Friday, January 30, 2009 9:33 AM
To: Ron Thompson
Subject: Jaguar: FW: Border Fence Proposal
Attachments: Border Fence Grant Nielsen.doc; LaRue and Nielsen EcoMod.pdf

Thanks for sending it to me. Clay's proposal and the other research proposals go far beyond what I am looking for. What I need is support for JAGCT itself, including education/outreach, and for the monitoring project, which we would like to expand to the full length of presumed/possible/suspected/whatever jaguar presence or use in AZ and NM. JAGCT needs to get its Research Committee up and running so it can interface with all these hopeful monsters and determine what the JAGCT really would like other folks to fund and/or conduct in the way of research. Clay's proposal, in my opinion, fits very well with previous discussions in JAGCT but whether he does it, or Breck does it, or AGFD does, etc. is not a concern. All JAGCT has said (thus far) that it wants to flow through it in terms of direct administration is the monitoring, education and outreach, and general JAGCT admin support, so that's what I am sticking with for the foreseeable future.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

-----Original Message-----
From: Ron Thompson
Sent: Friday, January 30, 2009 9:14 AM
To: Terry Johnson
Cc: Eric Gardner
Subject: FW: Border Fence Proposal

Terry, does this fit with what you want to propose?

-----Original Message-----
From: kezo92@siu.edu [mailto:kezo92@siu.edu]
Sent: Thursday, January 29, 2009 11:55 AM
To: Ron Thompson
Subject: Border Fence Proposal

Hola, Ron:

I was talking with Stewart Breck yesterday and he mentioned a potential funding opportunity...I've attached a brief proposal for modeling the impacts of the border fence on wildlife, so let me know what you think. I don't want to limit my efforts to just Sonora...

Thanks,

Clay Nielsen

Terry Johnson

From: Bill Vanpelt
Sent: Friday, January 30, 2009 10:57 AM
To: Terry Johnson
Subject: FW: Draft Jaguar Monitoring and Surveys Proposals
Attachments: Jaguar Collaring and Monitoring Proposals 14Sept07.doc

Here is the jaguar stuff

Bill Van Pelt
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From: Erin_Fernandez@fws.gov [mailto:Erin_Fernandez@fws.gov]
Sent: Friday, September 14, 2007 3:30 PM
To: Bill Vanpelt
Subject: RE: Draft Jaguar Monitoring and Surveys Proposals

Hi Bill,
Here are the revised internal draft jaguar monitoring and surveys proposals for our WO. Again, I'd appreciate it if you could review them and let me know if you see any substantive errors so that I can alert the WO. Hopefully these will result in the release of some initial CBP funds to start the collaring/monitoring effort (information gathered would be used to refine the jaguar BMP framework) and also serve as a starting place for our negotiations with DHS-CBP regarding implementation of the monitoring portion of the conservation measures agreed to in the recent border fence BO. We still haven't been contacted by CBP to start ironing out the details of the measures, but once we do, we'll make sure to contact/meet with you and the Tohono O'odham before we all meet with CBP. CBP has 4 months from the signing of the BO to identify and commit to the specific conservation measures (from the BO:
"CBP will support USFWS in jaguar survey and monitoring efforts and conservation and recovery measures. Survey and monitoring methods and conservation and recovery measures will be developed through coordination with USFWS, Arizona Game and Fish Department (AGFD), and the Tohono O'odham Nation within four months following the release of the Biological Opinion. Details and schedules regarding those

methods and measures will be identified by the end of the four months. Monitoring of jaguars may include a combination of satellite telemetry and camera survey techniques. Multiple techniques may be used to monitor jaguar habitat; however, one component of monitoring would likely include an assessment of indirect effects to jaguar movements and habitat from border traffic in areas where no fence is installed.")

The entire BO can be found
at: http://www.fws.gov/southwest/es/arizona/Documents/Biol_Opin/070416_PedestrianFence.pdf

Also, have you have a chance to work on the scope of work for the other jaguar/BMP agreement?

Thanks and we'll be in touch.
erin

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Arizona Ecological Services - Tucson Office
201 N. Bonita Avenue, Suite 141
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"Bill Vanpelt" <BVanpelt@azgfd.gov>

08/30/2007 12:00 PM

To <Erin_Fernandez@fws.gov>
cc
Subject RE: Draft Jaguar Monitoring and Surveys Proposals

Yep. Not weds.

