

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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February 14, 2011

President Barack Obama
The White House
1600 Pennsylvania Avenue N.W.
Washington, D.C. 20500

Dear Mr. President:

On August 4th, 2010, the National Oceanic and Atmospheric Administration (NOAA) released the BP Deepwater Horizon Oil Budget Report titled, "What Happened to the Oil?"¹ While this short five-page report presented a seemingly clean and concise summary of the oil budget in the Gulf of Mexico, the facts indicate otherwise.

The report breaks down the oil budget into tidy categories through a simple pie chart indicating that 25 percent of the oil was burned, skimmed or directly recovered from the wellhead; 25 percent naturally evaporated or dissolved; 24 percent was dispersed (of which 8 percent was specifically attributed to the chemical dispersants used during the federal response); and 26 percent is described as the residual amount left in the Gulf.² However, the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling Report to the President³ raises questions about the veracity of the report as a result of political interference by senior members of your Administration.

The oil budget report appears to contradict your message of scientific integrity, as defined in a March 9, 2009 memorandum to all executive departments and agencies, where you stated:

*The public must be able to trust the science and scientific process informing public policy decisions. Political officials should not suppress or alter scientific or technological findings and conclusions.*⁴

You further directed:

¹ "BP Deepwater Horizon Oil Budget: What Happened To the Oil?" August 4, 2010, retrieved from: http://www.restorethegulf.gov/sites/default/files/imported_pdfs/posted/2931/Oil_Budget_description_8_3_FINAL.844091.pdf

² *Ibid.*

³ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, "Deep Water – The Gulf Oil Disaster and the Future of Offshore Drilling," January 2011, retrieved from: https://s3.amazonaws.com/pdf_final/DEEPWATER_ReporttothePresident_FINAL.pdf

⁴ The White House, "Scientific Integrity – Memorandum for the Heads of Executive Departments and Agencies," March 9, 2009, retrieved from: http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09/ (hereinafter White House Memo)

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*When scientific or technological information is considered in policy decisions, the information should be subject to well-established scientific processes, including peer review where appropriate, and each agency should appropriately and accurately reflect that information in complying with and applying relevant statutory standards;*⁵

My concerns with the oil budget report include:

“75% of the oil has been contained and is gone”

In press interviews coordinated with the release of the report, Director of the White House Office of Energy and Climate Change Policy, Carol Browner, made statements such as, “[T]he vast majority of the oil is gone...Dispersants played a small role, they weren’t the only reason why almost 75% of the oil has been contained and is gone.”⁶ NOAA Administrator Jane Lubchenco, however, saw it differently, and e-mailed her concerns to Ms. Browner’s deputy and other officials saying “the oil budget is being portrayed as saying that 75 percent of the oil is gone”: “It’s not accurate to say that 75 percent of the oil is gone. 50 percent of it is gone—either evaporated or burned, skimmed or recovered from the wellhead.”⁷ It is important to note that Administrator Lubchenco had been making her point about not combining dispersed oil with recovered oil, because the former was “still out there or [was] being degraded,” since *before* the release of the oil budget report.⁸ Unfortunately, it appears as though her complaints were not addressed, and the public was poorly informed about the ultimate fate of oil in the Gulf.

Peer Review

Both Ms. Browner and Administrator Lubchenco described the oil budget report as a peer reviewed scientific document when it was released. At a White House press briefing on the report, Administrator Lubchenco said, “The report was produced by scientific experts from a number of different agencies, federal agencies, with **peer review** [emphasis added] of the calculations that went into this by both other federal and non-federal scientists.”⁹ Ms. Browner agreed, saying, “This has all been—as Dr. Lubchenco said—been subjected to a scientific protocol, which means you **peer review, peer review and peer review** [emphasis added].”¹⁰

In contrast, criticisms of the report as a *non-scientific* document were articulated by the very scientists who contributed to the oil budget report. They expressed their concerns about the high

⁵ *Ibid.*

⁶ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, “The Amount and Fate of the Oil - Staff Working Paper No. 3,” January 11, 2011, retrieved from: <http://www.oilspillcommission.gov/sites/default/files/documents/Updated%20Amount%20and%20Fate%20of%20the%20Oil%20Working%20Paper.pdf> (hereinafter Staff Working Paper 3)

