Nature-based Solutions (NbS) Application Database and Dashboard

- **Strategic Fit:** Nature-based Solutions (NbS) are often considered more sustainable solutions compared to, or to supplement, grey engineering alternatives as measured by the Social, Environmental, and Economic metrics. NbS can be used to address a number of environmental, climate, infrastructure, and resilient operation concerns for a broad range of asset types affecting different media in the upstream, midstream, downstream, and alternative energy businesses.
- **Program Goal:** While many resources and publications exist for describing NbS applications, real-world case studies specific to the energy industry, are limited. Ramboll, in collaboration with bp (project sponsor) have developed a core database and dashboard for visualizing information on different NbS, specifically applicable to the energy industry. One known gap in the existing product are real-world examples of NbS at industrial facilities. All project participants would be given access to the database and dashboard or some form of internal copy to meet company-specific digital security requirements.
- **Value Proposition:** A catalog (database) and easy-to-use dashboard of NbS options for different situations (asset types, affected media, concerns) that included relative capital cost, operability, feasibility, implementability, soft benefits, compliance implications, and limitations, with examples, would help participating members in decision-making that could ultimately reduce costs and meet other corporate goals/metrics (e.g. ESG, TNFD, ESRS/CSRD).
- **Brief Program Description and Expected Deliverables:** This project would revise the database and dashboard to meet the needs of the project participants including anonymized examples of applied NbS. Participants can contribute existing examples of NbS (in-kind knowledge contribution), while others may participate by 'buying-in' access to the dashboard and database (cash contribution). Some participants may have a combination of in-kind knowledge and cash contributions. The project team participants would set the valuations (for example: threshold to participate and/or $$ per case study).
- **Deliverable(s)**: Template for including case studies and relevant examples from project participants of different NbS applied at energy industry assets (anonymized) addressing different concerns. These case study examples would be added to the existing NbS database and visualized on the dashboard.
- **Total estimated budget**: A small budget (estimated at $50k as a benchmark) comprised of the cash contributions will be needed in order to develop the case study template, collect information of examples aligned to the template, and digitally incorporate the case studies into the existing database to be visualized on the dashboard.