Bill Van Pelt
Nongame Bird and Mammal Program Manager
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Phoenix, Arizona 85023
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Fax: 602-789-3926

From: Erin_Fernandez@fws.gov [mailto:Erin_Fernandez@fws.gov]
Sent: Thursday, August 30, 2007 10:12 AM
To: Bill Vanpelt
Subject: Fw: Draft Jaguar Monitoring and Surveys Proposals
Importance: High

Hi Bill - You can disregard my request below. I've been asked to change the proposals to a different format. I'll give you a call to discuss them next week - will you be around?
Thanks!!

Erin Fernandez
Mexico Program Coordinator
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
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----- Forwarded by Erin Fernandez/R2/FWS/DOI on 08/30/2007 09:57 AM -----
Erin Fernandez/R2/FWS/DOI

08/29/2007 06:07 PM

To Bill VanPelt
cc

Subject Draft Jaguar Monitoring and Surveys Proposals

Hi Bill,

I was asked today to prepare brief proposals for jaguar monitoring and surveys in the borderlands region for our Washington Office. I have to submit them immediately to Sherry/Steve and then our Washington Office, so I don't think you will have time to review them before they're submitted. However, I'd appreciate it if you could review them and let me know if you see any substantive errors (especially in the cost estimates) so that I can alert the WO. I based the costs on our discussion we had a couple weeks ago and on budget information Emil sent me.

Please note these are **internal Draft** proposals only. Once they are finalized, they'll be used for our discussions with DHS regarding implementation of jaguar conservation measures.

Thanks for all your help Bill!
erin

[attachment "Jaguar Collaring and Monitoring Proposal 10 yr DRAFT.doc" deleted by Erin Fernandez/R2/FWS/DOI]

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September 14, 2007
DRAFT Jaguar Collaring and Monitoring (One year)

Border-related infrastructure projects and patrol activities may affect movement patterns of jaguars in the borderlands region of Arizona/New Mexico and Sonora/Chihuahua. Specifically, fences and barriers placed along the border may impede jaguar movement across the international border. Installation of fences and barriers may also cause an increase in illegal traffic and pursuant law enforcement activities in areas where fences do not exist. Increased activities in these areas may also affect jaguar movement across the border. Maintaining connectivity between Arizona/New Mexico and Sonora/Chihuahua is critical to the continued survival of jaguars in Arizona/New Mexico. Should all jaguar movement corridors be severed, it is highly likely that the jaguar will become extirpated from Arizona/New Mexico, as we believe the persistence of the jaguar population in Arizona/New Mexico is dependent upon immigration from Sonora/Chihuahua.

To better understand movement and habitat use patterns of jaguars in the border region of Arizona and New Mexico, the Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, propose to capture, collar (with GPS and satellite technology), and monitor jaguars in this region.

To start, likely a jaguar, referred to as Macho B, would be selected for monitoring because he has been detected repeatedly and recently (through the use of remote-sensing cameras) in three mountain range complexes in south-central Arizona (by the Borderlands Jaguar Detection Project). Furthermore, he was detected in areas where vehicle barriers were placed (detection was made before the barrier placement) and near areas where pedestrian fences are under construction. Though monitoring only one jaguar will not allow us to formulate conclusions about all jaguar movements in the region, it will significantly increase our current level of knowledge.

Estimated Budget to Capture, Collar, and Monitor a Jaguar in the Borderlands Region of Arizona and New Mexico for One Year:

Cost of Collar and One Capture Effort	Cost of One Year of Monitoring[1]	Total[2]	Total to be Contributed by Other Partners	**Total Additional Requested Contribution**
$30,000.00	$70,000.00	$100,000.00	$40,000.00	**$60,000.00**

[1] Cost of monitoring includes annual satellite uplink fee, as well as personnel and transportation expenses.
[2] There may be overlap in the cost of annual monitoring and annual survey work described below (i.e., some of the personnel and transportation needs for monitoring may be met by those covered in the survey proposal).

DRAFT Jaguar Collaring and Monitoring Proposal (Multiple Jaguars and Years)

As additional jaguars are detected in the borderlands region through the use of passive survey techniques (see proposal below), they would, as determined appropriate, be captured and collared to gather further information on jaguar dispersion patterns and habitat use. Results obtained from this effort may help us identify important jaguar travel corridors and use areas and better understand how border infrastructure projects affect cross-border jaguar movements.