⁷ *Ibid.*

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ *Ibid.*

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level of uncertainty of their work, and in addition, their impression that they were working on an “operational tool rather than a public government report.”¹¹

Given Ms. Browner and Administrator Lubchenco’s high-level positions within your Administration, their cavalier use of the term ‘peer review’ is disquieting. ‘Peer Review’ is very specifically defined by a 2004 Office of Management and Budget memo titled, ‘Final Information Quality Bulletin for Peer Review,’ which describes peer review as:

*...one of the most important procedures used to ensure that the quality of published information meets the standards of the scientific and technical community. Peer review involves the review of a draft product for quality by specialists in the field who were not involved in producing the draft.*¹²

The memo further elaborates:

*In general, an agency conducting a peer review of a highly influential scientific assessment must ensure that the peer review process is transparent by making available to the public the written charge to the peer reviewers, the peer reviewers’ names, the peer reviewers’ report(s), and the agency’s response to the peer reviewers’ report(s).*¹³

Moreover, in your March 9, 2009 executive memorandum on scientific integrity, you stated:

Political officials should not suppress or alter scientific or technological findings and conclusions...
*(c) When scientific or technological information is considered in policy decisions, the information should be subject to well-established scientific processes, including peer review where appropriate, and each agency should appropriately and accurately reflect that information in complying with and applying relevant statutory standards;*¹⁴

Unfortunately, it does not appear that these processes were followed.

While Administrator Lubchenco did acknowledge in a November press conference that she was wrong about her claim that the report was peer reviewed, it was too little, too late, as the report had already been out under that guise for several months, leading the American people to think otherwise.

Mischaracterizing documents as peer reviewed appears to be a trend within your Administration. When the Department of the Interior (DOI) issued a report last year titled, ‘Increased Safety Measures for Energy Development on the Outer Continental Shelf,’ the Executive Summary to

¹¹ *Ibid.*

¹² Office of Management and Budget, “Final Information Quality Bulletin for Peer Review,” December 16, 2004, retrieved from: <http://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2005/m05-03.pdf>

¹³ *Ibid.*

¹⁴ White House Memo, *supra*, note 4

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the report implied that the scientists who had collaborated on the document had peer reviewed and supported DOI's policy decision recommending a 6-month moratorium on deepwater drilling in the Gulf. This was not the case – in fact, the scientists never saw the Executive Summary until after it was made public. I wrote to DOI Secretary Ken Salazar regarding this instance last summer, but unfortunately this mischaracterization remains uncorrected to this day.¹⁵

Chemically Dispersed vs. Naturally Dispersed

The report ignores all suggestions made by Environmental Protection Agency (EPA) officials to combine the figure identifying chemically and naturally dispersed oil into one category because, as one EPA official wrote in an e-mail, “EPA feels the evidence is currently not sufficient to enable us to distinguish accurately chemical from physical dispersion mechanisms.” [Attachment 1]. This concern was based on the logistical difficulties of determining the effectiveness of chemical dispersants injected at the mouth of an extremely turbulent wellhead on the ocean floor a mile deep. It was difficult to distinguish between the impacts of chemical dispersants on the oil, versus oil dispersed naturally. Nevertheless, the suggestion was dismissed because it removed an opportunity for the Administration to take credit for its actions to control the spill. As Administrator Lubchenco put it in an e-mail to the EPA employee, “‘Chemically dispersed’ is part of the federal response and ‘naturally dispersed’ is not, and there is interest in being able to sum up the federal response efforts.”¹⁶ By blurring the lines between what was chemically dispersed and what was naturally dispersed, Administrator Lubchenco was able to give the impression that the federal response was greater than it actually was.

White House “Pushback”

Another area where White House messaging trumped scientific advice is demonstrated in an e-mail message a NOAA official wrote stating, “We have received strong pushback from WH on the cumulative total used in our graphic being more than the official 4.93 M bbls.” [Attachment 2]. An earlier draft of the oil budget report listed the oil budget as a range from 3 to 5 million barrels [Attachment 3]; but the final draft released to the public listed the oil budget as a very specific 4.9 million barrels. Evidently the “pushback” from the White House was successful.

