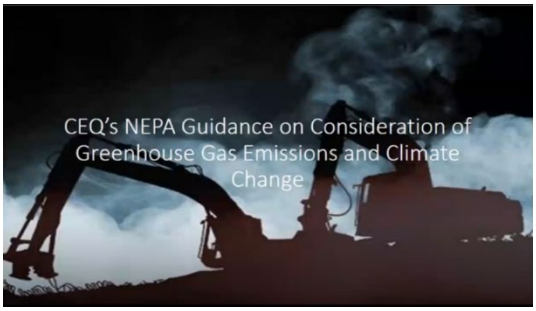
CEQ's NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change
9 March 2023
Q&A Session



This webinar, presented by Jason Emmons (San Francisco District) and Ken Wong (Los Angeles District) from the Air Quality and Greenhouse Gas (GHG) Planning Sub-CoP, provided an overview of the Interim Council for Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, issued on 9 January 2023. The speakers discussed key details for planners and environmental managers on the new guidance, including how to perform a greenhouse gas analysis starting from base assumptions for scoping to the end goal of incorporating effects analysis into current NEPA studies. The presenters also addressed how to frame inclusion of different topics for all classes of projects enterprise-wide, including baseline effects, no-action alternative emissions, avoided emissions, gross and net alternatives emissions, and social cost of greenhouse gas emissions.

This summary of the Question / Answer session of the webinar is not a transcription; questions and responses have been edited and reordered for clarity.

Greenhouse Gas Emissions Analysis

During NEPA reviews, does in-depth GHG emissions analysis need to be conducted for each alternative?
The depth of analysis will vary from project to project and potentially even between alternatives and should be scaled according to the amount of GHGs that are anticipated. The level of detail required will also vary according to state and other requirements. Analysis only needs to be conducted for alternatives carried forward to the final array as opposed to all the alternatives considered. The same equipment list used for GHG analysis should also be used for the air quality analysis to satisfy the Clean Air Act.

How will GHG emissions analysis affect 3x3x3 time and funding requirements?
GHG emissions analysis should not notably affect time and funding requirements for most Civil Works projects. Most Civil Works projects result in temporary emissions during construction and potentially beyond during operations and maintenance or adaptive management periods.

Exceptions are possible, of course. For example, GHG emissions from new work dredging could be significant both in construction and operational phases. For these types of projects, GHG emission analysis could require additional time and resources. Consideration of GHG emissions and climate impacts associated with a proposed action and alternatives should be considered, therefore, when the study team is developing its scope, schedule, and budget. The plan for completing this analysis should be addressed in the Vertical Team Alignment Memorandum.

How will USACE move toward consistency in GHG emissions analyses? Will this be part of Agency Technical Review (ATR) with certified reviewers?
Similar to the level of analysis performed for an air quality analysis, consistency will be achieved through ATRs accompanied by a forthcoming ASA(CW) memo laying out how GHG analysis should be performed.

We are developing a list of certified reviewers, but in most cases this level of review would not be necessary for typical NEPA studies.

Are there any available examples of signed EIS's or other decision documents with GHG emissions analyses?
Examples are available in the *Air Quality and GHG Sub-CoP* folder found on the Environmental Sub-CoP SharePoint site at: https://usace.dps.mil/sites/KMP-PENV

Guidance

Once the CEQ guidance becomes final, will Headquarters issue additional guidance for study teams on expectations for incorporating GHG emissions analysis into NEPA analyses for different types of studies by mission area (e.g., Flood Risk Management vs. Navigation vs. Ecosystem Restoration)?
Additional guidance will be developed as needed, especially if the final version of the CEQ guidance is very different from the interim version. For now, we need to wait for the ASA(CW) memo addressing USACE guidance. After that, the need for additional guidance will be addressed after enough analytical iterations are completed to define a need. Examples provided by individual GHG analyses may provide the best way to understand how specific items should be quantified based on mission area. Such GHG analyses will become available as they are added to the on the Environmental Sub-CoP SharePoint site at: https://usace.dps.mil/sites/KMP-PENV

Is there a threshold for GHG emissions at which point a project would not fit into a categorical exclusion (CatEx)?
While the guidance does apply to all actions covered under NEPA, there are currently no official thresholds for GHG emissions that would disqualify a project from applying a categorical exclusion. This guidance was not meant to constrain the use of a CatEx, so unless significant GHG emissions are anticipated, go forth and use a CatEx. A project that is targeting use of a CatEx should evaluate if anticipated GHG emissions would necessitate an emissions analysis be performed. If so, the need for a GHG emissions analysis could be used as a decision point between using a categorical exclusion versus an EA or EIS.

The scope of the project is the primary factor in the applicability of using a CATEX. However, Districts should always be alert for extraordinary circumstances when using CATEXs that may dictate the need to prepare an EA or EIS instead. If the proposed action would cause more than minimal or significant effects from GHG emissions and climate change, or more than minimal or significant effects to the Federal project that would be affected by GHG/climate change after consideration of resilience and adaptation to a changing climate, than an EA or EIS should be prepared instead of a CATEX.

GHG Modeling & Calculations

How are planners expected to calculate the sequestration rate and quantification of sequestered CO2 for GHG emissions analyses?
Further guidance from the Air Quality & Greenhouse Gas Emissions Sub-CoP will be coming in September 2023 after certification of the NEAT model which will include the best method for quantifying GHG emissions for several different types of wetlands, with rates that are applicable over the entire CONUS. For now, please quantify sequestration using the equation from the revised webinar slide deck. Some additional research to find an applicable sequestration rate for the particular area of a

study is a good practice to ensure the most up to date science is being used. Similarly, for the rates of methane and nitrous oxide production, please use the equations from the revised slide deck and conduct a sufficient literature search to ensure the best production rates are being used.

What is the best resource for the most recent global GHG emission rates?
Please see the file "GHG Accounting References.xlsx" in the Air Quality and GHG Sub-CoP folder in the Environmental Sub-CoP site at: https://usace.dps.mil/sites/KMP-PENV which has a number of resources available including sources for GHG emissions rates (emissions factors).

Will study teams need to make assumptions about the construction methods for each project requiring a GHG emissions analysis?
Depending on whether a cost-estimator has been able to provide an equipment list, it may be necessary to make assumptions for what equipment will be used based on a similar project's air quality analysis if no GHG analysis is available. Once an example list is created, it is best practice to request an engineer's review before finalizing an analysis. Specification of the number of days of work and hours per day is another requirement and should similarly be reviewed with an engineer on the PDT for reasonableness. Although high precision estimates are not t necessary for smaller projects, it is very important to state your assumptions.

Have these GHG emissions models been approved for use in Civil Works studies per Engineer Circular 1105-2-412, Assuring Quality Models and the May 2018 Delegation of Model Certification Memorandum?
Any model developed for use during a study to calculate GHG emissions will need to be included in the Review Plan to allow the appropriate Center for Expertise to engage and review. USACE is currently developing the "Net Emissions Analysis Tool (NEAT)" which will be certified by the ECO-PCX and is planned for roll-out in September 2023. NEAT is an emissions model that will integrate the outputs from EPA MOVES3 and provide additional capabilities for modeling GHG emissions from wetlands and flood damage repairs, then output a final net emissions total and social costs of GHGs. Additional capabilities will be added in subsequent versions for embodied carbon in materials, marine vessel emissions, and others. EPA has also approved the EMFAC and CALEEMOD models for California only. The recommendation from the Sub-CoP is to use the EPA MOVES3 model (for users outside California) which is available for install on the ACEIT App Portal to calculate on-land equipment emissions first, then use current examples as templates and NEAT to quantify net emissions and social costs.