Estimated Budget to Capture, Collar, and Monitor Jaguars in the Borderlands Region of Arizona and New Mexico for Five Years[1]:

Cost of Collar and One Capture Effort	Number of Collar and Capture Efforts	Subtotal	Cost of One Year of Monitoring[1]	Proposed Number of Years	Subtotal	Total[2]
$30,000.00	5	$150,000.00	$70,000.00	5	$350,000.00	$500,000.00

[1] Cost of monitoring includes annual satellite uplink fee, as well as personnel and transportation expenses.
[2] Total cost may vary depending on the number of jaguars successfully detected, captured, and collared. There may be overlap in the cost of annual monitoring and annual survey work described below (i.e., depending on the success of detecting, capturing, and collaring jaguars, some of personnel and transportation needs for monitoring may be met by those covered in the survey proposal). The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

DRAFT Jaguar Survey Proposal (Additional Array for One Year and Additional Arrays for Multiple Years)

Jaguars have been surveyed in select areas in Arizona and New Mexico using remote-sensing cameras since 1997. In 2001, the Borderland Jaguar Detection Project was formed. This project expanded jaguar survey efforts (including the use of remote-sensing cameras, as well as track and scat transects) to various mountain range complexes in south-central Arizona. The project was designed to detect not only the presence of jaguars in the area, but also the movement of jaguars crossing the border between Sonora and Arizona. Survey work has resulted in the detection of at least two male jaguars, as well as many other species. Additionally, one of the jaguars, Macho B, was detected and tracked crossing the international border, and repeat detections of Macho B in different mountain range complexes have allowed researchers to estimate a minimum observed range for him.

The Arizona Game and Fish Department, New Mexico Department of Game and Fish, and U.S. Fish and Wildlife Service, in conjunction with key partners from the Jaguar Conservation Team, particularly the Borderland Jaguar Detection Project, propose to expand this survey effort (both remote-sensing cameras and track and scat transects) to other mountain range complexes in the border region of Arizona and New Mexico with the goals of: 1) detecting the presence of jaguars in mountain ranges that have not been previously surveyed, and 2) identifying jaguar habitat in Arizona/New Mexico and potential travel corridors into Arizona/New Mexico from Sonora/Chihuahua. Information gathered through this effort may assist land managers and users in making more informed decisions regarding jaguar management and conservation efforts in the borderlands region.

Estimated Budget to Expand Jaguar Survey Effort to an Additional Mountain Range in the Borderlands Region of Arizona for One Year:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Total	Total to be Contributed by Other Partners	**Total Additional Requested Contribution**
$700.00	50	$35,000.00	$50,000.00	$85,000.00	$35,000.00	**$50,000.00**

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.

Estimated Budget to Expand Jaguar Survey Effort to an Additional Mountain Range in the Borderlands Region of Arizona for Five Years:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Proposed Number of Years	Subtotal	Total[2]
$700.00	50	$35,000.00	$50,000.00	5	$250,000.00	$285,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.

[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Estimated Budget to Expand Jaguars Survey Efforts to Five Additional Mountain Ranges in the Borderlands Region of Arizona and New Mexico for One Year:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Total
$700.00	250	$175,000.00	$250,000.00	$425,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.
[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Estimated Budget to Expand Jaguars Survey Efforts to Five Additional Mountain Ranges in the Borderlands Region of Arizona and New Mexico for Five Years:

Cost of one Camera and Associated Equipment and Supplies	Number of Cameras	Subtotal	Cost of One Year of Surveys[1]	Proposed Number of Years	Subtotal	Total
$700.00	250	$175,000.00	$250,000.00	5	$1,250,000.00	$1,425,000.00

[1]Cost of surveys includes personnel (one full-time supervisor and six full-time assistants) and transportation expenses.
[2]The total annual partner contribution and additional requested contribution are yet to be determined for this effort.

Note: All cost estimates in the proposals do not include overhead expenses.

Terry Johnson

From: Terry Johnson
Sent: Monday, February 02, 2009 4:02 PM
To: Ron Thompson
Subject: FW: Jaguar: Draft Concept Proposals for DHS Funds
Attachments: JAGCT DHS Collaring and Monitoring Proposals.20090202.Alt 03.docx

Hi!

Brian and Chasa were in WMD Staff today when we discussed the DHS funding. I saluted "your" research proposal and asserted that it complemented and does not conflict with the much less refined concepts that I've articulated in the attachment to this message.

Josh and probably a Branch Chief of two will meet with Spangle et al. on February 12 to figure out what the next step is in this as yet rather loosely defined process.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Terry Johnson
Sent: Monday, February 02, 2009 3:57 PM
To: Eric Gardner
Cc: Bill Vanpelt; Tim Snow
Subject: Jaguar: Draft Concept Proposals for DHS Funds

Hi!