In a similar vein, I am struck by the absence of any EPA officials listed as contributors to the oil budget document. It is obvious that EPA was involved in the discussions surrounding the preparation of the oil budget report, and in fact, one EPA official is listed in an earlier version of the report [Attachment 3]. Yet, in the final document, that name is conspicuously absent, perhaps reflecting the rejection of EPA's suggestion to put chemically and naturally dispersed oil under one category.

¹⁵ Letter from Rep. Paul Broun to DOI Secretary Ken Salazar, June 24, 2010, retrieved from: http://gop.science.house.gov/media/documents/6.24.10_broun_salazar.pdf

¹⁶ Staff Working Paper 3, *supra*, note 6

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These are not new questions and concerns. In addition to related previous inquiries by me,¹⁷ Members of the Democratic Party have been stonewalled in their attempts to procure answers. Recently, an independent watchdog group, the Project on Government Oversight, entered the discussion when it sent you a letter on January 25 expressing similar concerns.¹⁸

The American people deserve to know the truth about the Gulf oil spill. The August oil budget report was supposed to represent your Administration's best estimate, based on the work of your most qualified employees, on the quantity and fate of the BP Deepwater oil. Instead, your Administration approved the issuance of a public relations document disguised as scientific work, reflecting a troubling pattern where science appears to take a back seat to political messaging. In the interest of transparency, and a chance for you to demonstrate your commitment to science over politics, I would appreciate responses to the following from your office:

- Why was there "pushback" from the White House over the idea of using a range to quantify the oil? What was the justification for this pushback? Who at the White House blocked the use of a range to quantify oil disposition? What scientific rationale was used to forego the range in favor of the specific number - 4.9 million barrels - to quantify the spilled oil?
- Why are there no EPA scientists listed on the published oil budget report when earlier drafts of the report listed at least one?
- Why was the report misleadingly released as a peer reviewed scientific document, when, given the lack of detail and supporting materials, this was evidently not the case?

In responding to the above questions, please provide all documents and records, as described in Attachment 4, related to the development of the oil budget report and its public release. This should include, but not be limited to, the following:

- All records dated between April 20 and August 4 regarding the analysis, preparation, release or dissemination of the flow rate and/or oil budget used to prepare the report titled "BP Deepwater Horizon Oil Budget: What Happened to the Oil?"
- All documentation relating to the preparation of the Oil Budget Report, including but not limited to, pre-publication draft estimates of the flow rate and/or oil budget and any and all assumptions, models and calculations used in developing the report.

¹⁷ Letters from Rep. Paul Broun to DOI Secretary Ken Salazar, October 28, 2010, and June 24, 2010, retrieved from: <http://gop.science.house.gov/Media/documents/10.28.10broun2.pdf> and http://gop.science.house.gov/media/documents/6.24.10_broun_salazar.pdf

¹⁸ Letter from POGO to President Obama regarding "Deepwater Horizon Oil Spill Size," January 25, 2011, retrieved from: <http://www.pogo.org/pogo-files/letters/natural-resources/nr-doi-20110125.html>

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- All records and communications between April 20 and August 4, including with outside experts, regarding peer review or potential peer review of the Oil Budget Report, including the models used for estimating the oil spill flow rate.

Similar document requests were made of your Administration last year by some of my colleagues so I don't expect my request to take up too much of your staff's time. I would appreciate responses to my questions and document request no later than Friday, February 25, 2011. If your staff has any questions, please direct them to contact Raj Bharwani on the Subcommittee on Investigations and Oversight, at (202) 225-6371.

Sincerely,



Rep. Paul Broun, M.D.
Chairman
Subcommittee on Investigations
and Oversight

Attachments

cc: Rep. Ralph Hall
Chairman
Committee on Science, Space,
and Technology

Rep. Eddie Bernice Johnson
Ranking Member
Committee on Science, Space,
and Technology

Rep. Donna Edwards
Ranking Member
Subcommittee on Investigations
and Oversight

The Honorable Carol Browner
Director
White House Office of Energy
and Climate Change Policy

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The Honorable Jane Lubchenco
Administrator
National Oceanic and Atmospheric
Administration