Attached is a slightly revised version of the document that I gave you today in WMD Staff. The dollar amounts and projects are the same, but I made a bunch of changes (improvements?) in the body of the proposal. I did not increase the detail beyond the basic concepts and I don't plan to give it another tweak or significant revision until you and Josh have clarified with USFWS what process we are going to follow and where we are headed (and when we expect to get there). I can easily imagine a host of Commission briefings and Trilateral "shared species" updates and discussions between now and the goal line, if we are to have all the right folks (NMDGF, USFWS, Mexico, Borderland detection Project, etc.) informed and appropriately involved along the way.

Unless I hear otherwise, at least until February 15 I will assume that the attached document is both draft and deliberative confidential within AGFD. If and when it becomes something else, I need to break the news to key JAGCT cooperators before anyone else in AGFD goes "public" with it.

Thx, Terry
****
Terry B. Johnson
Endangered Species Coordinator
Arizona Game and Fish Department
5000 West Carefree Highway

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****

Jaguar Conservation in the Arizona-New Mexico/Mexico Borderlands
Arizona Game and Fish Department (on behalf of the
Arizona-New Mexico Jaguar Conservation Team)
February 2, 2009

The jaguar (*Panthera onca*) has been known from the Arizona-New Mexico/Mexico borderlands since pre-settlement times. Never known to be common in the area, it was believed extirpated from the United States and northern Mexico by humans in the 1900s. However, in 1996 jaguars were documented photographically in Arizona and New Mexico. Since then, a low level of at least occasional, perhaps seasonal, presence has been documented along the International Border and a core (northern-most) population has been documented about 140 miles south of the border. Habitat connectivity and jaguar movement between these two areas is largely speculative, although logical ecological corridors exist.

In 1997, the Arizona Game and Fish Department (AGFD) and the New Mexico Game and Fish Department (NMDGF) initiated and eventually formed, in cooperation with the U.S. Fish and Wildlife Service [USFWS]) an Arizona-New Mexico Jaguar Conservation Team (JAGCT) to carry out jaguar conservation in the borderlands (Johnson and Van Pelt 1997). Several other state, federal, and local government entities participate in this ongoing effort as signatories to (or informal cooperators under) a Memorandum of Understanding between AGFD and NMDGF for jaguar conservation and a *Jaguar Conservation Framework for Arizona, New Mexico, and Northern Mexico* (AGFD and NMDGF 2007).

Nongovernmental organizations (NGOs), private individuals, and Mexico also are among the JAGCT's informal cooperators. Particularly notable among the NGOs is the Borderland Jaguar Detection Project (BDP), which was formed in 1997, in conjunction with the JAGCT, to detect presence of jaguars and movement of jaguars across the border between Sonora and Arizona. With minimal financial support from JAGCT cooperators and other entities, BDP has expanded its survey efforts (including use of remote-sensing cameras and track/scat transects) to various mountain range complexes in south-central Arizona. This work has resulted in detection of at least two male jaguars, as well as many other species of wildlife. One of these jaguars, Macho B, has been tracked crossing the International Border.

Much like the United States, Mexico considers the jaguar a national priority species for conservation. Mexico has convened two national symposia on jaguar conservation and has initiated a national and regional conservation planning process for the species. The JAGCT has been an invited, active participant in these efforts, which include a third national symposium in Mexico in mid to late 2009 (contingent upon securing funding).

Mexico's conservation strategies are known as PREPs (Proyectos de Recuperación de Especies Prioritarias). The jaguar PREP was completed in 2006 by a *National Technical Consultants Subcommittee for Conservation and Management of the Jaguar*. Direct actions carried out under the PREP would include protection, management, and restoration of the species and its habitat. Indirect actions would include information dissemination, integrating jaguar conservation into the existing fabric of local cultures, and administration, all in an Action Plan covering a five-year period. JAGCT participation in these efforts has furthered coordination and cooperation between the two countries at a variety of levels.

Needs and Proposed Activities

Scarcity of funds has significantly hindered progress in four primary activities of the collaborative jaguar conservation effort in the United States and Mexico: conservation planning; outreach (dissemination of information and education materials in printed, Web-based, and other mediums); survey and monitoring; and (in Mexico) management of jaguar habitat in protected areas. These activities are crucial to identifying and addressing concerns about factors known to affect continued presence of jaguars in the U.S.-Mexico borderlands. These factors include: unlawful killing, movement-corridor disruption, and habitat protection and management in the Mexican portion of the range. The JAGCT and its cooperators and colleagues in Mexico have also identified a need for extensive research into jaguar habitat use and behavior in these northernmost parts of the current and historic range.

Conservation Coordination, Planning, and Outreach. Fundamental to furthering jaguar conservation in the AZ-NM/Mexico borderlands is providing support for the JAGCT to engage fully in ongoing planning and outreach efforts in Arizona and New Mexico and in collaboration with Mexico. The requested funds (see Table 1) would be administered by AGFD and expended by the appropriate cooperating agencies (including AGFD) in the United States and Mexico (subject to the requisite financial agreements). The JAGCT meets at least twice annually in Arizona or New Mexico, and increased funding would enable it to participate in the next jaguar symposium in Mexico and in bi-national jaguar conservation planning over the next five years.

Habitat Protection and Management. Several NGOs in Mexico and the United States are cooperating with the federal government and private landholders in Mexico to voluntarily manage key areas for jaguar conservation. These ongoing protection and management activities are in dire need of funding if they are to be continued (see Table 2). AGFD again proposes that it act in an administrative capacity for such funds, conveying them to the appropriate cooperator(s) in Mexico, subject to prior approval by the Mexican federal government and completion of the requisite financial agreements.

Monitoring and Surveys. JAGCT monitoring and survey efforts must be stepped up over the next five years in conjunction with Department of Homeland Security activities in the AZ-NM/Mexico borderlands. Border-related infrastructure projects and patrol activities may affect movement patterns of jaguars in the borderlands region of Arizona/New Mexico and Sonora/Chihuahua. Specifically, fences and barriers placed along the border may impede jaguar movement across the International Border. Installation of fences and barriers may also cause increases in illegal traffic and pursuant law enforcement activities in areas where fences do not exist. Increased activities in these areas may also affect jaguar movement across the border. Maintaining connectivity between Arizona/New Mexico and Sonora/Chihuahua is critical to continued survival of jaguars in Arizona/New Mexico. Should all jaguar movement corridors be severed, it is highly likely that the jaguar will become extirpated from Arizona/New Mexico because the best available science indicates persistence of jaguars there is dependent on immigration from Sonora/Chihuahua.

To better understand movement and habitat use patterns of jaguars in the border region of Arizona and New Mexico, AGFD, NMDGF, and USFWS, in conjunction with key partners from the JAGCT (i.e. Borderland Detection Project), propose to capture, collar (with GPS and satellite technology), and monitor jaguars in the Arizona-New Mexico and Mexico portions of the

borderlands (see Table 3). In the Mexico portion of the borderlands these efforts would be carried out under AGFD agreement(s) with one or more entities approved by the federal government of Mexico.

To start GPS monitoring, likely the jaguar known as Macho B would be captured and collared, because he has been detected (through use of remote-sensing cameras) repeatedly from 1996 through 2008 in three mountain range complexes in south-central Arizona. Furthermore, he was detected in areas where vehicle barriers have been placed (detection occurred prior to barrier placement) and near areas where pedestrian fences are under construction. Although monitoring a single jaguar will not allow formulation of definitive conclusions about jaguar movements in the region, even that level would significantly increase available knowledge.

With regard to surveys, due to lack of funding jaguar survey work is currently restricted to a relatively small area in south-central Arizona. This effort needs to be expanded to cover areas of previous and/or potential jaguar occurrence in southeastern Arizona, southwestern New Mexico, and the northern portions of Chihuahua and Sonora (see Tables 4 and 5). As additional jaguars are detected through use of passive survey techniques, they would, as determined appropriate, be captured and collared to gather further information on jaguar dispersion patterns and habitat use. Information gathered through this effort would greatly assist land managers in making more informed decisions regarding jaguar management and conservation efforts in the borderlands region and better enable them to understand how border infrastructure projects affect jaguar movements across the International Border and persistence in the borderlands.

Proposed Project Budgets

Table 1. Estimated budget for JAGCT conservation coordination, planning, and outreach in collaboration with governmental and nongovernmental cooperators in the United States and Mexico.

Coordination	Planning	Outreach	Annual Total	Five-Year Total
$60,000	$60,000	$80,000	$200,000	$600,000

Table 2. Estimated budget for habitat protection and management in Mexico in accordance with priorities established by the Mexican federal government.

Habitat protection and management	Annual Total	Five-Year Total
$250,000	$250,000	$1,250,000

Table 3. Estimated budget to capture, collar, and monitor jaguars in the borderlands region of Arizona, New Mexico, and Mexico for five years.