Admiral Robert J. Papp, Jr.
Commandant
U.S. Coast Guard

The Honorable Ken Salazar
Secretary
Department of the Interior

The Honorable Marcia McNutt
Director
U.S. Geological Survey

The Honorable Lisa Jackson
Administrator
Environmental Protection Agency

The Honorable Gary Locke
Secretary
Department of Commerce

The Honorable Patrick Gallagher
Director
National Institute of Standards
and Technology

ATTACHMENT 1

To: Stephen E Hammond <sehammon@usgs.gov>
From: Perciasepe.Bob@epamail.epa.gov
Date: 08/01/2010 01:59PM
cc: "bill lehr" <bill.lehr@noaa.gov>, "mark w miller" <mark.w.miller@noaa.gov>, "Mark K Sogge" <mark_sogge@usgs.gov>, "Sky Bristol" <sbristol@usgs.gov>, "sean k o'brien" <sean.k.o'brien@uscg.gov>, Stephen E Hammond <sehammon@usgs.gov>
Subject: Re: Oil Budget - EPA Comments - follow up and a request

OK

Here is a little more from Paul Anastas and Al Venosa.


Regarding Suggestion 1, EPA agrees that the ultimate message to the public will likely be that the oil was successfully dispersed with chemical dispersants, but until we know with some degree of certainty how much was chemically dispersed vs. physically dispersed, we are hesitant to assign distinct percentages at this time. The existing evidence shows that the droplet size from deep sea dispersant injection is very small, which is usually consistent with chemical dispersion under normal circumstances of surface application. However, the deep sea injection is unique to us all due to the extreme turbulence at the wellhead, and EPA feels the evidence is currently not sufficient to enable us to distinguish accurately chemical from physical dispersion mechanisms.

Regarding Suggestion 3, EPA indeed feels strongly that biodegradation will turn out to be an extremely important ultimate oil fate mechanism in the oil budget calculations. We would be happy to take the lead in writing the story on this in the planned follow-on report, and a simple mention at this juncture seems appropriate.

Regarding Suggestion 2, EPA feels that USGS and NOAA have enough information from their models to enable distinct descriptions of oil fate due to dispersion and evaporation/dissolution. We think it would be more accurate if someone from USGS or NOAA write this section because the modeling effort was not conducted by EPA scientists.

I recognize we have suggested additional explanation here on this matter (number 2); so I am going to have to leave it in your judgement

Bob Perciasepe
Deputy Administrator

(o) +1 202 564 4711


ATTACHMENT 2

Subject: Re: Need feed back from USCG and NOAA on potential changes to oil budget tool
From: Mark Miller <mark.w.miller@noaa.gov>
Date: Sun, 01 Aug 2010 16:21:20 -0400
To: Sky Bristol <sbristol@usgs.gov>
CC: Stephen E Hammond <sehammon@usgs.gov>

Tomorrow morning is great. We have received strong pushback from WH on the cumulative total used in our graphic being more that the official 4.93 M bbls. With the flow rate press release looking like it will go out on Tuesday that means our document won't go out until Wednesday so tomorrow morning if possible is great. How will you handle the report? Would it have only one set of graphics?

Mark

ATTACHMENT 3

From: Mark Miller
To: NOS ORR HAZMAT SSC; William Conner; Glen Watabevashi; John Tarpley; Debbie Pavton; Amy Merten; Mark Dix; Bill Lehr; Doug Helton; Alan Mearns
Subject: "Pie Chart" Doc
Date: Thursday, July 29, 2010 9:30:29 PM
Attachments: Oil Budget description 7 29 v7.doc

The Oil Budget document has just started clearance by the White House. It is positioned as a public information document and contains general description of the oil fate. If there are changes I will route the final version. Obviously not for release until after clearance.

Mark

Deepwater Horizon/BP Oil Budget Calculator: Where did the oil go?

The National Incident Command has assembled the best scientific minds in the government and independent scientific community to produce an estimate of just how much oil has been skimmed, burned, contained, evaporated and dispersed. They have developed a tool, called the Oil Budget Calculator to determine where the oil has gone. The numbers are based on best estimates of how much oil was released and how this oil is moving and degrading.