Cost of Each Capture and Collaring Effort	Number of Capture and Collaring Efforts	Subtotal	Annual Cost of Monitoring (personnel and satellite uplink)	Proposed Number of Years	Subtotal	Five-Year Total
$30,000	5	$150,000	$70,000	5	$350,000	$500,000

Table 4. Estimated budget to expand jaguar survey efforts to at least five additional mountain ranges in the borderlands region of Arizona and New Mexico for five years.

Cost per Camera (including associated equipment, supplies)	Number of Cameras	Subtotal	Survey Cost Per Year	Proposed Number of Years	Subtotal	Total
$700	250	$175,000	$250,000	5	$1,250,000	$1,425,000

Table 5. Estimated budget for jaguar survey in Mexico (northern Chihuahua and Sonora) for five years.

Cost Per Camera (including associated equipment, supplies)	Number of Cameras	Subtotal	Survey Cost Per Year	Proposed Number of Years	Subtotal	Total
$700	250	$175,000	$250,000	5	$1,250,000	$1,425,000

Note: All cost estimates in the proposals do not include indirect costs.

Terry Johnson

From: Terry Johnson
Sent: Friday, February 13, 2009 5:36 PM
To: Josh Avey
Subject: RE: Revised T&E border fence mitigation table deadline - March 11

Hi, Josh!

Hey, many thanks for the invite. I accept. I will clear my Friday Feb 20 books as requested. I would suggest that Bill Van Pelt be invited to join in. He has prairie dog issues AND he knows the jaguar issues. Also, he would serve as back-up to me in case of medical necessity. My neurosurgeon at Barrow today decided on a surgical procedure to try to address my issues. On Tuesday Feb 17 I will find out when he will do the work. I will need to cancel any and all commitments to accommodate him. He is a very busy man. I seriously doubt that anything would happen next week, but I just don't know.

Thx, Terry B. Johnson
Endangered Species Coordinator
****
Tel 623-236-7707; Fax 623-236-7366
Email teebeej@azgfd.gov
Website http://azgfd.gov/
****

From: Josh Avey
Sent: Friday, February 13, 2009 4:50 PM
To: Terry Johnson
Subject: FW: Revised T&E border fence mitigation table deadline - March 11

TJ,

Any possibility you could join for some or all of this? We'll have multiple days, but if you could at least stop by and verify that your jaguar projects are included, then we should be able to handle the rest. Just show up on the 20th if you can.

Thanks,

JA

From: Josh Avey
Sent: Friday, February 13, 2009 3:46 PM
To: Tom Jones; Mike Ingraldi; Ron Thompson; Joan Scott; Troy Smith
Cc: Eric Gardner; Josh Avey; Mike Senn
Subject: FW: Revised T&E border fence mitigation table deadline - March 11

Dear Border People,

We are putting together an attack squad to address the pending DHS money that should be available by next fiscal year. Eric and I met with Susan Sfarra (USFWS) this week and as you can see in the email chain below she has provided a deadline for the department's input. This is wide open and should be considered as a great opportunity for the Department to capture some additional funding. We know that at least $50M is available now and potentially more in the future.

Based on the tight turn-around, we will be looking for full commitment to this process. The first date we (Eric and I) are available to meet with you folks is next Friday (2/20/09). We'd like to meet from 8-10AM and I'll be sending out an invite on outlook as a reminder. I would suggest that you clear your calendar for the entire day, so you can continue working as a team after Eric and I turn it over to you folks. If for any reason you are unable to participate on this team please let me know ASAP and if you have an alternate that you would recommend.

Thank you all in advance for your time and effort on this. Let me know if you have any questions,

Josh

Josh T. Avey
Habitat Branch Chief
Arizona Game and Fish Department
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602-882-2576 Cell

From: Susan_Sferra@fws.gov [mailto:Susan_Sferra@fws.gov]
Sent: Thursday, February 12, 2009 2:05 PM
To: Josh Avey; Eric Gardner
Subject: Revised T&E border fence mitigation table deadline - March 11

Josh and Eric,
I found out a few more details regarding the T&E border fence mitigation table this afternoon and wanted to pass it along:

1) I will need to finalize the draft table by March 16. If AGFD can send me input by March 11, it will give me time to incorporate comments.

2) We do not have details on how projects will be awarded, but they may have to go through a competitive process.

Thank for meeting with me today and helping with our T&E border fence mitigation table.

Susan Sferra
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