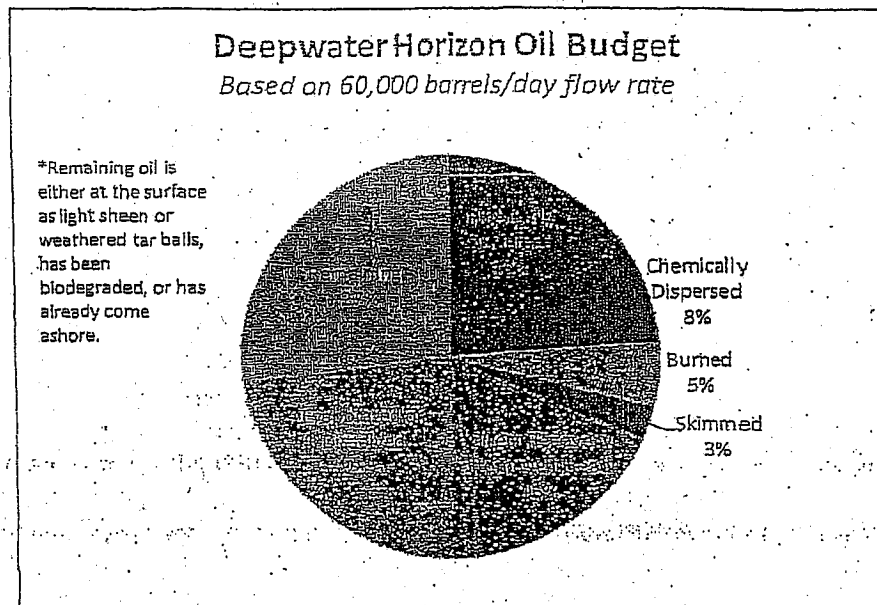


Figure 1: Oil Budget Calculator- Shows what has happened to the oil.

Explanation of Findings

The Flow Rate Technical Group (FRTG), assembled by the National Incident Command, estimates that as of July 15, between 3-5 million barrels of oil had been released from the Deepwater Horizon/BP wellhead.

As shown in the pie chart (Figure 1), aggressive response efforts have been successful in recovering a significant portion of the spilled oil. 16 percent of the oil was captured directly from the wellhead by the riser pipe insertion tube and top hat systems. In addition, burning and skimming operations collected approximately 11 percent of the oil.

It is estimated that 25 percent of the oil volume quickly evaporated or dissolved into the water column. The volatile components of oil evaporate, while the components that are not volatile dissolve into the water column or form residues such as tar balls. The evaporation rate estimate is based on scientific research and observations conducted during the Deepwater Horizon incident. A different evaporation rate is used for fresh and weathered oil to provide the most accurate number.

16 percent of the oil has dispersed physically into the water column, and 8 percent of the oil was dispersed by the application of nearly 50,000 barrels of chemical dispersants. Physical dispersion occurs as a result of the oil coming out of the broken riser pipe at high speed into the water column, which caused some of it to spray off in small droplets (less than 100 microns – the diameter of a human hair).

Some portion of the dispersed oil that is in droplets smaller than 100 microns remained below the surface. Previous analyses have shown evidence of a diffuse cloud of dispersed oil between 3300 and 4300 feet. (citation: Federal Joint Analysis Group Report 1 and 2, <http://ecowatch.ncddc.noaa.gov/JAG/reports.html>).

We know that naturally occurring bacteria have consumed and biodegraded a significant amount of the oil. Bacteria that break down the dispersed and weathered surface oil are naturally abundant in the Gulf of Mexico in large part because of the warm water there, the favorable nutrient and oxygen levels, and the fact that oil enters the Gulf of Mexico through natural seeps regularly. While there is more analysis to be done to quantify the exact rate of biodegradation in the Gulf, early indications are that the light crude oil from this well is biodegrading quickly.

After accounting for operations, dispersion and evaporation, 27 percent remains. This oil is either at the surface as light sheen or weathered tar balls, has been biodegraded, or has already come ashore on beaches.

In summary, burning, skimming and direct recovery from the wellhead have removed roughly one quarter of the oil. Around a quarter of the total has been naturally evaporated and just less than one quarter dispersed into Gulf waters. The remaining amount, just over one quarter is on the surface, in tar balls, on the shore, already removed from the shore or has been biodegraded.

NOAA continues to track the movement of the remaining oil. It will issue daily surface oil trajectories for as long as necessary and continue subsurface sampling to monitor the concentration and distribution of oil there. NOAA responders are working with the Unified Command to develop monitoring strategies for tar balls and near shore submerged oil.

Even though the threat to shorelines has decreased since the capping of the BP wellhead, federal scientists remain extremely concerned about the impact to the Gulf ecosystem. Fully understanding the impacts of this spill on wildlife, habitats, and natural resources in the Gulf region will take time and continued monitoring and research.

Note on degree of confidence in calculations: The Oil Budget calculations are based on direct measurements where possible and the best available scientific estimates where measurements were not possible. The numbers for direct recovery and burns were measured directly and reported in daily operational reports. The rest of the numbers were based on previous scientific analyses, best available information and a broad range of scientific expertise. These numbers will continue to be refined based on additional information and further analysis.

Attachments

Appendix A: Deepwater Horizon Gulf Incident Budget Tool Report from July 28, 2010, contains detailed explanation of calculation methods. The tool was created by the US Geological Survey in collaboration with US Coast Guard, NOAA, and NIST.

Appendix B: Acknowledgements

Deepwater Horizon/BP Oil Budget Calculator:

Where did the oil go?

Appendix B: Acknowledgements

Authors

Jane Lubchenco, NOAA, DOC
Marcia McNutt, USGS, DOI
William Conner, NOAA, DOC
Mark Sogge, USGS, DOI
Steven Hammond, USGS, DOI

Credits

The following scientists were involved in developing the Oil Budget Calculator tool:

David Mack (USGS) – Lead application developer
Jeff Allen (USGS) – Interface designer
Bill Lehr (NOAA) – Lead mass balance and oil budget scientist
LCDR Lance Lindgren and CDR Peter Hoffman (USCG) – Application requirements
Steve Hale, Kent Morgan, Kevin Laurent, and Jerry McFaul (USGS) – Technical advisors
Sky Bristol and Tim Kern (USGS) – Project vision and management
Kevin Gallagher and Martha Garcia (USGS) – Executive sponsors

The Following Scientists created and reviewed the calculation methods used in the oil budget calculator:

Federal Scientists

Bill Lehr, NOAA
Robert Jones, NOAA
Albert Venosa, EPA
Antonio Possolo, NIST

Independent Scientists

Ron Goodman, U. of Calgary
Al Allan, SpilTec
James Payne, Payne Env.
Tom Coolbaugh, Exxon Mobil
Ed Overton, LSU
Juan Lasheras, UCSD
Merv Fingas, Env. Canada (ret)
Ali Khelifa, Env. Canada
Pat Lambert, Env. Canada
Per Daling, SINTEF
David Usher, ISCO
Peter Carragher, BP
Michel Boufadel, Temple Univ.

ATTACHMENT

1. The term "records" is to be construed in the broadest sense and shall mean any written or graphic material, however produced or reproduced, of any kind or description, consisting of the original and any non-identical copy (whether different from the original because of notes made on or attached to such copy or otherwise) and drafts and both sides thereof, whether printed or recorded electronically or magnetically or stored in any type of data bank, including, but not limited to, the following: correspondence, memoranda, records, summaries of personal conversations or interviews, minutes or records of meetings or conferences, opinions or reports of consultants, projections, statistical statements, drafts, contracts, agreements, purchase orders, invoices, confirmations, telegraphs, telexes, agendas, books, notes, pamphlets, periodicals, reports, studies, evaluations, opinions, logs, diaries, desk calendars, appointment books, tape recordings, video recordings, e-mails, voice mails, computer tapes, or other computer stored matter, magnetic tapes, microfilm, microfiche, punch cards, all other records kept by electronic, photographic, or mechanical means, charts, photographs, notebooks, drawings, plans, inter-office communications, intra-office and intra-departmental communications, transcripts, checks and canceled checks, bank statements, ledgers, books, records or statements of accounts, and papers and things similar to any of the foregoing, however denominated.
2. The terms "relating," "relate," or "regarding" as to any given subject means anything that constitutes, contains, embodies, identifies, deals with, or is in any manner whatsoever pertinent to that subject, including but not limited to records concerning the preparation of other records.